

**FIRE STATION #1 AREA, SWMU 116
PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)
SITE ASSESSMENT PROGRESS REPORT
KENNEDY SPACE CENTER, FLORIDA**

Prepared for:



**National Aeronautics and Space Administration
Kennedy Space Center, Florida**

**January 2023
Revision 0**

Prepared by:

**Tetra Tech, Inc.
661 Andersen Drive
Pittsburgh, PA 15220
(412) 921-7090**

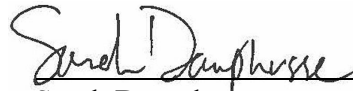
**FIRE STATION #1 AREA, SWMU 116
PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)
SITE ASSESSMENT PROGRESS REPORT
KENNEDY SPACE CENTER, FLORIDA**

Revision 0


Prepared for:
Environmental Assurance Branch
National Aeronautics and Space Administration
John F. Kennedy Space Center
Kennedy Space Center, Florida 32899

Prepared by:
Tetra Tech, Inc.
661 Andersen Drive
Pittsburgh, PA 15220

Prepared by:


Sarah Damphousse
Tetra Tech, Inc.

Approved by:


Mark Speranza, P.E.
Tetra Tech, Inc.

January 2023

PROFESSIONAL ENGINEER CERTIFICATION

This Per- and Polyfluoroalkyl Substances (PFAS) Site Assessment Progress Report for the Fire Station #1 Area, Solid Waste Management Unit 116, Kennedy Space Center, Florida, dated January 2023, has been prepared by or under the responsible supervision, direction, or control of the Florida-licensed professional engineer whose signature and seal appear below. This document and the work described herein complies with standard professional practices and the requirements of Chapter 62-780, Florida Administrative Code (F.A.C.) and other rules of the Florida Department of Environmental Protection according to Rule 62-780.400(1), F.A.C.



Mark P. Speranza
Florida P. E. License No. 50304
Engineering Business License Number 2429

TABLE OF CONTENTS

| <u>Section</u> | <u>Title</u> | <u>Page</u> |
|--|--|-------------|
| PROFESSIONAL ENGINEER CERTIFICATION | | iii |
| TABLE OF CONTENTS | | v |
| ABBREVIATIONS AND ACRONYMS | | ix |
| EXECUTIVE SUMMARY | | ES-1 |
| SECTION I INTRODUCTION | | 1-1 |
| 1.1 | OVERVIEW | 1-1 |
| 1.2 | PURPOSE..... | 1-2 |
| 1.3 | REPORT ORGANIZATION | 1-2 |
| SECTION II | SITE DESCRIPTION AND SETTING | 2-1 |
| 2.1 | SITE LOCATION | 2-1 |
| 2.2 | SITE DESCRIPTION..... | 2-1 |
| 2.2.1 | Major Features..... | 2-1 |
| 2.2.2 | Topography and Surface Features | 2-1 |
| 2.3 | GEOLOGY AND HYDROGEOLOGY..... | 2-2 |
| 2.3.1 | Regional Geology and Hydrogeology | 2-2 |
| 2.3.2 | Local Geology and Hydrogeology | 2-2 |
| 2.4 | SUMMARY OF PREVIOUS INVESTIGATIONS..... | 2-3 |
| 2.4.1 | Previous RCRA Investigations..... | 2-3 |
| 2.4.2 | Previous PFAS Investigations | 2-4 |
| SECTION III | PFAS SITE ASSESSMENT METHODOLOGIES AND ACTIVITIES | 3-1 |
| 3.1 | PFAS SAMPLING PROTOCOL | 3-1 |
| 3.2 | PFAS SITE ASSESSMENT SAMPLING ACTIVITIES | 3-2 |
| 3.2.1 | Soil Sampling | 3-2 |
| 3.2.2 | DPT Groundwater Sampling | 3-2 |
| 3.2.3 | Surface Water Sampling..... | 3-4 |
| 3.3 | PFAS LABORATORY ANALYSIS | 3-4 |
| 3.4 | INVESTIGATION DERIVED WASTE | 3-4 |
| 3.5 | FIELD DATA QUALITY | 3-5 |
| SECTION IV | DATA EVALUATION | 4-1 |

TABLE OF CONTENTS (Continued)

| <u>Section</u> | <u>Title</u> | <u>Page</u> |
|-------------------|--|-------------|
| 4.1 | DATA EVALUATION AND SCREENING PROCESS..... | 4-1 |
| 4.2 | SOIL | 4-1 |
| 4.3 | GROUNDWATER..... | 4-3 |
| 4.4 | SURFACE WATER..... | 4-4 |
| 4.5 | FIELD QA/QC EVALUATION | 4-5 |
| SECTION V | CONCLUSIONS AND RECOMMENDATIONS | 5-1 |
| 5.1 | CONCLUSIONS | 5-1 |
| 5.2 | RECOMMENDATIONS | 5-3 |
| SECTION VI | REFERENCES | 6-1 |

LIST OF TABLES

| <u>Table</u> | <u>Title</u> | <u>Page</u> |
|--------------|--|-------------|
| 2-1 | Lithology Description..... | 2-8 |
| 3-1 | Soil Sample Locations and Rationale..... | 3-6 |
| 3-2 | DPT Sample Locations and Rationale..... | 3-7 |
| 3-3 | Monitoring Well Sample Locations and Rationale | 3-8 |
| 3-4 | Surface Water Sample Locations and Rationale | 3-9 |
| 4-1 | Site Assessment Soil Analytical Results | 4-7 |
| 4-2 | Site Assessment Soil Frequencies of Detection | 4-9 |
| 4-3 | Site Assessment DPT Groundwater Analytical Results..... | 4-11 |
| 4-4 | Site Assessment DPT Groundwater Frequencies of Detection | 4-19 |
| 4-5 | Site Assessment Monitoring Well Groundwater Analytical Results | 4-21 |
| 4-6 | Site Assessment Monitoring Well Groundwater Frequencies of Detection | 4-23 |
| 4-7 | Site Assessment Surface Water Analytical Results..... | 4-25 |
| 4-8 | Site Assessment Field QA/QC Analytical Results..... | 4-27 |

LIST OF FIGURES

| <u>Figure</u> | <u>Title</u> | <u>Page</u> |
|---------------|--|-------------|
| 1-1 | Location of Kennedy Space Center and Fire Station #1 Area..... | 1-5 |
| 2-1 | Site Layout | 2-9 |
| 2-2 | Groundwater Flow Direction | 2-11 |
| 2-3 | Historical PFAS Sample Locations | 2-13 |
| 3-1 | PFAS Site Assessment Sample Locations..... | 3-11 |
| 4-1 | PFAS Soil Results | 4-29 |

TABLE OF CONTENTS (Continued)

| <u>Figure</u> | <u>Title</u> | <u>Page</u> |
|----------------------|---|--------------------|
| 4-2 | Cumulative PFAS Groundwater Results | 4-31 |
| 4-3 | Site Assessment PFAS Surface Water Results..... | 4-33 |
| 5-1 | Proposed Sample Locations | 5-5 |

LIST OF APPENDICES

| | |
|-------------------|---|
| APPENDIX A | HISTORICAL ANALYTICAL RESULTS |
| APPENDIX B | FIELD DOCUMENTATION |
| APPENDIX C | LABORATORY ANALYTICAL REPORTS |
| APPENDIX D | PHOTOGRAPHIC LOG |
| APPENDIX E | KSCRT MEETING MINUTES AND ACTION ITEM - OCTOBER 2022 |

ABBREVIATIONS AND ACRONYMS

| | |
|----------|---|
| ADP | Advance Data Package |
| AFFF | Aqueous Film-Forming Foam |
| bls | below land surface |
| CHP | Central Heat Plant |
| CMS | Communications, Maintenance, and Storage Facility |
| CS | Confirmatory Sampling |
| DoD | U.S. Department of Defense |
| DPT | Direct Push Technology |
| F.A.C. | Florida Administrative Code |
| FDEP | Florida Department of Environmental Protection |
| FS1 | Fire Station #1 |
| ft | feet or foot |
| HDPE | High Density Polyethylene |
| HFPO-DA | Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) [GenX] |
| HQ | Hazard Quotient |
| IDW | Investigation Derived Waste |
| IM | Interim Measure |
| KSC | Kennedy Space Center |
| KSCRT | KSC Remediation Team |
| LC/MS/MS | Liquid Chromatography Tandem Mass Spectrometry |
| LOC | Location of Concern |
| NASA | National Aeronautics and Space Administration |
| mg/kg | milligram per kilogram |
| ng/L | nanograms per liter |
| PAH | Polycyclic Aromatic Hydrocarbon |
| PCB | Polychlorinated Biphenyl |
| PFAS | Per- and Polyfluoroalkyl Substances |
| PFBS | Perfluoro-1-butanesulfonic acid |
| PFHxS | Perfluorohexanesulfonic acid |

ABBREVIATIONS AND ACRONYMS (Continued)

| | |
|-------|---|
| PFNA | Perfluoro-n-nonanoic acid |
| PFOA | Perfluoro-n-octanoic acid |
| PFOS | Perfluorooctanesulfonic acid |
| pGCTL | provisional Groundwater Cleanup Target Level |
| POL | Paint and Oil Locker |
| PRL | Potential Release Location |
| QA/QC | Quality Assurance/Quality Control |
| QSM | Quality Systems Manual |
| RCRA | Resource Conservation and Recovery Act |
| RSL | Regional Screening Level |
| SA | Site Assessment |
| SAPR | Site Assessment Progress Report |
| SOP | Standard Operating Procedure |
| SRCO | Site Rehabilitation Completion Order |
| SWMU | Solid Waste Management Unit |
| SWSL | Surface Water Screening Level |
| TOC | Total Organic Carbon |
| µg/kg | microgram per kilogram |
| USEPA | United States Environmental Protection Agency |

EXECUTIVE SUMMARY

This Per-and Polyfluoroalkyl Substances (PFAS) Site Assessment (SA) Progress Report (SAPR) presents the activities and results associated with PFAS investigation in the Fire Station #1 (FS1) Area located at Kennedy Space Center (KSC), Florida. FS1 (formerly known as Fire Station #4) has been designated Solid Waste Management Unit (SWMU) 116 under KSC's Resource Conservation and Recovery Act (RCRA) Corrective Action Program. This PFAS SA is being managed under SWMU 116 as the fire station was identified as the potential source of PFAS to the environment in this area. This is the first progress report to document on-going SA activities; supplemental progress reports will be provided as additional data is collected.

The SA for the FS1 Area covers an approximately 75-acre investigation area in the KSC Industrial Area with multiple numbered and unnumbered buildings. The primary focus of the PFAS SA at FS1 is the 10,000 square foot FS1 Building (M6-0695), which is surrounded by concrete, asphalt, gravel roadways, parking areas, and landscaped areas. The other buildings within the investigation area are associated with industrial activities at KSC.

Previous PFAS investigations included a Center-Wide Phase I SWMU Assessment and Confirmatory Sampling (CS) project conducted in 2018 and 2019 and a Center-Wide Phase II/III SWMU Assessment and CS project, completed in 2022. These investigations identified FS1 as Location of Concern (LOC) 19 because PFAS-containing aqueous film-forming foam (AFFF), which was historically stored at the fire station, is a potential PFAS source to the environment. The Phase I SWMU Assessment and CS activities included groundwater sampling, which confirmed detections of PFAS at the site with exceedances of the applicable screening criteria at the time. The Phase I concluded with the recommendation of further CS to evaluate the extent of impacted groundwater and assess potential surface soil impacts. The Phase II/III results showed similar PFAS compounds were in exceedance of applicable screening criteria in the groundwater, and PFAS were identified in soil samples. The Phase II/III evaluated PFAS signatures using forensics analysis, which indicated legacy (long chain) AFFF signatures in groundwater. There were several PFAS detected in groundwater at concentrations exceeding screening levels, including perfluorooctanesulfonic acid (PFOS), in excess of 100,000 nanograms per liter (ng/L).

The conclusion of the Phase II/III recommended that FS1 advance to a Site Assessment which is detailed in this SAPR.

During the SA, a total of six soil, 48 groundwater direct push technology (DPT), eight groundwater monitoring well, and one surface water sample were collected between October 2021 and March 2022. The samples were analyzed for 28 PFAS compounds using the Department of Defense Quality Systems Manual-compliant Method. SA sample results were used along with historical results to evaluate the extent of PFAS impacts to the environment in the FS1 Area. Data generated to date and prior results were screened against the United States Environmental Protection Agency (USEPA) May 2022 Tap Water Regional Screening Levels (RSLs) for groundwater and residential RSLs for soil (hazard quotient of 0.1). Surface water results were screened against the State of Florida Human Health Surface Water Screening Levels (SWSLs).

The six soil samples were collected from one location, FS1-SB0001, where a continuous soil core was advanced from 0 to 70 feet (ft) below land surface (bls) to evaluate lithology. Soil samples were collected at depths within the saturated zone (13-14, 19-20, 33-34, 46-47, 52-53, and 59-60 ft bls) and analyzed for PFAS and Total Organic Carbon (TOC). The soil core location was chosen to be near the FS1 building and co-located with a previous soil and groundwater sample location, PFAS-SB0059 and PFAS-DPT0069, which had elevated PFOS concentrations in soil in the 0-0.5 ft bls interval and in groundwater down to 47 ft bls. Soil results from FS1-SB0001 found that PFOS was the only compound that exceeded the soil RSL of 13 micrograms per kilogram ($\mu\text{g}/\text{kg}$) with a maximum concentration of 110 $\mu\text{g}/\text{kg}$ in the saturated 33-34 ft bls interval, corresponding with groundwater results at this depth. TOC concentrations ranged from 590 to 7,400 milligrams per kilogram (mg/kg) with the highest result in the 13-14 ft bls interval where the lithology was recorded as black, dark brown organic sand.

The 48 groundwater DPT samples were collected from six depth intervals (3-7, 10-14, 23-27, 33-37, 43-47, and 52-56) at eight locations (FS1-DPT0001 to FS1-DPT0008). Of the six PFAS compounds with applicable screening criteria, five were detected at concentrations greater than the USEPA RSLs: perfluoro-1-butanesulfonic acid (PFBS), perfluorohexanesulfonic acid (PFHxS), perfluoro-n-nonanoic acid (PFNA), perfluoro-n-octanoic acid (PFOA), and PFOS.

There were no detections of hexafluoropropylene oxide dimer acid (HFPO-DA) (commonly known as GenX) in the DPT samples (or any other samples collected during the SA). The location with the highest detected concentrations of the five compounds in excess of screening criteria was FS1-DPT0006, located approximately 400 feet southeast of the FS1 building. The sample with the maximum reported concentration of any PFAS was 100,000 ng/L of PFHxS in the 15-19 ft bls depth interval, greater than its RSL of 39 ng/L. Groundwater monitoring well samples were collected from seven existing wells associated with the Central Heat Plant (CHP) site (SWMU 045) and one existing well associated with the KSC Service Station (SWMU 093) in the north portion of the FS1 Area. These had concentrations of PFHxS, PFOA, and PFOS exceeding RSLs. PFOS was the most prevalent compound with exceedances in seven of the eight wells. Well CHP-MW0063, located just north of the FS1 building, had the maximum exceedances of PFHxS (90 ng/L), PFOA (16 ng/L), and PFOS (180 ng/L).

The surface water location (FS1-SW0001) sampled during the SA was from the stormwater swale located east of the FS1 building. PFOA and PFOS were detected at concentrations greater than SWSLs. The PFOA concentration was 1,200 ng/L, greater than the SWSL of 500 ng/L, and the PFOS concentration was 14,000 ng/L, greater than the SWSL of 10 ng/L.

A summary of samples collected during the SA are presented in the table below:

| | PFOA | PFOS | PFBS | PFHxS | PFNA | HFPO-DA (GenX) |
|---|-------------|-------------|--------------|--------------|-------------|---------------------------|
| (USEPA) Soil RSLs (µg/kg) | 19 | 13 | 1,900 | 130 | 19 | 23 |
| Samples collected | 6 | 6 | 6 | 6 | 6 | 6 |
| No. of Detections | 4 | 4 | 2 | 4 | 1 | 0 |
| Results above RSL | 0 | 2 | 0 | 0 | 0 | 0 |
| (USEPA) Groundwater RSLs (ng/L) | 6 | 4 | 600 | 39 | 5.9 | 6 |
| Samples collected (DPT) | 48 | 48 | 48 | 48 | 48 | 48 |
| No. of Detections (DPT) | 24 | 23 | 28 | 40 | 3 | 0 |
| Results above RSL (DPT) | 14 | 17 | 4 | 13 | 3 | 0 |
| Samples collected (MW) | 8 | 8 | 8 | 8 | 8 | 8 |
| No. of Detections (MW) | 7 | 8 | 7 | 8 | 1 | 0 |
| Results above RSL (MW) | 3 | 7 | 0 | 1 | 0 | 0 |
| (Florida) Surface Water SWSLs (ng/L) | 500 | 10 | NA | NA | NA | NA |
| Samples collected | 1 | 1 | 1 | 1 | 1 | 1 |
| No. of Detections | 1 | 1 | 1 | 1 | 1 | 0 |
| Results above SWSL | 1 | 1 | NA | NA | NA | NA |

NA = Not applicable; no screening criteria available

Overall, results from the SA showed exceedances of the applicable screening criteria for soil, groundwater and surface water. Considering the current and historical dataset, PFOS is the prevalent PFAS compound, which is indicative of AFFF releases. Based on results of the SA, additional groundwater DPT and surface water sampling should be considered, focused on evaluating surface water bodies in the southeast portion of the Industrial Area, which discharge into the Banana River. Additionally, installation of monitoring wells should be considered to evaluate the interaction between groundwater and surface water in the FS1 Area.

Results included in this report were presented to the KSC Remediation Team in October 2022.

An overall summary of samples collected to date in the FS1 Area with maximum concentrations is provided below:

| | No. Samples Collected | PFOA | PFOS | PFBS | PFHxS | PFNA | HFPO-DA (GenX) |
|------------------------------------|-----------------------|---|---------------------------------|-------------------------------|--------------------------------|-----------------------------|----------------|
| Phase I/II/III (2018-2022) | | Maximum Concentrations (with location) | | | | | |
| Groundwater (ng/L) | 69 (DPT) | 15,000 (PFAS-DPT0120-010.0) | 240,000 (PFAS-DPT0069-035.0) | 4,200 (PFAS-DPT0120-035.0) | 33,000 (PFAS-DPT0120-025.0) | 400 (PFAS-DPT0069-010.0) | NA |
| Soil (µg/kg) | 12 | 0.63 (PFAS-SB0058-000.5) | 45.4 (PFAS-SB0059-000.5) | ND | 2.3 (PFAS-SB0059-000.5) | ND | ND |
| Surface Water (ng/L) | 0 | NA | NA | NA | NA | NA | NA |
| Sediment (µg/kg) | 0 | NA | NA | NA | NA | NA | NA |
| Site Assessment (2021-2022) | | Maximum Concentrations (with location) | | | | | |
| Groundwater (ng/L) | 48 (DPT) 8 (MW) | 12,000 (FS1-DPT0006-017.0) | 27,000 (FS1-DPT0006-012.0) | 7,000 (FS1-DPT0006-017.0) | 100,000 (FS1-DPT0006-017.0) | 490 (FS1-DPT0006-012.0) | ND |
| Soil (µg/kg) | 6 | 1.5 (FS1-SB0001-033.5) | 110 (FS1-SB0001-033.5) | 0.55 (FS1-SB0001-033.5) | 9.4 (FS1-SB0001-033.5) | 0.39 (FS1-SB0001-019.5) | ND |
| Surface Water (ng/L) | 1 | 1,200 (FS1-SW0001) | 14,000 (FS1-SW0001) | NA | NA | NA | NA |

NA = Not applicable; not analyzed or no screening criteria
ND = Not detected

SECTION I INTRODUCTION

1.1 OVERVIEW

This Per- and Polyfluoroalkyl Substances (PFAS) Site Assessment (SA) Progress Report (SAPR) discusses the investigation activities and findings for the Fire Station #1 (FS1) Area (formerly known as Fire Station #4) located at Kennedy Space Center (KSC), Florida (Figure 1-1). This site has been designated Solid Waste Management Unit (SWMU) 116 under KSC's Resource Conservation and Recovery Act (RCRA) Corrective Action Program. This PFAS SA is being managed under SWMU 116 as the fire station was identified as a potential source of PFAS to the environment. For the purposes of PFAS investigations documented herein this report, the fire station will be referenced with its current designation, FS1. This PFAS SAPR was prepared by Tetra Tech, Inc., for the National Aeronautics and Space Administration (NASA) under Indefinite Delivery Indefinite Quantity Contract 80KSC019D0011-80KSC019F0070. This is the first progress report to document on-going SA activities; supplemental progress reports will be provided as additional data is collected.

A Center-Wide Phase I SWMU Assessment and Confirmatory Sampling (CS) project conducted in 2018 and 2019 (NASA, 2019) under Potential Release Location (PRL) 237 identified FS1 as Location of Concern (LOC) 19 because PFAS-containing aqueous film-forming foam (AFFF), which was historically stored at the fire station, is a potential PFAS source to the environment. There were no reported spills of AFFF at FS1. The Phase I SWMU Assessment and CS activities included groundwater sampling, which confirmed detections of PFAS at the site with exceedances of the applicable screening criteria at the time. The Phase I concluded with the recommendation of further sampling to evaluate the extent of impacted groundwater and assess potential surface soil impacts.

A Center-Wide Phase II/III SWMU Assessment and CS project (NASA, 2022) was completed in 2022 where additional sampling was conducted at KSC, including the FS1 Area (LOC 19), to continue investigation into potential PFAS releases. Similar to the Phase I, personnel interviews were conducted during the Phase II/III with FS1 firefighters that revealed AFFF products were

being stored at FS1, but there were no known AFFF spills within the area. Groundwater and soil samples were collected during the Phase II/III and results showed similar PFAS compounds were in exceedance of applicable screening criteria in the groundwater, and PFAS were identified in soil and sediment samples. The Phase II/III evaluated PFAS signatures using forensics analysis, which indicated legacy (long chain) AFFF signatures in groundwater. There were several PFAS detected in groundwater at concentrations exceeding screening levels, including perfluorooctanesulfonic acid (PFOS), in excess of 100,000 nanograms per liter (ng/L). The conclusion of the Phase II/III recommended that FS1 advance to a SA, which is detailed in this SAPR. Previous PFAS investigations are further discussed in Section 2.4, with historical results presented in Appendix A.

1.2 PURPOSE

The purpose of this report is to present the activities and results associated with the SA conducted in 2021-2022. The SA results along with the historical dataset is evaluated to provide recommendations and a path forward for further PFAS assessment at FS1.

1.3 REPORT ORGANIZATION

The remainder of this PFAS SAPR is organized as follows:

Section II: Site Description and Setting – Provides description of the site, including an overview of previous and current site operations, site topography, geology, and hydrogeology, and a summary of previous investigations.

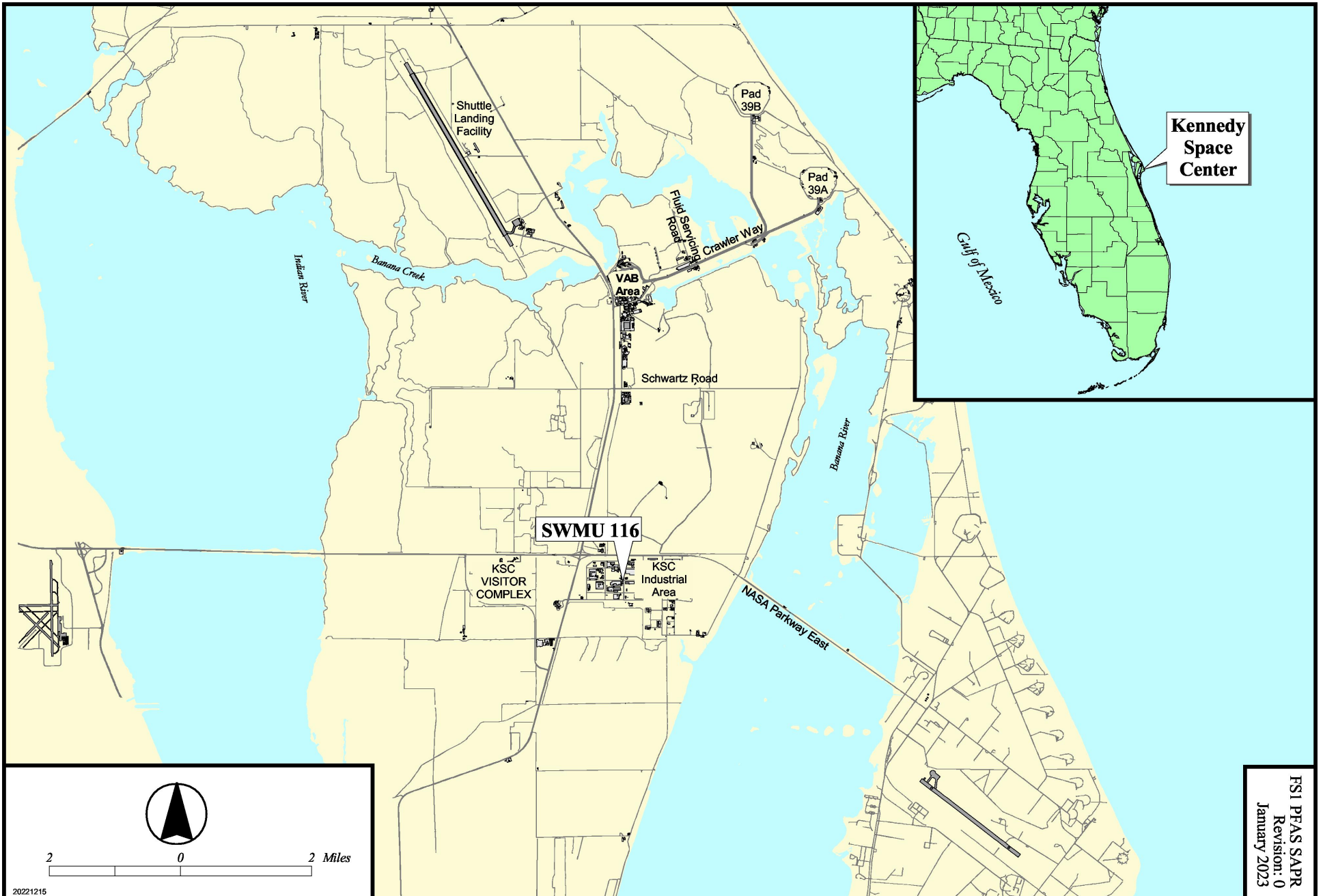
Section III: PFAS Site Assessment Methodologies and Activities – Presents the objectives, rationale, and methodologies used to accomplish the PFAS SA.

Section IV: Data Evaluation – Provides a summary of the screening process for soil, groundwater, and surface water samples collected during the PFAS SA.

Section V: Conclusions and Recommendations – Provides a summary of the PFAS Assessment results and recommendations for future investigations.

Section VI: References – Provides a listing of references cited in this report.

FIGURE 1-1 LOCATION OF KENNEDY SPACE CENTER AND FIRE STATION #1 AREA
SWMU 116, KENNEDY SPACE CENTER, FLORIDA



SECTION II

SITE DESCRIPTION AND SETTING

2.1 SITE LOCATION

The FS1 Area is located within KSC, on the East Coast of Florida in Brevard County (Figure 1-1). It is located on the southwestern corner of the intersection of 3rd Street Southeast and C Avenue Southeast in the Industrial Area.

2.2 SITE DESCRIPTION

2.2.1 Major Features

The FS1 Area covers an approximately 75-acre investigation area with multiple structures and buildings, as shown on Figure 2-1. The FS1 Area is currently developed and includes a 10,000 square foot Fire Station #1 Building (M6-0695), which is surrounded by concrete, asphalt, gravel roadways, parking areas, and landscaped areas. The fire station, which was constructed in 1964, has been the primary focus of the PFAS investigations because of potential PFAS releases. Other buildings and associated structures within the investigation area shown on Figure 2-1 primarily support industrial activities at KSC. These include the KSC Service Station (M6-0596); the Supply Warehouses #1 (M6-0794) and #2 (M6-0698); the Heavy Equipment Storage Shed (M6-0798A); the Transporter/Canister Facility (M7-0777); and, the Central Supply Facility (M6-0744).

2.2.2 Topography and Surface Features

The site topography around the FS1 building is relatively flat. Stormwater surface drainage flows away from the building and infiltrates into surface soils and vegetated areas along the edges of the building. There are drainage swales along the western and eastern areas of the site, in particular the swale located along the eastern portion of the site is along the east driveway in front of the fire truck bay doors. The overall study area has drainage swales primarily surrounding buildings and along roadways that ultimately discharge to the Banana River to the east.

2.3 GEOLOGY AND HYDROGEOLOGY

2.3.1 Regional Geology and Hydrogeology

The regional geology and hydrogeology have been documented in the Phase I SWMU Assessment and CS Report for PRL 237 (NASA, 2019). As noted in the report, the surface and near-surface deposits of east-central Florida range from surficial unconsolidated sands to well indurated limestones and dolomites at depth. Four distinct geologic units are characteristic of east-central Florida and are believed to exist at KSC. In ascending order these are: (i) Eocene limestones; (ii) Lower and Middle Miocene compact silt and clays; (iii) Upper Miocene and Pliocene silty and clayey sands; and (iv) Pleistocene and Recent aged sands with interbedded shell layers.

2.3.2 Local Geology and Hydrogeology

As part of this PFAS SA, the geology for FS1 was evaluated in December 2021 by collecting a soil core at FS1-SB0001, located along the east side of the FS1 building. The continuous soil core was collected from 0 to 70 feet (ft) below land surface (bls) and recorded in a boring log provided in Appendix B. Soil samples were collected from six depths and submitted to a laboratory for analysis of PFAS and Total Organic Carbon (TOC) as further discussed in Section 3.2.1 and Section 4.2. The lithology is described in Table 2-1 and summarized below.

The soil core evaluation indicated that the underlying lithology generally consists of primarily sand and shell down to approximately 50 ft bls and silts/clays to 70 ft bls. The upper 14 feet consists of black and dark brown, fine-grained sand with organics. From approximately 14-20 ft bls, the lithology consists of fine-grained brown sands. The intervals of 20-34 and 34-47 ft bls consist of gray fine-grained sand with shell fragments. From 47-53 ft bls, a gray clayey silt to silty clay layer was evident. From 53-60 ft bls, the lithology consists of dark gray sand with shells, and in the final depth evaluated, the 60-70 ft bls interval consists of gray green clayey silty sand and shells.

The hydrogeology at FS1 is presumed based on available information at surrounding sites where groundwater is being managed under KSC's RCRA Permit. The Central Heat Plant (CHP),

located to the north, is designated SWMU 045. Groundwater flow direction at the site is to the south in the shallow and intermediate zones and to the east in the deep zone. The area to the south of FS1 is the Paint and Oil Locker (POL) site, designated SWMU 067. Groundwater flow direction at the POL site is to the southeast. Groundwater flow in the area of the Communications, Maintenance, and Storage Facility (CMS) (SWMU 082), located to the southwest of FS1, has a westerly component in the shallow and intermediate zones, and a southwest component in the deep zone (NASA, 2021a). Groundwater flow at the Storage Warehouse 3 (SWMU 088) has a southwesterly flow direction (NASA, 2018). Based on these surrounding sites, groundwater flow in the FS1 study area is inferred to be generally southeast in the eastern and southern portions and southwest in the western portion (Figure 2-2).

2.4 SUMMARY OF PREVIOUS INVESTIGATIONS

2.4.1 Previous RCRA Investigations

The original investigation for FS1 was the SWMU Assessment for Fire Station No. 4 (M6-0695), PRL No. 122, completed in May 2005 (NASA, 2005). The SWMU Assessment gathered site information and ultimately identified eight LOCs for further investigation because past or present operations may have impacted the environment. The LOCs consisted of an Electrical Substation (LOC 1), North and East Garage Former Discharge Areas (LOCs 2 and 3), a Former Aboveground Storage Tank (LOC 4), a groundwater plume associated with the CHP site (SWMU C045) to the north (LOC 5), a Fire Extinguisher Storage and Maintenance Area (LOC 6), Water Tank Filling Spigot (LOC 7), and a Water Tank Filling Hydrant (LOC 8).

CS was conducted in 2005 to investigate potential contamination associated with the identified LOCs. Soil and groundwater samples were collected at select LOCs for analysis of polychlorinated biphenyls (PCBs), metals, volatile organic compounds, and petroleum constituents. Results indicated exceedances of cleanup criteria at four of the eight LOCs (LOCs 1, 2, 4, and 5) (NASA, 2006). Additional investigation activities were conducted at these four LOCs under a Phase II CS event, which resulted in a recommendation for No Further Action at LOCs 2, 4, and 5. At LOC 1, an Interim Measure (IM) was proposed to address concentrations of polycyclic aromatic hydrocarbons (PAHs) in soil and PCBs in soil and concrete of the

transformer pad greater than cleanup target levels. The IM was implemented in 2008, which included excavation and disposal of approximately 188 tons of waste soils, concrete, asphalt, and debris, and encapsulation of the concrete transformer pad (NASA, 2008). In 2014, the Florida Department of Environmental Protection (FDEP) issued a Site Rehabilitation Completion Order (SRCO) for the site (FDEP, 2014).

2.4.2 Previous PFAS Investigations

The previous PFAS investigations at FS1 are detailed in the Phase I SWMU Assessment and CS Report for PRL 237 (NASA, 2019) and the Phase II/III SWMU Assessment and CS Report for PRL 237 (NASA, 2022). These reports discuss the Center-wide PFAS investigations at KSC, under which FS1 was identified as LOC 19. These Phase I and Phase II/III reports, which represent the historical dataset, included groundwater and soil samples. No surface water or sediment samples were collected during these previous sampling events. At the time of previous investigations, groundwater results were being compared to the Provisional Groundwater Cleanup Target Levels (pGCTL) developed for the FDEP by the University of Florida in 2018. During the Phase I, only groundwater was collected, and the results were screened against the pGCTLs, which were consistent with the 2016 United States Environmental Protection Agency (USEPA) Lifetime Drinking Water Health Advisory levels of 70 ng/L for perfluoro-n-octanoic acid (PFOA) and PFOS individually, and 70 ng/L for the sum of PFOA and PFOS (USEPA, 2016a and 2016b). In February 2021, the FDEP published the PFAS Dynamic Plan (updated in March 2022 [FDEP, 2022]), which included provisional screening levels for PFOA and PFOS in groundwater, irrigation water, surface water, and soil. There were no applicable screening levels for sediment. The groundwater and soil samples collected during the Phase II/III were compared to these provisional screening levels in the Dynamic Plan.

After the Phase I and Phase II/III investigations, in May 2022, the USEPA issued updated Tap Water Regional Screening Levels (RSLs) for PFOA, PFOS, and perfluoro-1-butanesulfonic acid (PFBS), and included RSLs for additional PFAS compounds including perfluorohexanesulfonic acid (PFHxS), perfluoro-n-nonanoic acid (PFNA), and hexafluoropropylene oxide dimer acid (HFPO-DA), commonly referred to as GenX.

Historical results for each media are included in Tables A-1 through A-3 in Appendix A. Historical PFAS sample locations are presented on Figure 2-3. The historical dataset included in Appendix A has been re-screened and compared to the May 2022 USEPA RSLs for groundwater and soil. These results were re-screened against the updated criteria because these are being used as project screening levels for this SA, as further discussed in Section 4.1. The tables in Appendix A are organized to present the PFAS with applicable screening criteria at the top of the tables. The following summary refers to the historical results compared to the updated screening levels.

During the Phase I in 2018-2019, groundwater samples were collected to evaluate the potential PFAS impacts associated with the site. A total of 43 direct push technology (DPT) groundwater samples were collected from nine locations, with 19 samples collected in October and November 2018 (DPT0063, DPT0066 to DPT0069) and 16 samples collected in March 2019 (DPT0117, DPT0120, DPT0122, and DPT0141).

A re-screening of historical DPT groundwater results collected during Phase I showed five PFAS compounds (PFBS, PFHxS, PFNA, PFOA, and PFOS) greater than the RSLs. HFPO-DA was not analyzed for in these samples. The location of the maximum concentration of PFBS was at PFAS-DPT0120 in the 33-37 ft bls interval; the maximum concentration of PFHxS was at PFAS-DPT0120 in the 23-27 ft bls interval; the maximum concentration of PFNA was at PFAS-DPT0069 in the 8-12 ft bls interval; the maximum concentration of PFOA was at PFAS-DPT0120 in the 8-12 ft bls interval; and, the maximum concentration of PFOS was at PFAS-DPT0069 in the 33-37 ft bls interval. The highest detected concentration overall was PFOS at 240,000 ng/L at PFAS-DPT0069 (previously reported as 244,900 ng/L for the sum of PFOA and PFOS), located on the east side of the FS1 building. The other location with highest detections, PFAS-DPT0120, is about 40 feet east of PFAS-DPT0069. Both locations are centrally located at FS1, and overall have the highest detections in the dataset. As noted in the Phase I report, additional sampling was proposed to better define the extent of the impacted groundwater and to assess potential surface soil impacts from potential AFFF use and/or herbicide use.

During Phase II/III in 2021-2022, groundwater and soil samples were collected to continue to evaluate potential impacts of PFAS at FS1. In January 2021, a total of 12 groundwater samples

were collected from three DPT locations (DPT0184 to DPT0186) and eight soil samples were collected from four locations (SB0057 to SB0060, co-located with previous DPT locations from Phase I, DPT0066 to DPT0069). A re-screening of the soil results revealed PFOS at two locations (SB0058 and SB0059) at concentrations greater than the RSL of 13 micrograms per kilogram ($\mu\text{g}/\text{kg}$). As shown in Table A-1, the maximum detection was 49.1 $\mu\text{g}/\text{kg}$, in the 0-0.5 ft bls depth interval at SB0058 (result was from a sample duplicate), located to the south of the FS1 building. A similar concentration of PFOS (45.4 $\mu\text{g}/\text{kg}$) was detected in the 0-0.5 ft bls interval at SB0059, located to the east of the FS1 building.

DPT groundwater results showed four PFAS compounds (PFHxS, PFNA, PFOA, and PFOS) in exceedance of the RSLs (HFPO-DA was not analyzed for in the January 2021 DPT samples). The highest detections for these compounds were detected at PFAS-DPT0185 between the 6-10 ft bls and 21-25 ft bls intervals. The highest detections were 896 ng/L for PFHxS, 64.6 ng/L for PFNA, 349 ng/L for PFOA, and 3,180 ng/L for PFOS. PFAS-DPT0185 is located south of the FS1 building, and approximately 275 ft south of PFAS-DPT0069 and PFAS-DPT0120 where the highest concentrations were detected during Phase I. PFAS-DPT0186 is located as an eastern step-out from these locations, approximately 125 feet east of the FS1 building, and results showed exceedances of PFHxS, PFOA, and PFOS. The furthest historical DPT sample was PFAS-DPT0063 located approximately 0.3 miles east of PFAS-DPT0186. Results at this location showed low-level PFAS exceedances of PFOA and PFOS. PFAS-DPT0184 is located as a western step-out from this location and results showed relatively lower concentrations, but still showed one exceedance of PFOS of 7.9 ng/L at the 6-10 ft bls interval.

Surrounding DPT groundwater data was also incorporated into the FS1 dataset to support delineation. These results are included in Table A-2. The additional data includes DPT0233 and DPT0234, which were collected in September 2021 as part of the Phase II/III, and S014-DPT1003, which was collected in February 2022 as part of a PFAS sampling event at the Base Operations Support Building (SWMU 014), formerly known as the Maintenance and Operations Building. PFAS-DPT0233 is located at the northeast of FS1. Results at this location showed one exceedance of PFOS (13 ng/L) in the 6-10 ft bls interval. PFAS-DPT0234 is located southwest, approximately 700 feet from the FS1 building, and results showed one exceedance of PFOS (6.8

ng/L) in the 6-10 ft bls interval. Further west from PFAS-DPT0234 is S014-DPT1003 (approximately 550 feet west) and results showed low-level exceedances of PFNA, PFOA, and PFOS. PFOS exceeded the RSL in the 23-27 ft bls while exceedances of all three compounds were observed in the 43-47 ft bls interval.

Soil samples PFAS-SB0125 and PFAS-SB0126 were sampled in September 2021 at locations co-located with DPT samples PFAS-DPT0233 and PFAS-DPT0234, respectively. Two samples were collected from each location in the 0-0.5 ft bls and 0.5-2 ft bls depth intervals. A re-screening of the soil results showed no exceedances of screening levels.

Monitoring well results were also incorporated into the dataset for FS1 and are provided in Table A-3. The data incorporates PFAS results from four monitoring wells at the CMS sampled in June 2021 (CM_S-MW0036, CM_S-MW0037, CM_S-0038, and CM_S-MW0048). Generally, the monitoring wells sampled at CMS were used to help delineate the western boundary. Results from the CMS wells show relatively low-level exceedances of PFOS, and no exceedances of other PFAS compounds. The PFOS concentrations ranged from 3.77 ng/L to 56 ng/L with the maximum detection located at CM_S-MW0037. The monitoring well screen intervals were all 5 to 15 ft bls.

The Phase II/III project also included forensic analysis of groundwater data to identify common PFAS mixture signatures. The investigation concluded that PFAS detections in groundwater showed a signature of potential legacy (long chain) AFFF and that deep (43 ft bls depth interval) groundwater impacts were identified. The conclusion of the Phase II/III included the recommendation that FS1 advance to Site Assessment.

Table 2-1. Lithology Description

| Location | Depth (ft bls) | Description |
|------------|----------------|--|
| FS1-SB0001 | 0 - 14 | Black and dark brown organic rich fine sands with traces of silt |
| | 14 - 20 | Brown fine sands, transitions to gray |
| | 20 - 34 | Gray fine sands with traces of shell |
| | 34 - 47 | Gray sand and shells (> 50%) |
| | 47 - 53 | Gray clayey silt to silty clay |
| | 53 - 60 | Dark gray sand and crushed shells |
| | 60 - 70 | Gray green clayey silty sand and shells |

ft bls = feet below land surface

FIGURE 2-1 SITE LAYOUT
SWMU 116, KENNEDY SPACE CENTER, FLORIDA



FIGURE 2-2 GROUNDWATER FLOW DIRECTION
SWMU 116, KENNEDY SPACE CENTER, FLORIDA

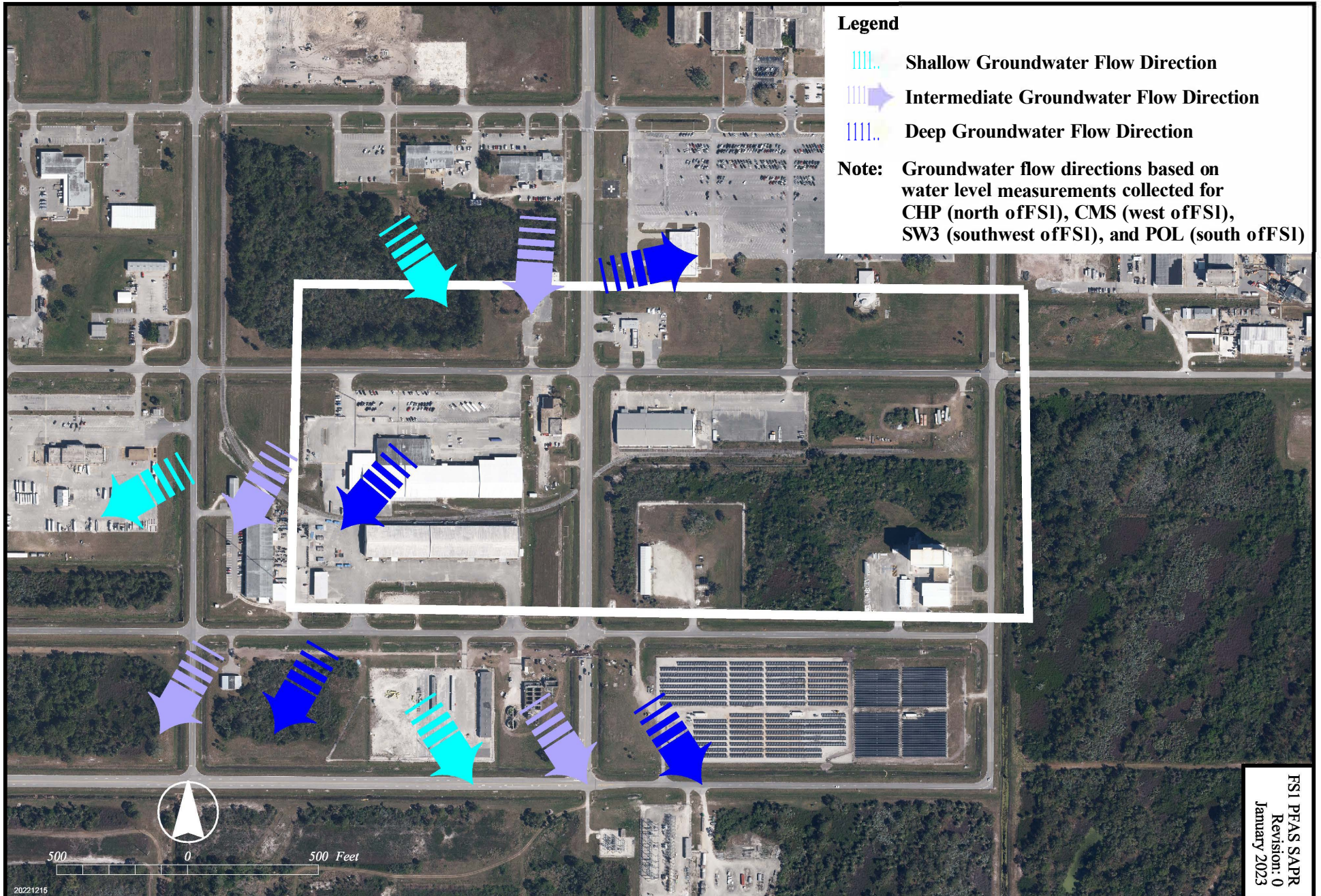
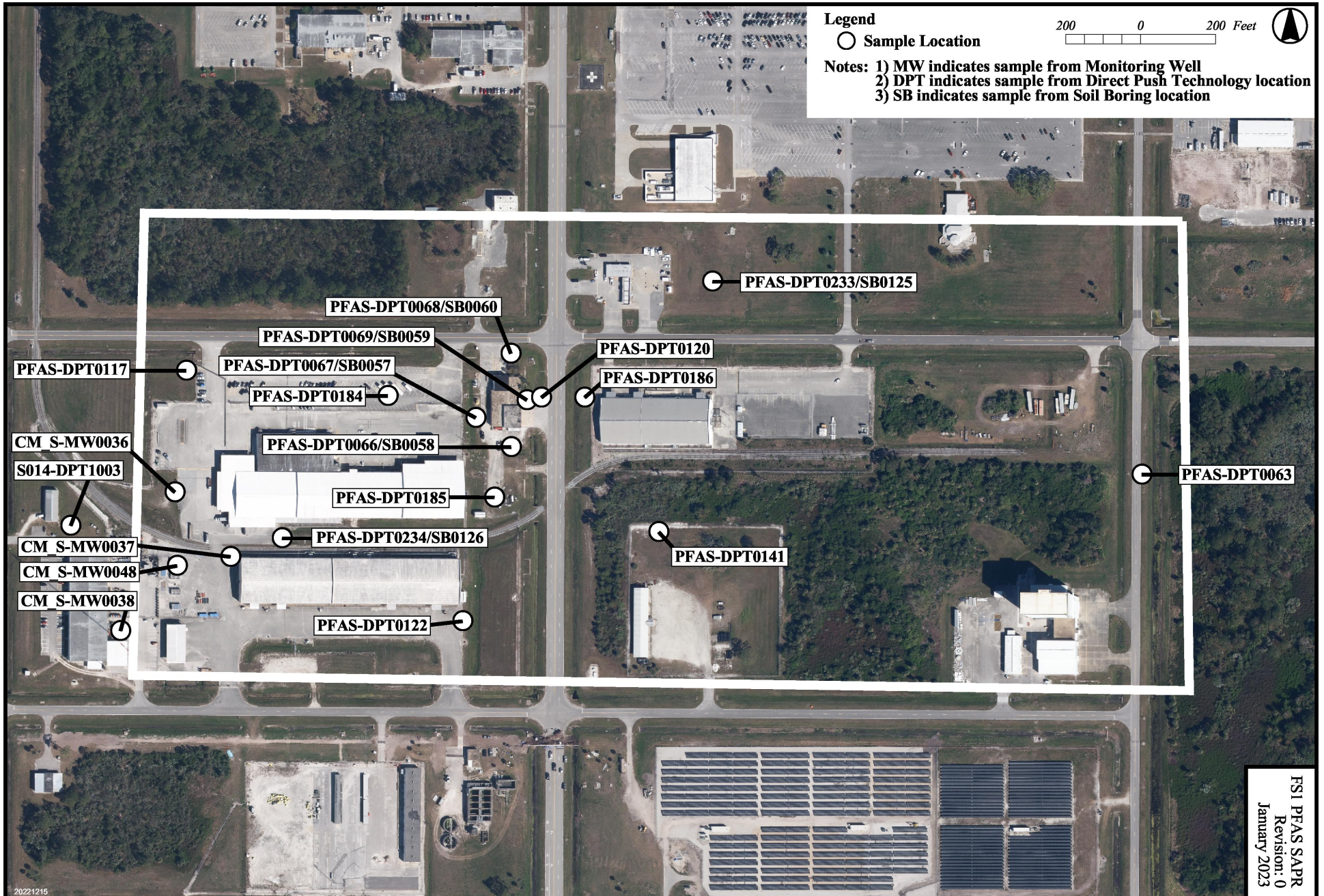


FIGURE 2-3 HISTORICAL PFAS SAMPLE LOCATIONS
 SWMU 116, KENNEDY SPACE CENTER, FLORIDA



SECTION III

PFAS SITE ASSESSMENT METHODOLOGIES AND ACTIVITIES

Based on findings of the Center-wide PFAS Phase II and III SWMU Assessment and CS (NASA, 2022), additional sampling was conducted in the FS1 Area between October 2021 and March 2022 to supplement the existing dataset and further characterize PFAS impacts to the environment. PFAS sampling locations are shown on Figure 3-1. Activities conducted during the FS1 PFAS SA included:

- Collection of a continuous soil core to 70 ft bls to evaluate lithology, with collection of grab samples from six depth intervals for PFAS and TOC analysis in support of site characterization;
- Collection of DPT groundwater samples at six depth intervals from eight boring locations (total of 48 DPT samples) for PFAS analysis;
- Collection of groundwater samples from eight existing upgradient monitoring wells for PFAS analysis; and
- Collection of one surface water sample for PFAS analysis.

3.1 PFAS SAMPLING PROTOCOL

PFAS are present in many consumer products (including some typical sampling equipment) and are widely present in the environment. Therefore, special precautions were followed to avoid compromising sampling integrity during collection. Field sampling methodologies were conducted in accordance with applicable portions of the KSC Sampling and Analysis Plan (NASA, 2017), FDEP Standard Operating Procedures (SOPs) for groundwater, surface water, and soil (FDEP, 2017), and applicable portions of the FDEP draft PFAS Sampling SOP (FDEP, 2019). Field quality assurance/quality control (QA/QC) samples were also collected to evaluate potential PFAS cross-contamination in site samples, as further discussed in Section 3.5.

3.2 PFAS SITE ASSESSMENT SAMPLING ACTIVITIES

The following sections discuss the PFAS sampling activities conducted during the SA.

3.2.1 Soil Sampling

On December 10, 2021, a continuous soil core (FS1-SB0001) was advanced to 70 ft bls using a Geoprobe 8140LS Sonic drill rig to evaluate the site's lithology and determine the best placement for DPT groundwater sample intervals. The soil core was co-located with a soil boring location previously collected in January 2021 as part of the Phase II/III (PFAS-SB0059) and DPT groundwater location previously collected in October 2018 as part of the Phase I (PFAS-DPT0069). This location was chosen for evaluation because it is located alongside (east of) the FS1 building and had a maximum soil concentration of PFOS of 45.4 µg/kg in the 0-0.5 ft bls interval and maximum groundwater concentration of PFOS of 240,000 ng/L in the 33-37 ft bls interval.

Lithologic descriptions were recorded, as described in Section 2.3.2, and grab samples were collected from the soil core at six discrete 1-foot depth intervals (13-14 ft bls, 19-20 ft bls, 33-34 ft bls, 46-47 ft bls, 52-53 ft bls, and 59-60 ft bls) for laboratory analysis of PFAS and TOC. Soil sampling locations and rationale are presented in Table 3-1 and shown on Figure 3-1. The soil boring log for FS1-SB0001 is included in Appendix B.

3.2.2 DPT Groundwater Sampling

In February 2022, DPT groundwater samples were collected from eight locations (FS1-DPT0001 through FS1-DPT0008) at six depth intervals (3-7 ft bls, 10-14 ft bls, 15-19 ft bls, 23-27, 33-37 ft bls, and 43-47 ft bls), for a total of 48 DPT groundwater samples. The sample locations were selected in areas around the site to provide a wide step-out from the historical groundwater samples collected during the Phase I and Phase II/III events. The four-foot screen intervals were selected based on the lithology observed in the continuous soil core collected from FS1-SB0001 in December 2021. DPT groundwater sampling locations and rationale are presented in Table 3-2 and shown on Figure 3-1.

At each DPT groundwater sample location, the upper 5 feet of soil was excavated using a stainless-steel hand auger to verify the absence of underground utilities. Groundwater grab samples were collected by DPT methods via a 4-foot-long stainless-steel retractable screen. New high-density polyethylene (HDPE) tubing was used for each sampling location. When the desired sampling depth was reached, the tubing was placed into the borehole through the sampling rods at mid-screen, and the groundwater was purged with a peristaltic pump for a minimum of five screen volumes (approximately 1.5 liters) prior to sample collection. During sample purge, observations including odor and color were recorded prior to collecting each sample. Upon completion, each sample borehole was abandoned via pressure grouting techniques. DPT groundwater samples were placed in laboratory-provided sample containers, sealed, labeled, packed on ice, and delivered under proper chain-of-custody protocol to the laboratory. DPT groundwater sample logs are provided in Appendix B.

3.2.3 Monitoring Well Groundwater Sampling

In October 2021, eight existing monitoring wells located upgradient in the northern portion of the FS1 Area were sampled. Seven of the wells are associated with the CHP site (SWMU 045) (CHP-MW0028, CHP-MW0029, CHP-MW0032, CHP-MW0033, CHP-MW0034, CHP-MW0035, and CHP-MW0063). The other well is associated with the KSC Service Station (SWMU 093) (CGO-MW0012). All the wells are located north of 3rd Street Southeast except for CHP-MW0063, which is located immediately south of 3rd Street in the grass to the east of the FS1 driveway. The wells range in depth with screen intervals between 2.5-12.5 ft bls to 40-50 ft bls. Monitoring well locations and rationale are presented in Table 3-3 and shown on Figure 3-1.

New HDPE tubing was used for each sample location. The monitoring wells were sampled using a peristaltic pump and flow through cell utilizing a low-flow purge technique. Water quality parameters were recorded at each location. Monitoring well samples were placed in laboratory-provided sample containers, sealed, labeled, packed on ice, and delivered under proper chain-of-custody protocol to the laboratory. Monitoring well sampling logs are provided in Appendix B.

3.2.4 Surface Water Sampling

In March 2022, one surface water sample was collected from the drainage swale along the east side of the fire station (FS1-SW0001). A grab sample was collected from the mid-point of the standing water location using a pre-cleaned pole-mounted scoop. Water quality parameters were collected using a peristaltic pump equipped with a flow-through cell through HDPE tubing attached to a sample collection pole. Surface water location and rationale are presented in Table 3-4 and on Figure 3-1. The surface water sample log is provided in Appendix B.

3.3 PFAS LABORATORY ANALYSIS

All collected soil, groundwater, and surface water samples were shipped under chain-of-custody to Pace Laboratories in West Columbia, South Carolina, a National Environmental Laboratory Accreditation Program-certified laboratory. The PFAS samples were analyzed by Liquid Chromatography Tandem Mass Spectrometry (LC/MS/MS) Compliant with Table B-15 of the U.S. Department of Defense (DoD) Quality Systems Manual (QSM) version 5.3. A list of 28 PFAS analytes were reported. The soil samples collected from the soil core were also analyzed for TOC by the Walkley-Black Method. Note the analytical method used for this SA included a more robust list of PFAS compounds than the method utilized during the prior investigations.

3.4 INVESTIGATION DERIVED WASTE

Investigation-derived waste (IDW) generated during the SA included soil cuttings, sampling purge water, and decontamination fluids. The soil core was evaluated, samples were collected for PFAS analysis, and the soil cuttings were determined to be non-hazardous per NASA's PFAS IDW policy (NASA, 2021b). The aqueous IDW was containerized into totes, characterized, and determined to be non-hazardous prior to being transferred to KSC's on-site IDW treatment system, per NASA's PFAS IDW policy. Miscellaneous trash, construction debris, and personal protective equipment generated during field activities was wiped clean and disposed of in an appropriate trash container.

3.5 FIELD DATA QUALITY

QA/QC samples were collected for PFAS analysis throughout the duration of the SA and included field blanks at a frequency of one per day, equipment blanks at a frequency of one per reusable equipment type, sample duplicates at a ratio of approximately one per 10 samples, and matrix spikes at a ratio of approximately one per 20 samples. The QA/QC samples were collected in accordance with FDEP SOP FQ 1000 (Field Quality Control Requirements) (FDEP, 2017).

The field blanks were collected by transferring laboratory-provided PFAS-free water into proper laboratory provided containers. The equipment blanks were collected from sampling equipment such as HDPE tubing and decontaminated stainless-steel Geoprobe sampler screens. Analytical results for the field QC samples are presented in Section 4.

Table 3-1. Soil Sample Locations and Rationale

| Location (FS1-) | Sample Identification | Sample Depth (ft bls) | Sampling Rationale |
|-----------------|---------------------------|-----------------------|---|
| SB0001 | FS1-SB0001-013.5-20211210 | 13 - 14 | Soil core to evaluate lithology and best placement of groundwater sample screen intervals |
| | FS1-SB0001-019.5-20211210 | 19 - 20 | |
| | FS1-SB0001-033.5-20211210 | 33 - 34 | |
| | FS1-SB0001-046.5-20211210 | 46 - 47 | |
| | FS1-SB0001-052.5-20211210 | 52 - 53 | |
| | FS1-SB0001-059.5-20211210 | 59 - 60 | |

Note:

Samples analyzed for 28 PFAS compounds by LC/MS/MS Compliant with QSM 5.3 Table B-15

Samples were also analyzed for Total Organic Carbon (TOC)

ft bls = feet below land surface

PFAS = per- and polyfluoroalkyl substances.

Table 3-2. DPT Sample Locations and Rationale

| Location (FS1-) | Sample Depth (ft bls) | Sampling Rationale |
|-----------------|-----------------------|---|
| DPT0001 | 3 - 7 | Northern delineation location near the Central Heat Plant site |
| | 10 - 14 | |
| | 15 - 19 | |
| | 23 - 27 | |
| | 33 - 37 | |
| | 43 - 47 | |
| DPT0002 | 3 - 7 | Northwestern delineation location |
| | 10 - 14 | |
| | 15 - 19 | |
| | 23 - 27 | |
| | 33 - 37 | |
| | 43 - 47 | |
| DPT0003 | 3 - 7 | Northern delineation location |
| | 10 - 14 | |
| | 15 - 19 | |
| | 23 - 27 | |
| | 33 - 37 | |
| | 43 - 47 | |
| DPT0004 | 3 - 7 | Evaluate area between previous locations PFAS-DPT0233 and PFAS-DPT0068 |
| | 10 - 14 | |
| | 15 - 17 | |
| | 23 - 27 | |
| | 33 - 37 | |
| | 43 - 47 | |
| DPT0005 | 3 - 7 | Eastern delineation location |
| | 10 - 14 | |
| | 15 - 19 | |
| | 23 - 27 | |
| | 33 - 37 | |
| | 43 - 47 | |
| DPT0006 | 3 - 7 | Evaluate between previous locations PFAS-DPT0141 and PFAS-DPT0185 |
| | 10 - 14 | |
| | 15 - 19 | |
| | 23 - 27 | |
| | 33 - 37 | |
| | 43 - 47 | |
| DPT0007 | 3 - 7 | Evaluate area northeast of previously collected DPT sample PFAS-DPT0122 |
| | 10 - 14 | |
| | 15 - 19 | |
| | 23 - 27 | |
| | 33 - 37 | |
| | 43 - 47 | |
| DPT0008 | 3 - 7 | Southeastern delineation location |
| | 10 - 14 | |
| | 15 - 19 | |
| | 23 - 27 | |
| | 33 - 37 | |
| | 43 - 47 | |

Samples analyzed for 28 PFAS compounds by LC/MS/MS Compliant with QSM 5.3 Table B-15

ft bls = feet below land surface

PFAS = per- and polyfluoroalkyl substances

Table 3-3. Monitoring Well Sample Locations and Rationale

| Well ID | Screen Interval (ft bls) | Sampling Rationale |
|------------|--------------------------|--|
| CGO-MW0012 | 2.5 - 12.5 | Existing well located upgradient in the northern portion of the FS1 Area |
| CHP-MW0028 | 40 - 45 | |
| CHP-MW0029 | 40 - 45 | |
| CHP-MW0032 | 42.5 - 47.5 | |
| CHP-MW0033 | 32.5 - 37.5 | |
| CHP-MW0034 | 22.5 - 27.5 | |
| CHP-MW0035 | 3 - 13 | |
| CHP-MW0063 | 40 - 50 | |

Samples analyzed for 28 PFAS compounds by LC/MS/MS Compliant with QSM 5.3 Table B-15

ft bls = feet below land surface

PFAS = per- and polyfluoroalkyl substances

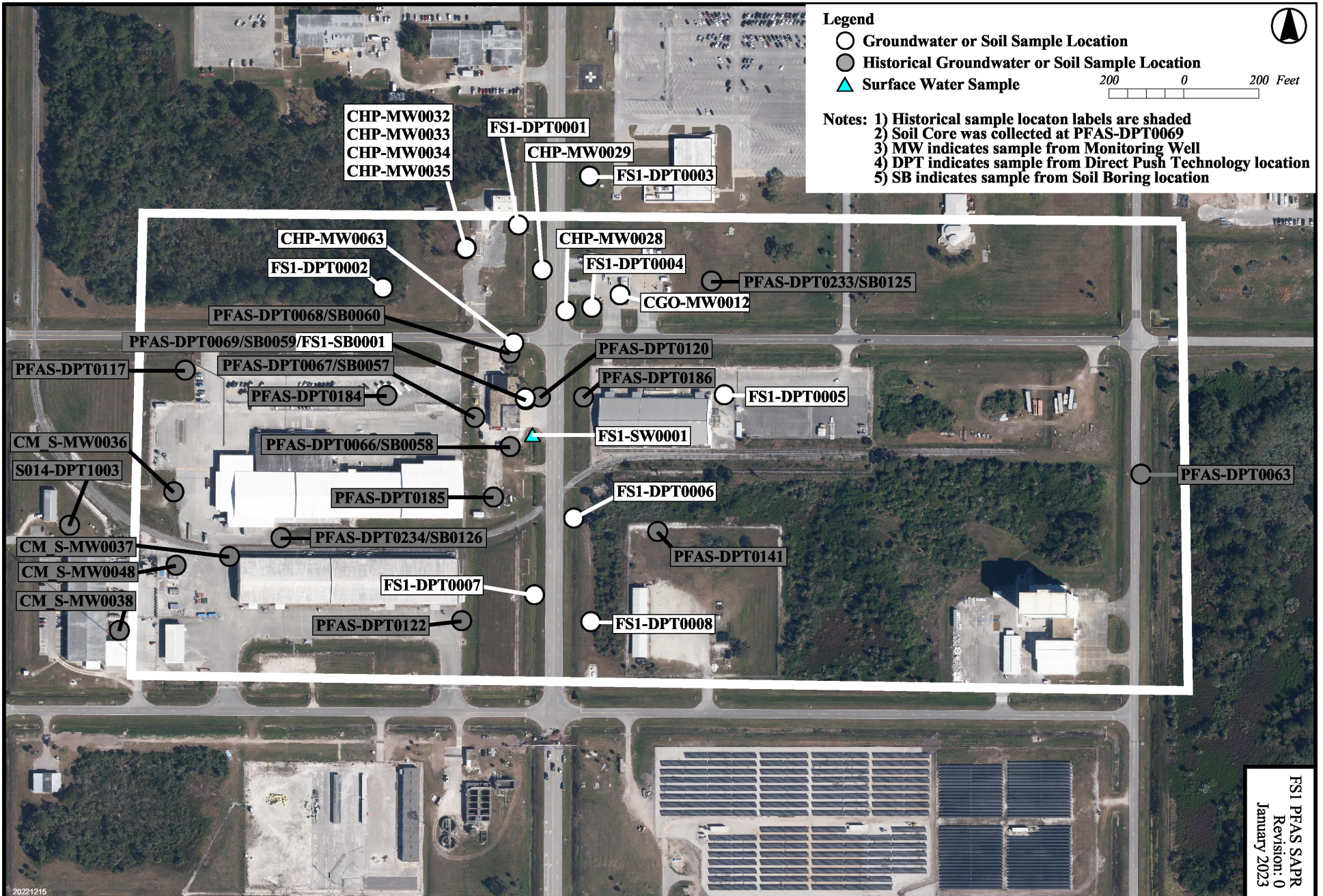
Table 3-4. Surface Water Sample Locations and Rationale

| Location (FS1-) | Sample Depth (ft bls) | Sampling Rationale |
|----------------------------|----------------------------------|--|
| SW0001 | 0 - 0.5 | Evaluate surface water in drainage swale near the southeast corner of the Fire Station #1 building |

Samples analyzed for 28 PFAS compounds by LC/MS/MS Compliant with QSM 5.3 Table B-15.

PFAS = per- and polyfluoroalkyl substances.

FIGURE 3-1 PFAS SITE ASSESSMENT SAMPLE LOCATIONS
 SWMU 116, KENNEDY SPACE CENTER, FLORIDA



Legend

- Groundwater or Soil Sample Location
- Historical Groundwater or Soil Sample Location
- ▲ Surface Water Sample

200 0 200 Feet

- Notes:**
- 1) Historical sample location labels are shaded
 - 2) Soil Core was collected at PFAS-DPT0069
 - 3) MW indicates sample from Monitoring Well
 - 4) DPT indicates sample from Direct Push Technology location
 - 5) SB indicates sample from Soil Boring location

FS1 PFAS SAPR
 Revision: 0
 January 2023

SECTION IV DATA EVALUATION

4.1 DATA EVALUATION AND SCREENING PROCESS

In May 2022, the USEPA issued updated RSLs, calculated using a Hazard Quotient (HQ) of 0.1, for PFOA, PFOS, and PFBS, and included RSLs for additional PFAS compounds including PFHxS, PFNA, and HFPO-DA (GenX) (USEPA, 2022). In November 2022, the USEPA RSL tables were updated, but there were no changes to the PFAS screening levels. The USEPA RSLs for Tap Water and Residential Soil were used as project screening levels for this assessment.

The State of Florida developed provisional cleanup target levels for PFAS in various media, as described in the FDEP Dynamic Plan (FDEP, 2022). The published surface water screening levels (SWSLs) for Human Health in freshwater and marine environments for PFOA and PFOS were used as project screening levels for this assessment. Florida currently does not have SWSLs for other PFAS compounds or screening levels for sediment.

Project screening levels for each media sampled during this assessment are presented in the analytical data tables and listed below:

| Chemical | Soil RSL¹ (µg/kg) | Groundwater RSL² (ng/L) | Surface Water SWSL³ (ng/L) |
|-----------------|---|---|--|
| HFPO-DA (GenX) | 23 | 6 | NA |
| PFBS | 1,900 | 600 | NA |
| PFHxS | 130 | 39 | NA |
| PFNA | 19 | 5.9 | NA |
| PFOA | 19 | 6 | 500 |
| PFOS | 13 | 4 | 10 |

(1) USEPA residential soil RSLs based on HQ of 0.1.

(2) USEPA Tap Water RSLs based on HQ of 0.1.

(3) State of Florida screening levels for human health in freshwater and marine environments

NA – Not applicable; no screening criteria

4.2 SOIL

Six soil samples were collected from one location (FS1-SB0001) in December 2021 to evaluate PFAS at FS1. The soil results collected during the SA are summarized in Table 4-1 and presented

on Figure 4-1. The results are organized to present the six compounds with USEPA RSLs at the top of the table for comparison to the applicable screening criteria. The frequencies of detection along with the maximum detected concentrations for all 28 analyzed compounds are presented in Table 4-2. In addition to the PFAS compounds analyzed, TOC was analyzed in all soil samples to further characterize the soil. The laboratory report for all soil data collected in December 2021 is included in Appendix C. The soil results are further discussed and evaluated below.

Six soil samples were collected from one boring location, FS1-SB0001, where a continuous soil core was advanced from 0 to 70 ft bls to evaluate the lithology of the area and determine the best placement for DPT groundwater sample screen intervals. The soil boring location was placed on the east side of the FS1 building, and co-located with a previously collected soil sample from 2021 that had an elevated concentration of PFOS (45.4 µg/kg) in the 0-0.5 ft bls interval, and also with the previous DPT boring completed to 47 ft bls in 2018 with elevated groundwater concentrations (maximum PFOS concentration of 240,000 ng/L at 33-37 ft bls). The grab samples were collected from 1-ft sample intervals at 13-14 ft bls, 19-20 ft bls, 33-34 ft bls, 46-47 ft bls, 52-53 ft bls, and 59-60 ft bls. Out of the six PFAS compounds with applicable screening criteria, PFOS was the only compound that exceeded the RSL. PFOS exceeded the RSL at two sample depths in the saturated zone including 19-20 ft bls and 33-34 ft bls where the concentrations were 29 µg/kg and 110 µg/kg, respectively. As shown in Table 4-2, a total of 13 out of the 28 PFAS compounds analyzed were detected above the method detection limit. All PFAS compounds with screening criteria were detected with exception of HFPO-DA. The results also showed that higher soil PFAS concentrations were found in shallower depths compared to the deeper depths where no detections occurred at 52-53 ft bls and 59-60 ft bls. In review of historical groundwater results from co-located DPT location, PFAS-DPT0069, groundwater exceedances were also identified in similar intervals where soil exceedances were observed in FS1-SB0001.

TOC was analyzed at each of the six soil samples collected at FS1-SB0001. TOC was analyzed to further characterize the soil and to provide evidence of environmental partitioning and adsorption of PFAS compounds on soil organic carbon. The concentration of TOC ranged across all samples from 590 to 7,400 milligrams per kilogram (mg/kg). The highest result was found at

13-14 ft bls where the lithology was recorded to be black, dark brown organic sand from 0-14 ft bls. The second highest result (4,200 mg/kg) was found at 19-20 ft bls where the lithology transitions into a brown sand from 14-20 ft bls. At deeper depths between 33 to 60 ft bls, the TOC concentration ranged from 590 to 1,300 mg/kg. Additionally, the lithologies in the deeper depths were dominantly gray with no evidence of organic staining (black or brown) noted. Overall, TOC results were higher when evidence of organics were noted and lower when they were absent (which is to be expected). Compared to the PFAS concentrations found in soil, the higher TOC found in the shallower intervals loosely correlated with higher PFAS concentrations observed at the same depths. A similar relationship was not observed in the deeper samples. This suggests that PFAS does not generally correlate to TOC though a more robust database may be needed to determine if a correlation occurs. The elevated levels of TOC potentially contribute to higher adsorption of PFAS compounds to the soil and conversely to less potential leaching of PFAS from soil to groundwater.

4.3 GROUNDWATER

There were 48 DPT groundwater samples collected from eight locations (FS1-DPT0001 to FS1-DPT0008) in February 2022. Four field duplicates were also collected during the field event. The DPT results collected as part of this SA are summarized in Table 4-3 and presented on Figure 4-2. The frequencies of detection along with maximum detected concentrations for all 28 analyzed compounds are presented in Table 4-4. The laboratory reports for all groundwater data collected are included in Appendix C. The groundwater results are further discussed and evaluated below.

Of the six compounds with applicable screening criteria, five were detected at concentrations greater than the USEPA RSLs. There were no detections of HFPO-DA (GenX). The location with the highest detected concentrations of the five compounds in excess of screening criteria was FS1-DPT0006, located approximately 400 feet southeast of the FS1 building. As shown in Table 4-4, the maximum detections for the five compounds with screening criteria were from the sample depths of 10-14 and 15-19 ft bls, and the maximum reported concentration of any PFAS was 100,000 ng/L of PFHxS at 15-19 ft bls, greater than the RSL of 39 ng/L. As shown in Table 4-3, all FS1 DPT locations had an exceedance of the RSL except FS1-DPT0005, which is located approximately 600 feet east of the FS1 building. Field duplicates were collected from FS1-

DPT0003 at 15-19 ft bls, FS1-DPT0004 at 10-14 ft bls, FS1-DPT0005 at 33-37 ft bls, and FS1-DPT0007 at 23-27 ft bls. The results included in Table 4-3 show that the duplicates were comparable to the parent samples.

PFAS concentrations generally decreased vertically with sample depth; however, low-level exceedances of PFOS were observed in the 43-47 ft bls interval at FS1-DPT0006 (6.8 ng/L) and FS1-DPT0007 (7.6 ng/L). The higher magnitude exceedances were located at FS1-DPT0006 and FS1-DPT0007, which are approximately 250 feet apart from each other. Both are located south of the FS1 building, which correlates with the southerly direction of groundwater flow at the site. In review of the collective dataset, the historical data generally correlates with the current DPT data with higher-level exceedances located near the FS1 building (e.g., PFAS-DPT0069 and PFAS-DPT0120) and fewer exceedances in locations downgradient of the FS1 building (e.g., PFAS-DPT0122).

There were eight groundwater samples collected during this SA from existing monitoring wells located upgradient in the northern portion of the FS1 Area. The monitoring well results are summarized in Table 4-5 and presented on Figure 4-2. The frequencies of detection along with the maximum detected concentration for all 28 analyzed compounds are presented in Table 4-6. The laboratory reports for all groundwater data collected are included in Appendix C.

In the monitoring well samples, four of the six PFAS with USEPA RSLs were detected, but only PFHxS, PFOA, and PFOS were detected at concentrations greater than RSLs. PFHxS was detected at a concentration of 90 ng/L in well CHP-MW0063, greater than the RSL of 39 ng/L. PFOA was detected in three of the wells at concentrations greater than the RSL of 6 ng/L, with results ranging from 7.8 ng/L in well CHP-MW0029 to 16 ng/L in well CHP-MW0063. PFOS was detected in seven of the eight wells at concentrations greater than the RSL of 4 ng/L, with results ranging from 4.7 ng/L in well CHP-MW0033 to 180 ng/L in well CHP-MW0063. There were no detections of HFPO-DA (GenX).

4.4 SURFACE WATER

One surface water location (FS1-SW0001) was sampled in March 2022 as part of this SA. The results for this location are summarized in Table 4-7 and presented on Figure 4-3. The applicable

SWSLs are represented at the top of table for PFOA and PFOS. Other PFAS compounds do not have screening criteria. The laboratory report for all surface water data is included in Appendix C. The surface water results are further discussed and evaluated below.

Out of the 28 PFAS compounds analyzed, 18 compounds were detected at FS1-SW0001. PFOA and PFOS were detected in exceedance of their applicable SWSLs of 500 ng/L and 10 ng/L, respectively. Both compounds were detected at least an order of magnitude higher than the SWSL with PFOA at 1,200 ng/L and PFOS at 14,000 ng/L. The location of FS1-SW0001 is in the stormwater ditch to the southeast of the FS1 building.

4.5 FIELD QA/QC EVALUATION

The analytical results for the field blanks and equipment blanks collected during the SA are presented in Table 4-8. The analytical results for field duplicates are presented in the analytical results tables with their parent sample results. As shown in Table 4-8, there were no PFAS detected in the equipment blanks or field blanks. The field duplicate/parent pairs were evaluated and determined to be within the acceptable range for relative percent difference criteria.

Table 4-1. Site Assessment Soil Analytical Results

| Location ID (FS1-) Date | CAS No. | Screening Criteria ^{1,2} | SB0001 | | | | | | | |
|--|-------------|--------------------------------------|----------|----------|----------|----------|----------|----------|--|--|
| | | | 12/10/21 | 12/10/21 | 12/10/21 | 12/10/21 | 12/10/21 | 12/10/21 | | |
| | | | 13 - 14 | 19 - 20 | 33 - 34 | 46 - 47 | 52 - 53 | 59 - 60 | | |
| Sample Depth (ft bls) | | | | | | | | | | |
| PFAS with Screening Criteria (µg/kg) | | | | | | | | | | |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) [GenX] ³ | 13252-13-6 | 23 | 1.1 U | 1.2 U | 1.2 U | 1.1 U | 1.1 U | 1 U | | |
| Perfluoro-1-butananesulfonic acid (PFBS) | 375-73-5 | 1900 | 0.22 U | 0.25 U | 0.55 I | 0.31 I | 0.22 U | 0.21 U | | |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | 130 | 0.53 I | 2.2 | 9.4 | 3.2 | 0.22 U | 0.21 U | | |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | 19 | 0.22 U | 0.39 I | 0.24 U | 0.23 U | 0.22 U | 0.21 U | | |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | 19 | 0.28 I | 0.86 I | 1.5 | 0.54 I | 0.22 U | 0.21 U | | |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | 13 | 4.6 V | 29 V | 110 V | 8.4 V | 0.22 U | 0.21 U | | |
| PFAS without Screening Criteria (µg/kg) | | | | | | | | | | |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | -- | 0.55 U | 0.62 U | 0.61 U | 0.57 U | 0.55 U | 0.51 U | | |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | -- | 0.6 U | 1.5 I | 4.6 | 0.55 U | 0.6 U | 0.55 U | | |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | -- | 2.6 | 4.4 | 2.2 I | 0.57 U | 0.55 U | 0.51 U | | |
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CL-PF3ONS) | 756426-58-1 | -- | 0.55 U | 0.62 U | 0.61 U | 0.57 U | 0.55 U | 0.51 U | | |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CL-PF3OUDS) | 763051-92-9 | -- | 0.55 U | 0.62 U | 0.61 U | 0.57 U | 0.55 U | 0.51 U | | |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | -- | 0.55 U | 0.62 U | 0.61 U | 0.57 U | 0.55 U | 0.51 U | | |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | -- | 0.55 U | 0.62 U | 0.61 U | 0.57 U | 0.55 U | 0.51 U | | |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | -- | 0.55 U | 0.62 U | 0.61 U | 0.57 U | 0.55 U | 0.51 U | | |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | -- | 0.55 U | 0.62 U | 0.61 U | 0.57 U | 0.55 U | 0.51 U | | |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | -- | 0.22 U | 0.25 U | 0.34 I | 0.23 U | 0.22 U | 0.21 U | | |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | -- | 0.22 U | 0.25 U | 0.24 U | 0.23 U | 0.22 U | 0.21 U | | |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | -- | 0.22 U | 0.25 U | 0.24 U | 0.23 U | 0.22 U | 0.21 U | | |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | -- | 0.22 U | 0.25 U | 0.24 U | 0.23 U | 0.22 U | 0.21 U | | |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | -- | 0.22 U | 0.25 U | 0.91 I | 0.29 I | 0.22 U | 0.21 U | | |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | -- | 0.37 I | 0.45 I | 0.48 I | 0.23 U | 0.22 U | 0.21 U | | |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | -- | 0.58 I | 0.61 I | 2.1 | 0.64 I | 0.22 U | 0.21 U | | |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | -- | 0.22 U | 0.25 U | 0.24 U | 0.23 U | 0.22 U | 0.21 U | | |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | -- | 0.22 U | 0.25 U | 0.64 I | 0.33 I | 0.22 U | 0.21 U | | |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | -- | 0.57 I | 0.64 I | 1.2 | 0.32 I | 0.22 U | 0.21 U | | |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | -- | 0.22 U | 0.25 U | 0.24 U | 0.23 U | 0.22 U | 0.21 U | | |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | -- | 0.22 U | 0.25 U | 0.24 U | 0.23 U | 0.22 U | 0.21 U | | |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | -- | 0.22 U | 0.25 U | 0.24 U | 0.23 U | 0.22 U | 0.21 U | | |
| Other Parameters (mg/kg) | | | | | | | | | | |
| Total Organic Carbon | -- | -- | 7,400 | 4,200 | 1,200 | 590 | 1,300 | 1,300 | | |

1 The USEPA Regional Screening Levels (RSLs) for HFPO-DA, PFBS, PFHxS, PFNA, PFOA, and PFOS are presented in this table.

2 The Soil RSL is cited from the USEPA Regional Screening Levels and calculated with the EPA RSL Calculator based on a hazard quotient of 0.1 (USEPA, 2022)

3 HFPO-DA is commonly referred to as GenX

-- = No applicable screening criteria

Bolding indicates analyte was detected

Shading indicates exceedance of screening criteria

FS1 = Fire Station #1

EPA = United States Environmental Protection Agency

ft bls = feet below land surface

PFAS = per- and polyfluoroalkyl substances

I = Estimated result < Limit of Quantitation and ≥ Detection Limit

U = Analyte was not detected

V = Detected in the method blank

Note: A data quality review was performed by Tetra Tech's data manager and the results provided in this table were found to have been generated in conformance with good analytical practices. Some minor nonconformance issues were noted in the quality control elements associated with project samples, and the appropriate data qualification was applied to the affected results as needed. Additional details on data quality are included in the analytical reports provided in the Appendices.

Table 4-2. Site Assessment Soil Frequencies of Detection

| Parameter | CAS No. | Screening Criteria ^{1,2} | Method DoD QSM 5.3 | | | | | | |
|--|-------------|-----------------------------------|-----------------------------|-------------------|-------------------------------|-------------------------------|-------------------------------------|---|-------------------------------|
| | | | No. of Samples ³ | No. of Detections | Minimum Concentration (µg/kg) | Maximum Concentration (µg/kg) | Location with Maximum Concentration | Average Concentration (Detections Only) | No. Samples > Screening Level |
| PFAS with Screening Criteria (µg/kg) | | | | | | | | | |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) [GenX] ⁴ | 13252-13-6 | 23 | 6 | 0 | NA | NA | NA | NA | NA |
| Perfluoro-1-butananesulfonic acid (PFBS) | 375-73-5 | 1900 | 6 | 2 | 0.31 | 0.6 | FS1-SB0001-033.5-20211210 | 0.4 | 0 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | 130 | 6 | 4 | 0.53 | 9.4 | FS1-SB0001-033.5-20211210 | 4 | 0 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | 19 | 6 | 1 | 0.39 | 0.39 | FS1-SB0001-019.5-20211210 | 0 | 0 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | 19 | 6 | 4 | 0.28 | 1.5 | FS1-SB0001-033.5-20211210 | 1 | 0 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | 13 | 6 | 4 | 4.6 | 110 | FS1-SB0001-033.5-20211210 | 38 | 2 |
| PFAS without Screening Criteria (µg/kg) | | | | | | | | | |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | -- | 6 | 0 | NA | NA | NA | NA | NA |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | -- | 6 | 2 | 1.5 | 4.6 | FS1-SB0001-033.5-20211210 | 3 | NA |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | -- | 6 | 3 | 2.2 | 4.4 | FS1-SB0001-019.5-20211210 | 3.1 | NA |
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CL-PF3ONS) | 756426-58-1 | -- | 6 | 0 | NA | NA | NA | NA | NA |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CL-PF3OUDS) | 763051-92-9 | -- | 6 | 0 | NA | NA | NA | NA | NA |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | -- | 6 | 0 | NA | NA | NA | NA | NA |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | -- | 6 | 0 | NA | NA | NA | NA | NA |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | -- | 6 | 0 | NA | NA | NA | NA | NA |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | -- | 6 | 0 | NA | NA | NA | NA | NA |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | -- | 6 | 1 | 0.34 | 0.34 | FS1-SB0001-033.5-20211210 | 0.3 | NA |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | -- | 6 | 0 | NA | NA | NA | NA | NA |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | -- | 6 | 0 | NA | NA | NA | NA | NA |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | -- | 6 | 0 | NA | NA | NA | NA | NA |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | -- | 6 | 2 | 0.29 | 0.91 | FS1-SB0001-033.5-20211210 | 0.6 | NA |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | -- | 6 | 3 | 0.37 | 0.48 | FS1-SB0001-033.5-20211210 | 0.4 | NA |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | -- | 6 | 4 | 0.58 | 2.1 | FS1-SB0001-033.5-20211210 | 1 | NA |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | -- | 6 | 0 | NA | NA | NA | NA | NA |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | -- | 6 | 2 | 0.33 | 0.64 | FS1-SB0001-033.5-20211210 | 0.5 | NA |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | -- | 6 | 4 | 0.32 | 1.2 | FS1-SB0001-033.5-20211210 | 0.6825 | NA |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | -- | 6 | 0 | NA | NA | NA | NA | NA |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | -- | 6 | 0 | NA | NA | NA | NA | NA |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | -- | 6 | 0 | NA | NA | NA | NA | NA |

All results reported in microgram per kilogram (µg/kg)

1 The USEPA Regional Screening Levels (RSLs) for HFPO-DA, PFBS, PFHxS, PFNA, PFOA, and PFOS are presented in this table.

2 The Soil RSL is cited from the USEPA Regional Screening Levels and calculated with the EPA RSL Calculator based on a hazard quotient of 0.1 (USEPA, 2022)

3 Only samples collected for FS1 on and after December 2021 are represented in this table. QA/QC samples are not included in the dataset.

4 HFPO-DA is commonly referred to as GenX

-- = No applicable screening criteria

FS1 = Fire Station #1

USEPA = United States Environmental Protection Agency

NA = Not Applicable; not detected or no available screening criteria

PFAS = per- and polyfluoroalkyl substances

Table 4-3. Site Assessment DPT Analytical Results

| Location ID (FS1-) Date Sample Depth (ft bls) | CAS No. | Screening Criteria ^{1,2} | DPT0001 | | | | | | DPT0002 | | | | | |
|--|-------------|--------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | | | 2/14/22 | 2/14/22 | 2/14/22 | 2/14/22 | 2/14/22 | 2/14/22 | 2/14/22 | 2/14/22 | 2/14/22 | 2/14/22 | 2/14/22 | 2/14/22 |
| | | | 3 - 7 | 10 - 14 | 15 - 19 | 23 - 27 | 33 - 37 | 43 - 47 | 4 - 8 | 10 - 14 | 15 - 19 | 23 - 27 | 33 - 37 | 43 - 47 |
| PFAS with Screening Criteria (ng/L) | | | | | | | | | | | | | | |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) [GenX] ³ | 13252-13-6 | 6 | 1.8 U | 1.8 U | 1.8 U | 1.9 U | 1.8 U | 1.8 U | 1.9 U | 1.9 U | 1.7 U | 1.8 U | 1.9 U | 1.9 U |
| Perfluoro-1-butanedisulfonic acid (PFBS) | 375-73-5 | 600 | 0.88 U | 1.9 I | 2.8 I | 5.7 | 3.3 I | 0.98 I | 220 | 19 | 1.9 I | 4.3 | 0.94 U | 1.7 I |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | 39 | 2.8 I | 16 | 21 | 41 | 24 | 8.9 | 82 | 5.7 | 4.1 | 4.1 | 0.94 U | 3.8 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | 5.9 | 0.88 U | 0.9 U | 0.89 U | 0.93 U | 0.9 U | 0.89 U | 0.94 U | 0.95 U | 0.87 U | 0.91 U | 0.94 U | 0.95 U |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | 6 | 2.9 I | 21 | 28 | 5 | 12 | 4.4 | 7.2 | 2.1 I | 2 I | 0.91 U | 0.94 U | 0.95 U |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | 4 | 13 | 9.6 | 0.89 U | 0.93 U | 10 | 0.89 U | 2.2 I | 0.95 U | 0.87 U | 0.91 U | 0.94 U | 0.95 U |
| PFAS without Screening Criteria (ng/L) | | | | | | | | | | | | | | |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | -- | 1.8 U | 1.8 U | 1.8 U | 1.9 U | 1.8 U | 1.8 U | 1.9 U | 1.9 U | 1.7 U | 1.8 U | 1.9 U | 1.9 U |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | -- | 1.8 U | 1.8 U | 1.8 U | 1.9 U | 14 | 1.8 U | 1.9 U | 1.9 U | 1.7 U | 1.8 U | 1.9 U | 1.9 U |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | -- | 1.8 U | 1.8 U | 1.8 U | 1.9 U | 1.8 U | 1.8 U | 1.9 U | 1.9 U | 1.7 U | 1.8 U | 1.9 U | 1.9 U |
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CL-PF3ONS) | 756426-58-1 | -- | 1.8 U | 1.8 U | 1.8 U | 1.9 U | 1.8 U | 1.8 U | 1.9 U | 1.9 U | 1.7 U | 1.8 U | 1.9 U | 1.9 U |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CL-PF3OUDS) | 763051-92-9 | -- | 1.8 U | 1.8 U | 1.8 U | 1.9 U | 1.8 U | 1.8 U | 1.9 U | 1.9 U | 1.7 U | 1.8 U | 1.9 U | 1.9 U |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | -- | 1.8 U | 1.8 U | 1.8 U | 1.9 U | 1.8 U | 1.8 U | 1.9 U | 1.9 U | 1.7 U | 1.8 U | 1.9 U | 1.9 U |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | -- | 1.8 U | 1.8 U | 1.8 U | 1.9 U | 1.8 U | 1.8 U | 1.9 U | 1.9 U | 1.7 U | 1.8 U | 1.9 U | 1.9 U |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | -- | 1.8 U | 1.8 U | 1.8 U | 1.9 U | 1.8 U | 1.8 U | 1.9 U | 1.9 U | 1.7 U | 1.8 U | 1.9 U | 1.9 U |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | -- | 1.8 U | 1.8 U | 1.8 U | 1.9 U | 1.8 U | 1.8 U | 1.9 U | 1.9 U | 1.7 U | 1.8 U | 1.9 U | 1.9 U |
| Perfluoro-n-butanedisulfonic acid (PFBS) | 375-73-5 | -- | 5 | 9.8 | 9.1 | 3.7 | 11 | 4.1 | 200 | 43 | 2.9 I | 0.91 U | 0.94 U | 2.6 I |
| Perfluoro-1-decanedisulfonic acid (PFDS) | 335-77-3 | -- | 0.88 U | 0.9 U | 0.89 U | 0.93 U | 0.9 U | 0.89 U | 0.94 U | 0.95 U | 0.87 U | 0.91 U | 0.94 U | 0.95 U |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | -- | 0.88 U | 0.9 U | 0.89 U | 0.93 U | 0.9 U | 0.89 U | 0.94 U | 0.95 U | 0.87 U | 0.91 U | 0.94 U | 0.95 U |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | -- | 0.88 U | 0.9 U | 0.89 U | 0.93 U | 0.9 U | 0.89 U | 0.94 U | 0.95 U | 0.87 U | 0.91 U | 0.94 U | 0.95 U |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | -- | 0.88 U | 3 I | 1.3 I | 0.93 U | 1.1 I | 0.89 U | 0.94 U | 0.95 U | 0.87 U | 0.91 U | 0.94 U | 0.95 U |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | -- | 0.88 U | 3.5 I | 5.3 | 4.5 | 5.1 | 2.6 I | 7.4 | 1.5 I | 1 I | 1.9 I | 0.94 U | 0.95 U |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | -- | 1.4 I | 3.8 | 5.5 | 7.7 | 9.9 | 4.8 | 61 | 6.8 | 1.4 I | 3.4 I | 0.94 U | 0.95 U |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | -- | 0.88 U | 0.9 U | 0.89 U | 0.93 U | 0.9 U | 0.89 U | 0.94 U | 0.95 U | 0.87 U | 0.91 U | 0.94 U | 0.95 U |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | -- | 0.88 U | 1.8 I | 1.8 I | 6.6 | 3 I | 1.8 I | 110 | 4.4 | 2.1 I | 4.5 | 0.94 U | 1.4 I |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | -- | 0.88 U | 4.4 | 5.9 | 6.6 | 11 | 5.2 | 150 | 16 | 1.5 I | 0.91 U | 0.94 U | 1.3 I |
| Perfluoro-n-tetradecanoic acid (PFTrDA) | 376-06-7 | -- | 0.88 U | 0.9 U | 0.89 U | 0.93 U | 0.9 U | 0.89 U | 0.94 U | 0.95 U | 0.87 U | 0.91 U | 0.94 U | 0.95 U |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | -- | 0.88 U | 0.9 U | 0.89 U | 0.93 U | 0.9 U | 0.89 U | 0.94 U | 0.95 U | 0.87 U | 0.91 U | 0.94 U | 0.95 U |
| Perfluoro-n-undecanoic acid (PFUDA) | 2058-94-8 | -- | 0.88 U | 0.9 U | 0.89 U | 0.93 U | 0.9 U | 0.89 U | 0.94 U | 0.95 U | 0.87 U | 0.91 U | 0.94 U | 0.95 U |

Table 4-3. Site Assessment DPT Analytical Results (Continued)

| Location ID (FSI-) | Date | CAS No. | Screening Criteria ^{1,2} | DPT0003 | | | | | | DPT0004 | | | | | | | | |
|--|------|-------------|-----------------------------------|---------|---------|---------|----------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|-------|
| | | | | 2/15/22 | 2/15/22 | 2/15/22 | 2/15/22 | 2/15/22 | 2/15/22 | 2/15/22 | 2/15/22 | 2/15/22 | 2/15/22 | 2/15/22 | 2/15/22 | | | |
| | | | | 3 - 7 | 10 - 14 | 15 - 19 | 15 - 19* | 23 - 27 | 33 - 37 | 43 - 47 | 3 - 7 | 10 - 14 | 10 - 14* | 15 - 17 | 23 - 27 | 33 - 37 | 43 - 47 | |
| PFAS with Screening Criteria (ng/L) | | | | | | | | | | | | | | | | | | |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) [GenX] ³ | | 13252-13-6 | 6 | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 20 U | 20 U | 20 U | 1.8 U | 1.8 U | 1.8 U | 1.9 U |
| Perfluoro-1-butanedisulfonic acid (PFBS) | | 375-73-5 | 600 | 0.88 U | 0.92 U | 0.92 U | 1.3 I | 1.4 I | 0.91 U | 10 U | 10 U | 10 U | 2.3 I | 6.8 | 7.4 | 0.93 U | | |
| Perfluorohexanesulfonic acid (PFHxS) | | 355-46-4 | 39 | 3.6 | 7.9 | 3.1 I | 3.3 I | 5 | 4.8 | 0.91 U | 17 I | 28 I | 28 I | 24 | 34 | 34 | 2.7 I | |
| Perfluoro-n-nonanoic acid (PFNA) | | 375-95-1 | 5.9 | 0.88 U | 0.92 U | 0.92 U | 0.92 U | 0.91 U | 0.92 U | 0.91 U | 10 U | 10 U | 10 U | 0.88 U | 0.9 U | 0.92 U | 0.93 U | |
| Perfluoro-n-octanoic acid (PFOA) | | 335-67-1 | 6 | 0.88 U | 0.92 U | 0.92 U | 0.99 I | 2.1 I | 1.1 I | 0.91 U | 10 U | 10 U | 10 U | 20 | 5.1 | 6.4 | 0.93 U | |
| Perfluorooctanesulfonic acid (PFOS) | | 1763-23-1 | 4 | 4.4 | 2.9 I | 5.3 | 4.8 | 1.9 I | 5 | 0.91 U | 28 I | 10 U | 10 U | 2.2 I | 0.9 U | 0.92 U | 0.93 U | |
| PFAS without Screening Criteria (ng/L) | | | | | | | | | | | | | | | | | | |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | | 757124-72-4 | -- | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 20 U | 20 U | 20 U | 1.8 U | 1.8 U | 1.8 U | 1.9 U |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | | 27619-97-2 | -- | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 20 U | 20 U | 20 U | 3.7 I | 1.8 U | 1.8 U | 1.9 U |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | | 39108-34-4 | -- | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 20 U | 20 U | 20 U | 1.8 U | 1.8 U | 1.8 U | 1.9 U |
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CL-PF3ONS) | | 756426-58-1 | -- | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 20 U | 20 U | 20 U | 1.8 U | 1.8 U | 1.8 U | 1.9 U |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CL-PF3OUDS) | | 763051-92-9 | -- | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 20 U | 20 U | 20 U | 1.8 U | 1.8 U | 1.8 U | 1.9 U |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | | 919005-14-4 | -- | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 20 U | 20 U | 20 U | 1.8 U | 1.8 U | 1.8 U | 1.9 U |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | | 4151-50-2 | -- | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 20 U | 20 U | 20 U | 1.8 U | 1.8 U | 1.8 U | 1.9 U |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | | 2991-50-6 | -- | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 20 U | 20 U | 20 U | 1.8 U | 1.8 U | 1.8 U | 1.9 U |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | | 2355-31-9 | -- | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 20 U | 20 U | 20 U | 1.8 U | 1.8 U | 1.8 U | 1.9 U |
| Perfluoro-n-butanoic acid (PFBA) | | 375-22-4 | -- | 7.4 | 8.6 | 15 | 15 | 21 | 51 | 0.91 U | 10 U | 11 I | 10 I | 10 | 6.4 | 7.5 | 0.99 I | |
| Perfluoro-1-decanedisulfonic acid (PFDS) | | 335-77-3 | -- | 0.88 U | 0.92 U | 0.92 U | 0.92 U | 0.91 U | 0.92 U | 0.91 U | 10 U | 10 U | 10 U | 0.88 U | 0.9 U | 0.92 U | 0.93 U | |
| Perfluoro-n-decanoic acid (PFDA) | | 335-76-2 | -- | 0.88 U | 0.92 U | 0.92 U | 0.92 U | 0.91 U | 0.92 U | 0.91 U | 10 U | 10 U | 10 U | 0.88 U | 0.9 U | 0.92 U | 0.93 U | |
| Perfluoro-n-dodecanoic acid (PFDoA) | | 307-55-1 | -- | 0.88 U | 0.92 U | 0.92 U | 0.92 U | 0.91 U | 0.92 U | 0.91 U | 10 U | 10 U | 10 U | 0.88 U | 0.9 U | 0.92 U | 0.93 U | |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | | 375-92-8 | -- | 0.88 U | 0.92 U | 0.92 U | 0.92 U | 0.91 U | 0.92 U | 0.91 U | 10 U | 10 U | 10 U | 0.88 U | 0.9 U | 0.92 U | 0.93 U | |
| Perfluoro-n-heptanoic acid (PFHpA) | | 375-85-9 | -- | 0.88 U | 0.92 U | 0.92 U | 0.92 U | 0.91 U | 1.1 I | 0.91 U | 10 U | 10 U | 10 U | 6.4 | 5.8 | 6.5 | 0.93 U | |
| Perfluoro-n-hexanoic acid (PFHxA) | | 307-24-4 | -- | 0.88 U | 0.92 U | 0.98 I | 0.92 U | 0.91 U | 2.7 I | 0.91 U | 10 U | 13 I | 11 I | 6.6 | 11 | 12 | 1.3 I | |
| Perfluoro-1-nonanesulfonic acid (PFNS) | | 68259-12-1 | -- | 0.88 U | 0.92 U | 0.92 U | 0.92 U | 0.91 U | 0.92 U | 0.91 U | 10 U | 10 U | 10 U | 0.88 U | 0.9 U | 0.92 U | 0.93 U | |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | | 2706-91-4 | -- | 0.88 U | 0.92 U | 0.92 U | 0.92 U | 0.91 U | 0.92 U | 0.91 U | 10 U | 10 U | 10 U | 2 I | 6.1 | 6.1 | 0.93 U | |
| Perfluoro-n-pentanoic acid (PFPeA) | | 2706-90-3 | -- | 0.88 U | 0.92 U | 1.1 I | 1.2 I | 1.3 I | 3.3 I | 0.91 U | 10 U | 15 I | 13 I | 7.2 | 10 | 11 | 0.93 U | |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | | 376-06-7 | -- | 0.88 U | 0.92 U | 0.92 U | 0.92 U | 0.91 U | 0.92 U | 0.91 U | 10 U | 10 U | 10 U | 0.88 U | 0.9 U | 0.92 U | 0.93 U | |
| Perfluoro-n-tridecanoic acid (PFTrDA) | | 72629-94-8 | -- | 0.88 U | 0.92 U | 0.92 U | 0.92 U | 0.91 U | 0.92 U | 0.91 U | 10 U | 10 U | 10 U | 0.88 U | 0.9 U | 0.92 U | 0.93 U | |
| Perfluoro-n-undecanoic acid (PFUdA) | | 2058-94-8 | -- | 0.88 U | 0.92 U | 0.92 U | 0.92 U | 0.91 U | 0.92 U | 0.91 U | 10 U | 10 U | 10 U | 0.88 U | 0.9 U | 0.92 U | 0.93 U | |

Table 4-3. Site Assessment DPT Analytical Results (Continued)

| Location ID (FS1-) | Date | CAS No. | Screening Criteria ^{1,2} | DPT0005 | | | | | | DPT0006 | | | | | | |
|--|------|-------------|-----------------------------------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|---------|---------|
| | | | | 2/15/22 | 2/15/22 | 2/15/22 | 2/15/22 | 2/15/22 | 2/15/22 | 2/16/22 | 2/16/22 | 2/16/22 | 2/16/22 | 2/16/22 | 2/16/22 | |
| | | | | 3 - 7 | 10 - 14 | 15 - 19 | 23 - 27 | 33 - 37 | 33 - 37* | 43 - 47 | 3 - 7 | 10 - 14 | 15 - 19 | 23 - 27 | 33 - 37 | 43 - 47 |
| PFAS with Screening Criteria (ng/L) | | | | | | | | | | | | | | | | |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) [GenX] ³ | | 13252-13-6 | 6 | 20 U | 20 U | 20 U | 1.8 U | 1.7 U | 1.8 U | 1.8 U | 3.4 U | 1.8 U | 1.8 U | 1.7 U | 18 U | 1.8 U |
| Perfluoro-1-butananesulfonic acid (PFBS) | | 375-73-5 | 600 | 10 U | 10 U | 10 U | 1.9 I | 0.87 U | 0.89 U | 0.92 U | 5.8 I | 2700 | 7000 | 2100 | 550 | 0.9 U |
| Perfluorohexanesulfonic acid (PFHxS) | | 355-46-4 | 39 | 10 U | 10 U | 10 U | 12 | 0.87 U | 0.89 U | 0.92 U | 360 | 27000 | 100000 | 18000 | 3800 | 3.9 |
| Perfluoro-n-nonanoic acid (PFNA) | | 375-95-1 | 5.9 | 10 U | 10 U | 10 U | 0.9 U | 0.87 U | 0.89 U | 0.92 U | 110 | 490 | 96 | 0.87 U | 9.1 U | 0.9 U |
| Perfluoro-n-octanoic acid (PFOA) | | 335-67-1 | 6 | 10 U | 10 U | 10 U | 5.9 | 0.87 U | 0.89 U | 0.92 U | 110 | 6200 | 12000 | 830 | 690 | 0.9 U |
| Perfluorooctanesulfonic acid (PFOS) | | 1763-23-1 | 4 | 10 U | 10 U | 10 U | 0.9 U | 0.87 U | 0.89 U | 0.92 U | 1800 | 27000 | 25000 | 49 | 99 | 6.8 |
| PFAS without Screening Criteria (ng/L) | | | | | | | | | | | | | | | | |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | | 757124-72-4 | -- | 20 U | 20 U | 20 U | 1.8 U | 1.7 U | 1.8 U | 1.8 U | 3.4 U | 88 | 3800 | 3100 | 18 U | 1.8 U |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | | 27619-97-2 | -- | 20 U | 20 U | 20 U | 1.8 U | 1.7 U | 1.8 U | 1.8 U | 6.2 I | 20000 | 95000 | 22000 | 160 | 2.6 I |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | | 39108-34-4 | -- | 20 U | 20 U | 20 U | 1.8 U | 1.7 U | 1.8 U | 1.8 U | 3.4 U | 1.8 U | 1.8 U | 1.7 U | 18 U | 1.8 U |
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CL-PF3ONS) | | 756426-58-1 | -- | 20 U | 20 U | 20 U | 1.8 U | 1.7 U | 1.8 U | 1.8 U | 3.4 U | 1.8 U | 1.8 U | 1.7 U | 18 U | 1.8 U |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CL-PF3OUDS) | | 763051-92-9 | -- | 20 U | 20 U | 20 U | 1.8 U | 1.7 U | 1.8 U | 1.8 U | 3.4 U | 1.8 U | 1.8 U | 1.7 U | 18 U | 1.8 U |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | | 919005-14-4 | -- | 20 U | 20 U | 20 U | 1.8 U | 1.7 U | 1.8 U | 1.8 U | 3.4 U | 1.8 U | 1.8 U | 1.7 U | 18 U | 1.8 U |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | | 4151-50-2 | -- | 20 U | 20 U | 20 U | 1.8 U | 1.7 U | 1.8 U | 1.8 U | 3.4 U | 1.8 U | 1.8 U | 1.7 U | 18 U | 1.8 U |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | | 2991-50-6 | -- | 20 U | 20 U | 20 U | 1.8 U | 1.7 U | 1.8 U | 1.8 U | 3.4 U | 1.8 U | 1.8 U | 1.7 U | 18 U | 1.8 U |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | | 2355-31-9 | -- | 20 U | 20 U | 20 U | 1.8 U | 1.7 U | 1.8 U | 1.8 U | 3.4 U | 1.8 U | 1.8 U | 1.7 U | 18 U | 1.8 U |
| Perfluoro-n-butanoic acid (PFBA) | | 375-22-4 | -- | 10 I | 10 U | 10 U | 11 | 0.87 U | 0.89 U | 0.92 U | 76 | 1000 | 4200 | 2300 | 110 | 0.9 U |
| Perfluoro-1-decanesulfonic acid (PFDS) | | 335-77-3 | -- | 10 U | 10 U | 10 U | 0.9 U | 0.87 U | 0.89 U | 0.92 U | 1.7 U | 0.9 U | 0.9 U | 0.87 U | 9.1 U | 0.9 U |
| Perfluoro-n-decanoic acid (PFDA) | | 335-76-2 | -- | 10 U | 10 U | 10 U | 0.9 U | 0.87 U | 0.89 U | 0.92 U | 6.2 I | 0.9 U | 0.9 U | 0.87 U | 9.1 U | 0.9 U |
| Perfluoro-n-dodecanoic acid (PFDoA) | | 307-55-1 | -- | 10 U | 10 U | 10 U | 0.9 U | 0.87 U | 0.89 U | 0.92 U | 1.7 U | 0.9 U | 0.9 U | 0.87 U | 9.1 U | 0.9 U |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | | 375-92-8 | -- | 10 U | 10 U | 10 U | 0.9 U | 0.87 U | 0.89 U | 0.92 U | 31 | 4400 | 2000 | 42 | 28 I | 0.9 U |
| Perfluoro-n-heptanoic acid (PFHpA) | | 375-85-9 | -- | 10 U | 10 U | 10 U | 10 | 0.87 U | 0.89 U | 0.92 U | 110 | 1700 | 10000 | 2300 | 180 | 0.9 U |
| Perfluoro-n-hexanoic acid (PFHxA) | | 307-24-4 | -- | 10 U | 10 U | 10 U | 21 | 0.87 U | 0.89 U | 0.92 U | 110 | 4100 | 21000 | 9300 | 810 | 0.9 U |
| Perfluoro-1-nonanesulfonic acid (PFNS) | | 68259-12-1 | -- | 10 U | 10 U | 10 U | 0.9 U | 0.87 U | 0.89 U | 0.92 U | 1.8 I | 0.9 U | 0.9 U | 0.87 U | 9.1 U | 0.9 U |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | | 2706-91-4 | -- | 10 U | 10 U | 10 U | 2.2 I | 0.87 U | 0.89 U | 0.92 U | 11 | 3300 | 9000 | 2400 | 490 | 0.9 U |
| Perfluoro-n-pentanoic acid (PFPeA) | | 2706-90-3 | -- | 10 U | 10 U | 10 U | 32 | 0.87 U | 0.89 U | 0.92 U | 130 | 3100 | 15000 | 9100 | 230 | 0.9 U |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | | 376-06-7 | -- | 10 U | 10 U | 10 U | 0.9 U | 0.87 U | 0.89 U | 0.92 U | 1.7 U | 0.9 U | 0.9 U | 0.87 U | 9.1 U | 0.9 U |
| Perfluoro-n-tridecanoic acid (PFTrDA) | | 72629-94-8 | -- | 10 U | 10 U | 10 U | 0.9 U | 0.87 U | 0.89 U | 0.92 U | 1.7 U | 0.9 U | 0.9 U | 0.87 U | 9.1 U | 0.9 U |
| Perfluoro-n-undecanoic acid (PFUdA) | | 2058-94-8 | -- | 10 U | 10 U | 10 U | 0.9 U | 0.87 U | 0.89 U | 0.92 U | 1.7 U | 0.9 U | 0.9 U | 0.87 U | 9.1 U | 0.9 U |

Table 4-3. Site Assessment DPT Analytical Results (Continued)

| Location ID (FS1-) | Date | CAS No. | Screening Criteria ^{1,2} | DPT0007 | | | | | | DPT0008 | | | | | | |
|--|------|-------------|-----------------------------------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|---------|---------|---------|
| | | | | 2/16/22 | 2/16/22 | 2/16/22 | 2/16/22 | 2/16/22 | 2/16/22 | 2/16/22 | 2/16/22 | 2/16/22 | 2/16/22 | 2/17/22 | 2/17/22 | |
| | | | | 3 - 7 | 10 - 14 | 15 - 19 | 23 - 27 | 23 - 27* | 33 - 37 | 43 - 47 | 3 - 7 | 10 - 14 | 15 - 19 | 23 - 27 | 33 - 37 | 43 - 47 |
| PFAS with Screening Criteria (ng/L) | | | | | | | | | | | | | | | | |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) [GenX] ³ | | 13252-13-6 | 6 | 20 U | 20 U | 20 U | 1.7 U | 2.1 U | 1.8 U | 1.8 U | 20 U | 20 U | 20 U | 1.9 U | 1.8 U | 1.7 U |
| Perfluoro-1-butanedisulfonic acid (PFBS) | | 375-73-5 | 600 | 10 U | 14 I | 19 I | 76 | 86 | 4300 | 2.4 I | 10 U | 10 U | 10 U | 19 | 5.2 | 0.87 U |
| Perfluorohexanesulfonic acid (PFHxS) | | 355-46-4 | 39 | 48 | 79 | 100 | 29 | 36 | 15000 | 12 | 13 I | 13 I | 57 | 490 | 8.8 | 0.87 U |
| Perfluoro-n-nonanoic acid (PFNA) | | 375-95-1 | 5.9 | 10 U | 10 U | 10 U | 0.86 U | 1 U | 0.91 U | 0.89 U | 10 U | 10 U | 10 U | 0.93 U | 0.9 U | 0.87 U |
| Perfluoro-n-octanoic acid (PFOA) | | 335-67-1 | 6 | 10 U | 10 U | 10 U | 0.86 U | 1 U | 510 | 28 | 10 U | 10 U | 10 U | 130 | 2.6 I | 0.87 U |
| Perfluorooctanesulfonic acid (PFOS) | | 1763-23-1 | 4 | 47 | 10 U | 10 U | 1.5 I | 1 U | 94 | 7.6 | 10 U | 18 I | 10 U | 1.2 I | 0.9 U | 0.87 U |
| PFAS without Screening Criteria (ng/L) | | | | | | | | | | | | | | | | |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | | 757124-72-4 | -- | 20 U | 20 U | 20 U | 1.7 U | 2.1 U | 530 I | 1.8 U | 20 U | 20 U | 20 U | 1.9 U | 1.8 U | 1.7 U |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | | 27619-97-2 | -- | 20 U | 20 U | 20 U | 1.7 U | 1.8 U | 7500 | 1.9 I | 20 U | 20 U | 20 U | 10 | 1.8 U | 1.7 U |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | | 39108-34-4 | -- | 20 U | 20 U | 20 U | 1.7 U | 2.1 U | 1.8 U | 1.8 U | 20 U | 20 U | 20 U | 1.9 U | 1.8 U | 1.7 U |
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CL-PF3ONS) | | 756426-58-1 | -- | 20 U | 20 U | 20 U | 1.7 U | 2.1 U | 1.8 U | 1.8 U | 20 U | 20 U | 20 U | 1.9 U | 1.8 U | 1.7 U |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CL-PF3OUDS) | | 763051-92-9 | -- | 20 U | 20 U | 20 U | 1.7 U | 2.1 U | 1.8 U | 1.8 U | 20 U | 20 U | 20 U | 1.9 U | 1.8 U | 1.7 U |
| 4,8-dioxo-3H-perfluorononanoic acid (ADONA) | | 919005-14-4 | -- | 20 U | 20 U | 20 U | 1.7 U | 2.1 U | 1.8 U | 1.8 U | 20 U | 20 U | 20 U | 1.9 U | 1.8 U | 1.7 U |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | | 4151-50-2 | -- | 20 U | 20 U | 20 U | 1.7 U | 2.1 U | 1.8 U | 1.8 U | 20 U | 20 U | 20 U | 1.9 U | 1.8 U | 1.7 U |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | | 2991-50-6 | -- | 20 U | 20 U | 20 U | 1.7 U | 2.1 U | 1.8 U | 1.8 U | 20 U | 20 U | 20 U | 1.9 U | 1.8 U | 1.7 U |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | | 2355-31-9 | -- | 20 U | 20 U | 20 U | 1.7 U | 2.1 U | 1.8 U | 1.8 U | 20 U | 20 U | 20 U | 1.9 U | 1.8 U | 1.7 U |
| Perfluoro-n-butanoic acid (PFBA) | | 375-22-4 | -- | 10 U | 10 U | 10 U | 4.1 | 3.8 I | 830 | 1.1 I | 17 I | 10 U | 11 I | 11 | 1.8 I | 0.87 U |
| Perfluoro-1-decanesulfonic acid (PFDS) | | 335-77-3 | -- | 10 U | 10 U | 10 U | 0.86 U | 1 U | 0.91 U | 0.89 U | 10 U | 10 U | 10 U | 0.93 U | 0.9 U | 0.87 U |
| Perfluoro-n-decanoic acid (PFDA) | | 335-76-2 | -- | 10 U | 10 U | 10 U | 0.86 U | 1 U | 0.91 U | 0.89 U | 10 U | 10 U | 10 U | 0.93 U | 0.9 U | 0.87 U |
| Perfluoro-n-dodecanoic acid (PFDoA) | | 307-55-1 | -- | 10 U | 10 U | 10 U | 0.86 U | 1 U | 0.91 U | 0.89 U | 10 U | 10 U | 10 U | 0.93 U | 0.9 U | 0.87 U |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | | 375-92-8 | -- | 10 U | 10 U | 10 U | 0.86 U | 1 U | 240 | 0.89 I | 10 U | 10 U | 10 U | 1.5 I | 0.9 U | 0.87 U |
| Perfluoro-n-heptanoic acid (PFHpA) | | 375-85-9 | -- | 10 U | 10 U | 10 U | 2 I | 2 I | 650 | 1.9 I | 10 U | 10 U | 10 U | 11 | 1 I | 0.87 U |
| Perfluoro-n-hexanoic acid (PFHxA) | | 307-24-4 | -- | 10 I | 10 U | 10 U | 10 | 11 | 4600 | 4.1 | 10 U | 10 U | 10 U | 41 | 9.8 | 0.87 U |
| Perfluoro-1-nonanesulfonic acid (PFNS) | | 68259-12-1 | -- | 10 U | 10 U | 10 U | 0.86 U | 1 U | 0.91 U | 0.89 U | 10 U | 10 U | 10 U | 0.93 U | 0.9 U | 0.87 U |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | | 2706-91-4 | -- | 10 U | 17 I | 21 I | 43 | 48 | 3300 | 2.8 I | 10 U | 10 U | 10 U | 25 | 4.9 | 0.87 U |
| Perfluoro-n-pentanoic acid (PFPeA) | | 2706-90-3 | -- | 10 U | 10 U | 10 U | 6.2 | 6.8 | 1900 | 1.6 I | 10 U | 10 U | 10 U | 25 | 0.9 U | 0.87 U |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | | 376-06-7 | -- | 10 U | 10 U | 10 U | 0.86 U | 1 U | 0.91 U | 0.89 U | 10 U | 10 U | 10 U | 0.93 U | 0.9 U | 0.87 U |
| Perfluoro-n-tridecanoic acid (PFTrDA) | | 72629-94-8 | -- | 10 U | 10 U | 10 U | 0.86 U | 1 U | 0.91 U | 0.89 U | 10 U | 10 U | 10 U | 0.93 U | 0.9 U | 0.87 U |
| Perfluoro-n-undecanoic acid (PFUdA) | | 2058-94-8 | -- | 10 U | 10 U | 10 U | 0.86 U | 1 U | 0.91 U | 0.89 U | 10 U | 10 U | 10 U | 0.93 U | 0.9 U | 0.87 U |

All results reported in nanogram per liter (ng/L)

1 The USEPA Regional Screening Levels (RSLs) for HFPO-DA, PFBS, PFHxS, PFNA, PFOA, and PFOS are presented in this table.

2 The Groundwater RSL is cited from the USEPA Regional Screening Levels and calculated with the USEPA RSL Calculator based on a hazard quotient of 0.1 (USEPA, 2022)

3 HFPO-DA is commonly referred to as GenX

* Duplicate sample results are included in this table and labeled with asterisk; other Quality Control/Quality Assurance sample results are included in the laboratory reports (Appendix C) and Table 4-8

-- = No applicable screening criteria

Bolding indicates analyte was detected

Shading indicates exceedance of screening criteria

FS1 = Fire Station #1

USEPA = United States Environmental Protection Agency

ft bls = feet below land surface

PFAS = per- and polyfluoroalkyl substances

I = Estimated result < Limit of Quantitation and ≥ Detection Limit

U = Analyte was not detected

Note: A data quality review was performed by Tetra Tech's data manager and the results provided in this table were found to have been generated in conformance with good analytical practices. Some minor nonconformance issues were noted in the quality control elements associated with project samples, and the appropriate data qualification was applied to the affected results as needed. Additional details on data quality are included in the analytical reports provided in the Appendices.

Table 4-4. Site Assessment DPT Groundwater Frequencies of Detection

| Parameter | CAS No. | Screening Criteria ^{1,2} | Method DoD QSM 5.3 | | | | | | |
|--|-------------|-----------------------------------|-----------------------------|-------------------|------------------------------|------------------------------|-------------------------------------|---|-------------------------------|
| | | | No. of Samples ³ | No. of Detections | Minimum Concentration (ng/L) | Maximum Concentration (ng/L) | Location with Maximum Concentration | Average Concentration (Detections Only) | No. Samples > Screening Level |
| PFAS with Screening Criteria (ng/L) | | | | | | | | | |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) [GenX] ⁴ | 13252-13-6 | 6 | 48 | 0 | NA | NA | NA | NA | NA |
| Perfluoro-1-butanefulfonic acid (PFBS) | 375-73-5 | 600 | 48 | 28 | 0.98 | 7000 | FS1-DPT0006-017.0-20220216 | 609.8 | 4 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | 39 | 48 | 40 | 2.7 | 100000 | FS1-DPT0006-017.0-20220216 | 4135 | 13 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | 5.9 | 48 | 3 | 96 | 490 | FS1-DPT0006-012.0-20220216 | 232 | 3 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | 6 | 48 | 24 | 1.1 | 12000 | FS1-DPT0006-017.0-20220216 | 859 | 14 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | 4 | 48 | 23 | 1.2 | 27000 | FS1-DPT0006-012.0-20220216 | 2357 | 17 |
| PFAS without Screening Criteria (ng/L) | | | | | | | | | |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | -- | 48 | 4 | 88 | 3800 | FS1-DPT0006-017.0-20220216 | 1879.5 | NA |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | -- | 48 | 11 | 1.9 | 95000 | FS1-DPT0006-017.0-20220216 | 13154 | NA |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | -- | 48 | 0 | NA | NA | NA | NA | NA |
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CL-PF3ONS) | 756426-58-1 | -- | 48 | 0 | NA | NA | NA | NA | NA |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CL-PF3OUDS) | 763051-92-9 | -- | 48 | 0 | NA | NA | NA | NA | NA |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | -- | 48 | 0 | NA | NA | NA | NA | NA |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | -- | 48 | 0 | NA | NA | NA | NA | NA |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | -- | 48 | 0 | NA | NA | NA | NA | NA |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | -- | 48 | 0 | NA | NA | NA | NA | NA |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | -- | 48 | 34 | 0.99 | 4200 | FS1-DPT0006-017.0-20220216 | 265.1 | NA |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | -- | 48 | 0 | NA | NA | NA | NA | NA |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | -- | 48 | 1 | 6.2 | 6.2 | FS1-DPT0006-005.0-20220216 | 6.2 | NA |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | -- | 48 | 0 | NA | NA | NA | NA | NA |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | -- | 48 | 11 | 0.89 | 4400 | FS1-DPT0006-012.0-20220216 | 613.5 | NA |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | -- | 48 | 24 | 1 | 10000 | FS1-DPT0006-017.0-20220216 | 625.8 | NA |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | -- | 48 | 29 | 0.98 | 21000 | FS1-DPT0006-017.0-20220216 | 1385 | NA |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | -- | 48 | 1 | 1.8 | 1.8 | FS1-DPT0006-005.0-20220216 | 1.8 | NA |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | -- | 48 | 26 | 1.4 | 9000 | FS1-DPT0006-017.0-20220216 | 721.9 | NA |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | -- | 48 | 26 | 1.1 | 15000 | FS1-DPT0006-017.0-20220216 | 1145.2 | NA |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | -- | 48 | 0 | NA | NA | NA | NA | NA |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | -- | 48 | 0 | NA | NA | NA | NA | NA |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | -- | 48 | 0 | NA | NA | NA | NA | NA |

All results reported in nanogram per liter (ng/L)

1 The USEPA Regional Screening Levels (RSLs) for HFPO-DA, PFBS, PFHxS, PFNA, PFOA, and PFOS are presented in this table.

2 The Groundwater RSL is cited from the USEPA Regional Screening Levels and calculated with the USEPA RSL Calculator based on a hazard quotient of 0.1 (USEPA, 2022)

3 Only samples collected for FS1 on and after December 2021 are represented in this table. QA/QC samples are not included in the dataset.

4 HFPO-DA is commonly referred to as GenX

-- = No applicable screening criteria

FS1 = Fire Station #1

USEPA = United States Environmental Protection Agency

NA = Not Applicable; not detected or no available screening criteria

PFAS = per- and polyfluoroalkyl substances

Table 4-5. Site Assessment Monitoring Well Analytical Results

| Location ID | CAS No. | Screening Criteria ^{1,2} | CGO-MW0012 | CHP-MW0028 | CHP-MW0029 | CHP-MW0032 | CHP-MW0033 | CHP-MW0034 | CHP-MW0035 | CHP-MW0063 | |
|--|-------------|-----------------------------------|--------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|----------|
| | | | Date | 10/29/21 | 10/29/21 | 10/29/21 | 10/28/21 | 10/28/21 | 10/28/21 | 10/28/21 | 10/29/21 |
| | | | Screen Interval (ft bls) | 2.5 - 12.5 | 40 - 45 | 40 - 45 | 42.5 - 47.5 | 32.5 - 37.5 | 22.5 - 27.5 | 3 - 13 | 40 - 50 |
| PFAS with Screening Criteria (ng/L) | | | | | | | | | | | |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) [GenX] ³ | 13252-13-6 | 6 | 1.9 U | 1.8 U | 2.0 U | 1.7 U | 1.8 U | 1.8 U | 1.7 U | 1.9 U | |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | 600 | 0.94 U | 6.1 | 4.9 | 3.5 | 2.7 I | 2.7 I | 4.1 | 8.6 | |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | 39 | 1.3 I | 31 | 29 | 22 | 20 | 16 | 22 | 90 | |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | 5.9 | 0.94 U | 0.90 U | 0.98 U | 0.87 U | 0.88 U | 0.90 U | 0.86 U | 1.4 I | |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | 6 | 0.94 U | 9.2 | 7.8 | 4.6 | 5.0 | 3.9 | 2.3 I | 16 | |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | 4 | 19 | 6.9 | 8.7 | 4.8 | 4.7 | 3.6 | 6.5 | 180 | |
| PFAS without Screening Criteria (ng/L) | | | | | | | | | | | |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | -- | 1.9 U | 1.8 U | 2.0 U | 1.7 U | 1.8 U | 1.8 U | 1.7 U | 1.9 U | |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | -- | 1.9 U | 2.5 I | 6.0 I | 1.7 U | 1.8 U | 1.8 U | 7.7 | 1.9 U | |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | -- | 1.9 U | 1.8 U | 2.0 U | 1.7 U | 1.8 U | 1.8 U | 1.7 U | 1.9 U | |
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CL-PF3ONS) | 756426-58-1 | -- | 1.9 U | 1.8 U | 2.0 U | 1.7 U | 1.8 U | 1.8 U | 1.7 U | 1.9 U | |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CL-PF3OUDS) | 763051-92-9 | -- | 1.9 U | 1.8 U | 2.0 U | 1.7 U | 1.8 U | 1.8 U | 1.7 U | 1.9 U | |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | -- | 1.9 U | 1.8 U | 2.0 U | 1.7 U | 1.8 U | 1.8 U | 1.7 U | 1.9 U | |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | -- | 1.9 U | 1.8 U | 2.0 U | 1.7 U | 1.8 U | 1.8 U | 1.7 U | 1.9 U | |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | -- | 1.9 U | 1.8 U | 2.0 U | 1.7 U | 1.8 U | 1.8 U | 1.7 U | 1.9 U | |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | -- | 1.9 U | 1.8 U | 2.0 U | 1.7 U | 1.8 U | 1.8 U | 1.7 U | 1.9 U | |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | -- | 1.9 I | 14 | 11 | 4.8 | 4.4 | 3.7 | 6.9 | 4.7 | |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | -- | 0.94 U | 0.90 U | 0.98 U | 0.87 U | 0.88 U | 0.90 U | 0.86 U | 0.94 U | |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | -- | 0.94 U | 0.90 U | 0.98 U | 0.87 U | 0.88 U | 0.90 U | 0.86 U | 0.94 U | |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | -- | 0.94 U | 0.90 U | 0.98 U | 0.87 U | 0.88 U | 0.90 U | 0.86 U | 0.94 U | |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | -- | 0.94 U | 0.90 U | 0.98 U | 0.87 U | 0.88 U | 0.90 U | 0.86 U | 5.5 | |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | -- | 0.94 U | 5.4 | 5.0 | 2.2 I | 1.8 I | 1.5 I | 1.8 I | 4.7 | |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | -- | 0.94 U | 14 | 11 | 3.2 I | 0.88 U | 2.9 I | 46 | 11 | |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | -- | 0.94 U | 0.9 U | 0.98 U | 0.87 U | 0.88 U | 0.9 U | 0.86 U | 0.94 U | |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | -- | 0.94 U | 5.1 | 5.1 | 2.3 I | 2.6 I | 1.9 I | 2.8 I | 9.3 | |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | -- | 1.1 I | 13 | 12 | 4.0 | 4.2 | 3.8 | 4.3 | 5.0 | |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | -- | 0.94 U | 0.90 U | 0.98 U | 0.87 U | 0.88 U | 0.90 U | 0.86 U | 0.94 U | |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | -- | 0.94 U | 0.90 U | 0.98 U | 0.87 U | 0.88 U | 0.90 U | 0.86 U | 0.94 U | |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | -- | 0.94 U | 0.90 U | 0.98 U | 0.87 U | 0.88 U | 0.90 U | 0.86 U | 0.94 U | |

All results reported in nanogram per liter (ng/L)

1 The USEPA Regional Screening Levels (RSLs) for HFPO-DA, PFBS, PFHxS, PFNA, PFOA, and PFOS are presented in this table.

2 The Groundwater RSL is cited from the USEPA Regional Screening Levels and calculated with the USEPA RSL Calculator based on a hazard quotient of 0.1 (USEPA, 2022)

3 HFPO-DA is commonly referred to as GenX

-- = No applicable screening criteria

Bolding indicates analyte was detected

Shading indicates exceedance of screening criteria

FS1 = Fire Station #1

USEPA = United States Environmental Protection Agency

ft bls = feet below land surface

NA = Not Applicable; compound not analyzed

PFAS = per- and polyfluoroalkyl substances

I = Estimated result < Limit of Quantitation and ≥ Detection Limit

U = Analyte was not detected

Note: A data quality review was performed by Tetra Tech's data manager and the results provided in this table were found to have been generated in conformance with good analytical practices. Some minor nonconformance issues were noted in the quality control elements associated with project samples, and the appropriate data qualification was applied to the affected results as needed. Additional details on data quality are included in the analytical reports provided in the Appendices.

Table 4-6. Site Assessment Monitoring Well Groundwater Frequencies of Detection

| Parameter | CAS No. | Screening Criteria ^{1,2} | Method DoD QSM 5.3 | | | | | | |
|--|-------------|-----------------------------------|--------------------|-------------------|------------------------------|------------------------------|-------------------------------------|---|-------------------------------|
| | | | No. of Samples | No. of Detections | Minimum Concentration (ng/L) | Maximum Concentration (ng/L) | Location with Maximum Concentration | Average Concentration (Detections Only) | No. Samples > Screening Level |
| PFAS with Screening Criteria (ng/L) | | | | | | | | | |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) [GenX] ³ | 13252-13-6 | 6 | 8 | 0 | NA | NA | NA | NA | NA |
| Perfluoro-1-butananesulfonic acid (PFBS) | 375-73-5 | 600 | 8 | 7 | 2.7 | 8.6 | CHP-MW0063-045.0-20211029 | 4.3 | 0 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | 39 | 8 | 8 | 1.3 | 90 | CHP-MW0063-045.0-20211029 | 15.1 | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | 5.9 | 8 | 1 | 1.4 | 1 | CHP-MW0063-045.0-20211029 | 1.4 | 0 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | 6 | 8 | 7 | 2.3 | 16 | CHP-MW0063-045.0-20211029 | 7.0 | 3 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | 4 | 8 | 8 | 3.6 | 180 | CHP-MW0063-045.0-20211029 | 29.3 | 7 |
| PFAS without Screening Criteria (ng/L) | | | | | | | | | |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | -- | 8 | 0 | NA | NA | NA | NA | NA |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | -- | 8 | 3 | 2.5 | 7.7 | CHP-MW0035-008.5-10282021 | 5.4 | NA |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | -- | 8 | 0 | NA | NA | NA | NA | NA |
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CL-PF3ONS) | 756426-58-1 | -- | 8 | 0 | NA | NA | NA | NA | NA |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CL-PF3OUDS) | 763051-92-9 | -- | 8 | 0 | NA | NA | NA | NA | NA |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | -- | 8 | 0 | NA | NA | NA | NA | NA |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | -- | 8 | 0 | NA | NA | NA | NA | NA |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | -- | 8 | 0 | NA | NA | NA | NA | NA |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | -- | 8 | 0 | NA | NA | NA | NA | NA |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | -- | 8 | 8 | 1.9 | 14 | CHP-MW0028-042.5-20211029 | 6.4 | NA |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | -- | 8 | 0 | NA | NA | NA | NA | NA |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | -- | 8 | 0 | NA | NA | NA | NA | NA |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | -- | 8 | 0 | NA | NA | NA | NA | NA |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | -- | 8 | 1 | 5.5 | 5.5 | CHP-MW0063-045.0-20211029 | 5.5 | NA |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | -- | 8 | 7 | 1.5 | 5.4 | CHP-MW0028-042.5-20211029 | 2.95 | NA |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | -- | 8 | 6 | 2.9 | 46 | CHP-MW0035-008.5-10282021 | 12.6 | NA |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | -- | 8 | 0 | NA | NA | NA | NA | NA |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | -- | 8 | 7 | 1.9 | 9.3 | CHP-MW0063-045.0-20211029 | 4.2 | NA |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | -- | 8 | 8 | 1.1 | 13 | CHP-MW0028-042.5-20211029 | 5.9 | NA |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | -- | 8 | 0 | NA | NA | NA | NA | NA |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | -- | 8 | 0 | NA | NA | NA | NA | NA |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | -- | 8 | 0 | NA | NA | NA | NA | NA |

All results reported in nanogram per liter (ng/L)

1 The USEPA Regional Screening Levels (RSLs) for HFPO-DA, PFBS, PFHxS, PFNA, PFOA, and PFOS are presented in this table

2 The Groundwater RSL is cited from the USEPA Regional Screening Levels and calculated with the USEPA RSL Calculator based on a hazard quotient of 0.1 (USEPA, 2022)

3 HFPO-DA is commonly referred to as GenX

-- = No applicable screening criteria

FS1 = Fire Station #1

USEPA = United States Environmental Protection Agency

NA = Not Applicable; not detected or no available screening criteria

PFAS = per- and polyfluoroalkyl substances

Table 4-7. Site Assessment Surface Water Analytical Results

| Location ID (FS1-) | CAS | Screening Criteria ¹ | SW0001 |
|--|-------------|------------------------------------|--------------|
| Date | | | 3/10/2022 |
| Sample Depth (ft bls) | | | 0 - 0.5 |
| PFAS with Screening Criteria (ng/L) | | | |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | 500 | 1200 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | 10 | 14000 |
| PFAS without Screening Criteria (ng/L) | | | |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | -- | 1.8 UQ |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | -- | 2700 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | -- | 470 |
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CL-PF3ONS) | 756426-58-1 | -- | 1.8 UQ |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CL-PF3OUDS) | 763051-92-9 | -- | 1.8 UQ |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | -- | 1.8 U |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) [GenX] ² | 13252-13-6 | -- | 1.8 U |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | -- | 1.8 U |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | -- | 1.8 U |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | -- | 50 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | -- | 270 Q |
| Perfluoro-1-butanefulfonic acid (PFBS) | 375-73-5 | -- | 79 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | -- | 3.9 Q |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | -- | 18 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | -- | 0.92 U |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | -- | 130 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | -- | 480 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | -- | 1000 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | -- | 3300 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | -- | 110 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | -- | 23 Q |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | -- | 140 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | -- | 1000 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | -- | 0.92 U |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | -- | 0.92 U |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | -- | 2.1 I |

All results reported in nanogram per liter (ng/L)

1 The State of Florida human health Surface Water Screening Levels for PFOA and PFOS are presented in this table

2 HFPO-DA is commonly referred to as GenX

-- = No applicable screening criteria

Bolding indicates analyte was detected

Shading indicates exceedance of screening criteria

FS1 = Fire Station #1

ft bls = feet below land surface

PFAS = per- and polyfluoroalkyl substances

I = Estimated result < Limit of Quantitation and ≥ Detection Limit

U = Analyte was not detected

Q = Out of holding time

Note: A data quality review was performed by Tetra Tech's data manager and the results provided in this table were found to have been generated in conformance with good analytical practices. Some minor nonconformance issues were noted in the quality control elements associated with project samples, and the appropriate data qualification was applied to the affected results as needed. Additional details on data quality are included in the analytical reports provided in the Appendices.

Table 4-8. Site Assessment Field QA/QC Analytical Results

| Sample ID (FS1-) | CAS No. | Screening Criteria ^{1,2} | FS1-FB03-20211210 | FS1-RB03-20211210 | FS1-EB-20220215-01 | FS1-EB-20220215-02 | FS1-EB-20220215-03 | FS1-FB-20220215-01 | FS1-FB-20220215-02 | FS1-EB-20220216-01 | FS1-FB-20220217-01 |
|--|-------------|-----------------------------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Date | | | 12/10/21 | 12/10/21 | 2/15/22 | 2/15/22 | 2/15/22 | 2/15/22 | 2/15/22 | 2/16/22 | 2/17/22 |
| Sample Depth (ft bls) | | | - | - | - | - | - | - | - | - | - |
| Type | | | FB | EB | EB | EB | EB | EB | FB | FB | EB |
| PFAS with Screening Criteria (ng/L) | | | | | | | | | | | |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) [GenX] ³ | 13252-13-6 | 6 | 2.0 U | 1.8 U | 2.2 U | 2.0 U | 2.1 U | 2.1 U | 2.0 U | 1.8 U | 2.0 U |
| Perfluoro-1-butanesulfonic acid (PFBS) | 375-73-5 | 600 | 0.98 U | 0.91 U | 1.1 U | 1.0 U | 1.0 U | 1.1 U | 1.0 U | 0.90 U | 1.0 U |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | 39 | 0.98 U | 0.91 U | 1.1 U | 1.0 U | 1.0 U | 1.1 U | 1.0 U | 0.90 U | 1.0 U |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | 5.9 | 0.98 U | 0.91 U | 1.1 U | 1.0 U | 1.0 U | 1.1 U | 1.0 U | 0.90 U | 1.0 U |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | 6 | 0.98 U | 0.91 U | 1.1 U | 1.0 U | 1.0 U | 1.1 U | 1.0 U | 0.90 U | 1.0 U |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | 4 | 0.98 U | 0.91 U | 1.1 U | 1.0 U | 1.0 U | 1.1 U | 1.0 U | 0.90 U | 1.0 U |
| PFAS without Screening Criteria (ng/L) | | | | | | | | | | | |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | -- | 2.0 U | 1.8 U | 2.2 U | 2.0 U | 2.1 U | 2.1 U | 2.0 U | 1.8 U | 2.0 U |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | -- | 2.0 U | 1.8 U | 2.2 U | 2.0 U | 2.1 U | 2.1 U | 2.0 U | 1.8 U | 2.0 U |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | -- | 2.0 U | 1.8 U | 2.2 U | 2.0 U | 2.1 U | 2.1 U | 2.0 U | 1.8 U | 2.0 U |
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CL-PF3ONS) | 756426-58-1 | -- | 2.0 U | 1.8 U | 2.2 U | 2.0 U | 2.1 U | 2.1 U | 2.0 U | 1.8 U | 2.0 U |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CL-PF3OUDS) | 763051-92-9 | -- | 2.0 U | 1.8 U | 2.2 U | 2.0 U | 2.1 U | 2.1 U | 2.0 U | 1.8 U | 2.0 U |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | -- | 2.0 U | 1.8 U | 2.2 U | 2.0 U | 2.1 U | 2.1 U | 2.0 U | 1.8 U | 2.0 U |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | -- | 2.0 U | 1.8 U | 2.2 U | 2.0 U | 2.1 U | 2.1 U | 2.0 U | 1.8 U | 2.0 U |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | -- | 2.0 U | 1.8 U | 2.2 U | 2.0 U | 2.1 U | 2.1 U | 2.0 U | 1.8 U | 2.0 U |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | -- | 2.0 U | 1.8 U | 2.2 U | 2.0 U | 2.1 U | 2.1 U | 2.0 U | 1.8 U | 2.0 U |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | -- | 0.98 U | 0.91 U | 1.1 U | 1.0 U | 1.0 U | 1.1 U | 1.0 U | 0.90 U | 1.0 U |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | -- | 0.98 U | 0.91 U | 1.1 U | 1.0 U | 1.0 U | 1.1 U | 1.0 U | 0.90 U | 1.0 U |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | -- | 0.98 U | 0.91 U | 1.1 U | 1.0 U | 1.0 U | 1.1 U | 1.0 U | 0.90 U | 1.0 U |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | -- | 0.98 U | 0.91 U | 1.1 U | 1.0 U | 1.0 U | 1.1 U | 1.0 U | 0.90 U | 1.0 U |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | -- | 0.98 U | 0.91 U | 1.1 U | 1.0 U | 1.0 U | 1.1 U | 1.0 U | 0.90 U | 1.0 U |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | -- | 0.98 U | 0.91 U | 1.1 U | 1.0 U | 1.0 U | 1.1 U | 1.0 U | 0.90 U | 1.0 U |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | -- | 0.98 U | 0.91 U | 1.1 U | 1.0 U | 1.0 U | 1.1 U | 1.0 U | 0.90 U | 1.0 U |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | -- | 0.98 U | 0.91 U | 1.1 U | 1.0 U | 1.0 U | 1.1 U | 1.0 U | 0.90 U | 1.0 U |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | -- | 0.98 U | 0.91 U | 1.1 U | 1.0 U | 1.0 U | 1.1 U | 1.0 U | 0.90 U | 1.0 U |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | -- | 0.98 U | 0.91 U | 1.1 U | 1.0 U | 1.0 U | 1.1 U | 1.0 U | 0.90 U | 1.0 U |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | -- | 0.98 U | 0.91 U | 1.1 U | 1.0 U | 1.0 U | 1.1 U | 1.0 U | 0.90 U | 1.0 U |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | -- | 0.98 U | 0.91 U | 1.1 U | 1.0 U | 1.0 U | 1.1 U | 1.0 U | 0.90 U | 1.0 U |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | -- | 0.98 U | 0.91 U | 1.1 U | 1.0 U | 1.0 U | 1.1 U | 1.0 U | 0.90 U | 1.0 U |

All results reported in nanogram per liter (ng/L)

1 The USEPA Regional Screening Levels (RSLs) for HFPO-DA, PFBS, PFHxS, PFNA, PFOA, and PFOS are presented in this table.

2 The Groundwater RSL is cited from the USEPA Regional Screening Levels and calculated with the USEPA RSL Calculator based on a hazard quotient of 0.1 (USEPA, 2022)

3 HFPO-DA is commonly referred to as GenX

-- = No applicable screening criteria

EB = Equipment Blank

FB = Field Blank

FS1 = Fire Station #1

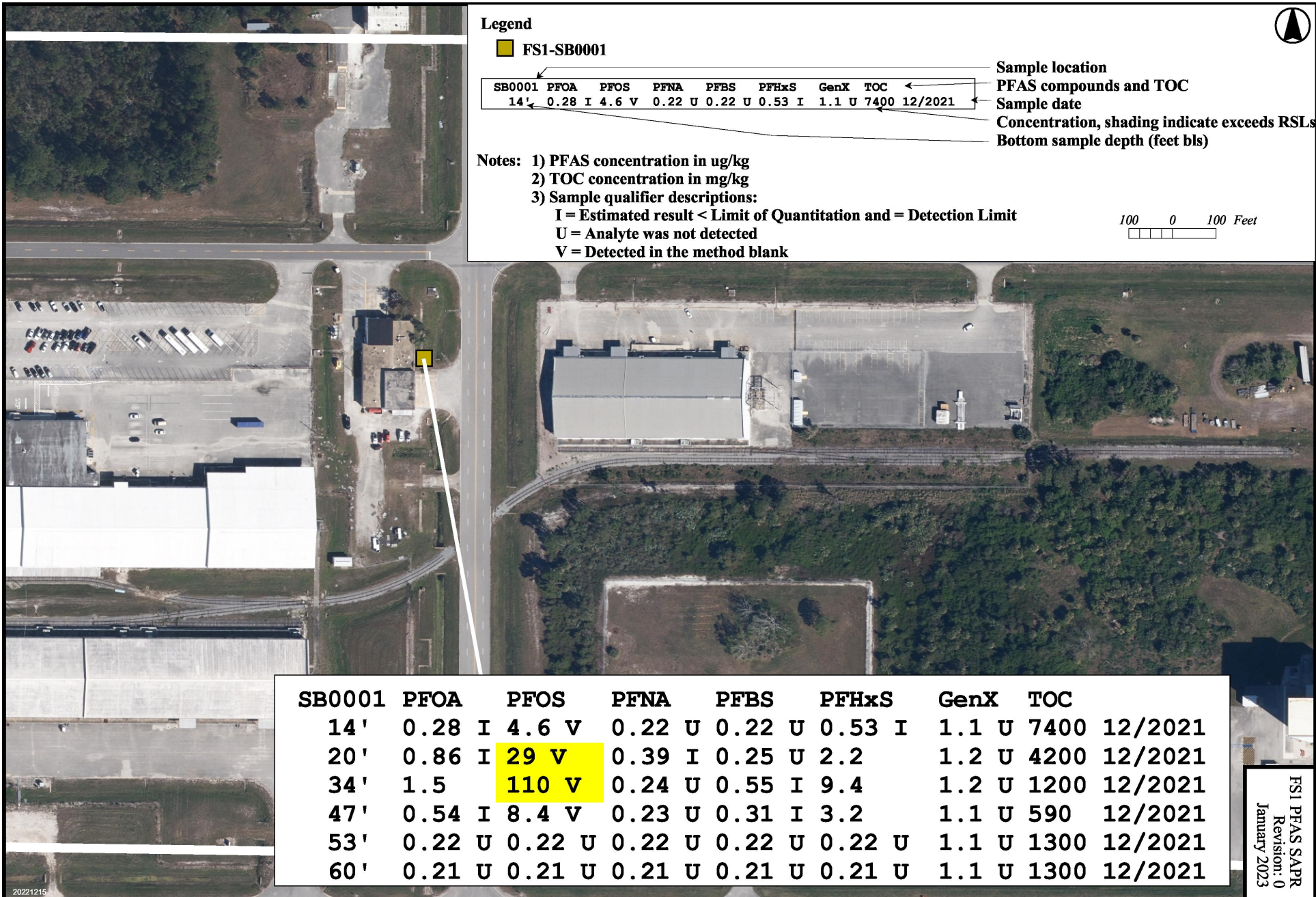
USEPA = United States Environmental Protection Agency

ft bls = feet below land surface

PFAS = per- and polyfluoroalkyl substances

U = Analyte was not detected

FIGURE 4-1 PFAS SOIL RESULTS
 SWMU 116, KENNEDY SPACE CENTER, FLORIDA



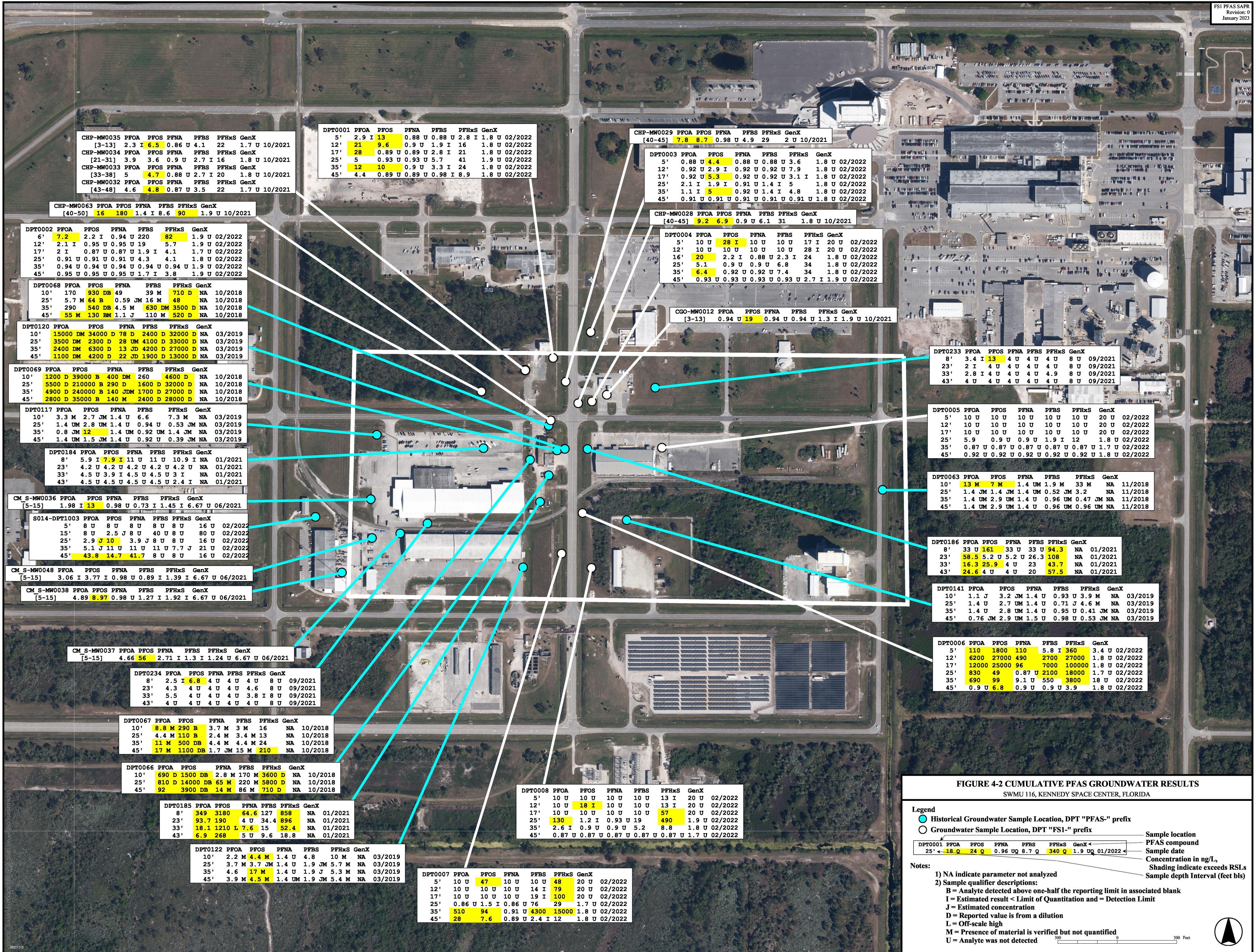


FIGURE 4-2 CUMULATIVE PFAS GROUNDWATER RESULTS
SWMU 116, KENNEDY SPACE CENTER, FLORIDA

Legend

- Historical Groundwater Sample Location, DPT "PFAS-" prefix
- Groundwater Sample Location, DPT "FS1-" prefix

Notes:

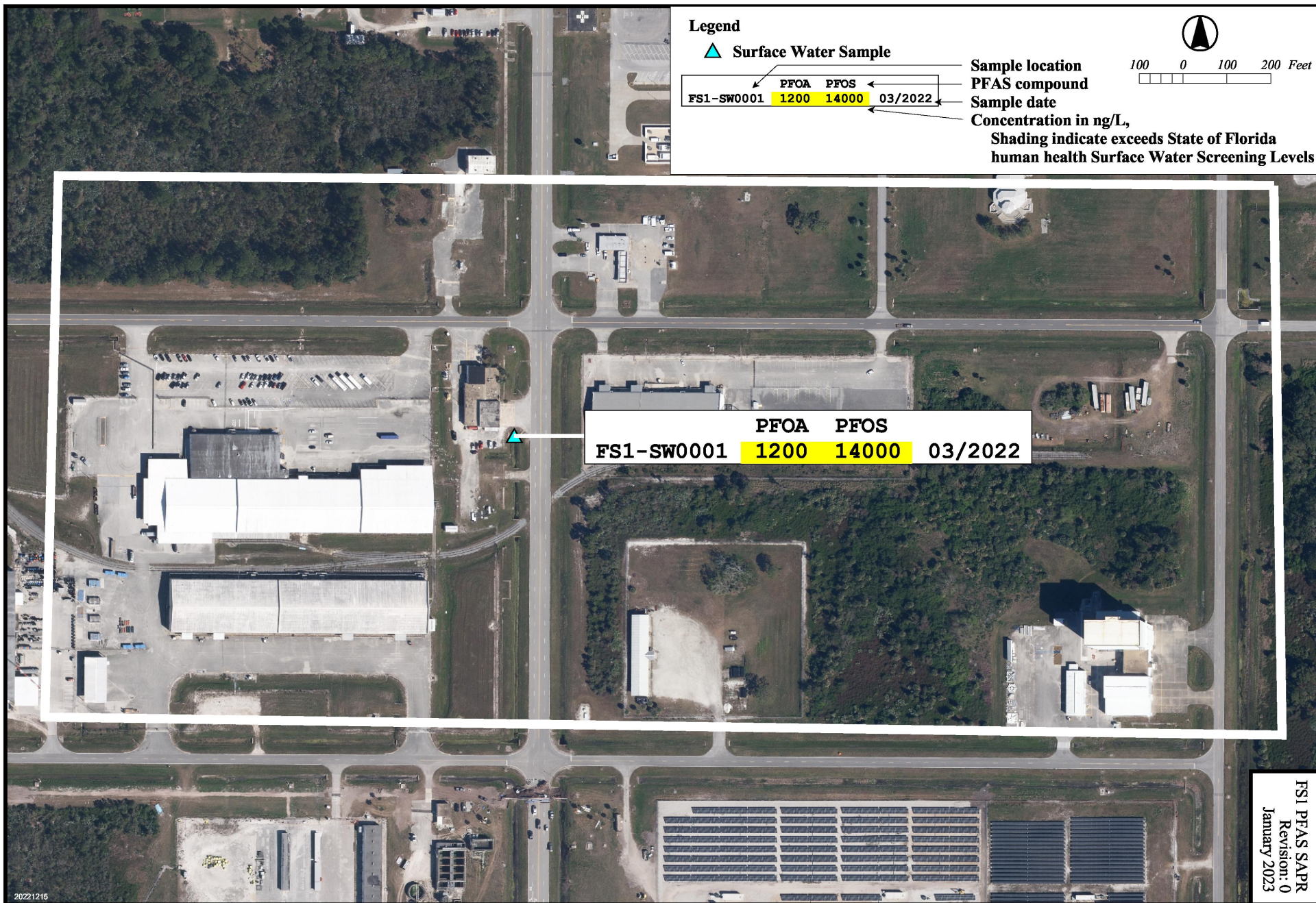
- 1) NA indicate parameter not analyzed
- 2) Sample qualifier descriptions:
 B = Analyte detected above one-half the reporting limit in associated blank
 I = Estimated result < Limit of Quantitation and = Detection Limit
 J = Estimated concentration
 D = Reported value is from a dilution
 L = Off-scale high
 M = Presence of material is verified but not quantified
 U = Analyte was not detected

Sample location
PFAS compound
Sample date
Concentration in ng/L
Shading indicate exceeds RSLs
Sample depth Interval (feet bls)

Detailed legend example:
 DPT0001 PFOA PFOS PFNA PFBS PFHxS GenX
 25' ← 18 Q 24 Q 0.96 UQ 8.7 Q 340 Q 1.9 UQ 01/2022 ←

Scale: 0 to 300 Feet

FIGURE 4-3 SITE ASSESSMENT PFAS SURFACE WATER RESULTS
 SWMU 116, KENNEDY SPACE CENTER, FLORIDA



FS1 PEAS SAPR
 Revision: 0
 January 2023

SECTION V

CONCLUSIONS AND RECOMMENDATIONS

5.1 CONCLUSIONS

PFAS SA activities were conducted between October 2021 and March 2022 to collect additional data to supplement the existing dataset and better understand the extent of PFAS impacts to the environment in the FS1 Area. Sampling included completion of one continuous soil core to 70 ft bls to evaluate lithology, collection of six soil samples from the soil core for analysis of PFAS and TOC, collection of 48 groundwater DPT samples from eight DPT locations up to depths of 47 ft bls, collection of groundwater from eight monitoring wells, and collection of one surface water sample for PFAS analysis. Soil and groundwater results were screened against the most recent (May 2022) USEPA RSLs and surface water results were screened against the Florida SWSLs. In addition, historical PFAS analytical results collected at FS1 were re-screened against the most up-to-date screening levels and evaluated along with the recently collected results to gain an overall understanding of the PFAS distribution at the site.

Re-screening of historical analytical results from samples collected between 2018 and 2022 identified groundwater and soil with screening level exceedances. Results from the SA showed exceedances of the applicable screening criteria for groundwater, soil, and surface water. Of the 48 DPT groundwater samples collected over eight locations, 15 PFAS compounds were detected with five compounds (PFBS, PFHxS, PFNA, PFOA, and PFOS) exceeding RSLs. The maximum concentration for all five compounds was from the FS1-DPT0006 location. The PFBS maximum concentration was 7,000 ng/L in the 15-19 ft bls interval, which is greater than the RSL of 600 ng/L. The PFHxS maximum concentration was 100,000 ng/L in the 15-19 ft bls depth interval, which is greater than the RSL of 39 ng/L. The PFNA maximum concentration was 490 ng/L in the 10-14 ft bls depth interval, which is greater than the RSL of 5.9 ng/L. The PFOA maximum concentration was 12,000 ng/L in the 15-19 ft bls interval, which is greater than the RSL of 6 ng/L. The PFOS maximum concentration was 27,000 ng/L in the 10-14 ft bls interval, which is greater than the RSL of 4 ng/L. The PFAS concentrations in DPT groundwater samples generally decreased with depth.

PFAS concentrations in the monitoring wells located in the northern portion of the FS1 Area generally had lower detections than the DPT samples and only had exceedances of PFHxS, PFOA, and PFOS. The well with the maximum concentrations was CHP-MW0063, with exceedances of PFHxS (90 ng/L), PFOA (16 ng/L), and PFOS (180 ng/L) greater than RSLs. Of the 6 soil samples collected at one continuous boring location, PFOS exceeded the RSL in two of the depth intervals (19-20 ft bls and 33-34 ft bls), but it should be noted that these samples were collected in the saturated zone. In the surface water sample, PFOA and PFOS were detected at concentrations greater than the SWSLs with PFOA at 1,200 ng/L, greater than the SWSL of 500 ng/L and PFOS at 14,000 ng/L, greater than the SWSL of 10 ng/L. Considering the current and historical datasets, PFOS is the prevalent PFAS in the FS1 Area with the highest concentrations mostly in the vicinity of the buildings and improved areas, with lesser concentrations spreading outward.

A summary of samples collected during the SA are presented in the table below:

| | PFOA | PFOS | PFBS | PFHxS | PFNA | HFPO-DA (GenX) |
|---|-------------|-------------|--------------|--------------|-------------|-----------------------|
| (USEPA) Soil RSLs (µg/kg) | 19 | 13 | 1,900 | 130 | 19 | 23 |
| Samples collected | 6 | 6 | 6 | 6 | 6 | 6 |
| No. of Detections | 4 | 4 | 2 | 4 | 1 | 0 |
| Results above RSL | 0 | 2 | 0 | 0 | 0 | 0 |
| (USEPA) Groundwater RSLs (ng/L) | 6 | 4 | 600 | 39 | 5.9 | 6 |
| Samples collected (DPT) | 48 | 48 | 48 | 48 | 48 | 48 |
| No. of Detections (DPT) | 24 | 23 | 28 | 40 | 3 | 0 |
| Results above RSL (DPT) | 14 | 17 | 4 | 13 | 3 | 0 |
| Samples collected (MW) | 8 | 8 | 8 | 8 | 8 | 8 |
| No. of Detections (MW) | 7 | 8 | 7 | 8 | 1 | 0 |
| Results above RSL (MW) | 3 | 7 | 0 | 1 | 0 | 0 |
| (Florida) Surface Water SWSLs (ng/L) | 500 | 10 | NA | NA | NA | NA |
| Samples collected | 1 | 1 | 1 | 1 | 1 | 1 |
| No. of Detections | 1 | 1 | 1 | 1 | 1 | 0 |
| Results above SWSL | 1 | 1 | NA | NA | NA | NA |

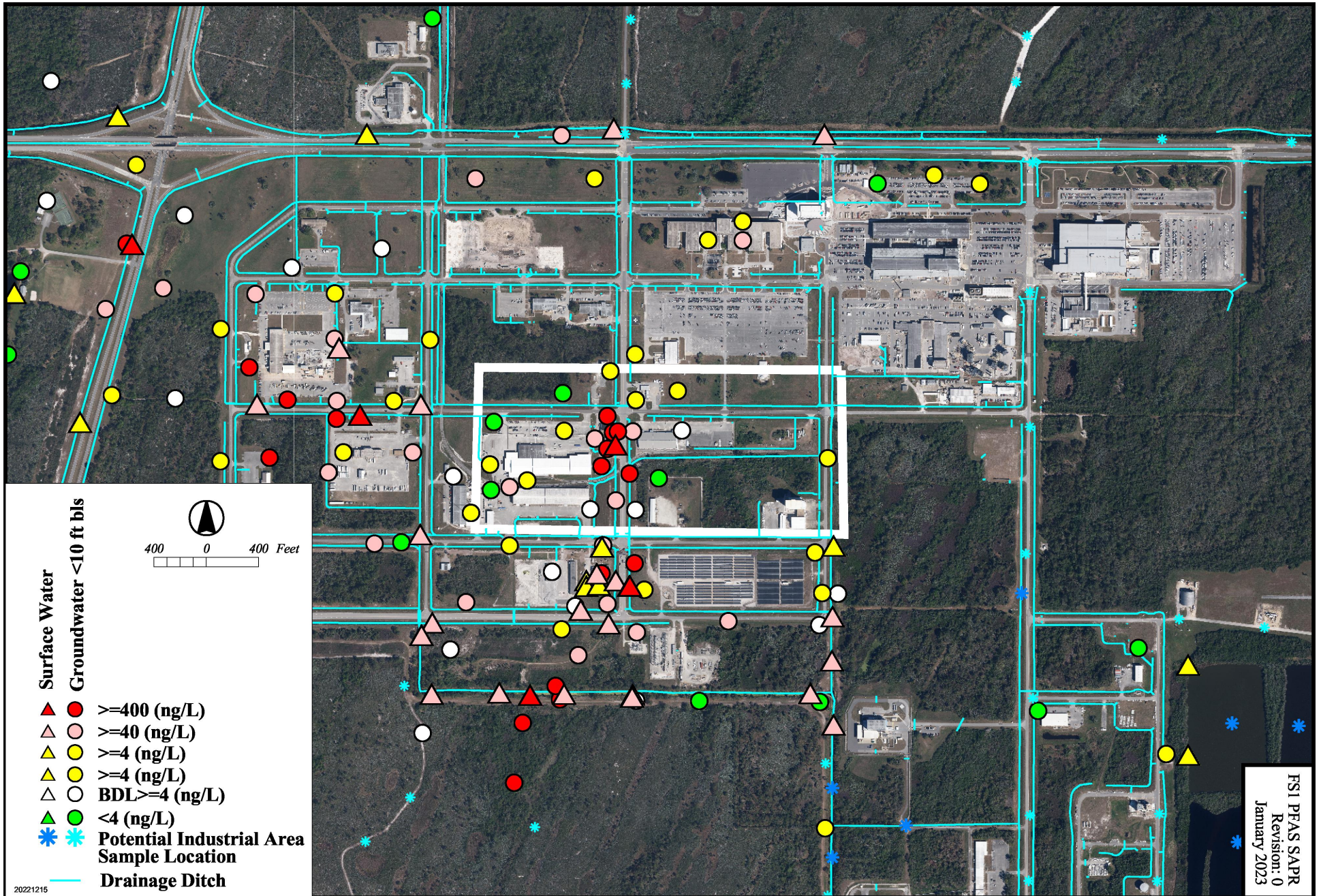
NA = Not applicable; no screening criteria

A photographic log for SA activities is provided in Appendix D.

5.2 RECOMMENDATIONS

Based on the results of the SA, additional groundwater and surface water sampling should be considered. Additionally, TOC should be collected from representative groundwater (saturated soils) and surface water locations to further evaluate potential correlations between PFAS and TOC and assist in transport and fate analyses. Future sampling will be focused on surface water bodies to the southwest of the Industrial Area. Potential sample locations include influent into the Gator Pond, effluent from the Gator Pond, associated borrow pits that are part of the stormwater management system, tributaries into Buck Creek, locations within Buck Creek, the junction of Buck Creek and the Banana River, and isolated borrow pits northeast of Gator Pond, and locations along the Banana River. Additionally, installation of monitoring wells should be considered to evaluate the interaction between the groundwater and surface water at the site. Potential groundwater and surface water samples are shown on Figure 5-1. It should be noted that not all potential samples are expected to be sampled during the next phase of the investigation but may be considered as funding allows. The results and path forward were presented to the KSC Remediation Team (KSCRT) in October 2022 (Meeting Minute 2210-M08). An action item was taken (2210-A08) to provide FDEP with locations of potential monitoring wells once they are determined. The draft meeting minutes are included in Appendix E.

FIGURE 5-1 PROPOSED SAMPLE LOCATIONS
SWMU 116, KENNEDY SPACE CENTER, FLORIDA



SECTION VI REFERENCES

FDEP, 2014. SRCO for PRL 122, Fire Station #4 Letter to NASA Environmental Assurance Branch Attn: Mrs. Rosaly J Santos-Ebaugh. April.

FDEP, 2017. FDEP Standard Operating Procedure FS 2200 Groundwater Sampling, FS2100 Surface Water Sampling, FS3000 Soil Sampling, FDEP-SOP-001/01, January.

FDEP, 2019. FDEP Standard Operating Procedure for PFAS Sampling. Draft. October.

FDEP, 2022. PFAS Dynamic Plan, Division of Waste Management Florida Department of Environmental Protection. March.

NASA, 2005. Fire Station No. 4 M6-695 PRL No. 122 SWMU Assessment Report Revision 0. Kennedy Space Center. May.

NASA, 2006. Fire Station #4 (PRL #122) Phase II Confirmatory Sampling and Interim Measure Discussion Advance Data Package (ADP). June.

NASA, 2008. Fire Station #4 PRL No. 122 Interim Measures Report ADP. May.

NASA, 2017. Sampling and Analysis Plan for the RCRA Corrective Action Program at the John F. Kennedy Space Center, Florida. KSC TA 6169. Revision 5. August.

NASA, 2018. Supply Warehouse #3, SWMU 088, Operations, Maintenance, and Monitoring Report, Kennedy Space Center, Florida. Revision 0. February.

NASA, 2019. Phase I Solid Waste Management Unit Assessment and Confirmatory Sampling Report Center-Wide Per-and Polyfluoroalkyl Substances, Potential Release Location 237. Kennedy Space Center, Florida. Revision 0. June.

NASA, 2021a. 2019-2020 Long-Term Groundwater Monitoring Report Industrial Area Kennedy Space Center, Florida. Revision 0. June.

NASA, 2021b. PFAS Investigation Derived Waste Disposal Memorandum. April 29.

NASA, 2022. Phase II and III Solid Waste Management Unit Assessment and Confirmatory Sampling Report Center-Wide Per- and Polyfluoroalkyl Substances, Potential Release Location 237, Kennedy Space Center, Florida. Revision 0. September.

USEPA, 2016a. Drinking Water Health Advisory for Perfluorooctanoic Acid (PFOA). Office of Water. EPA Document Number: 822-R-16-005. May.

USEPA, 2016b. Drinking Water Health Advisory for Perfluorooctane Sulfonate (PFOS). Office of Water. EPA Document Number: 822-R-16-004. May.

USEPA, 2022. Regional Screening Levels calculated with the RSL Calculator based on a hazard quotient of 0.1.

APPENDIX A
HISTORICAL ANALYTICAL RESULTS
(PROVIDED IN ELECTRONIC VERSION ONLY)

Table A-1. Historical Soil Analytical Results

| Location ID (PFAS-) Date Sample Depth (ft bls) | CAS No. | Screening Criteria ^{1,2} | SB0057 | | SB0058 | | | SB0059 | | SB0060 | |
|--|-------------|--------------------------------------|---------|---------|---------|----------|---------|---------|---------|---------|---------|
| | | | 1/26/21 | 1/26/21 | 1/26/21 | 1/26/21 | 1/26/21 | 1/26/21 | 1/26/21 | 1/26/21 | |
| | | | 0 - 0.5 | 0.5 - 2 | 0 - 0.5 | 0 - 0.5* | 0.5 - 2 | 0 - 0.5 | 0.5 - 2 | 0 - 0.5 | 0.5 - 2 |
| PFAS with Screening Criteria (µg/kg) | | | | | | | | | | | |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) [GenX] ³ | 13252-13-6 | 23 | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perfluoro-1-butanefulfonic acid (PFBS) | 375-73-5 | 1900 | 0.71 U | 0.6 U | 0.72 U | 0.68 U | 0.6 U | 0.64 U | 0.66 U | 0.56 U | 0.61 U |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | 130 | 0.71 U | 0.6 U | 1.7 | 2.4 | 0.6 U | 2.3 | 0.97 | 0.56 U | 0.61 U |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | 19 | 0.71 U | 0.6 U | 0.72 U | 0.68 U | 0.6 U | 0.64 U | 0.66 U | 0.56 U | 0.61 U |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | 19 | 0.71 U | 0.6 U | 0.63 I | 0.67 I | 0.6 U | 0.54 I | 0.66 U | 0.56 U | 0.61 U |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | 13 | 1.6 | 0.6 U | 29.3 | 49.1 | 3.6 | 45.4 | 17.4 | 7.7 | 12.7 |
| PFAS without Screening Criteria (µg/kg) | | | | | | | | | | | |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CL-PF3ONS) | 756426-58-1 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CL-PF3OUDS) | 763051-92-9 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | -- | 1.4 U | 1.2 U | 1.4 U | 1.4 U | 1.2 U | 1.3 U | 1.3 U | 1.1 U | 1.2 U |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | -- | 1.4 U | 1.2 U | 1.4 | 0.71 I | 1.2 U | 1.3 U | 1.3 U | 1.1 U | 1.2 U |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | -- | 0.71 U | 0.6 U | 0.72 U | 0.68 U | 0.6 U | 0.64 U | 0.66 U | 0.56 U | 0.61 U |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | -- | 0.43 I | 0.6 U | 0.72 U | 0.68 U | 0.6 U | 0.32 I | 0.66 U | 0.56 U | 0.61 U |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | -- | 0.71 U | 0.6 U | 0.72 U | 0.68 U | 0.6 U | 0.64 U | 0.66 U | 0.56 U | 0.61 U |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | -- | 0.71 U | 0.6 U | 0.72 U | 0.68 U | 0.6 U | 0.48 I | 0.66 U | 0.56 U | 0.61 U |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perfluorooctane sulfonamide (PFOSA) | 754-91-6 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | -- | 0.71 U | 0.6 U | 0.72 U | 0.68 U | 0.6 U | 0.64 U | 0.66 U | 0.56 U | 0.61 U |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | -- | 0.71 U | 0.6 U | 0.72 U | 0.68 U | 0.6 U | 0.35 I | 0.66 U | 0.56 U | 0.61 U |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | -- | 0.71 U | 0.6 U | 0.72 U | 0.68 U | 0.6 U | 0.64 U | 0.66 U | 0.56 U | 0.61 U |

Table A-1. Historical Soil Analytical Results

| Location ID (PFAS-) Date Sample Depth (ft bls) | CAS No. | Screening Criteria ^{1,2} | SB0125 | | | SB0126 | |
|---|-------------|--------------------------------------|---------------|---------|---------|---------|---------|
| | | | 9/24/21 | 9/24/21 | 9/24/21 | 9/24/21 | 9/24/21 |
| | | | 0 - 0.5* | 0 - 0.5 | 0.5 - 2 | 0 - 0.5 | 0.5 - 2 |
| PFAS with Screening Criteria (µg/kg) | | | | | | | |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) [GenX] ³ | 13252-13-6 | 23 | NA | NA | NA | NA | NA |
| Perfluoro-1-butanefulfonic acid (PFBS) | 375-73-5 | 1900 | 0.53 U | 0.7 U | 0.55 U | 0.61 U | 0.63 U |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | 130 | 0.53 U | 0.7 U | 0.55 U | 0.61 U | 0.63 U |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | 19 | 0.53 U | 0.7 U | 0.55 U | 0.61 U | 0.63 U |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | 19 | 0.53 U | 0.7 U | 0.55 U | 0.61 U | 0.63 U |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | 13 | 0.28 I | 0.7 U | 0.55 U | 0.61 U | 0.63 U |
| PFAS without Screening Criteria (µg/kg) | | | | | | | |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | -- | NA | NA | NA | NA | NA |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | -- | NA | NA | NA | NA | NA |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | -- | NA | NA | NA | NA | NA |
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CL-PF3ONS) | 756426-58-1 | -- | NA U | NA U | NA U | NA U | NA U |
| 11-chloroicosadecafluoro-3-oxaundecane-1-sulfonic acid (11CL-PF3OUDS) | 763051-92-9 | -- | NA U | NA U | NA U | NA U | NA U |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | -- | NA U | NA U | NA U | NA U | NA U |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | -- | NA | NA | NA | NA | NA |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | -- | 1.1 U | 1.4 U | 1.1 U | 1.2 U | 1.3 U |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | -- | 1.1 U | 1.4 U | 1.1 U | 1.2 U | 1.3 U |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | -- | NA | NA | NA | NA | NA |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | -- | NA | NA | NA | NA | NA |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | -- | 0.53 U | 0.7 U | 0.55 U | 0.61 U | 0.63 U |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | -- | 0.53 U | 0.7 U | 0.55 U | 0.61 U | 0.63 U |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | -- | NA | NA | NA | NA | NA |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | -- | 0.53 U | 0.7 U | 0.55 U | 0.61 U | 0.63 U |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | -- | 0.53 U | 0.7 U | 0.55 U | 0.61 U | 0.63 U |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | -- | NA | NA | NA | NA | NA |
| Perfluorooctane sulfonamide (PFOSA) | 754-91-6 | -- | NA | NA | NA | NA | NA |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | -- | NA | NA | NA | NA | NA |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | -- | NA | NA | NA | NA | NA |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | -- | 0.53 U | 0.7 U | 0.55 U | 0.61 U | 0.63 U |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | -- | 0.53 U | 0.7 U | 0.55 U | 0.61 U | 0.63 U |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | -- | 0.53 U | 0.7 U | 0.55 U | 0.61 U | 0.63 U |

All results reported in microgram per kilogram (µg/kg)

1 The USEPA Regional Screening Levels (RSLs) for HFPO-DA, PFBS, PFHxS, PFNA, PFOA, and PFOS are presented in this table.

2 The Soil RSL is cited from the USEPA Regional Screening Levels and calculated with the EPA RSL Calculator based on a hazard quotient of 0.1 (USEPA, 2022)

3 HFPO-DA is commonly referred to as GenX

* Duplicate sample results are included in this table and labeled with asterisk

-- = No applicable screening criteria

Bolding indicates analyte was detected

Shading indicates exceedance of screening criteria

USEPA = United States Environmental Protection Agency

ft bls = feet below land surface

NA = Not Applicable; compound not analyzed

PFAS = per- and polyfluoroalkyl substances

I = Estimated result < Limit of Quantitation and ≥ Detection Limit

U = Analyte was not detected

Table A-2. Historical DPT Analytical Results

| Location ID | Date | CAS No. | Screening Criteria ^{1,2} | PFAS-DPT0063 | | | | PFAS-DPT0066 | | | PFAS-DPT0067 | | | |
|---|------|-------------|-----------------------------------|--------------|-----------|-----------|-----------|--------------|------------|------------|--------------|------------|------------|------------|
| | | | | 11/7/2018 | 11/7/2018 | 11/7/2018 | 11/7/2018 | 10/31/2018 | 10/31/2018 | 10/31/2018 | 10/31/2018 | 10/31/2018 | 10/31/2018 | 10/31/2018 |
| | | | | 8 - 12 | 23 - 27 | 33 - 37 | 43 - 47 | 8 - 12 | 23 - 27 | 43 - 47 | 8 - 12 | 23 - 27 | 33 - 37 | 43 - 47 |
| PFAS with Screening Criteria (ng/L) | | | | | | | | | | | | | | |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) [GenX] ³ | | 13252-13-6 | 6 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perfluoro-1-butanedisulfonic acid (PFBS) | | 375-73-5 | 600 | 1.9 M | 0.52 JM | 0.96 UM | 0.96 UM | 170 M | 220 M | 86 M | 3 M | 3.4 M | 4.4 M | 15 M |
| Perfluorohexanesulfonic acid (PFHxS) | | 355-46-4 | 39 | 33 M | 3.2 | 0.47 JM | 0.96 UM | 3600 D | 5800 D | 710 D | 16 | 13 | 24 | 210 |
| Perfluoro-n-nonanoic acid (PFNA) | | 375-95-1 | 5.9 | 1.4 U | 1.4 UM | 1.4 U | 1.4 U | 2.8 M | 65 M | 14 M | 3.7 M | 2.4 M | 4.4 M | 1.7 JM |
| Perfluoro-n-octanoic acid (PFOA) | | 335-67-1 | 6 | 13 M | 1.4 JM | 1.4 UM | 1.4 UM | 690 D | 810 D | 92 | 8.8 M | 4.4 M | 11 M | 17 M |
| Perfluorooctanesulfonic acid (PFOS) | | 1763-23-1 | 4 | 7 M | 1.4 JM | 2.9 UM | 2.9 UM | 1500 DB | 14000 DB | 3900 DB | 290 B | 110 B | 500 DB | 1100 DB |
| PFAS without Screening Criteria (ng/L) | | | | | | | | | | | | | | |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | | 757124-72-4 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | | 27619-97-2 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | | 39108-34-4 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CL-PF3ONS) | | 756426-58-1 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 11-chloroicosadecafluoro-3-oxaundecane-1-sulfonic acid (11CL-PF3OUDS) | | 763051-92-9 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | | 919005-14-4 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | | 4151-50-2 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | | 2991-50-6 | -- | 9.5 U | 9.5 U | 9.6 U | 9.6 U | 8.7 U | 8.6 U | 8.5 U | 8.5 U | 8.5 UM | 8.5 U | 8.8 U |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | | 2355-31-9 | -- | 9.5 U | 9.5 U | 9.6 U | 9.6 U | 8.7 U | 8.6 U | 8.5 U | 8.5 U | 8.5 U | 8.5 U | 8.8 U |
| Perfluoro-n-butyric acid (PFBA) | | 375-22-4 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perfluoro-1-decanesulfonic acid (PFDS) | | 335-77-3 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perfluoro-n-decanoic acid (PFDA) | | 335-76-2 | -- | 0.95 U | 0.95 U | 0.96 U | 0.96 UM | 0.87 UQ | 0.86 UMQ | 0.85 UMQ | 2.4 MQ | 3.1 Q | 4.7 Q | 0.51 JMQ |
| Perfluoro-n-dodecanoic acid (PFDoA) | | 307-55-1 | -- | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 1.3 U | 1.3 U | 1.3 U | 1.3 U | 1.3 U | 1.3 U | 1.3 U |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | | 375-92-8 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perfluoro-n-heptanoic acid (PFHpA) | | 375-85-9 | -- | 4.1 | 1.4 UM | 1.4 U | 1.4 U | 490 D | 290 | 34 | 62 | 2.7 | 6.1 | 7.2 |
| Perfluoro-n-hexanoic acid (PFHxA) | | 307-24-4 | -- | 6.2 M | 1.2 JM | 0.96 UM | 0.96 UM | 890 D | 620 D | 130 | 120 M | 12 M | 17 M | 23 M |
| Perfluoro-1-nonanesulfonic acid (PFNS) | | 68259-12-1 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perfluorooctane sulfonamide (PFOSA) | | 754-91-6 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | | 2706-91-4 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perfluoro-n-pentanoic acid (PFPeA) | | 2706-90-3 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | | 376-06-7 | -- | 2.8 U | 2.9 U | 2.9 U | 2.9 U | 2.6 U | 2.6 U | 2.5 U | 2.5 U | 2.6 U | 2.5 U | 2.6 U |
| Perfluoro-n-tridecanoic acid (PFTrDA) | | 72629-94-8 | -- | 2.8 U | 2.9 U | 2.9 U | 2.9 U | 2.6 UM | 2.6 UM | 2.5 U | 2.5 U | 2.6 U | 2.5 U | 2.6 U |
| Perfluoro-n-undecanoic acid (PFUdA) | | 2058-94-8 | -- | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 1.3 UM | 1.3 UM | 1.3 U | 1 JM | 0.63 JM | 0.69 JM | 1.3 UM |

Table A-2. Historical DPT Analytical Results

| Location ID Date Sample Depth (ft bls) | CAS No. | Screening Criteria ^{1,2} | PFAS-DPT0068 | | | | PFAS-DPT0069 | | | | | PFAS-DPT0117 | | | |
|---|-------------|--------------------------------------|--------------|------------|------------|------------|--------------|------------|------------|------------|------------|--------------|-----------|-----------|-----------|
| | | | 10/31/2018 | 10/31/2018 | 10/31/2018 | 10/31/2018 | 10/31/2018 | 10/31/2018 | 10/31/2018 | 10/31/2018 | 10/31/2018 | 3/20/2019 | 3/20/2019 | 3/20/2019 | 3/20/2019 |
| | | | 8 - 12 | 23 - 27 | 33 - 37 | 43 - 47 | 8 - 12 | 23 - 27 | 33 - 37 | 33 - 37* | 43 - 47 | 8 - 12 | 23 - 27 | 33 - 37 | 43 - 47 |
| PFAS with Screening Criteria (ng/L) | | | | | | | | | | | | | | | |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) [GenX] ³ | 13252-13-6 | 6 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perfluoro-1-butanedisulfonic acid (PFBS) | 375-73-5 | 600 | 39 M | 16 M | 630 DM | 110 M | 260 | 1600 D | 1700 D | 1900 D | 2400 D | 6.6 | 0.94 U | 0.92 UM | 0.92 U |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | 39 | 710 D | 48 | 3500 D | 520 D | 4600 D | 32000 D | 27000 D | 28000 D | 28000 D | 7.3 M | 0.53 JM | 1.4 JM | 0.39 JM |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | 5.9 | 49 | 0.59 JM | 4.5 M | 1.1 J | 400 DM | 290 D | 140 JDM | 170 DM | 140 M | 1.4 U | 1.4 U | 1.4 UM | 1.4 U |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | 6 | 170 | 5.7 M | 290 | 55 M | 1200 D | 5500 D | 4900 D | 5100 D | 2800 D | 3.3 M | 1.4 UM | 0.8 JM | 1.4 UM |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | 4 | 930 DB | 64 B | 540 DB | 130 BM | 39000 B | 210000 B | 240000 B | 230000 B | 35000 B | 2.7 JM | 2.8 UM | 12 | 1.5 JM |
| PFAS without Screening Criteria (ng/L) | | | | | | | | | | | | | | | |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CL-PF3ONS) | 756426-58-1 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 11-chloroicosadecafluoro-3-oxaundecane-1-sulfonic acid (11CL-PF3OUDS) | 763051-92-9 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | -- | 8.8 UM | 8.6 U | 9 U | 9.1 U | 10 U | 88 UM | 88 U | 89 U | 8.8 U | 9.5 U | 9.4 U | 9.2 U | 9.2 U |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | -- | 8.8 U | 8.6 U | 9 U | 9.1 U | 10 U | 88 U | 88 U | 89 U | 88 U | 9.5 U | 9.4 U | 9.2 U | 9.2 U |
| Perfluoro-n-butanedisulfonic acid (PFBA) | 375-22-4 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perfluoro-1-decanedisulfonic acid (PFDS) | 335-77-3 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | -- | 10 Q | 0.86 UQ | 0.47 JMQ | 0.91 UQ | 78 MQ | 18 DQ | 32 DMQ | 30 DMQ | 4.9 Q | 0.95 U | 0.94 U | 0.92 U | 0.92 U |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | -- | 1.3 U | 1.3 U | 1.4 U | 1.4 U | 1.5 U | 13 U | 13 U | 13 U | 13 U | 1.4 U | 1.4 U | 1.4 U | 1.4 U |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | -- | 230 | 4.7 | 180 | 26 | 1000 D | 2400 D | 2100 D | 2000 D | 1500 D | 1.3 JM | 0.67 JM | 1.4 UM | 1.4 U |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | -- | 480 D | 18 M | 740 DM | 120 M | 1800 D | 8800 D | 8300 D | 8800 D | 7000 D | 3.3 M | 0.94 UM | 0.92 UM | 0.92 U |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perfluorooctane sulfonamide (PFOSA) | 754-91-6 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | -- | 2.6 U | 2.6 U | 2.7 U | 2.7 U | 3.1 U | 27 U | 26 U | 27 U | 2.6 U | 2.9 U | 2.8 U | 2.8 U | 2.7 U |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | -- | 2.6 UM | 2.6 UM | 2.7 UM | 2.7 U | 3.1 U | 27 U | 26 U | 27 U | 2.6 U | 2.9 U | 2.8 U | 2.8 U | 2.7 U |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | -- | 2.6 M | 1.3 UM | 1.4 UM | 1.4 UM | 1.5 UM | 13 U | 13 UM | 13 U | 13 U | 1.4 U | 1.4 U | 1.4 U | 1.4 UM |

Table A-2. Historical DPT Analytical Results

| Location ID Date Sample Depth (ft bls) | CAS No. | Screening Criteria ^{1,2} | PFAS-DPT0120 | | | | PFAS-DPT0122 | | | | | PFAS-DPT0141 | | | |
|---|-------------|--------------------------------------|--------------|-----------|-----------|-----------|--------------|-----------|-----------|-----------|-----------|--------------|-----------|-----------|-----------|
| | | | 3/28/2019 | 3/28/2019 | 3/28/2019 | 3/28/2019 | 3/28/2019 | 3/28/2019 | 3/28/2019 | 3/28/2019 | 3/28/2019 | 3/29/2019 | 3/29/2019 | 3/29/2019 | 3/29/2019 |
| | | | 8 - 12 | 23 - 27 | 33 - 37 | 43 - 47 | 8 - 12 | 23 - 27 | 23 - 27* | 33 - 37 | 43 - 47 | 8 - 12 | 23 - 27 | 33 - 37 | 43 - 47 |
| PFAS with Screening Criteria (ng/L) | | | | | | | | | | | | | | | |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) [GenX] ³ | 13252-13-6 | 6 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perfluoro-1-butanedisulfonic acid (PFBS) | 375-73-5 | 600 | 2400 D | 4100 D | 4200 D | 1900 D | 4.8 | 1.9 JM | 1.9 JM | 1.9 J | 1.9 JM | 0.93 U | 0.71 J | 0.95 U | 0.98 U |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | 39 | 32000 D | 33000 D | 27000 D | 13000 D | 10 M | 5.7 M | 5.3 M | 5.3 M | 5.4 M | 3.9 M | 4.6 M | 0.41 JM | 0.53 JM |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | 5.9 | 78 D | 28 UM | 13 JD | 22 JD | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 1.4 UM | 1.4 U | 1.4 U | 1.4 U | 1.5 U |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | 6 | 15000 DM | 3500 DM | 2400 DM | 1100 DM | 2.2 M | 3.7 M | 3.5 M | 4.6 | 3.9 M | 1.1 J | 1.4 U | 1.4 U | 0.76 JM |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | 4 | 34000 D | 2300 D | 6300 D | 4200 D | 4.4 M | 3.7 JM | 3.8 JM | 17 M | 4.5 M | 3.2 JM | 2.7 UM | 2.8 UM | 2.9 UM |
| PFAS without Screening Criteria (ng/L) | | | | | | | | | | | | | | | |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CL-PF3ONS) | 756426-58-1 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 11-chloroicosadecafluoro-3-oxaundecane-1-sulfonic acid (11CL-PF3OUDS) | 763051-92-9 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | -- | 190 U | 180 U | 220 U | 200 U | 9.2 U | 9.3 U | 9.4 U | 9.4 U | 9.3 U | 9.3 U | 9.1 U | 9.5 U | 9.8 U |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | -- | 190 U | 180 U | 220 U | 200 U | 9.2 UJ1 | 9.3 U | 9.4 U | 9.4 U | 9.3 U | 9.3 U | 9.1 U | 9.5 U | 9.8 U |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | -- | 19 U | 18 U | 22 U | 20 U | 0.92 U | 0.93 U | 0.94 U | 0.94 U | 0.93 U | 0.93 U | 0.91 U | 0.95 U | 0.98 U |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | -- | 28 U | 28 U | 32 UM | 29 U | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 1.5 U |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | -- | 2200 D | 2100 D | 1200 D | 510 D | 1.9 J | 2 M | 2.2 M | 2.4 M | 2.1 | 0.74 JM | 5.7 | 1.4 U | 1.5 UM |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | -- | 7000 DB | 11000 DB | 6500 DB | 2600 DB | 1.8 B | 4.1 MB | 4.2 MB | 3.9 B | 3 MB | 1.9 JM | 17 M | 1.9 J | 2 J |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perfluorooctane sulfonamide (PFOSA) | 754-91-6 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | -- | 56 U | 55 U | 65 U | 59 U | 2.8 U | 2.8 U | 2.8 U | 2.8 U | 2.8 U | 2.8 U | 2.7 U | 2.8 U | 2.9 U |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | -- | 56 U | 55 U | 65 U | 59 U | 2.8 U | 2.8 U | 2.8 U | 2.8 U | 2.8 U | 2.8 U | 2.7 U | 2.8 U | 2.9 U |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | -- | 28 U | 28 U | 32 UM | 29 U | 1.4 UM | 1.4 U | 1.4 U | 1.4 U | 1.4 UM | 1.4 U | 1.4 U | 1.4 U | 1.5 U |

Table A-2. Historical DPT Analytical Results

| Location ID Date Sample Depth (ft bls) | CAS No. | Screening Criteria ^{1,2} | PFAS-DPT0184 | | | | PFAS-DPT0185 | | | | PFAS-DPT0186 | | | | |
|---|-------------|--------------------------------------|--------------|---------|---------|---------|--------------|---------|---------|---------|--------------|---------|---------|----------|---------|
| | | | 1/26/21 | 1/26/21 | 1/26/21 | 1/26/21 | 1/26/21 | 1/26/21 | 1/26/21 | 1/26/21 | 1/26/21 | 1/26/21 | 1/26/21 | 1/26/21 | |
| | | | 6 - 10 | 21 - 25 | 31 - 35 | 41 - 45 | 6 - 10 | 21 - 25 | 31 - 35 | 41 - 45 | 6 - 10 | 21 - 25 | 31 - 35 | 31 - 35* | 41 - 45 |
| PFAS with Screening Criteria (ng/L) | | | | | | | | | | | | | | | |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) [GenX] ³ | 13252-13-6 | 6 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perfluoro-1-butanedisulfonic acid (PFBS) | 375-73-5 | 600 | 11 U | 4.2 U | 4.5 U | 4.5 U | 127 | 34.4 | 15 | 9.6 | 33 U | 26.3 | 23 | 21.2 | 20 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | 39 | 10.9 I | 4.2 U | 3 I | 2.4 I | 858 | 896 | 52.4 | 18.8 | 94.3 | 108 | 43.7 | 41.6 | 57.5 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | 5.9 | 11 U | 4.2 U | 4.5 U | 4.5 U | 64.6 | 4 U | 7.6 | 5 U | 33 U | 5.2 U | 4 U | 4 U | 4 U |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | 6 | 5.9 I | 4.2 U | 4.5 U | 4.5 U | 349 | 93.7 | 18.1 | 6.9 | 33 U | 58.5 | 16.3 | 15.3 | 24.6 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | 4 | 7.9 I | 4.2 U | 3.9 I | 4.5 U | 3180 | 190 | 1210 L | 268 | 161 | 5.2 U | 25.9 | 15.8 | 4 U |
| PFAS without Screening Criteria (ng/L) | | | | | | | | | | | | | | | |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CL-PF3ONS) | 756426-58-1 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 11-chloroicosadecafluoro-3-oxaundecane-1-sulfonic acid (11CL-PF3OUDS) | 763051-92-9 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | -- | 9.1 U | 8.3 U | 91 U | 9.1 U | 200 U | 8 U | 56 U | 10 U | 66 U | 10 U | 8 U | 8 U | 8 U |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | -- | 9.1 U | 8.3 U | 91 U | 9.1 U | 200 U | 8 U | 11 U | 10 U | 66 U | 10 U | 8 U | 8 U | 8 U |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | -- | 11 U | 4.2 U | 4.5 U | 4.5 U | 100 U | 4 U | 3.2 I | 5 U | 33 U | 5.2 U | 4 U | 4 U | 4 U |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | -- | 11 U | 4.2 U | 45 U | 4.5 U | 100 U | 20 U | 28 U | 5 U | 33 U | 5.2 U | 20 U | 20 U | 4 U |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | -- | 11 U | 4.2 U | 4.5 U | 4.5 U | 804 | 56.5 | 18.1 | 5.1 | 33 U | 39 | 16.8 | 15.5 | 19.9 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | -- | 11 U | 4.2 U | 4.5 U | 4.5 U | 708 | 53.2 | 17.9 | 6.3 | 33 U | 72.4 | 16.7 | 15.5 | 29.3 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perfluorooctane sulfonamide (PFOSA) | 754-91-6 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | -- | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | -- | 11 U | 21 U | 4.5 U | 4.5 U | 20 U | 4 U | 28 U | 5 U | 33 U | 5.2 U | 20 U | 20 U | 20 U |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | -- | 11 U | 4.2 U | 45 U | 4.5 U | 100 U | 20 U | 28 U | 5 U | 33 U | 5.2 U | 20 U | 20 U | 4 U |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | -- | 11 U | 4.2 U | 45 U | 4.5 U | 100 U | 4 U | 28 U | 5 U | 33 U | 5.2 U | 4 U | 4 U | 4 U |

Table A-2. Historical DPT Analytical Results

| Location ID | Date | CAS No. | Screening Criteria ^{1,2} | S014-DPT1003 | | | | | |
|---|------|-------------|-----------------------------------|--------------|---------|---------|---------|---------|----------|
| | | | | 2/28/22 | 2/28/22 | 2/28/22 | 2/28/22 | 2/28/22 | 2/28/22 |
| | | | | 3 - 7 | 13 - 17 | 23 - 27 | 33 - 37 | 43 - 47 | 43 - 47* |
| PFAS with Screening Criteria (ng/L) | | | | | | | | | |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) [GenX] ³ | | 13252-13-6 | 6 | 16 U | 80 U | 16 U | 21 U | 16 U | 16 U |
| Perfluoro-1-butanedisulfonic acid (PFBS) | | 375-73-5 | 600 | 8 U | 40 U | 8 U | 11 U | 8 U | 8 U |
| Perfluorohexanesulfonic acid (PFHxS) | | 355-46-4 | 39 | 8 U | 8 U | 8 U | 7.7 J | 8 U | 7.5 J |
| Perfluoro-n-nonanoic acid (PFNA) | | 375-95-1 | 5.9 | 8 U | 8 U | 3.9 J | 11 U | 41.7 | 8 U |
| Perfluoro-n-octanoic acid (PFOA) | | 335-67-1 | 6 | 8 U | 8 U | 2.9 J | 5.1 J | 43.8 | 4.3 J |
| Perfluorooctanesulfonic acid (PFOS) | | 1763-23-1 | 4 | 8 U | 2.5 J | 10 | 11 U | 14.7 | 8 U |
| PFAS without Screening Criteria (ng/L) | | | | | | | | | |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | | 757124-72-4 | -- | 16 U | 16 U | 16 U | 21 U | 16 U | 16 U |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | | 27619-97-2 | -- | 16 U | 16 U | 16 U | 21 U | 16 U | 16 U |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | | 39108-34-4 | -- | 16 U | 16 U | 16 U | 21 U | 16 U | 16 U |
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CL-PF3ONS) | | 756426-58-1 | -- | NA | NA | NA | NA | NA | NA |
| 11-chloroicosadecafluoro-3-oxaundecane-1-sulfonic acid (11CL-PF3OUDS) | | 763051-92-9 | -- | NA | NA | NA | NA | NA | NA |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | | 919005-14-4 | -- | NA | NA | NA | NA | NA | NA |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | | 4151-50-2 | -- | NA | NA | NA | NA | NA | NA |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | | 2991-50-6 | -- | 16 U | 16 U | 16 U | 21 U | 16 U | 16 U |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | | 2355-31-9 | -- | 16 U | 16 U | 16 U | 21 U | 16 U | 16 U |
| Perfluoro-n-butanedisulfonic acid (PFBS) | | 375-22-4 | -- | 80 U | 80 U | 80 U | 110 U | 48.8 | 80 U |
| Perfluoro-1-decanedisulfonic acid (PFDS) | | 335-77-3 | -- | 8 U | 8 U | 8 U | 11 U | 8 U | 8 U |
| Perfluoro-n-decanoic acid (PFDA) | | 335-76-2 | -- | 8 U | 8 U | 8 U | 11 U | 39.7 | 8 U |
| Perfluoro-n-dodecanoic acid (PFDoA) | | 307-55-1 | -- | 8 U | 8 U | 8 U | 11 U | 44.7 | 8 U |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | | 375-92-8 | -- | 8 U | 8 U | 8 U | 11 U | 8 U | 8 U |
| Perfluoro-n-heptanoic acid (PFHpA) | | 375-85-9 | -- | 8 U | 8 U | 8 U | 11 U | 38.1 | 8 U |
| Perfluoro-n-hexanoic acid (PFHxA) | | 307-24-4 | -- | 8 U | 40 U | 8 U | 3.9 J | 33.8 | 3.2 J |
| Perfluoro-1-nonanesulfonic acid (PFNS) | | 68259-12-1 | -- | 8 U | 8 U | 8 U | 11 U | 8 U | 8 U |
| Perfluorooctane sulfonamide (PFOSA) | | 754-91-6 | -- | 8 U | 8 U | 8 U | 11 U | 8 U | 8 U |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | | 2706-91-4 | -- | 8 U | 40 U | 8 U | 11 U | 8 U | 8 U |
| Perfluoro-n-pentanoic acid (PFPeA) | | 2706-90-3 | -- | 40 U | 40 U | 40 U | 53 U | 39.2 | 40 U |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | | 376-06-7 | -- | 8 U | 40 U | 8 U | 11 U | 37.3 | 8 U |
| Perfluoro-n-tridecanoic acid (PFTrDA) | | 72629-94-8 | -- | 8 U | 8 U | 8 U | 11 U | 49.7 | 8 U |
| Perfluoro-n-undecanoic acid (PFUdA) | | 2058-94-8 | -- | 8 U | 8 U | 8 U | 11 U | 43.3 | 8 U |

All results reported in nanogram per liter (ng/L)

1 The USEPA Regional Screening Levels (RSLs) for HFPO-DA, PFBS, PFHxS, PFNA, PFOA, and PFOS are presented in this table.

2 The Groundwater RSL is cited from the EPA Regional Screening Levels and calculated with the EPA RSL Calculator based on a hazard quotient of 0.1 (USEPA, 2022)

3 HFPO-DA is commonly referred to as GenX

* Duplicate sample results are included in this table and labeled with asterisk

-- = No applicable screening criteria

Bolding indicates analyte was detected

Shading indicates exceedance of screening criteria

FS1 = Fire Station #1

USEPA = United States Environmental Protection Agency

ft bls = feet below land surface

NA = Not Applicable; compound not analyzed

PFAS = per- and polyfluoroalkyl substances

B = Analyte detected above one-half the reporting limit in associated blank

D = Reported value is from a dilution

I = Estimated result < Limit of Quantitation and ≥ Detection Limit

J = Result is between the Method Detection Limit and Limit of Quantitation and is an estimated value

M = Presence of material is verified but not quantified

Q = Out of holding time

U = Analyte was not detected

Table A-3. Historical Monitoring Well Analytical Results

| Location ID | CAS No. | Screening Criteria ^{1,2} | CM_S-MW0036 | CM_S-MW0037 | CM_S-MW0038 | CM_S-MW0048 |
|--|-------------|-----------------------------------|----------------|---------------|---------------|----------------|
| | | | 6/21/2021 | 6/21/2021 | 6/21/2021 | 6/21/2021 |
| | | | 5 - 15 | 5 - 15 | 5 - 15 | 5 - 15 |
| PFAS with Screening Criteria (ng/L) | | | | | | |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) [GenX] ³ | 13252-13-6 | 6 | 6.67 U | 6.67 U | 6.67 U | 6.67 U |
| Perfluoro-1-butanesulfonic acid (PFBS) | 375-73-5 | 600 | 0.737 I | 1.3 I | 1.27 I | 0.891 I |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | 39 | 1.45 I | 1.24 U | 1.92 I | 1.39 I |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | 5.9 | 0.98 U | 2.71 I | 0.98 U | 0.98 U |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | 6 | 1.98 I | 4.66 | 4.89 | 3.06 I |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | 4 | 13 | 56 | 8.97 | 3.77 I |
| PFAS without Screening Criteria (ng/L) | | | | | | |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | -- | NA | NA | NA | NA |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | -- | NA | NA | NA | NA |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | -- | NA | NA | NA | NA |
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CL-PF3ONS) | 756426-58-1 | -- | 0.9 U | 0.9 U | 0.9 U | 0.9 U |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CL-PF3OUDS) | 763051-92-9 | -- | 0.9 U | 0.9 U | 0.9 U | 0.9 U |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | -- | 0.86 U | 0.86 U | 0.86 U | 0.86 U |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | -- | NA | NA | NA | NA |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | -- | 1.58 U | 1.58 U | 1.58 U | 1.58 U |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | -- | 0.9 U | 0.9 U | 0.9 U | 0.9 U |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | -- | NA | NA | NA | NA |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | -- | NA | NA | NA | NA |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | -- | 1.44 U | 3.36 I | 1.44 U | 1.44 U |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | -- | 1.3 U | 1.3 U | 1.3 U | 1.3 U |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | -- | NA | NA | NA | NA |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | -- | 1.16 U | 3.11 I | 2.5 I | 1.47 I |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | -- | 1.23 I | 7.01 | 3.09 I | 1.59 I |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | -- | NA | NA | NA | NA |
| Perfluorooctane sulfonamide (PFOSA) | 754-91-6 | -- | NA | NA | NA | NA |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | -- | NA | NA | NA | NA |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | -- | NA | NA | NA | NA |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | -- | 1.14 U | 1.14 U | 1.14 U | 1.14 U |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | -- | 1.23 U | 1.23 U | 1.23 U | 1.23 U |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | -- | 1.24 U | 1.24 U | 1.24 U | 1.24 U |

All results reported in nanogram per liter (ng/L)

1 The USEPA Regional Screening Levels (RSLs) for HFPO-DA, PFBS, PFHxS, PFNA, PFOA, and PFOS are presented in this table.

2 The Groundwater RSL is cited from the USEPA Regional Screening Levels and calculated with the EPA RSL Calculator based on a hazard quotient of 0.1 (USEPA, 2022)

3 HFPO-DA is commonly referred to as GenX

-- = No applicable screening criteria

Bolding indicates analyte was detected

Shading indicates exceedance of screening criteria

FS1 = Fire Station #1

USEPA = United States Environmental Protection Agency

ft bls = feet below land surface

NA = Not Applicable; compound not analyzed

PFAS = per- and polyfluoroalkyl substances

I = Estimated result < Limit of Quantitation and ≥ Detection Limit

U = Analyte was not detected


APPENDIX B
FIELD DOCUMENTATION
(PROVIDED IN ELECTRONIC VERSION ONLY)

| | | | |
|------------------------|---|--|--|
| SITE NAME: Citgo (CGO) | | SITE LOCATION: Kennedy Space Center (KSC), Florida | |
| LOCATION ID: MW0012 | SAMPLE ID: CGO-MW0012-007.5-20211029 Sample depth (ddd.d)=[bottom of screen (feet bls)-Top depth] x 0.5-bottom of screen (feet bls) | DATE: 10/29/2021 | |

| | | | |
|---|--------------------------------|--|---|
| PURGING DATA | | | |
| STATIC DEPTH TO WATER (feet btoc): 2.21 | CASING HEIGHT (feet als): -0.3 | STATIC DEPTH TO WATER (feet bls) = DTW (btoc) - Casing Height (feet als): 2.51 | WELL SCREEN INTERVAL DEPTH (feet bls): 2.5 to 12.5 |
| WELL DIAMETER (inches): 1 | TUBING DIAMETER (inches): 3/16 | PURGE PUMP TYPE OR BAILER: Peristaltic Pump | TOP DEPTH = top of screen or depth to water which ever is greatest (feet bls): 2.51 |
| BOTTOM DEPTH (feet bls): 12.5 | | | |
| WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) _____ 6.1 _____ Liters. (12.5 - 2.51) x 0.61 = 6.1 | | | |
| EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) _____ Liters. | | | |

| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 7.5 | | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 7.5 | | PURGE STARTED: 1135 | | PURGING ENDED AT: 1250 | | TOTAL VOLUME PURGED (Liters): 28 | | | |
|--|------------------------|--|-------------------|-----------------------|---------------------|------------------------|---------------|----------------------------------|------------------|----------|------------------|
| TIME | VOLUME PURGED (Liters) | CUMUL. VOLUME PURGED (Liters) | PURGE RATE (mlpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (µS/cm) | DISSOLVED OXYGEN (mg/L) | TURBIDITY (NTUs) | ORP (mV) | COLOR (describe) |
| 1155 | 7.0 | 7.0 | 350 | 2.26 | 6.71 | 27.96 | 268.18 | 1.78 | 0.45 | 70.4 | Clear |
| 1245 | 17.5 | 24.5 | 350 | 2.26 | 6.70 | 28.01 | 269.11 | 1.79 | 0.66 | 62.4 | Clear |
| 1250 | 3.5 | 28.0 | 350 | 2.26 | 6.73 | 27.92 | 267.93 | 1.78 | 0.65 | 61.9 | Clear |
| 1255 | Sample | Collected | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

WELL CAPACITY (Liters Per Foot): 0.75" = 0.076; 1" = 0.15; 1.25" = 0.23; 2" = 0.61; 3" = 1.40; 4" = 2.46; 5" = 3.86; 6" = 5.57; 12" = 22.26
TUBING INSIDE DIA. CAPACITY (Liters/Ft.): 1/8" = 0.002; 3/16" = 0.005; 1/4" = 0.0098; 5/16" = 0.015; 3/8" = 0.023; 1/2" = 0.038; 5/8" = 0.06

| | |
|---|---|
| SAMPLING DATA | |
| SAMPLED BY (PRINT) / AFFILIATION: Chuck Sorden /Tetra Tech | SAMPLER(S) SIGNATURES:  |
| PUMP OR TUBING DEPTH IN WELL (feet): 7.5 | SAMPLE PUMP: FLOW RATE (mL per minute): 350 TUBING MATERIAL CODE: HDPE |
| FIELD DECONTAMINATION: (Y) N | FIELD-FILTERED: Y (N) FILTER SIZE: _____ µm Filtration Equipment Type: _____ |
| DUPLICATE: Y (N) | |

| SAMPLE CONTAINER SPECIFICATION | | | | SAMPLE PRESERVATION | | | INTENDED ANALYSIS AND/OR METHOD | SAMPLING EQUIPMENT CODE |
|--------------------------------|--------------|---------------|--------|---------------------|-------------------------------|-----------|---------------------------------|-------------------------|
| SAMPLE ID CODE | # CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH | | |
| 9 | 2 | HDPE | 250 ml | None | None | See above | PFAS QSM Table B-15 | PP |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

REMARKS. TD 14.5 ft to TOC

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump
 RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)

| | | | |
|--|---|--|--|
| SITE NAME: Former Central Heat Plant (CHP) | | SITE LOCATION: Kennedy Space Center (KSC), Florida | |
| LOCATION ID: MW0028 | SAMPLE ID: CHP-MW0028-042.5-20211029 Sample depth (ddd.d)=[bottom of screen (feet bls)-Top depth] x 0.5-bottom of screen (feet bls) | DATE: 10/29/2021 | |

| PURGING DATA | | | | |
|---|--------------------------------|--|---|-----------------------------|
| STATIC DEPTH TO WATER (feet btoc): 2.18 | CASING HEIGHT (feet als): NA | STATIC DEPTH TO WATER (feet bls) = DTW (btoc) - Casing Height (feet als): NA | WELL SCREEN INTERVAL DEPTH (feet bls): 40 to 45 | |
| WELL DIAMETER (inches): 2 | TUBING DIAMETER (inches): 3/16 | PURGE PUMP TYPE OR BAILER: Peristaltic Pump | TOP DEPTH = top of screen or depth to water which ever is greatest (feet bls): 40 | BOTTOM DEPTH (feet bls): 45 |
| WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) _____ Liters. | | | | |
| EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) _____ 0.78 Liters. (0.005 x 60) + 0.475 = 0.78 | | | | |

| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 42.5 | | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 42.5 | | PURGE STARTED: 1035 | | PURGING ENDED AT: 1105 | | TOTAL VOLUME PURGED (Liters): 7.5 | | | |
|---|------------------------|---|-------------------|-----------------------|---------------------|------------------------|---------------|-----------------------------------|------------------|----------|------------------|
| TIME | VOLUME PURGED (Liters) | CUMUL. VOLUME PURGED (Liters) | PURGE RATE (mlpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (µS/cm) | DISSOLVED OXYGEN (mg/L) | TURBIDITY (NTUs) | ORP (mV) | COLOR (describe) |
| 1045 | 2.5 | 2.5 | 250 | 2.23 | 7.06 | 27.28 | 901.23 | 0.08 | 0.87 | -52.6 | Clear |
| 1055 | 2.5 | 5.0 | 250 | 2.23 | 7.06 | 27.27 | 887.96 | 0.06 | 0.76 | -64.7 | Clear |
| 1105 | 2.5 | 7.5 | 250 | 2.23 | 7.05 | 27.31 | 883.80 | 0.05 | 0,79 | -70.4 | Clear |
| 1110 | Sample | Collected | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

WELL CAPACITY (Liters Per Foot): 0.75" = 0.076; 1" = 0.15; 1.25" = 0.23; 2" = 0.61; 3" = 1.40; 4" = 2.46; 5" = 3.86; 6" = 5.57; 12" = 22.26
TUBING INSIDE DIA. CAPACITY (Liters/Ft.): 1/8" = 0.002; 3/16" = 0.005; 1/4" = 0.0098; 5/16" = 0.015; 3/8" = 0.023; 1/2" = 0.038; 5/8" = 0.06

| SAMPLING DATA | | | |
|---|--|--|--|
| SAMPLED BY (PRINT) / AFFILIATION: Chuck Sorden /Tetra Tech | | SAMPLER(S) SIGNATURES: | |
| PUMP OR TUBING DEPTH IN WELL (feet): 42.5 | | SAMPLE PUMP: FLOW RATE (mL per minute): 250 | |
| FIELD DECONTAMINATION: (Y) N | | TUBING MATERIAL CODE: HDPE | |
| FIELD-FILTERED: Y (N) | | FILTER SIZE: _____ µm | |
| Filtration Equipment Type: _____ | | DUPLICATE: Y (N) | |
| SAMPLING INITIATED AT: 1110 | | SAMPLING ENDED AT: 1115 | |

| SAMPLE CONTAINER SPECIFICATION | | | | SAMPLE PRESERVATION | | | INTENDED ANALYSIS AND/OR METHOD | SAMPLING EQUIPMENT CODE |
|--------------------------------|--------------|---------------|--------|---------------------|-------------------------------|-----------|---------------------------------|-------------------------|
| SAMPLE ID CODE | # CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH | | |
| 1 | 2 | HDPE | 250 ml | None | None | See above | PFAS QSM Table B-15 | PP |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

REMARKS. TD 14.5 ft to TOC

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)


SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump
 RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)

| | | | |
|--|---|--|--|
| SITE NAME: Former Central Heat Plant (CHP) | | SITE LOCATION: Kennedy Space Center (KSC), Florida | |
| LOCATION ID: MW0029 | SAMPLE ID: CHP-MW0029-042.5-20211029 Sample depth (ddd.d)=[bottom of screen (feet bls)-Top depth] x 0.5-bottom of screen (feet bls) | DATE: 10/29/2021 | |

| PURGING DATA | | | | |
|---|--------------------------------|--|---|-----------------------------|
| STATIC DEPTH TO WATER (feet btoc): 2.19 | CASING HEIGHT (feet als): NA | STATIC DEPTH TO WATER (feet bls) = DTW (btoc) - Casing Height (feet als): NA | WELL SCREEN INTERVAL DEPTH (feet bls): 40 to 45 | |
| WELL DIAMETER (inches): 2 | TUBING DIAMETER (inches): 3/16 | PURGE PUMP TYPE OR BAILER: Peristaltic Pump | TOP DEPTH = top of screen or depth to water which ever is greatest (feet bls): 40 | BOTTOM DEPTH (feet bls): 45 |
| WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) _____ Liters. | | | | |
| EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) _____ Liters. (0.005 x 60) + 0.475 = 0.78 | | | | |

| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 42.5 | | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 42.5 | | PURGE STARTED: 1305 | | PURGING ENDED AT: 1335 | | TOTAL VOLUME PURGED (Liters): 7.5 | | | |
|---|------------------------|---|-------------------|-----------------------|---------------------|------------------------|---------------|-----------------------------------|------------------|----------|------------------|
| TIME | VOLUME PURGED (Liters) | CUMUL. VOLUME PURGED (Liters) | PURGE RATE (mlpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (µS/cm) | DISSOLVED OXYGEN (mg/L) | TURBIDITY (NTUs) | ORP (mV) | COLOR (describe) |
| 1315 | 2.5 | 2.5 | 250 | 2.24 | 6.98 | 27.02 | 843.45 | 0.07 | 2.20 | -22.8 | Clear |
| 1325 | 2.5 | 5.0 | 250 | 2.24 | 7.01 | 26.91 | 844.50 | 0.04 | 3.76 | -26.7 | Clear |
| 1335 | 2.5 | 7.5 | 250 | 2.24 | 7.01 | 27.01 | 848.01 | 0.03 | 5.78 | -27.1 | Clear |
| 1340 | Sample | Collected | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

WELL CAPACITY (Liters Per Foot): 0.75" = 0.076; 1" = 0.15; 1.25" = 0.23; 2" = 0.61; 3" = 1.40; 4" = 2.46; 5" = 3.86; 6" = 5.57; 12" = 22.26
TUBING INSIDE DIA. CAPACITY (Liters/Ft.): 1/8" = 0.002; 3/16" = 0.005; 1/4" = 0.0098; 5/16" = 0.015; 3/8" = 0.023; 1/2" = 0.038; 5/8" = 0.06

| SAMPLING DATA | | | |
|--|--|---|-------------------------|
| SAMPLED BY (PRINT) / AFFILIATION: Chuck Sorden / Tetra Tech | | SAMPLER(S) SIGNATURES:  | |
| | | SAMPLING INITIATED AT: 1340 | SAMPLING ENDED AT: 1345 |
| PUMP OR TUBING DEPTH IN WELL (feet): 42.5 | | SAMPLE PUMP: FLOW RATE (mL per minute): 250 | |
| FIELD DECONTAMINATION: (Y) N | | TUBING MATERIAL CODE: HDPE | |
| | | FIELD-FILTERED: Y (N) FILTER SIZE: _____ µm | DUPLICATE: Y (N) |
| | | Filtration Equipment Type: _____ | |

| SAMPLE CONTAINER SPECIFICATION | | | | SAMPLE PRESERVATION | | | INTENDED ANALYSIS AND/OR METHOD | SAMPLING EQUIPMENT CODE |
|--------------------------------|--------------|---------------|--------|---------------------|-------------------------------|-----------|---------------------------------|-------------------------|
| SAMPLE ID CODE | # CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH | | |
| 9 | 2 | HDPE | 250 ml | None | None | See above | PFAS QSM Table B-15 | PP |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

REMARKS. TD 14.5 ft to TOC

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)


SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump
 RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)

| | | | |
|--|---|--|--|
| SITE NAME: Formal Central Heat Plant (CHP) | | SITE LOCATION: Kennedy Space Center (KSC), Florida | |
| LOCATION ID: MW0032 | SAMPLE ID: CHP-MW0032-044.5-20211028 Sample depth (ddd.d)=[bottom of screen (feet bls)-Top depth] x 0.5-bottom of screen (feet bls) | DATE: 10/28/2021 | |

| PURGING DATA | | | | |
|--|--------------------------------|--|--|-------------------------------|
| STATIC DEPTH TO WATER (feet btoc): 5.55 | CASING HEIGHT (feet als): -0.2 | STATIC DEPTH TO WATER (feet bls) = DTW (btoc) - Casing Height (feet als): 5.75 | WELL SCREEN INTERVAL DEPTH (feet bls): 42.1 to 47.1 | |
| WELL DIAMETER (inches): 1 | TUBING DIAMETER (inches): 3/16 | PURGE PUMP TYPE OR BAILER: Peristaltic Pump | TOP DEPTH = top of screen or depth to water which ever is greatest (feet bls): | BOTTOM DEPTH (feet bls): 47.1 |
| WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) <div style="text-align: center;">_____ 6.24 _____ Liters.</div> | | | | |
| EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) <div style="text-align: center;">_____ 0.78 _____ Liters.</div> | | | | |

| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 44.5 | | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 44.5 | | PURGE STARTED: 1330 | | PURGING ENDED AT: 1349 | | TOTAL VOLUME PURGED (Liters): 5.70 | | | |
|---|------------------------|---|-------------------|-----------------------|---------------------|------------------------|---------------|------------------------------------|------------------|----------|------------------|
| TIME | VOLUME PURGED (Liters) | CUMUL. VOLUME PURGED (Liters) | PURGE RATE (mlpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (µS/cm) | DISSOLVED OXYGEN (mg/L) | TURBIDITY (NTUs) | ORP (mV) | COLOR (describe) |
| 1335 | 1.50 | 1.50 | 300.0 | 5.55 | 6.77 | 29.0 | 2868.0 | 0.98 | 2.05 | 4.2 | Clear |
| 1340 | 1.50 | 3.00 | 300.0 | 5.55 | 6.74 | 29.0 | 2912.0 | 0.20 | 1.25 | -12.0 | 1 |
| 1345 | 1.50 | 4.50 | 300.0 | 5.55 | 6.74 | 28.8 | 2915.0 | 0.10 | 0.98 | -19.5 | 1 |
| 1349 | 1.20 | 5.70 | 300.0 | 5.55 | 6.73 | 28.7 | 2919.0 | 0.08 | 1.111 | 21.5 | Clear |
| 1350 | Samples | Collected | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

WELL CAPACITY (Liters Per Foot): 0.75" = 0.076; 1" = 0.15; 1.25" = 0.23; 2" = 0.61; 3" = 1.40; 4" = 2.46; 5" = 3.86; 6" = 5.57; 12" = 22.26
TUBING INSIDE DIA. CAPACITY (Liters/Ft.): 1/8" = 0.002; 3/16" = 0.005; 1/4" = 0.0098; 5/16" = 0.015; 3/8" = 0.023; 1/2" = 0.038; 5/8" = 0.06

| SAMPLING DATA | | | |
|--|--|---|--------------------------------|
| SAMPLED BY (PRINT) / AFFILIATION: Robert Siegel/Tetra Tech | | SAMPLER(S) SIGNATURES:  | |
| | | SAMPLING INITIATED AT: 1350 | SAMPLING ENDED AT: 1400 |
| PUMP OR TUBING DEPTH IN WELL (feet): 44.5 | | SAMPLE PUMP: FLOW RATE (mL per minute): 300.0 | TUBING MATERIAL CODE: New HDPE |
| FIELD DECONTAMINATION: (Y) N | | FIELD-FILTERED: Y (N) FILTER SIZE: _____ µm | DUPLICATE: Y (N) |
| Filtration Equipment Type: _____ | | | |

| SAMPLE CONTAINER SPECIFICATION | | | | SAMPLE PRESERVATION | | | INTENDED ANALYSIS AND/OR METHOD | SAMPLING EQUIPMENT CODE |
|--------------------------------|--------------|---------------|--------|---------------------|-------------------------------|-----------|---------------------------------|-------------------------|
| SAMPLE ID CODE | # CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH | | |
| 32 | 2 | HDPE | 250 ml | Ice | None | See above | PFAS QSM Table B-15 | PP |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

REMARKS. TD 47.1 ft to TOC

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)


SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)

| | | | |
|--|---|--|--|
| SITE NAME: Formal Central Heat Plant (CHP) | | SITE LOCATION: Kennedy Space Center (KSC), Florida | |
| LOCATION ID: MW0033 | SAMPLE ID: CHP-MW0033-035.0-20211006 Sample depth (ddd.d)=[bottom of screen (feet bls)-Top depth] x 0.5-bottom of screen (feet bls) | DATE: 10/28/2021 | |

| PURGING DATA | | | | |
|---|--------------------------------|---|--|-------------------------------|
| STATIC DEPTH TO WATER (feet btoc): 5.90 | CASING HEIGHT (feet als): -0.2 | STATIC DEPTH TO WATER (feet bls) = DTW (btoc) - Casing Height (feet als): 6.1 | WELL SCREEN INTERVAL DEPTH (feet bls): 32.5 to 37.5 | |
| WELL DIAMETER (inches): 1 | TUBING DIAMETER (inches): 3/16 | PURGE PUMP TYPE OR BAILER: Peristaltic Pump | TOP DEPTH = top of screen or depth to water which ever is greatest (feet bls): | BOTTOM DEPTH (feet bls): 37.5 |
| WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) <p style="text-align: center;">_____ 4.74 _____ Liters. (14.5 - 5.05) x 0.15 =</p> | | | | |
| EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) <p style="text-align: center;">_____ 0.73 _____ Liters.</p> | | | | |

| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 35.0 | | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 35.0 | | PURGE. STARTED: 1010 | | PURGING ENDED AT: 1029 | | TOTAL VOLUME PURGED (Liters): 4.18 | | | |
|---|------------------------|---|-------------------|-----------------------|---------------------|------------------------|---------------|------------------------------------|------------------|----------|------------------|
| TIME | VOLUME PURGED (Liters) | CUMUL. VOLUME PURGED (Liters) | PURGE RATE (mlpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (µS/cm) | DISSOLVED OXYGEN (mg/L) | TURBIDITY (NTUs) | ORP (mV) | COLOR (describe) |
| 1015 | 1.10 | 1.10 | 220.0 | 5.95 | 6.83 | 27.4 | 2753.0 | 0.26 | 4.10 | -5.0 | Clear |
| 1020 | 1.10 | 2.20 | 220.0 | 5.95 | 6.85 | 27.5 | 2755.0 | 0.11 | 2.85 | 3.0 | 1 |
| 1025 | 1.10 | 3.30 | 220.0 | 5.95 | 6.84 | 27.4 | 2745.0 | 0.10 | 1.81 | 3.4 | 1 |
| 1029 | 0.88 | 4.18 | 220.0 | 5.95 | 6.85 | 27.5 | 2743.0 | 0.08 | 1.95 | 5.0 | Clear |
| 1030 | Samples | Collected | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

WELL CAPACITY (Liters Per Foot): 0.75" = 0.076; 1" = 0.15; 1.25" = 0.23; 2" = 0.61; 3" = 1.40; 4" = 2.46; 5" = 3.86; 6" = 5.57; 12" = 22.26
TUBING INSIDE DIA. CAPACITY (Liters/Ft.): 1/8" = 0.002; 3/16" = 0.005; 1/4" = 0.0098; 5/16" = 0.015; 3/8" = 0.023; 1/2" = 0.038; 5/8" = 0.06

| SAMPLING DATA | | | | | |
|---|--|---|--|-----------------------------|-------------------------|
| SAMPLED BY (PRINT) / AFFILIATION: Robert Siegel/Tetra Tech | | SAMPLER(S) SIGNATURES:  | | SAMPLING INITIATED AT: 1030 | SAMPLING ENDED AT: 1040 |
| PUMP OR TUBING DEPTH IN WELL (feet): 35.0 | | SAMPLE PUMP: FLOW RATE (mL per minute): 220.0 | | TUBING MATERIAL CODE: HDPE | |
| FIELD DECONTAMINATION: (Y) N | | FIELD-FILTERED: Y (N) FILTER SIZE: _____ µm Filtration Equipment Type: _____ | | DUPLICATE: Y (N) | |

| SAMPLE CONTAINER SPECIFICATION | | | | SAMPLE PRESERVATION | | | INTENDED ANALYSIS AND/OR METHOD | SAMPLING EQUIPMENT CODE |
|--------------------------------|--------------|---------------|--------|---------------------|-------------------------------|-----------|---------------------------------|-------------------------|
| SAMPLE ID CODE | # CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH | | |
| 9 | 2 | HDPE | 250 ml | Ice | None | See above | PFAS QSM Table B-15 | PP |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

REMARKS. TD 37.5 ft to TOC

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)
SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump
 RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)

| | | | |
|---|--|---|-------------------------|
| SITE NAME: Formal Central Heat Plant (CHP) | | SITE LOCATION: Kennedy Space Center (KSC), Florida | |
| LOCATION ID: MW0034 | | SAMPLE ID: CHP-MW0034-024.4-20211028 Sample depth (ddd.d)=[bottom of screen (feet bls)-Top depth] x 0.5-bottom of screen (feet bls) | DATE: 10/28/2021 |

PURGING DATA


| | | | | | | | | | | |
|---|--|--------------------------------|--|---|--|--|--|--------------------------------|--|--|
| STATIC DEPTH TO WATER (feet btoc): 5.61 | | CASING HEIGHT (feet als): | | STATIC DEPTH TO WATER (feet bls) = DTW (btoc) - Casing Height (feet als): | | WELL SCREEN INTERVAL DEPTH (feet bls): 21.90 to 26.90 | | | | |
| WELL DIAMETER (inches): 1 | | TUBING DIAMETER (inches): 3/16 | | PURGE PUMP TYPE OR BAILER: Peristaltic Pump | | TOP DEPTH = top of screen or depth to water which ever is greatest (feet bls): | | BOTTOM DEPTH (feet bls): 26.90 | | |
| WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) <p align="center">_____ 1.33 _____ Liters.</p> | | | | | | | | | | |
| EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) <p align="center">_____ 0.63 _____ Liters.</p> | | | | | | | | | | |

| | | | | | | | | | | |
|---|--|---|--|---------------------|--|------------------------|--|-----------------------------------|--|--|
| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 24.4 | | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 24.4 | | PURGE STARTED: 1055 | | PURGING ENDED AT: 1114 | | TOTAL VOLUME PURGED (Liters): 5.7 | | |
|---|--|---|--|---------------------|--|------------------------|--|-----------------------------------|--|--|

| TIME | VOLUME PURGED (Liters) | CUMUL. VOLUME PURGED (Liters) | PURGE RATE (mlpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (µS/cm) | DISSOLVED OXYGEN (mg/L) | TURBIDITY (NTUs) | ORP (mV) | COLOR (describe) |
|------|------------------------|-------------------------------|-------------------|-----------------------|---------------------|------------|---------------|-------------------------|------------------|----------|------------------|
| 1100 | 1.50 | 1.50 | 300.0 | 5.90 | 6.60 | 28.5 | 3097.0 | 0.13 | 4.05 | -34.5 | Clear |
| 1105 | 1.5 | 3.0 | 300.0 | 5.90 | 6.60 | 28.4 | 3092.0 | 0.08 | 1.60 | -32.8 | |
| 1110 | 1.5 | 4.5 | 300.0 | 5.90 | 6.60 | 28.5 | 3087.0 | 0.07 | 2.32 | -31.0 | |
| 1114 | 1.2 | 5.7 | 300.0 | 5.90 | 6.60 | 28.5 | 3088.0 | 0.06 | 2.17 | -30.0 | Clear |
| 1115 | Samples | Collected | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

WELL CAPACITY (Liters Per Foot): 0.75" = 0.076; 1" = 0.15; 1.25" = 0.23; 2" = 0.61; 3" = 1.40; 4" = 2.46; 5" = 3.86; 6" = 5.57; 12" = 22.26
TUBING INSIDE DIA. CAPACITY (Liters/Ft.): 1/8" = 0.002; 3/16" = 0.005; 1/4" = 0.0098; 5/16" = 0.015; 3/8" = 0.023; 1/2" = 0.038; 5/8" = 0.06

SAMPLING DATA

| | | | | | | | |
|---|--|---|--|-----------------------------|--|-------------------------|--|
| SAMPLED BY (PRINT) / AFFILIATION: Robert Siegel/Tetra Tech | | SAMPLER(S) SIGNATURES:  | | SAMPLING INITIATED AT: 1115 | | SAMPLING ENDED AT: 1125 | |
|---|--|---|--|-----------------------------|--|-------------------------|--|

| | | | | | | | |
|---|--|--|--|--------------------------------|--|--|--|
| PUMP OR TUBING DEPTH IN WELL (feet): 24.4 | | SAMPLE PUMP: FLOW RATE (mL per minute): | | TUBING MATERIAL CODE: New HDPE | | | |
|---|--|--|--|--------------------------------|--|--|--|

| | | | | | | | | | |
|------------------------------|--|-----------------------|--|-----------------------|--|----------------------------------|--|------------------|--|
| FIELD DECONTAMINATION: (Y) N | | FIELD-FILTERED: Y (N) | | FILTER SIZE: _____ µm | | FILTRATION EQUIPMENT TYPE: _____ | | DUPLICATE: Y (N) | |
|------------------------------|--|-----------------------|--|-----------------------|--|----------------------------------|--|------------------|--|

| SAMPLE CONTAINER SPECIFICATION | | | | SAMPLE PRESERVATION | | | INTENDED ANALYSIS AND/OR METHOD | SAMPLING EQUIPMENT CODE |
|--------------------------------|--------------|---------------|--------|---------------------|-------------------------------|-----------|---------------------------------|-------------------------|
| SAMPLE ID CODE | # CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH | | |
| 34 | 2 | HDPE | 250 ml | Ice | None | See above | PFAS QSM Table B-15 | PP |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

REMARKS. TD 14.5 ft to TOC

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)


SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)

| | | | |
|--|---|--|--|
| SITE NAME: Former Central Heat Plant (CHP) | | SITE LOCATION: Kennedy Space Center (KSC), Florida | |
| LOCATION ID: MW0035 | SAMPLE ID: CHP-MW00035008.5-20211028 Sample depth (ddd.d)=[bottom of screen (feet bls)-Top depth] x 0.5-bottom of screen (feet bls) | DATE: 10/28/2021 | |

| | | | |
|--|--------------------------------|---|--|
| PURGING DATA | | | |
| STATIC DEPTH TO WATER (feet btoc): 4.46 | CASING HEIGHT (feet als): | STATIC DEPTH TO WATER (feet bls) = DTW (btoc) - Casing Height (feet als): | WELL SCREEN INTERVAL DEPTH (feet bls): 2.35 to 12.35 |
| WELL DIAMETER (inches): 1 | TUBING DIAMETER (inches): 3/16 | PURGE PUMP TYPE OR BAILER: Peristaltic Pump | TOP DEPTH = top of screen or depth to water which ever is greatest (feet bls): |
| BOTTOM DEPTH (feet bls): 12.35 | | | |
| WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) 7.89 ft 1.1835Lt _____ Liters. (14.5 - 5.05) x 0.15 = | | | |
| EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) _____ 0.63 Liters. | | | |

| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 8.5 | | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 8.5 | | PURGE STARTED: 0920 | | PURGING ENDED AT: 0944 | | TOTAL VOLUME PURGED (Liters): 9.36 | | | |
|--|------------------------|--|-------------------|-----------------------|---------------------|------------------------|---------------|------------------------------------|------------------|----------|------------------|
| TIME | VOLUME PURGED (Liters) | CUMUL. VOLUME PURGED (Liters) | PURGE RATE (mlpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (µS/cm) | DISSOLVED OXYGEN (mg/L) | TURBIDITY (NTUs) | ORP (mV) | COLOR (describe) |
| 0925 | 3.40 | 3.40 | 340.0 | 5.85 | 6.48 | 27.9 | 578.0 | 0.29 | 1.0 | 3.5 | Clear |
| 0930 | 1.70 | 5.10 | 550.0 | 5.85 | 6.47 | 28.1 | 613.0 | 0.37 | 4.8 | -6.5 | |
| 0935 | 1.70 | 6.80 | 550.0 | 5.85 | 6.47 | 28.0 | 612.0 | 0.35 | 1.83 | -9.2 | |
| 0940 | 1.70 | 8.50 | 550.0 | 5.85 | 6.47 | 28.1 | 613.0 | 0.37 | 1.44 | -11.5 | |
| 0944 | 1.36 | 9.36 | 550.0 | 5.85 | 6.47 | 28.0 | 615.0 | 0.33 | 0.71 | -15.5 | Clear |
| 0945 | Samples | Collected | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

WELL CAPACITY (Liters Per Foot): 0.75" = 0.076; 1" = 0.15; 1.25" = 0.23; 2" = 0.61; 3" = 1.40; 4" = 2.46; 5" = 3.86; 6" = 5.57; 12" = 22.26
TUBING INSIDE DIA. CAPACITY (Liters/Ft.): 1/8" = 0.002; 3/16" = 0.005; 1/4" = 0.0098; 5/16" = 0.015; 3/8" = 0.023; 1/2" = 0.038; 5/8" = 0.06

| | |
|---|---|
| SAMPLING DATA | |
| SAMPLED BY (PRINT) / AFFILIATION: Robert Siegel/Tetra Tech | SAMPLER(S) SIGNATURES:  |
| PUMP OR TUBING DEPTH IN WELL (feet): 8.5 | SAMPLE PUMP: FLOW RATE (mL per minute): 550.0 TUBING MATERIAL CODE: NEW HDPE |
| FIELD DECONTAMINATION: (Y) N | FIELD-FILTERED: Y (N) FILTER SIZE: _____ µm Filtration Equipment Type: _____ |
| DUPLICATE: Y (N) | |

| SAMPLE CONTAINER SPECIFICATION | | | | SAMPLE PRESERVATION | | | INTENDED ANALYSIS AND/OR METHOD | SAMPLING EQUIPMENT CODE |
|--------------------------------|--------------|---------------|--------|---------------------|-------------------------------|-----------|---------------------------------|-------------------------|
| SAMPLE ID CODE | # CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH | | |
| 35 | 2 | HDPE | 250 ml | Ice | None | See above | PFAS QSM Table B-15 | PP |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

REMARKS. TD 12.35 ft to TOC

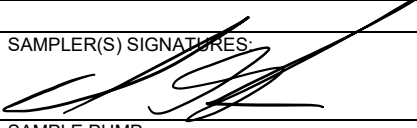
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)
SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump
 RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)

| | | | |
|--|---|--|--|
| SITE NAME: Former Central Heat Plant (CHP) | | SITE LOCATION: Kennedy Space Center (KSC), Florida | |
| LOCATION ID: MW0063 | SAMPLE ID: CHP-MW0063-045.0-20211029 Sample depth (ddd.d)=[bottom of screen (feet bls)-Top depth] x 0.5-bottom of screen (feet bls) | DATE: 10/29/2021 | |

| PURGING DATA | | | | |
|---|--------------------------------|--|---|-----------------------------|
| STATIC DEPTH TO WATER (feet btoc): 2.88 | CASING HEIGHT (feet als): NA | STATIC DEPTH TO WATER (feet bls) = DTW (btoc) - Casing Height (feet als): NA | WELL SCREEN INTERVAL DEPTH (feet bls): 40 to 50 | |
| WELL DIAMETER (inches): 1 | TUBING DIAMETER (inches): 3/16 | PURGE PUMP TYPE OR BAILER: Peristaltic Pump | TOP DEPTH = top of screen or depth to water which ever is greatest (feet bls): 40 | BOTTOM DEPTH (feet bls): 50 |
| WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) _____ Liters. | | | | |
| EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) _____ 0.78 Liters. (0.005 x 60) + 0.475 = 0.78 | | | | |

| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 45 | | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 45 | | PURGING INITIATED AT: 1410 | | PURGING ENDED AT: 1440 | | TOTAL VOLUME PURGED (Liters): 7.5 | | | |
|---|------------------------|---|-------------------|----------------------------|---------------------|------------------------|---------------|-----------------------------------|------------------|----------|------------------|
| TIME | VOLUME PURGED (Liters) | CUMUL. VOLUME PURGED (Liters) | PURGE RATE (mlpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (µS/cm) | DISSOLVED OXYGEN (mg/L) | TURBIDITY (NTUs) | ORP (mV) | COLOR (describe) |
| 1420 | 2.5 | 2.5 | 250 | 2.91 | 7.06 | 27.37 | 749.62 | 0.07 | 6.45 | -69.2 | Clear |
| 1430 | 2.5 | 5.0 | 250 | 2.91 | 7.09 | 27.32 | 746.50 | 0.04 | 3.86 | -73.5 | Clear |
| 1440 | 2.5 | 7.5 | 250 | 2.91 | 7.08 | 27.33 | 746.85 | 0.03 | 4.01 | -73.4 | Clear |
| 1445 | Sample | Collected | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

WELL CAPACITY (Liters Per Foot): 0.75" = 0.076; 1" = 0.15; 1.25" = 0.23; 2" = 0.61; 3" = 1.40; 4" = 2.46; 5" = 3.86; 6" = 5.57; 12" = 22.26
TUBING INSIDE DIA. CAPACITY (Liters/Ft.): 1/8" = 0.002; 3/16" = 0.005; 1/4" = 0.0098; 5/16" = 0.015; 3/8" = 0.023; 1/2" = 0.038; 5/8" = 0.06

| SAMPLING DATA | | | |
|--|--|---|-------------------------|
| SAMPLED BY (PRINT) / AFFILIATION: Chuck Sorden/Tetra Tech | | SAMPLER(S) SIGNATURES:  | |
| | | SAMPLING INITIATED AT: 1445 | SAMPLING ENDED AT: 1450 |
| PUMP OR TUBING DEPTH IN WELL (feet): 45 | | SAMPLE PUMP: FLOW RATE (mL per minute): 200 | |
| FIELD DECONTAMINATION: (Y) N | | TUBING MATERIAL CODE: HDPE | |
| | | FIELD-FILTERED: Y (N) FILTER SIZE: _____ µm | DUPLICATE: Y (N) |
| | | Filtration Equipment Type: _____ | |

| SAMPLE CONTAINER SPECIFICATION | | | | SAMPLE PRESERVATION | | | INTENDED ANALYSIS AND/OR METHOD | SAMPLING EQUIPMENT CODE |
|--------------------------------|--------------|---------------|--------|---------------------|-------------------------------|----------|---------------------------------|-------------------------|
| SAMPLE ID CODE | # CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH | | |
| 1 | 3 | CG | 40 ml | HCl | None | <2 | SW-846 8260B | PP |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

REMARKS: Initial high turbidity.

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)
SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump
 RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)



BORING LOG

PROJECT NAME: NASA PFAS
 PROJECT NUMBER: 112G09237
 DRILLING COMPANY: Groundwater Protection
 DRILLING RIG: (C.Q. qprobR- gl{c>I-S

BORING No.: FSJ-s-Sc<>/
 DATE: 12/10/21
 GEOLOGIST: Anderson, Roger
 DRILLER: 12" Q

| Sample No. and Type or RQI | Depth (Ft.) | Blows/6' or RQD (%) | Sample Recovery / Sample Length | MATERIAL DESCRIPTION | | | U S C S * | Remarks | PID/FID Reading (ppm) | | | | |
|----------------------------|-------------|---------------------|---------------------------------|---|-------|-------------------------|-----------------------|---------|-----------------------|---------|---------|----------|--|
| | | | | Soil Density/Consistency or Rock Hardness | Color | Material Classification | | | HC (C) | HC (CI) | TOC (C) | TOC (CI) | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

* When rock coring, enter rock brokenness.
 ** Include monitor reading in 6 foot intervals@ borehole. Increase reading frequency if elevated response read.
 Remarks: _____
 Drilling Area.....£_____
 Background (ppm): LE. _J_____
 Converted to Well: Yes _____ No) (_____ Well I.D.#: _____



BORING LOG

PROJECT NAME: NASA PFAS
 PROJECT NUMBER: 112 G09237
 DRILLING COMPANY: Groundwater Protection
 DRILLING RIG: Geoprobe 8140 LS

BORING No.: FS1-SB001
 DATE: 12/10/2021
 GEOLOGIST: Anderson Rogers
 DRILLER: Dave Longino

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION | | | U S C S * | Remarks | PID/FID Reading (ppm) | | | | | | | | |
|----------------------------|------------------------|-----------------------|---------------------------------|---|--|-------|--|-----------------------|---------|-----------------------|------------|------------|--------------|--|--|--|--|--|
| | | | | | Soil Density/ Consistency or Rock Hardness | Color | Material Classification | | | Sample | Sampler BZ | Borehole** | Driller BZ** | | | | | |
| | 30 | | | L2 | | | As above, gray f sands with shells (minor to trace) with trace silts. - increasing shells with depth. | | | | | | | | | | | |
| | 31 | | | | | | very loose gray f sandy shells - mostly shells with sands - trace silts? - shells crushed < 2mm, size 72" | | | | | | | | | | | |
| | 40 | | | L3 | | | 43/ Mostly gray silt w/shells (minor) - some nodules of silt/clay? ~ 2-3" (max silt than clays) | | | | | | | | | | | |
| | 41 | | | | | | sandy silt to silty sand and sand with silt as (20-30%) Gray sandy Gray sandy silty clay with minor shells - less clay, more silt to 50' | | | | | | | | | | | |
| | 50 | | | | | | | | | | | | | | | | | |

* When rock coring, enter rock brokenness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area
 Background (ppm): 16

Converted to Well: Yes _____ No X Well I.D. #: _____



BORING LOG

PROJECT NAME: NASA PFAS
 PROJECT NUMBER: 1126-09237
 DRILLING COMPANY: Grandwater Protection
 DRILLING RIG: Geoprobe 2140LS

BORING No.: FS1-SB0001
 DATE: 12/10/2021
 GEOLOGIST: Anderson, Rogers
 DRILLER: Dave Longino

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION | | | U S C S * | Remarks | PID/FID Reading (ppm) | | | | | |
|----------------------------|------------------------|-----------------------|---------------------------------|---|---|-------|---|-----------------------|---------|-----------------------|------------|------------|--------------|--|--|
| | | | | | Soil Density/Consistency or Rock Hardness | Color | Material Classification | | | Sample | Sampler BZ | Borehole** | Driller BZ** | | |
| | 50 | | | L4 | | | Gray sandy silty clay to clayey silts. few to no shells | | | | | | | | |
| | | | | 53 | | | Dark gray f-m sands and crushed f. shells (<1mm) with fine silts. | | | | | | | | |
| | | | | L5? | | | - clearer (less silt) shelly sands to sandy shells with depth. | | | | | | | | |
| | 60 | | | 60 | | | Gray shelly clayey sands to shelly sandy clays. | | | | | | | | |
| | | | | L6? | | | - less shells 63-65 (still >15%) * more clays * generally less clays with depth, more shelly sands with clay or shelly sandy silt with clay | | | | | | | | |
| | 70 | | | | | | EOR | | | | | | | | |

* When rock coring, enter rock brokenness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks: _____

Drilling Area Background (ppm):

Converted to Well: Yes _____ No X Well I.D. #: _____



Tetra Tech, Inc.

DPT GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Fire Station Number 1 (FS1)
Project No.: 112G09581
Date: 02/14/2022

Sample ID: FS1-DPT0001
Location: 17
Sampled By: Chuck Sorden

DPT SAMPLING DATA

Table with 8 columns: LOCATION ID, LOCATION, DATE, TIME, DEPTH, ODOR, COLOR, COMMENTS. Contains 6 rows of sampling data.

SAMPLE COLLECTION INFORMATION

Table with 4 columns: Analysis, Preservative, Container Requirements, Collected. Row 1: PFAS QSM Table B-15, None, 2 250mL HDPE Bottles, X.

OBSERVATIONS / NOTES

All intervals purged a minimum of five (5) screen volumes (1.5 L) prior to sample collection.
Hand auger five feet to clear utilities
Borehole abandoned via pressure grouting through boring rods
Rig, Rods, and associated tooling decon'd with pressurized steam

Circle if Applicable:

MS/MSD Duplicate ID No.:

Handwritten signature



Tetra Tech, Inc.

DPT GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Fire Station Number 1 (FS1)
Project No.: 112G09581
Date: 02/14/2022

Sample ID: FS1-DPT0002
Location: 15
Sampled By: Chuck Sorden

DPT SAMPLING DATA

Table with 8 columns: LOCATION ID, LOCATION, DATE, TIME, DEPTH, ODOR, COLOR, COMMENTS. Contains 6 rows of sampling data.

SAMPLE COLLECTION INFORMATION

Table with 4 columns: Analysis, Preservative, Container Requirements, Collected. Row 1: PFAS QSM Table B-15, None, 2 250mL HDPE Bottles, X.

OBSERVATIONS / NOTES

All intervals purged a minimum of five (5) screen volumes (1.5 L) prior to sample collection.
Hand auger five feet to clear utilities
Borehole abandoned via pressure grouting through boring rods
Rig, Rods, and associated tooling decon'd with pressurized steam

Circle if Applicable:

MS/MSD Duplicate ID No.:
FS1-FD-20220125-01 - DUP of DPT0002-025.0

Handwritten signature



Tetra Tech, Inc.

DPT GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Fire Station Number 1 (FS1)
Project No.: 112G09581
Date: 02/15/2022

Sample ID: FS1-DPT0003
Location: 18
Sampled By: Chuck Sorden

DPT SAMPLING DATA

Table with 8 columns: LOCATION ID, LOCATION, DATE, TIME, DEPTH, ODOR, COLOR, COMMENTS. Contains 6 rows of sampling data.

SAMPLE COLLECTION INFORMATION

Table with 4 columns: Analysis, Preservative, Container Requirements, Collected. Row 1: PFAS QSM Table B-15, None, 2 250mL HDPE Bottles, X.

OBSERVATIONS / NOTES

All intervals purged a minimum of five (5) screen volumes (1.5 L) prior to sample collection.
Hand auger five feet to clear utilities
Borehole abandoned via pressure grouting through boring rods
Rig, Rods, and associated tooling decon'd with pressurized steam

Circle if Applicable:

MS/MSD Duplicate ID No.:
Yes FS1-FD-20220215-01 - DUP of DPT0003-017.0

Handwritten signature



Tetra Tech, Inc.

DPT GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Fire Station Number 1 (FS1)
Project No.: 112G09581
Date: 02/15/2022

Sample ID: FS1-DPT0004
Location: 19
Sampled By: Chuck Sorden

DPT SAMPLING DATA

Table with 8 columns: LOCATION ID, LOCATION, DATE, TIME, DEPTH, ODOR, COLOR, COMMENTS. Contains 6 rows of sampling data.

SAMPLE COLLECTION INFORMATION

Table with 4 columns: Analysis, Preservative, Container Requirements, Collected. Row 1: PFAS QSM Table B-15, None, 2 250mL HDPE Bottles, X.

OBSERVATIONS / NOTES

All intervals purged a minimum of five (5) screen volumes (1.5 L) prior to sample collection.
Hand auger five feet to clear utilities
Borehole abandoned via pressure grouting through boring rods
Rig, Rods, and associated tooling decon'd with pressurized steam

Circle if Applicable:

MS/MSD Duplicate ID No.:
FS1-FD-20220215-02 - DUP of FS1-DPT0004012.0

Handwritten signature



Tetra Tech, Inc.

DPT GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Fire Station Number 1 (FS1)
Project No.: 112G09581
Date: 02/15/2022

Sample ID: FS1-DPT0005
Location: 20
Sampled By: Chuck Sorden

DPT SAMPLING DATA

Table with 8 columns: LOCATION ID, LOCATION, DATE, TIME, DEPTH, ODOR, COLOR, COMMENTS. Contains 6 rows of sampling data.

SAMPLE COLLECTION INFORMATION

Table with 4 columns: Analysis, Preservative, Container Requirements, Collected. Contains 1 row of collection information.

OBSERVATIONS / NOTES

All intervals purged a minimum of five (5) screen volumes (1.5 L) prior to sample collection.
Hand auger five feet to clear utilities
Borehole abandoned via pressure grouting through boring rods
Rig, Rods, and associated tooling decon'd with pressurized steam

Circle if Applicable:

MS/MSD Duplicate ID No.:
FS1-FD-20220215-03 - DUP of FS1-DPT0005-035.0

Handwritten signature



Tetra Tech, Inc.

DPT GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Fire Station Number 1 (FS1)
Project No.: 112G09581
Date: 02/16/2022

Sample ID: FS1-DPT0006
Location: 21
Sampled By: Chuck Sorden

DPT SAMPLING DATA

Table with 8 columns: LOCATION ID, LOCATION, DATE, TIME, DEPTH, ODOR, COLOR, COMMENTS. Contains 6 rows of sampling data.

SAMPLE COLLECTION INFORMATION

Table with 4 columns: Analysis, Preservative, Container Requirements, Collected. Contains 1 row of collection data.

OBSERVATIONS / NOTES

All intervals purged a minimum of five (5) screen volumes (1.5 L) prior to sample collection.
Hand auger five feet to clear utilities
Borehole abandoned via pressure grouting through boring rods
Rig, Rods, and associated tooling decon'd with pressurized steam

Circle if Applicable:

MS/MSD Duplicate ID No.:

Handwritten signature



Tetra Tech, Inc.

DPT GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Fire Station Number 1 (FS1)
Project No.: 112G09581
Date: 02/16/2022

Sample ID: FS1-DPT0007
Location: 22
Sampled By: Chuck Sorden

DPT SAMPLING DATA

Table with 8 columns: LOCATION ID, LOCATION, DATE, TIME, DEPTH, ODOR, COLOR, COMMENTS. Contains 7 rows of sampling data.

SAMPLE COLLECTION INFORMATION

Table with 4 columns: Analysis, Preservative, Container Requirements, Collected. Row 1: PFAS QSM Table B-15, None, 2 250mL HDPE Bottles, X.

OBSERVATIONS / NOTES

All intervals purged a minimum of five (5) screen volumes (1.5 L) prior to sample collection.
Hand auger five feet to clear utilities
Borehole abandoned via pressure grouting through boring rods
Rig, Rods, and associated tooling decon'd with pressurized steam

Circle if Applicable:

MS/MSD Duplicate ID No.:
Yes FS1-FD-20220216-01 - DUP of FS1-DPT0007-025.0

Handwritten signature



Tetra Tech, Inc.

DPT GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Fire Station Number 1 (FS1)
Project No.: 112G09581
Date: 02/16/2022 And 02/17/2022

Sample ID: FS1-DPT0007
Location: 23
Sampled By: Chuck Sorden

DPT SAMPLING DATA

Table with 8 columns: LOCATION ID, LOCATION, DATE, TIME, DEPTH, ODOR, COLOR, COMMENTS. Contains 7 rows of sampling data.

SAMPLE COLLECTION INFORMATION

Table with 4 columns: Analysis, Preservative, Container Requirements, Collected. Row 1: PFAS QSM Table B-15, None, 2 250mL HDPE Bottles, X.

OBSERVATIONS / NOTES

All intervals purged a minimum of five (5) screen volumes (1.5 L) prior to sample collection.
Hand auger five feet to clear utilities
Borehole abandoned via pressure grouting through boring rods
Rig, Rods, and associated tooling decon'd with pressurized steam

Circle if Applicable:

MS/MSD Duplicate ID No.:

Handwritten signature

02/14/2022

FS1

112G09581

Personnel: Chuck Sorden (CS) Geologist Tt
Mickey Ritter (MR) Driller GPI
Brandon Black-Godfrey (BBG) Tech GPI

Weather: Sunny – 46 degrees F

PPE: Level D

Health and Safety (HAS): Topics – PPE; SSHASP; IDW

Objective: Continue DPT GW Investigation

0800: CS on Base; Gathering Equipment/Supplies
0815: GPI @ badging; issue with BBG.
0900: Issue resolved; Tt/GPI depart badging office for site
0910: Tt/GPI arrive at FS1; HAS Meeting; Daily Prep
0940: Set up on FS1-DPT0001 (Location 17); hand clear 5'
0950: Drilling Commenced

| | | | |
|------------------------|----------------------------|------|---------------------|
| 1010: Sample Collected | FS1-DPT0001-005.0-20220214 | (17) | Brown; Organic Odor |
| 1030: Sample Collected | FS1-DPT0001-012.0-20220214 | (17) | Brown; Organic Odor |
| 1050: Sample Collected | FS1-DPT0001-017.0-20220214 | (17) | Brown; Organic Odor |
| 1115: Sample Collected | FS1-DPT0001-025.0-20220214 | (17) | Gray; No Odor |
| 1140: Sample Collected | FS1-DPT0001-035.0-20220214 | (17) | Gray; No Odor |

-GPI Offsite for lunch

1200: GPI On site

| | | | |
|------------------------|----------------------------|------|---------------|
| 1230: Sample Collected | FS1-DPT0001-045.0-20220214 | (17) | Gray; No Odor |
|------------------------|----------------------------|------|---------------|

1245: FS1-DPT0001 Pressure Grouted 47' to surface through rods
1300: Rig, Rods, and Tooling Decon'd with steam
1305: Set up on FS1-DPT0002(Location 15); Hand Clear 5'
1315: Drilling Commenced; No water observed in hand auger to 5; adjusting first depth to 4'-8'

| | | | |
|------------------------|----------------------------|------|---------------------|
| 1335: Sample Collected | FS1-DPT0002-006.0-20220214 | (15) | Brown; Organic Odor |
|------------------------|----------------------------|------|---------------------|

-Very poor producing formation

| | | | |
|------------------------|----------------------------|------|---------------------|
| 1400: Sample Collected | FS1-DPT0002-012.0-20220214 | (15) | Brown; Organic Odor |
| 1430: Sample Collected | FS1-DPT0002-017.0-20220214 | (15) | Brown; Organic Odor |
| 1500: Sample Collected | FS1-DPT0002-025.0-20220214 | (15) | Gray; No Odor |
| 1525: Sample Collected | FS1-DPT0002-035.0-20220214 | (15) | Gray; No Odor |

-Very poor producing formation

| | | | |
|------------------------|----------------------------|------|---------------|
| 1555: Sample Collected | FS1-DPT0002-045.0-20220214 | (15) | Gray; No Odor |
|------------------------|----------------------------|------|---------------|

1610: FS1-DPT0002 pressure grouted 47' to surface through rods
1630: Rig, Rods, and tooling decon'd with steam; begin mobilizing to Location 18
1700: Site secured; Tt/GPI Offsite

NO ALTERATION BEYOND 02/14/2022
@ 1700

02/15/2022

FS1

112G09581

Personnel: Chuck Sorden (CS) Geologist Tt
Mickey Ritter (MR) Driller GPI
Brandon Black-Godfrey (BBG) Tech GPI

Weather: Sunny – 46 degrees F

PPE: Level D

Health and Safety (HAS): Topics – PPE; SSHASP; IDW

Objective: Continue DPT GW Investigation

0630: Tt/GPI on site; HAS Meeting; daily prep

0645: Set up on FS1-DPT0003 (Location 18); hand clear 5'

0700: Drilling Commenced

0705: Sample Collected FS1-FB-20220215-01

– Sample Collected in vicinity of sampling area at Location 18

0720: Sample Collected FS1-DPT0003-005.0-20220215 (18) Brown; Organic Odor

0730: Sample Collected FS1-EB-20220215-01

– Sample Collected by pouring PFAS Free water over tubing

0740: Sample Collected FS1-DPT0003-012.0-20220215 (18) Gray; No Odor

0800: Sample Collected FS1-DPT0003-017.0-20220215 (18) Gray; No Odor

0000: Sample Collected FS1-FD-20220215-01 – DUP of FS1-DPT0003-017.0

0825: Sample Collected FS1-DPT0003-025.0-20220215 (18) Gray; No Odor

0855: Sample Collected FS1-DPT0003-035.0-20220215 (18) Gray; No Odor

– MS/MSD Collected

0925: Sample Collected FS1-DPT0003-045.0-20220215 (18) Gray; No Odor

0940: FS1-DPT0003 Pressure Grouted 47' to surface through rods; mob to decon

0955: Rods and Tooling Decon'd with steam

1000: Sample Collected FS1-EB-20220215-02

– Sample Collected by pouring PFAS free water over screen near decon area

1005: Set up on FS1-DPT0004 (Location 19); hand clear 5'

1015: Drilling Commenced

1035: Sample Collected FS1-DPT0004-005.0-20220215 (19) Brown; Organic Odor

1055: Sample Collected FS1-DPT0004-012.0-20220215 (19) Brown; Organic Odor

0000: Sample Collected FS1-FD-20220215-02 – DUP of FS1-DPT0004-012.0

1110: Sample Collected FS1-FB-20220215-02

– Sample Collected in vicinity of sampling area at location 19 near gas station

1115: Sample Collected FS1-DPT0004-017.0-20220215 (19) Brown; Organic Odor

1140: Sample Collected FS1-DPT0004-025.0-20220215 (19) Gray; No Odor

1205: Sample Collected FS1-DPT0004-035.0-20220215 (19) Gray; No Odor

– Very Poor producing Formation

1230: Sample Collected FS1-DPT0004-045.0-20220215 (19) Gray; No Odor

1245: FS1-DPT0004 Pressure grouted 47' to surface through rods

1300: Rods and tooling decon'd with steam

1305: Set up on FS1-DPT0005 (Location 20); coring through asphalt and hand clear 5'

1315: Drilling Commenced

1335: Sample Collected FS1-DPT0005-005.0-20220215 (20) Brown; Organic Odor

1355: Sample Collected FS1-DPT0005-012.0-20220215 (20) Brown; Organic Odor

1415: Sample Collected FS1-DPT0005-017.0-20220215 (20) Brown; Organic Odor

02/15/2022

FS1

112G09581

| | | | |
|------------------------|--|------|---------------|
| 1435: Sample Collected | FS1-DPT0005-025.0-20220215 | (20) | Gray; No Odor |
| 1500: Sample Collected | FS1-DPT0005-035.0-20220215 | (20) | Gray; No Odor |
| 0000: Sample Collected | FS1-FD-20220215-03 – DUP of FS1-DPT0005-035.0 | | |
| 1530: Sample Collected | FS1-DPT0005-045.0-20220215 | (20) | Gray; No Odor |
| 1540: Sample Collected | FS1-EB-20220215-03 | | |
| | – Sample Collected by pouring PFAS free water over sample tubing | | |
| 1600: FS1-DPT0005 | pressure grouted 47' to surface through rods | | |
| 1620: Rods and tooling | decon'd with steam | | |
| 1645: Site secure; | Tt/GPI offsite | | |

NO ALTERATION BEYOND 02/15/2022
@ 1645

A handwritten signature in black ink, consisting of several overlapping loops and strokes, positioned diagonally across the lower half of the page.

02/16/2022

FS1

112G09581

Personnel: Chuck Sorden (CS) Geologist Tt
Mickey Ritter (MR) Driller GPI
Brandon Black-Godfrey (BBG) Tech GPI

Weather: Sunny – 58 degrees F

PPE: Level D

Health and Safety (HAS): Topics – PPE; SSHASP; IDW

Objective: Continue DPT GW Investigation

0645: Tt on site; MR/BBG at badging getting BBG fingerprints

0715: GPI on site; HAS meeting; daily prep

0740: Set up on FS1-DPT0006 (Location 21); hand clear 5'

0750: Drilling Commenced

0810: Sample Collected FS1-DPT0006-005.0-20220216 (21) Brown; Organic Odor

0830: Sample Collected FS1-DPT0006-012.0-20220216 (21) Brown; Organic Odor

0850: Sample Collected FS1-DPT0006-017.0-20220216 (21) Brown; Organic Odor

0915: Sample Collected FS1-DPT0006-025.0-20220216 (21) Gray; No Odor

0940: Sample Collected FS1-DPT0006-035.0-20220216 (21) Gray; No Odor

1010: Sample Collected FS1-DPT0006-045.0-20220216 (21) Gray; No Odor

1025: FS1-DPT0006 Pressure Grouted 47' to surface through rods

1040: Rods and Tooling Decon'd with steam

1050: Set up on FS1-DPT0007 (Location 22); hand clear 5'

1100: Drilling Commenced

1120: Sample Collected FS1-DPT0007-005.0-20220216 (22) Brown; Organic Odor

- Very Poor producing formation.

1140: Sample Collected FS1-DPT0007-012.0-20220216 (22) Brown; Organic Odor

1200: Sample Collected FS1-DPT0007-017.0-20220216 (22) Brown; Organic Odor

1225: Sample Collected FS1-DPT0007-025.0-20220216 (22) Gray; No Odor

- MS/MSD Collected

0000: Sample Collected FS1-FD-20220216-01 – DUP of FS1-DPT0007-025.0

1250: Sample Collected FS1-DPT0007-035.0-20220216 (22) Gray; No Odor

1315: Sample Collected FS1-DPT0007-045.0-20220216 (22) Gray; No Odor

1335: FS1-DPT0007 Pressure Grouted 47' to surface through rods

1355: Rods and Tooling Decon'd with steam

1400: Sample Collected FS1-EB-20220216-01

- Sample collected by pouring PFAS free water over screen

1405: Set up on FS1-DPT0008 (Location 23); hand clear 5'

1415: Drilling Commenced

1445: Sample Collected FS1-DPT0008-005.0-20220216 (23) Brown; Organic Odor

- Very Poor producing Formation

1515: Sample Collected FS1-DPT0008-012.0-20220216 (23) Brown; Organic Odor

1545: Sample Collected FS1-DPT0008-017.0-20220216 (23) Brown; Organic Odor

- Very Poor producing Formation

1615: Sample Collected FS1-DPT0008-025.0-20220216 (23) Gray; No Odor

1630: Site Secured; Tt/GPI Offsite



NO alteration
Beyond 02/16/22 @ 1630

02/17/2022

FS1/STP1

112G09581

Personnel: Chuck Sorden (CS) Geologist Tt
Mickey Ritter (MR) Driller GPI
Brandon Black-Godfrey (BBG) Tech GPI

Weather: Sunny – 58 degrees F

PPE: Level D

Health and Safety (HAS): Topics – PPE; SSHASP; IDW

Objective: Complete DPT GW Investigation at FS1 and begin STP1

0635: Tt/GPI on site; HAS Meeting; Daily Prep

0655: Drilling resumed on FS1-DPT0008

0720: Sample Collected: FS1-DPT0008-035.0-20220217 (23) Gray; No Odor

0745: Sample Collected FS1-DPT0008-045.0-20220217 (23) Gray; No Odor

0750: Sample Collected FS1-FB-20220217-01

– Blank collected in sampling area of Location 23

0805: FS1-DPT0008 pressure grouted 47' to surface through rods; FS1 locations complete

0820: Rods and Tooling Decon'd with steam. CS meeting with utility locators.

0835: Set up on STP1-DPT0001 (Location 27); hand clear 5'

0850: Drilling Commenced

0915: Sample Collected STP1-DPT0001-005.0-20220217 (27) Brown; Organic Odor

– Very Poor Producing Formation

0940: Sample Collected STP1-DPT0001-010.0-20220217 (27) Brown; Organic Odor

1005: Sample Collected STP1-DPT0001-016.0-20220217 (27) Brown; Organic Odor

1030: Sample Collected STP1-DPT0001-023.0-20220217 (27) Gray; No Odor

1100: Sample Collected STP1-DPT0001-033.0-20220217 (27) Gray; No Odor

– Very Poor Producing Formation

1130: Sample Collected STP1-DPT0001-042.0-20220217 (27) Gray; No Odor

1145: STP1-DPT0001 Pressure Grouted 44' to surface through rods

1205: Rods and Tooling Decon'd with steam

1210: Set up on STP1-DPT0002 (Location 30); Hand clear 5'

1215: Drilling Commenced

1235: Sample Collected STP1-DPT0002-005.0-20220217 (30) Brown; Organic Odor

1300: Sample Collected STP1-DPT0002-010.0-20220217 (30) Brown; Organic Odor

– Very Poor Producing Formation

1330: Sample Collected STP1-DPT0002-016.0-20220217 (30) Brown; Organic Odor

1355: Sample Collected STP1-DPT0002-023.0-20220217 (30) Gray; No Odor

1420: Sample Collected STP1-DPT0002-033.0-20220217 (30) Gray; No Odor

1450: Sample Collected STP1-DPT0002-042.0-20220217 (30) Gray; No Odor

1500: Sample Collected STP1-EB-20220217-01

– Sample collected by pouring PFAS free water over tubing

1510: STP1-DPT0002 Pressure grouted 4' to surface through rods

1530: Rods and Tooling Decon'd with steam

1550: Set up on STP1-DPT0003 (Location 25); busting asphalt and hand clear 5'

1600: Site Secured; Tt/GPI Offsite

NO ALTERATION BEYOND 02/17/2022

@ 1600





| | | | |
|---|-----------------------------|---|-----------------------------|
| Project Site Name: | Fire Station Number 1 (FS1) | Sample ID No.: | FS1-SW0001-000.5-20220310 |
| Project No.: | 112G09581 | Sample Location: | Location 09 |
| | | Sampled By: | Chuck Sorden and Kyle Hoard |
| | | C.O.C. No.: | |
| <input type="checkbox"/> Stream <input type="checkbox"/> Spring <input type="checkbox"/> Pond <input type="checkbox"/> Lake <input checked="" type="checkbox"/> Other: <u>Canal</u> <input type="checkbox"/> QA Sample Type: _____ | | Type of Sample: <input checked="" type="checkbox"/> Low Concentration <input type="checkbox"/> High Concentration | |

SAMPLING DATA:

| | | | | | | | | | |
|---------|-----------|----------|--------|---------------|-----------------|-----------|--------|------|----------|
| Date: | 3/10/2022 | Color | pH | Cond. | Temp. | Turbidity | DO | ORP | Salinity |
| Time: | 845 | (Visual) | (S.U.) | (μ S/cm) | ($^{\circ}$ C) | (NTU) | (mg/l) | (mV) | (ppt) |
| Depth: | 0-0.5 | Clear | 6.62 | 236.18 | 22.79 | 2.49 | 1.77 | 92.6 | 0.12 |
| Method: | Grab | | | | | | | | |

SAMPLE COLLECTION INFORMATION:

| Analysis | Preservative | Container Requirements | Collected |
|---------------------|--------------|--------------------------|-----------|
| PFAS QSM Table B-15 | None/4 deg C | 2 - 250 mL HDPE Bottlesw | X |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

| OBSERVATIONS / NOTES: | MAP: |
|-----------------------|------------|
| | See figure |

| | | |
|------------------------------|--|--------------------------|
| Circle if Applicable: | | Signature(s): |
| MS/MSD YES | Duplicate ID No.: STP1-FD-20220310-01 | |

03/10/2022

STP1

112G09581

Personnel: Chuck Sorden (CS) Geologist Tt
Kyle Hoard (KH) Tech Tt

Weather: Partly Cloudy 79 degrees F

PPE: Level D

Health and Safety (HAS): Topics – PPE; SSHASP; IDW

Objective: Begin surface water sampling Event

0700: CS on site; gathering equipment and supplies
0730: KH on site: HAS Meeting; setting up
0750: Arrive back at STP1-SW0010 (Location 20)
0805: Sample Collected STP1-SW0010-000.5-20220310 (20) PFAS Table B15
-MS/MSD Collected
0000: Sample Collected STP1-FD-20220310-01 – DUP of STP1-SW0010-000.5
0830: Arrive at FS1-SW0001 (Location 9)
0845: Sample Collected FS1-SW0001-000.5-20220310 (09) PFAS Table B15
0855: Arrive at STP1-SW0011 (Location 14)
0910: Sample Collected STP1-SW0011-000.5-20220310 (14) PFAS Table B15
0920: Arrive at STP1-SW0012 at STP1 treatment plant; waiting out moderate to heavy rain
1015: Rain ceased. Preparing to sample STP1-SW0012 (Location 12)
1015: Ryan O’Meara On site
1035: Sample Collected STP1-SW0012-000.5-20220310 (12) PFAS Table B15
1110: Sample Collected STP1-SW0013-000.5-20220310 (11) PFAS Table B15
1120: Sample Collected STP1-SW0014-000.5-20220310 (10) PFAS Table B15
1145: Sample Collected STP1-SW0015-000.5-20220310 (13) PFAS Table B15
1200: Sample Collected STP1-EB-20220310-01 – collected through tubing
1210: Sample Collected STP1-FB-20220310-01
1240: Tt offsite to get canoe from Palm Bay to collect surface water samples at FS3

NO ALTERATION BEYOND 03/10/22 @ 1240



APPENDIX C
LABORATORY ANALYTICAL REPORTS
(PROVIDED IN ELECTRONIC VERSION ONLY)

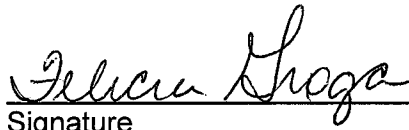


National Aeronautics and
Space Administration

PERMISSION TO PUBLISH

Pace Analytical grants NASA and the U.S. Government permission to reproduce, publish, and distribute Resource Conservation and Recovery Act (RCRA) Program Documents, submitted in 2022 or beyond, hereinafter referred to as "the Work," in any form, language, or manner, now or hereafter known or developed, throughout the world, and to authorize others to do so on its behalf.

Pace Analytical certifies that the Work does not infringe any existing copyright, proprietary right, or other right of a third party; and all clearance permissions, if necessary, to use materials of third parties have been obtained.



Signature

Date

5/13/2022

Company Name: Pace Analytical Services
Company Representative Name: Felicia Grogan
Company Representative Title: Director Laboratory Operations
Company Address: 106 Vantage Point Dr. Cayce SC 29172
Company Representative Phone: 704-572-1652
Company Representative E-Mail: felicia.grogan@pacelab.com



Report of Analysis

Tetra Tech
Foster Plaza 7
661 Anderson Drive
Pittsburgh, PA 15220
Attention: Chuck Sorden

Project Name: KSC PFAS
Project Number: 112G09237
Lot Number: **WL14016**
Date Completed: 01/07/2022

Kathy Smith

01/07/2022 12:45 PM
Approved and released by:
Project Manager II: **Kathy E. Smith**



The electronic signature above is the equivalent of a handwritten signature.
This report shall not be reproduced, except in its entirety, without the written approval of Pace Analytical Services, LLC.

PACE ANALYTICAL SERVICES, LLC

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative Tetra Tech Lot Number: WL14016

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

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

Sample receipt, sample analysis, and data review have been performed in accordance with the Pace Quality Assurance Management Plan (QAMP), applicable Shealy standard operating procedures (SOPs), the 2003 NELAC standard, and Shealy policies. Additionally, the DoD QSM version 5.3 has been followed for these samples, and specifically Table B-15 was followed for all PFAS samples. Any exceptions to the QAMP, SOPs, NELAC standards, the DoD QSM, or policies are qualified on the results page or discussed below.

All QC associated with these samples was in compliance with DOD QSM 5.3 table B-15 and our PFAS SOP.

Correction factors (CF) are used to calculate the original sample concentration. The CF is the inverse of the concentration factor (sample volume / extract final volume) times the dilution factor (DF). For undiluted analysis. For undiluted analysis, the extract is prepared for injection by adding 182 uL of sample extract + 8 uL of reagent water + 10 uL of internal standard solution to a polypropylene autosampler vial. An extra correction factor of 0.91 (182 uL / 200 uL = 0.91) applies. The CF is calculated as follows:

$$CF = DF * FV / V_0$$

FV is volume of extract (mL)

V₀ is initial sample volume (mL)

DF is dilution factor. For undiluted analysis, DF = 1/0.91.

Sample concentration for aqueous samples:

Concentration (ng/L) = C_s*CF,

$$C_s = \frac{\left(\frac{(A_s \times C_{is})}{A_{is}} \right) - B}{M1}$$

Where

C_s is on column concentration of target analyte in the sample (ng/L)

C_{is} is concentration of internal standard in the sample (ng/L)

A_s is peak response of target analyte in the sample

A_{is} is peak response of internal standard in the sample

M1 is the average RF from ICAL or the slope from linear regression ICAL

B is the y-intercept from the ICAL

PACE ANALYTICAL SERVICES, LLC

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

For solid samples:

$$CF = DF * FV / Ws/S/1000$$

FV is volume of extract (mL)

Ws is initial sample weight (gram)

S is %Solids

DF is dilution factor. For undiluted analysis, DF = 1/0.91.

$$\text{Concentration (ug/kg)} = C_s * CF,$$

$$C_s = \frac{\left(\frac{A_s \times C_{is}}{A_{is}} \right) - B}{M1}$$

Where

C_s is on column concentration of target analyte in the sample (ng/L)

C_{is} is concentration of internal standard in the sample (ng/L)

A_s is peak response of target analyte in the sample

A_{is} is peak response of internal standard in the sample

M1 is the average RF from ICAL or the slope from linear regression ICAL

B is the y-intercept from the ICAL

Pace is a TNI accredited laboratory; however, the following analyses are currently not listed on our TNI scope of accreditation: Biological Tissue: All, Non-Potable Water: SGT-HEM EPA 1664B, Silica EPA 200.7, Boron, Calcium, Silicon, Strontium EPA 200.8, Bicarbonate, Carbonate, and Hydroxide Alkalinity SM 2320 B-2011, Fecal Coliform Colilert-18, SM 9221 C E-2006 & SM 9222D-2006, Strontium SW-846 6010D, VOC SM 6200 B-

2011, Drinking Water: VOC (excluding BTEX, MTBE, Naphthalene, & 1,2-dichloroethane) EPA 524.2, E. coli and Total coliforms SM 9223 B-2004, Solid Chemical Material: TOC Walkley-Black.

Where applicable, all soil sample results (including LOQ and DL if requested) are corrected for dry weight unless flagged with a "W" qualifier.

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

PFAS

The method blank associated with batch 25957 had 6:2 FTS detected at a concentration that was above the MDL but below ½ the PQL. All samples associated with this method blank that have detections for 6:2 FTS have been flagged with a "B".

The method blank for prep batch 25999 contained analyte: PFOS greater than the acceptance criteria. The associated samples, WL14016-015, WL14016-016, WL14016-017, WL14016-018, WL14016-025, WL14016-026, did not contain detections for the target analyte; therefore, re-extraction and/or re-analysis of samples was not performed. The data has been reported.

PACE ANALYTICAL SERVICES, LLC

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

The method blank for prep batch 25999 contained analyte: PFOS greater than the acceptance criteria. The associated samples, WL14016-022, WL14016-023, WL14016-024, contained detections for this analyte at concentrations greater than 10X the value found in the method blank; therefore sample results are not impacted. The data has been reported.

TOC

The MS/MSD associated with sample WL14016-024 had TOC recovered outside of the acceptance limits. The LCS was recovered within the required acceptance limits; therefore, this demonstrates a matrix effect and data quality is not impacted.

PACE ANALYTICAL SERVICES, LLC

Sample Summary

Tetra Tech

Lot Number: WL14016

Project Name: KSC PFAS

Project Number: 112G09237

| Sample Number | Sample ID | Matrix | Date Sampled | Date Received |
|---------------|----------------------------|---------|-----------------|---------------|
| 001 | FS3-RB01-20211209 | Aqueous | 12/09/2021 0930 | 12/14/2021 |
| 002 | FS3-SB0001-011.5-20211209 | Solid | 12/09/2021 1155 | 12/14/2021 |
| 003 | FS3-SB0001-025.5-20211209 | Solid | 12/09/2021 1200 | 12/14/2021 |
| 004 | FS3-SB0001-038.5-20211209 | Solid | 12/09/2021 1205 | 12/14/2021 |
| 005 | FS3-SB0001-055.5-20211209 | Solid | 12/09/2021 1210 | 12/14/2021 |
| 006 | FS3-SB0001-059.5-20211209 | Solid | 12/09/2021 1215 | 12/14/2021 |
| 007 | FS3-SB0001-070.5-20211209 | Solid | 12/09/2021 1220 | 12/14/2021 |
| 008 | FS3-FB01-20211209 | Aqueous | 12/09/2021 1230 | 12/14/2021 |
| 009 | SWB01-20211209 | Aqueous | 12/09/2021 1235 | 12/14/2021 |
| 010 | SWB02-20211209 | Aqueous | 12/09/2021 1240 | 12/14/2021 |
| 011 | STP1-RB02-20211209 | Aqueous | 12/09/2021 1630 | 12/14/2021 |
| 012 | STP1-SB0001-009.5-20211209 | Solid | 12/09/2021 1730 | 12/14/2021 |
| 013 | STP1-SB0001-021.5-20211209 | Solid | 12/09/2021 1735 | 12/14/2021 |
| 014 | STP1-SB0001-029.5-20211209 | Solid | 12/09/2021 1740 | 12/14/2021 |
| 015 | STP1-SB0001-043.5-20211210 | Solid | 12/10/2021 0810 | 12/14/2021 |
| 016 | STP1-SB0001-045.5-20211210 | Solid | 12/10/2021 0815 | 12/14/2021 |
| 017 | STP1-SB0001-049.5-20211210 | Solid | 12/10/2021 0820 | 12/14/2021 |
| 018 | STP1-SB0001-053.5-20211210 | Solid | 12/10/2021 0830 | 12/14/2021 |
| 019 | STP1-FB02-20211210 | Aqueous | 12/10/2021 0835 | 12/14/2021 |
| 020 | FS1-RB03-20211210 | Aqueous | 12/10/2021 1000 | 12/14/2021 |
| 021 | FS1-SB0001-013.5-20211210 | Solid | 12/10/2021 1200 | 12/14/2021 |
| 022 | FS1-SB0001-019.5-20211210 | Solid | 12/10/2021 1205 | 12/14/2021 |
| 023 | FS1-SB0001-033.5-20211210 | Solid | 12/10/2021 1210 | 12/14/2021 |
| 024 | FS1-SB0001-046.5-20211210 | Solid | 12/10/2021 1215 | 12/14/2021 |
| 025 | FS1-SB0001-052.5-20211210 | Solid | 12/10/2021 1220 | 12/14/2021 |
| 026 | FS1-SB0001-059.5-20211210 | Solid | 12/10/2021 1225 | 12/14/2021 |
| 027 | FS1-FB03-20211210 | Aqueous | 12/10/2021 1230 | 12/14/2021 |

(27 samples)

PACE ANALYTICAL SERVICES, LLC

Detection Summary

Tetra Tech

Lot Number: WL14016

Project Name: KSC PFAS

Project Number: 112G09237

| Sample | Sample ID | Matrix | Parameter | Method | Result | Q | Units | Page |
|--------|----------------------------|--------|-----------|---------------|--------|----|-------|------|
| 002 | FS3-SB0001-011.5-20211209 | Solid | TOC | Walkley-Black | 20000 | | mg/kg | 9 |
| 002 | FS3-SB0001-011.5-20211209 | Solid | PFHxS | PFAS by ID | 1.1 | I | ug/kg | 10 |
| 002 | FS3-SB0001-011.5-20211209 | Solid | PFPeA | PFAS by ID | 0.30 | I | ug/kg | 10 |
| 002 | FS3-SB0001-011.5-20211209 | Solid | PFOS | PFAS by ID | 3.2 | | ug/kg | 10 |
| 003 | FS3-SB0001-025.5-20211209 | Solid | TOC | Walkley-Black | 4200 | | mg/kg | 12 |
| 003 | FS3-SB0001-025.5-20211209 | Solid | 6:2 FTS | PFAS by ID | 5.4 | V | ug/kg | 13 |
| 003 | FS3-SB0001-025.5-20211209 | Solid | PFHxS | PFAS by ID | 0.38 | I | ug/kg | 13 |
| 003 | FS3-SB0001-025.5-20211209 | Solid | PFOS | PFAS by ID | 4.7 | | ug/kg | 13 |
| 004 | FS3-SB0001-038.5-20211209 | Solid | TOC | Walkley-Black | 1500 | | mg/kg | 15 |
| 004 | FS3-SB0001-038.5-20211209 | Solid | 6:2 FTS | PFAS by ID | 3.8 | V | ug/kg | 16 |
| 004 | FS3-SB0001-038.5-20211209 | Solid | PFHxS | PFAS by ID | 0.58 | I | ug/kg | 16 |
| 004 | FS3-SB0001-038.5-20211209 | Solid | PFOS | PFAS by ID | 4.3 | | ug/kg | 16 |
| 005 | FS3-SB0001-055.5-20211209 | Solid | TOC | Walkley-Black | 2400 | | mg/kg | 18 |
| 005 | FS3-SB0001-055.5-20211209 | Solid | 6:2 FTS | PFAS by ID | 3.4 | V | ug/kg | 19 |
| 005 | FS3-SB0001-055.5-20211209 | Solid | PFOS | PFAS by ID | 0.30 | I | ug/kg | 19 |
| 006 | FS3-SB0001-059.5-20211209 | Solid | TOC | Walkley-Black | 18000 | | mg/kg | 21 |
| 006 | FS3-SB0001-059.5-20211209 | Solid | 6:2 FTS | PFAS by ID | 1.7 | VI | ug/kg | 22 |
| 007 | FS3-SB0001-070.5-20211209 | Solid | TOC | Walkley-Black | 1900 | | mg/kg | 24 |
| 007 | FS3-SB0001-070.5-20211209 | Solid | 6:2 FTS | PFAS by ID | 1.6 | VI | ug/kg | 25 |
| 012 | STP1-SB0001-009.5-20211209 | Solid | TOC | Walkley-Black | 18000 | | mg/kg | 35 |
| 012 | STP1-SB0001-009.5-20211209 | Solid | 6:2 FTS | PFAS by ID | 1.2 | VI | ug/kg | 36 |
| 012 | STP1-SB0001-009.5-20211209 | Solid | PFOS | PFAS by ID | 1.9 | | ug/kg | 36 |
| 013 | STP1-SB0001-021.5-20211209 | Solid | TOC | Walkley-Black | 4600 | | mg/kg | 38 |
| 013 | STP1-SB0001-021.5-20211209 | Solid | 6:2 FTS | PFAS by ID | 1.0 | VI | ug/kg | 39 |
| 013 | STP1-SB0001-021.5-20211209 | Solid | PFOS | PFAS by ID | 0.76 | I | ug/kg | 39 |
| 014 | STP1-SB0001-029.5-20211209 | Solid | TOC | Walkley-Black | 880 | | mg/kg | 41 |
| 014 | STP1-SB0001-029.5-20211209 | Solid | PFOS | PFAS by ID | 0.55 | I | ug/kg | 42 |
| 015 | STP1-SB0001-043.5-20211210 | Solid | TOC | Walkley-Black | 1500 | | mg/kg | 44 |
| 016 | STP1-SB0001-045.5-20211210 | Solid | TOC | Walkley-Black | 3400 | | mg/kg | 47 |
| 017 | STP1-SB0001-049.5-20211210 | Solid | TOC | Walkley-Black | 3000 | | mg/kg | 50 |
| 018 | STP1-SB0001-053.5-20211210 | Solid | TOC | Walkley-Black | 3700 | | mg/kg | 53 |
| 021 | FS1-SB0001-013.5-20211210 | Solid | TOC | Walkley-Black | 7400 | | mg/kg | 60 |
| 021 | FS1-SB0001-013.5-20211210 | Solid | 8:2 FTS | PFAS by ID | 2.6 | | ug/kg | 61 |
| 021 | FS1-SB0001-013.5-20211210 | Solid | PFHxS | PFAS by ID | 0.53 | I | ug/kg | 61 |
| 021 | FS1-SB0001-013.5-20211210 | Solid | PFHpA | PFAS by ID | 0.37 | I | ug/kg | 61 |
| 021 | FS1-SB0001-013.5-20211210 | Solid | PFHxA | PFAS by ID | 0.58 | I | ug/kg | 61 |
| 021 | FS1-SB0001-013.5-20211210 | Solid | PFOA | PFAS by ID | 0.28 | I | ug/kg | 61 |
| 021 | FS1-SB0001-013.5-20211210 | Solid | PFPeA | PFAS by ID | 0.57 | I | ug/kg | 61 |
| 021 | FS1-SB0001-013.5-20211210 | Solid | PFOS | PFAS by ID | 4.6 | V | ug/kg | 61 |
| 022 | FS1-SB0001-019.5-20211210 | Solid | TOC | Walkley-Black | 4200 | | mg/kg | 63 |
| 022 | FS1-SB0001-019.5-20211210 | Solid | 8:2 FTS | PFAS by ID | 4.4 | | ug/kg | 64 |
| 022 | FS1-SB0001-019.5-20211210 | Solid | 6:2 FTS | PFAS by ID | 1.5 | I | ug/kg | 64 |
| 022 | FS1-SB0001-019.5-20211210 | Solid | PFHxS | PFAS by ID | 2.2 | | ug/kg | 64 |

Detection Summary (Continued)

Lot Number: WL14016

| Sample | Sample ID | Matrix | Parameter | Method | Result | Q | Units | Page |
|--------|---------------------------|--------|-----------|---------------|--------|---|-------|------|
| 022 | FS1-SB0001-019.5-20211210 | Solid | PFHpA | PFAS by ID | 0.45 | I | ug/kg | 64 |
| 022 | FS1-SB0001-019.5-20211210 | Solid | PFHxA | PFAS by ID | 0.61 | I | ug/kg | 64 |
| 022 | FS1-SB0001-019.5-20211210 | Solid | PFNA | PFAS by ID | 0.39 | I | ug/kg | 64 |
| 022 | FS1-SB0001-019.5-20211210 | Solid | PFOA | PFAS by ID | 0.86 | I | ug/kg | 64 |
| 022 | FS1-SB0001-019.5-20211210 | Solid | PFPeA | PFAS by ID | 0.64 | I | ug/kg | 64 |
| 022 | FS1-SB0001-019.5-20211210 | Solid | PFOS | PFAS by ID | 29 | V | ug/kg | 64 |
| 023 | FS1-SB0001-033.5-20211210 | Solid | TOC | Walkley-Black | 1200 | | mg/kg | 66 |
| 023 | FS1-SB0001-033.5-20211210 | Solid | 8:2 FTS | PFAS by ID | 2.2 | I | ug/kg | 67 |
| 023 | FS1-SB0001-033.5-20211210 | Solid | 6:2 FTS | PFAS by ID | 4.6 | | ug/kg | 67 |
| 023 | FS1-SB0001-033.5-20211210 | Solid | PFBS | PFAS by ID | 0.55 | I | ug/kg | 67 |
| 023 | FS1-SB0001-033.5-20211210 | Solid | PFHpS | PFAS by ID | 0.91 | I | ug/kg | 67 |
| 023 | FS1-SB0001-033.5-20211210 | Solid | PFPeS | PFAS by ID | 0.64 | I | ug/kg | 67 |
| 023 | FS1-SB0001-033.5-20211210 | Solid | PFHxS | PFAS by ID | 9.4 | | ug/kg | 67 |
| 023 | FS1-SB0001-033.5-20211210 | Solid | PFBA | PFAS by ID | 0.34 | I | ug/kg | 67 |
| 023 | FS1-SB0001-033.5-20211210 | Solid | PFHpA | PFAS by ID | 0.48 | I | ug/kg | 67 |
| 023 | FS1-SB0001-033.5-20211210 | Solid | PFHxA | PFAS by ID | 2.1 | | ug/kg | 67 |
| 023 | FS1-SB0001-033.5-20211210 | Solid | PFOA | PFAS by ID | 1.5 | | ug/kg | 67 |
| 023 | FS1-SB0001-033.5-20211210 | Solid | PFPeA | PFAS by ID | 1.2 | | ug/kg | 67 |
| 023 | FS1-SB0001-033.5-20211210 | Solid | PFOS | PFAS by ID | 110 | V | ug/kg | 67 |
| 024 | FS1-SB0001-046.5-20211210 | Solid | TOC | Walkley-Black | 590 | S | mg/kg | 69 |
| 024 | FS1-SB0001-046.5-20211210 | Solid | PFBS | PFAS by ID | 0.31 | I | ug/kg | 70 |
| 024 | FS1-SB0001-046.5-20211210 | Solid | PFHpS | PFAS by ID | 0.29 | I | ug/kg | 70 |
| 024 | FS1-SB0001-046.5-20211210 | Solid | PFPeS | PFAS by ID | 0.33 | I | ug/kg | 70 |
| 024 | FS1-SB0001-046.5-20211210 | Solid | PFHxS | PFAS by ID | 3.2 | | ug/kg | 70 |
| 024 | FS1-SB0001-046.5-20211210 | Solid | PFHxA | PFAS by ID | 0.64 | I | ug/kg | 70 |
| 024 | FS1-SB0001-046.5-20211210 | Solid | PFOA | PFAS by ID | 0.54 | I | ug/kg | 70 |
| 024 | FS1-SB0001-046.5-20211210 | Solid | PFPeA | PFAS by ID | 0.32 | I | ug/kg | 70 |
| 024 | FS1-SB0001-046.5-20211210 | Solid | PFOS | PFAS by ID | 8.4 | V | ug/kg | 70 |
| 025 | FS1-SB0001-052.5-20211210 | Solid | TOC | Walkley-Black | 1300 | | mg/kg | 72 |
| 026 | FS1-SB0001-059.5-20211210 | Solid | TOC | Walkley-Black | 1300 | | mg/kg | 75 |

(73 detections)

PFAS by LC/MS/MS

| | |
|---------------------------------------|-----------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-001 |
| Description: FS3-RB01-20211209 | Matrix: Aqueous |
| Date Sampled: 12/09/2021 0930 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 12/21/2021 1605 | JJG | 12/20/2021 1123 | 26214 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|---|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 108 | 50-150 |
| 13C2_6:2FTS | | 114 | 50-150 |
| 13C2_8:2FTS | | 112 | 50-150 |
| 13C2_PFDa | | 87 | 50-150 |
| 13C2_PFTeDA | | 78 | 50-150 |
| 13C3_PFBS | | 105 | 50-150 |
| 13C3_PFHxS | | 110 | 50-150 |
| 13C3-HFPO-DA | | 103 | 50-150 |
| 13C4_PFBA | | 104 | 50-150 |
| 13C4_PFHpA | | 108 | 50-150 |
| 13C5_PFHxA | | 110 | 50-150 |
| 13C5_PFPeA | | 104 | 50-150 |
| 13C6_PFDA | | 103 | 50-150 |
| 13C7_PFUdA | | 85 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---------------------------------------|-----------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-001 |
| Description: FS3-RB01-20211209 | Matrix: Aqueous |
| Date Sampled: 12/09/2021 0930 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 109 | 50-150 |
| 13C8_PFOS | | 101 | 50-150 |
| 13C9_PFNA | | 104 | 50-150 |
| d-EtFOSA | | 82 | 50-150 |
| d5-EtFOSAA | | 99 | 50-150 |
| d3-MeFOSAA | | 96 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Inorganic non-metals

| | |
|---|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-002 |
| Description: FS3-SB0001-011.5-20211209 | Matrix: Solid |
| Date Sampled: 12/09/2021 1155 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |
| | % Solids: 80.9 12/15/2021 0111 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|---------------------|----------|-----------------|---------|-----------|-------|
| 1 | | (TOC) Walkley-Black | 1 | 01/05/2022 1700 | DAK | | 27195 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|-----------|------------|-------------------|--------|---|------|------|-----|-------|-----|
| TOC | | Walkley-Black | 20000 | | 2000 | 1000 | 980 | mg/kg | 1 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-002 |
| Description: FS3-SB0001-011.5-20211209 | Matrix: Solid |
| Date Sampled: 12/09/2021 1155 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | % Solids: 80.9 12/15/2021 0111 |
| Project Number: 112G09237 | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 12/17/2021 1329 | MMM | 12/16/2021 1855 | 25957 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|------------------|-----------------------|-------------|----------|------------|-------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.62 | ug/kg | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.62 | ug/kg | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.62 | ug/kg | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.62 | ug/kg | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.62 | ug/kg | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 2.5 | U | 4.9 | 2.5 | 1.2 | ug/kg | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.62 | ug/kg | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.62 | ug/kg | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.62 | ug/kg | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.62 | ug/kg | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 1.1 | I | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 0.30 | I | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 3.2 | | 1.2 | 0.60 | 0.25 | ug/kg | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 90 | 50-150 |
| 13C2_6:2FTS | | 106 | 50-150 |
| 13C2_8:2FTS | | 92 | 50-150 |
| 13C2_PFDaA | | 82 | 50-150 |
| 13C2_PFTeDA | | 82 | 50-150 |
| 13C3_PFBS | | 74 | 50-150 |
| 13C3_PFHxS | | 72 | 50-150 |
| 13C3-HFPO-DA | | 69 | 50-150 |
| 13C4_PFBA | | 68 | 50-150 |
| 13C4_PFHpA | | 75 | 50-150 |
| 13C5_PFHxA | | 74 | 50-150 |
| 13C5_PFPeA | | 79 | 50-150 |
| 13C6_PFDA | | 77 | 50-150 |
| 13C7_PFUdA | | 87 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-002 |
| Description: FS3-SB0001-011.5-20211209 | Matrix: Solid |
| Date Sampled: 12/09/2021 1155 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |
| | % Solids: 80.9 12/15/2021 0111 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 75 | 50-150 |
| 13C8_PFOS | | 79 | 50-150 |
| 13C9_PFNA | | 73 | 50-150 |
| d-EtFOSA | | 81 | 50-150 |
| d5-EtFOSAA | | 87 | 50-150 |
| d3-MeFOSAA | | 88 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

Inorganic non-metals

| | |
|---|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-003 |
| Description: FS3-SB0001-025.5-20211209 | Matrix: Solid |
| Date Sampled: 12/09/2021 1200 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |
| | % Solids: 79.0 12/15/2021 0111 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|---------------------|----------|-----------------|---------|-----------|-------|
| 1 | | (TOC) Walkley-Black | 1 | 01/05/2022 1700 | DAK | | 27195 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|-----------|------------|-------------------|--------|---|-----|-----|----|-------|-----|
| TOC | | Walkley-Black | 4200 | | 200 | 100 | 99 | mg/kg | 1 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-003 |
| Description: FS3-SB0001-025.5-20211209 | Matrix: Solid |
| Date Sampled: 12/09/2021 1200 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |
| | % Solids: 79.0 12/15/2021 0111 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 12/17/2021 1340 | MMM | 12/16/2021 1855 | 25957 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------------|-----------------------|-------------|----------|------------|-------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.63 | ug/kg | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.63 | ug/kg | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.63 | ug/kg | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 5.4 | V | 2.5 | 1.3 | 0.63 | ug/kg | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.63 | ug/kg | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 2.6 | U | 5.1 | 2.6 | 1.3 | ug/kg | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.63 | ug/kg | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.63 | ug/kg | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.63 | ug/kg | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.63 | ug/kg | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 0.65 | U | 1.3 | 0.65 | 0.25 | ug/kg | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 0.65 | U | 1.3 | 0.65 | 0.25 | ug/kg | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 0.65 | U | 1.3 | 0.65 | 0.25 | ug/kg | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 0.65 | U | 1.3 | 0.65 | 0.25 | ug/kg | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 0.65 | U | 1.3 | 0.65 | 0.25 | ug/kg | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 0.38 | I | 1.3 | 0.65 | 0.25 | ug/kg | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 0.65 | U | 1.3 | 0.65 | 0.25 | ug/kg | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 0.65 | U | 1.3 | 0.65 | 0.25 | ug/kg | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 0.65 | U | 1.3 | 0.65 | 0.25 | ug/kg | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 0.65 | U | 1.3 | 0.65 | 0.25 | ug/kg | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 0.65 | U | 1.3 | 0.65 | 0.25 | ug/kg | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 0.65 | U | 1.3 | 0.65 | 0.25 | ug/kg | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 0.65 | U | 1.3 | 0.65 | 0.25 | ug/kg | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 0.65 | U | 1.3 | 0.65 | 0.25 | ug/kg | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 0.65 | U | 1.3 | 0.65 | 0.25 | ug/kg | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 0.65 | U | 1.3 | 0.65 | 0.25 | ug/kg | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 0.65 | U | 1.3 | 0.65 | 0.25 | ug/kg | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 4.7 | | 1.3 | 0.65 | 0.25 | ug/kg | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 78 | 50-150 |
| 13C2_6:2FTS | | 91 | 50-150 |
| 13C2_8:2FTS | | 87 | 50-150 |
| 13C2_PFDaA | | 80 | 50-150 |
| 13C2_PFTeDA | | 80 | 50-150 |
| 13C3_PFBS | | 78 | 50-150 |
| 13C3_PFHxS | | 74 | 50-150 |
| 13C3-HFPO-DA | | 77 | 50-150 |
| 13C4_PFBA | | 74 | 50-150 |
| 13C4_PFHpA | | 74 | 50-150 |
| 13C5_PFHxA | | 70 | 50-150 |
| 13C5_PFPeA | | 83 | 50-150 |
| 13C6_PFDA | | 72 | 50-150 |
| 13C7_PFUdA | | 84 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-003 |
| Description: FS3-SB0001-025.5-20211209 | Matrix: Solid |
| Date Sampled: 12/09/2021 1200 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |
| | % Solids: 79.0 12/15/2021 0111 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 73 | 50-150 |
| 13C8_PFOS | | 84 | 50-150 |
| 13C9_PFNA | | 73 | 50-150 |
| d-EtFOSA | | 78 | 50-150 |
| d5-EtFOSAA | | 52 | 50-150 |
| d3-MeFOSAA | | 84 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

Inorganic non-metals

| | |
|---|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-004 |
| Description: FS3-SB0001-038.5-20211209 | Matrix: Solid |
| Date Sampled: 12/09/2021 1205 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | % Solids: 78.0 12/15/2021 0111 |
| Project Number: 112G09237 | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|---------------------|----------|-----------------|---------|-----------|-------|
| 1 | | (TOC) Walkley-Black | 1 | 01/05/2022 1700 | DAK | | 27195 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|-----------|------------|-------------------|--------|---|-----|-----|----|-------|-----|
| TOC | | Walkley-Black | 1500 | | 200 | 100 | 99 | mg/kg | 1 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-004 |
| Description: FS3-SB0001-038.5-20211209 | Matrix: Solid |
| Date Sampled: 12/09/2021 1205 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | % Solids: 78.0 12/15/2021 0111 |
| Project Number: 112G09237 | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 12/17/2021 1350 | MMM | 12/16/2021 1855 | 25957 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------------|-----------------------|-------------|----------|------------|-------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 1.2 | U | 2.4 | 1.2 | 0.61 | ug/kg | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 1.2 | U | 2.4 | 1.2 | 0.61 | ug/kg | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 1.2 | U | 2.4 | 1.2 | 0.61 | ug/kg | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.8 | V | 2.4 | 1.2 | 0.61 | ug/kg | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 1.2 | U | 2.4 | 1.2 | 0.61 | ug/kg | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 2.4 | U | 4.8 | 2.4 | 1.2 | ug/kg | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 1.2 | U | 2.4 | 1.2 | 0.61 | ug/kg | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 1.2 | U | 2.4 | 1.2 | 0.61 | ug/kg | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 1.2 | U | 2.4 | 1.2 | 0.61 | ug/kg | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 1.2 | U | 2.4 | 1.2 | 0.61 | ug/kg | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 0.58 | I | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 4.3 | | 1.2 | 0.60 | 0.24 | ug/kg | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 87 | 50-150 |
| 13C2_6:2FTS | | 101 | 50-150 |
| 13C2_8:2FTS | | 92 | 50-150 |
| 13C2_PFDa | | 85 | 50-150 |
| 13C2_PFTeDA | | 79 | 50-150 |
| 13C3_PFBS | | 78 | 50-150 |
| 13C3_PFHxS | | 74 | 50-150 |
| 13C3-HFPO-DA | | 80 | 50-150 |
| 13C4_PFBA | | 77 | 50-150 |
| 13C4_PFHpA | | 74 | 50-150 |
| 13C5_PFHxA | | 75 | 50-150 |
| 13C5_PFPeA | | 86 | 50-150 |
| 13C6_PFDA | | 73 | 50-150 |
| 13C7_PFUdA | | 89 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-004 |
| Description: FS3-SB0001-038.5-20211209 | Matrix: Solid |
| Date Sampled: 12/09/2021 1205 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |
| | % Solids: 78.0 12/15/2021 0111 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 77 | 50-150 |
| 13C8_PFOS | | 81 | 50-150 |
| 13C9_PFNA | | 76 | 50-150 |
| d-EtFOSA | | 84 | 50-150 |
| d5-EtFOSAA | | 87 | 50-150 |
| d3-MeFOSAA | | 88 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

Inorganic non-metals

| | |
|---|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-005 |
| Description: FS3-SB0001-055.5-20211209 | Matrix: Solid |
| Date Sampled: 12/09/2021 1210 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |
| | % Solids: 83.7 12/15/2021 0111 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|---------------------|----------|-----------------|---------|-----------|-------|
| 1 | | (TOC) Walkley-Black | 1 | 01/05/2022 1700 | DAK | | 27195 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|-----------|------------|-------------------|--------|---|-----|-----|----|-------|-----|
| TOC | | Walkley-Black | 2400 | | 190 | 95 | 97 | mg/kg | 1 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-005 |
| Description: FS3-SB0001-055.5-20211209 | Matrix: Solid |
| Date Sampled: 12/09/2021 1210 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | % Solids: 83.7 12/15/2021 0111 |
| Project Number: 112G09237 | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 12/17/2021 1422 | MMM | 12/16/2021 1855 | 25957 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------------|-----------------------|-------------|----------|------------|-------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 1.2 | U | 2.3 | 1.2 | 0.57 | ug/kg | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 1.2 | U | 2.3 | 1.2 | 0.57 | ug/kg | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 1.2 | U | 2.3 | 1.2 | 0.57 | ug/kg | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.4 | V | 2.3 | 1.2 | 0.57 | ug/kg | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 1.2 | U | 2.3 | 1.2 | 0.57 | ug/kg | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 2.3 | U | 4.6 | 2.3 | 1.1 | ug/kg | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 1.2 | U | 2.3 | 1.2 | 0.57 | ug/kg | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 1.2 | U | 2.3 | 1.2 | 0.57 | ug/kg | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 1.2 | U | 2.3 | 1.2 | 0.57 | ug/kg | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 1.2 | U | 2.3 | 1.2 | 0.57 | ug/kg | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 0.30 | I | 1.1 | 0.55 | 0.23 | ug/kg | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 93 | 50-150 |
| 13C2_6:2FTS | | 111 | 50-150 |
| 13C2_8:2FTS | | 104 | 50-150 |
| 13C2_PFDa | | 85 | 50-150 |
| 13C2_PFTeDA | | 81 | 50-150 |
| 13C3_PFBS | | 85 | 50-150 |
| 13C3_PFHxS | | 80 | 50-150 |
| 13C3-HFPO-DA | | 84 | 50-150 |
| 13C4_PFBA | | 83 | 50-150 |
| 13C4_PFHpA | | 83 | 50-150 |
| 13C5_PFHxA | | 81 | 50-150 |
| 13C5_PFPeA | | 92 | 50-150 |
| 13C6_PFDA | | 77 | 50-150 |
| 13C7_PFUdA | | 88 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-005 |
| Description: FS3-SB0001-055.5-20211209 | Matrix: Solid |
| Date Sampled: 12/09/2021 1210 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |
| | % Solids: 83.7 12/15/2021 0111 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 78 | 50-150 |
| 13C8_PFOS | | 85 | 50-150 |
| 13C9_PFNA | | 82 | 50-150 |
| d-EtFOSA | | 88 | 50-150 |
| d5-EtFOSAA | | 86 | 50-150 |
| d3-MeFOSAA | | 92 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Inorganic non-metals

| | |
|---|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-006 |
| Description: FS3-SB0001-059.5-20211209 | Matrix: Solid |
| Date Sampled: 12/09/2021 1215 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | % Solids: 59.1 12/15/2021 0111 |
| Project Number: 112G09237 | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|---------------------|----------|-----------------|---------|-----------|-------|
| 1 | | (TOC) Walkley-Black | 1 | 01/05/2022 1700 | DAK | | 27195 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|-----------|------------|-------------------|--------|---|------|-----|-----|-------|-----|
| TOC | | Walkley-Black | 18000 | | 1800 | 900 | 920 | mg/kg | 1 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-006 |
| Description: FS3-SB0001-059.5-20211209 | Matrix: Solid |
| Date Sampled: 12/09/2021 1215 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | % Solids: 59.1 12/15/2021 0111 |
| Project Number: 112G09237 | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 12/17/2021 1433 | MMM | 12/16/2021 1855 | 25957 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------------|-----------------------|------------|-----------|------------|------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 1.5 | U | 2.9 | 1.5 | 0.72 | ug/kg | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 1.5 | U | 2.9 | 1.5 | 0.72 | ug/kg | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 1.5 | U | 2.9 | 1.5 | 0.72 | ug/kg | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 1.7 | VI | 2.9 | 1.5 | 0.72 | ug/kg | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 1.5 | U | 2.9 | 1.5 | 0.72 | ug/kg | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 2.9 | U | 5.8 | 2.9 | 1.4 | ug/kg | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 1.5 | U | 2.9 | 1.5 | 0.72 | ug/kg | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 1.5 | U | 2.9 | 1.5 | 0.72 | ug/kg | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 1.5 | U | 2.9 | 1.5 | 0.72 | ug/kg | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 1.5 | U | 2.9 | 1.5 | 0.72 | ug/kg | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 0.70 | U | 1.4 | 0.70 | 0.29 | ug/kg | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 0.70 | U | 1.4 | 0.70 | 0.29 | ug/kg | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 0.70 | U | 1.4 | 0.70 | 0.29 | ug/kg | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 0.70 | U | 1.4 | 0.70 | 0.29 | ug/kg | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 0.70 | U | 1.4 | 0.70 | 0.29 | ug/kg | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 0.70 | U | 1.4 | 0.70 | 0.29 | ug/kg | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 0.70 | U | 1.4 | 0.70 | 0.29 | ug/kg | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 0.70 | U | 1.4 | 0.70 | 0.29 | ug/kg | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 0.70 | U | 1.4 | 0.70 | 0.29 | ug/kg | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 0.70 | U | 1.4 | 0.70 | 0.29 | ug/kg | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 0.70 | U | 1.4 | 0.70 | 0.29 | ug/kg | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 0.70 | U | 1.4 | 0.70 | 0.29 | ug/kg | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 0.70 | U | 1.4 | 0.70 | 0.29 | ug/kg | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 0.70 | U | 1.4 | 0.70 | 0.29 | ug/kg | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 0.70 | U | 1.4 | 0.70 | 0.29 | ug/kg | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 0.70 | U | 1.4 | 0.70 | 0.29 | ug/kg | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 0.70 | U | 1.4 | 0.70 | 0.29 | ug/kg | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 0.70 | U | 1.4 | 0.70 | 0.29 | ug/kg | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 72 | 50-150 |
| 13C2_6:2FTS | | 88 | 50-150 |
| 13C2_8:2FTS | | 78 | 50-150 |
| 13C2_PFDa | | 69 | 50-150 |
| 13C2_PFTeDA | | 67 | 50-150 |
| 13C3_PFBS | | 64 | 50-150 |
| 13C3_PFHxS | | 58 | 50-150 |
| 13C3-HFPO-DA | | 58 | 50-150 |
| 13C4_PFBA | | 62 | 50-150 |
| 13C4_PFHpA | | 62 | 50-150 |
| 13C5_PFHxA | | 62 | 50-150 |
| 13C5_PFPeA | | 68 | 50-150 |
| 13C6_PFDA | | 61 | 50-150 |
| 13C7_PFUdA | | 75 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-006 |
| Description: FS3-SB0001-059.5-20211209 | Matrix: Solid |
| Date Sampled: 12/09/2021 1215 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |
| | % Solids: 59.1 12/15/2021 0111 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 61 | 50-150 |
| 13C8_PFOS | | 68 | 50-150 |
| 13C9_PFNA | | 64 | 50-150 |
| d-EtFOSA | | 66 | 50-150 |
| d5-EtFOSAA | | 71 | 50-150 |
| d3-MeFOSAA | | 73 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Inorganic non-metals

| | |
|---|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-007 |
| Description: FS3-SB0001-070.5-20211209 | Matrix: Solid |
| Date Sampled: 12/09/2021 1220 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |
| | % Solids: 76.2 12/15/2021 0111 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|---------------------|----------|-----------------|---------|-----------|-------|
| 1 | | (TOC) Walkley-Black | 1 | 01/05/2022 1700 | DAK | | 27195 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|-----------|------------|-------------------|--------|---|-----|-----|----|-------|-----|
| TOC | | Walkley-Black | 1900 | | 200 | 100 | 98 | mg/kg | 1 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-007 |
| Description: FS3-SB0001-070.5-20211209 | Matrix: Solid |
| Date Sampled: 12/09/2021 1220 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |
| | % Solids: 76.2 12/15/2021 0111 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 12/17/2021 1444 | MMM | 12/16/2021 1855 | 25957 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------------|-----------------------|------------|-----------|------------|------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 1.2 | U | 2.3 | 1.2 | 0.58 | ug/kg | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 1.2 | U | 2.3 | 1.2 | 0.58 | ug/kg | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 1.2 | U | 2.3 | 1.2 | 0.58 | ug/kg | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 1.6 | VI | 2.3 | 1.2 | 0.58 | ug/kg | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 1.2 | U | 2.3 | 1.2 | 0.58 | ug/kg | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 2.3 | U | 4.6 | 2.3 | 1.2 | ug/kg | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 1.2 | U | 2.3 | 1.2 | 0.58 | ug/kg | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 1.2 | U | 2.3 | 1.2 | 0.58 | ug/kg | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 1.2 | U | 2.3 | 1.2 | 0.58 | ug/kg | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 1.2 | U | 2.3 | 1.2 | 0.58 | ug/kg | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.23 | ug/kg | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.23 | ug/kg | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.23 | ug/kg | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.23 | ug/kg | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.23 | ug/kg | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.23 | ug/kg | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.23 | ug/kg | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.23 | ug/kg | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.23 | ug/kg | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.23 | ug/kg | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.23 | ug/kg | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.23 | ug/kg | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.23 | ug/kg | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.23 | ug/kg | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.23 | ug/kg | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.23 | ug/kg | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.23 | ug/kg | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.23 | ug/kg | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 90 | 50-150 |
| 13C2_6:2FTS | | 108 | 50-150 |
| 13C2_8:2FTS | | 87 | 50-150 |
| 13C2_PFDaA | | 81 | 50-150 |
| 13C2_PFTeDA | | 76 | 50-150 |
| 13C3_PFBS | | 74 | 50-150 |
| 13C3_PFHxS | | 73 | 50-150 |
| 13C3-HFPO-DA | | 70 | 50-150 |
| 13C4_PFBA | | 72 | 50-150 |
| 13C4_PFHpA | | 73 | 50-150 |
| 13C5_PFHxA | | 73 | 50-150 |
| 13C5_PFPeA | | 80 | 50-150 |
| 13C6_PFDA | | 75 | 50-150 |
| 13C7_PFUdA | | 80 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | | |
|---|-----------------------------------|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-007 | |
| Description: FS3-SB0001-070.5-20211209 | Matrix: Solid | |
| Date Sampled: 12/09/2021 1220 | Project Name: KSC PFAS | % Solids: 76.2 12/15/2021 0111 |
| Date Received: 12/14/2021 | Project Number: 112G09237 | |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 73 | 50-150 |
| 13C8_PFOS | | 76 | 50-150 |
| 13C9_PFNA | | 71 | 50-150 |
| d-EtFOSA | | 79 | 50-150 |
| d5-EtFOSAA | | 81 | 50-150 |
| d3-MeFOSAA | | 83 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---------------------------------------|-----------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-008 |
| Description: FS3-FB01-20211209 | Matrix: Aqueous |
| Date Sampled: 12/09/2021 1230 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 12/21/2021 1616 | JJG | 12/20/2021 1123 | 26214 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|---|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.9 | U | 7.8 | 3.9 | 1.9 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.9 | U | 7.8 | 3.9 | 1.9 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.9 | U | 7.8 | 3.9 | 1.9 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.9 | U | 7.8 | 3.9 | 1.9 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.9 | U | 7.8 | 3.9 | 1.9 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.9 | U | 7.8 | 3.9 | 1.9 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.9 | U | 7.8 | 3.9 | 1.9 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.9 | U | 7.8 | 3.9 | 1.9 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.9 | U | 7.8 | 3.9 | 1.9 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.9 | U | 7.8 | 3.9 | 1.9 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.97 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.97 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.97 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.97 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.97 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.97 | ng/L | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.97 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.97 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.97 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.97 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.97 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.97 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.97 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.97 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.97 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.97 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.97 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.97 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 108 | 50-150 |
| 13C2_6:2FTS | | 101 | 50-150 |
| 13C2_8:2FTS | | 105 | 50-150 |
| 13C2_PFDa | | 84 | 50-150 |
| 13C2_PFTeDA | | 66 | 50-150 |
| 13C3_PFBS | | 99 | 50-150 |
| 13C3_PFHxS | | 112 | 50-150 |
| 13C3-HFPO-DA | | 104 | 50-150 |
| 13C4_PFBA | | 103 | 50-150 |
| 13C4_PFHpA | | 105 | 50-150 |
| 13C5_PFHxA | | 107 | 50-150 |
| 13C5_PFPeA | | 102 | 50-150 |
| 13C6_PFDA | | 101 | 50-150 |
| 13C7_PFUdA | | 93 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---------------------------------------|-----------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-008 |
| Description: FS3-FB01-20211209 | Matrix: Aqueous |
| Date Sampled: 12/09/2021 1230 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 102 | 50-150 |
| 13C8_PFOS | | 95 | 50-150 |
| 13C9_PFNA | | 101 | 50-150 |
| d-EtFOSA | | 91 | 50-150 |
| d5-EtFOSAA | | 86 | 50-150 |
| d3-MeFOSAA | | 95 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|--------------------------------------|-----------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-009 |
| Description: SWB01-20211209 | Matrix: Aqueous |
| Date Sampled: 12/09/2021 1235 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 12/21/2021 1626 | JJG | 12/20/2021 1123 | 26214 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|---|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 148 | 50-150 |
| 13C2_6:2FTS | | 105 | 50-150 |
| 13C2_8:2FTS | | 109 | 50-150 |
| 13C2_PFDa | | 76 | 50-150 |
| 13C2_PFTeDA | | 73 | 50-150 |
| 13C3_PFBS | | 105 | 50-150 |
| 13C3_PFHxS | | 115 | 50-150 |
| 13C3-HFPO-DA | | 101 | 50-150 |
| 13C4_PFBA | | 99 | 50-150 |
| 13C4_PFHpA | | 113 | 50-150 |
| 13C5_PFHxA | | 110 | 50-150 |
| 13C5_PFPeA | | 105 | 50-150 |
| 13C6_PFDA | | 104 | 50-150 |
| 13C7_PFUdA | | 88 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|--------------------------------------|-----------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-009 |
| Description: SWB01-20211209 | Matrix: Aqueous |
| Date Sampled: 12/09/2021 1235 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 101 | 50-150 |
| 13C8_PFOS | | 108 | 50-150 |
| 13C9_PFNA | | 107 | 50-150 |
| d-EtFOSA | | 81 | 50-150 |
| d5-EtFOSAA | | 87 | 50-150 |
| d3-MeFOSAA | | 94 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|--------------------------------------|-----------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-010 |
| Description: SWB02-20211209 | Matrix: Aqueous |
| Date Sampled: 12/09/2021 1240 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 12/21/2021 1637 | JJG | 12/20/2021 1123 | 26214 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|---|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 145 | 50-150 |
| 13C2_6:2FTS | | 99 | 50-150 |
| 13C2_8:2FTS | | 97 | 50-150 |
| 13C2_PFDa | | 71 | 50-150 |
| 13C2_PFTeDA | | 67 | 50-150 |
| 13C3_PFBS | | 99 | 50-150 |
| 13C3_PFHxS | | 106 | 50-150 |
| 13C3-HFPO-DA | | 98 | 50-150 |
| 13C4_PFBA | | 94 | 50-150 |
| 13C4_PFHpA | | 103 | 50-150 |
| 13C5_PFHxA | | 106 | 50-150 |
| 13C5_PFPeA | | 99 | 50-150 |
| 13C6_PFDA | | 94 | 50-150 |
| 13C7_PFUdA | | 81 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|--------------------------------------|-----------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-010 |
| Description: SWB02-20211209 | Matrix: Aqueous |
| Date Sampled: 12/09/2021 1240 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 98 | 50-150 |
| 13C8_PFOS | | 96 | 50-150 |
| 13C9_PFNA | | 102 | 50-150 |
| d-EtFOSA | | 81 | 50-150 |
| d5-EtFOSAA | | 84 | 50-150 |
| d3-MeFOSAA | | 87 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|--|-----------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-011 |
| Description: STP1-RB02-20211209 | Matrix: Aqueous |
| Date Sampled: 12/09/2021 1630 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 12/21/2021 1647 | JJG | 12/20/2021 1123 | 26214 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|---|-----|-----|-----|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 4.1 | U | 8.2 | 4.1 | 2.0 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9 | PFAS by ID SOP | 4.1 | U | 8.2 | 4.1 | 2.0 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 4.1 | U | 8.2 | 4.1 | 2.0 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 4.1 | U | 8.2 | 4.1 | 2.0 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 4.1 | U | 8.2 | 4.1 | 2.0 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 4.1 | U | 8.2 | 4.1 | 2.0 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 4.1 | U | 8.2 | 4.1 | 2.0 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 4.1 | U | 8.2 | 4.1 | 2.0 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 4.1 | U | 8.2 | 4.1 | 2.0 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 4.1 | U | 8.2 | 4.1 | 2.0 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTTrDA) | 72629-94-8 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 112 | 50-150 |
| 13C2_6:2FTS | | 101 | 50-150 |
| 13C2_8:2FTS | | 119 | 50-150 |
| 13C2_PFDa | | 98 | 50-150 |
| 13C2_PFTeDA | | 77 | 50-150 |
| 13C3_PFBS | | 97 | 50-150 |
| 13C3_PFHxS | | 113 | 50-150 |
| 13C3-HFPO-DA | | 105 | 50-150 |
| 13C4_PFBA | | 106 | 50-150 |
| 13C4_PFHpA | | 106 | 50-150 |
| 13C5_PFHxA | | 107 | 50-150 |
| 13C5_PFPeA | | 101 | 50-150 |
| 13C6_PFDA | | 106 | 50-150 |
| 13C7_PFUdA | | 100 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|--|-----------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-011 |
| Description: STP1-RB02-20211209 | Matrix: Aqueous |
| Date Sampled: 12/09/2021 1630 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 108 | 50-150 |
| 13C8_PFOS | | 107 | 50-150 |
| 13C9_PFNA | | 104 | 50-150 |
| d-EtFOSA | | 99 | 50-150 |
| d5-EtFOSAA | | 100 | 50-150 |
| d3-MeFOSAA | | 109 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

Inorganic non-metals

| | |
|--|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-012 |
| Description: STP1-SB0001-009.5-20211209 | Matrix: Solid |
| Date Sampled: 12/09/2021 1730 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |
| | % Solids: 79.7 12/15/2021 0111 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|---------------------|----------|-----------------|---------|-----------|-------|
| 1 | | (TOC) Walkley-Black | 1 | 01/05/2022 1700 | DAK | | 27195 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|-----------|------------|-------------------|--------|---|------|-----|-----|-------|-----|
| TOC | | Walkley-Black | 18000 | | 1800 | 900 | 890 | mg/kg | 1 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|--|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-012 |
| Description: STP1-SB0001-009.5-20211209 | Matrix: Solid |
| Date Sampled: 12/09/2021 1730 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |
| | % Solids: 79.7 12/15/2021 0111 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 12/17/2021 1454 | MMM | 12/16/2021 1855 | 25957 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------------|-----------------------|------------|-----------|------------|-------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 1.2 | U | 2.3 | 1.2 | 0.58 | ug/kg | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 1.2 | U | 2.3 | 1.2 | 0.58 | ug/kg | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 1.2 | U | 2.3 | 1.2 | 0.58 | ug/kg | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 1.2 | VI | 2.3 | 1.2 | 0.58 | ug/kg | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 1.2 | U | 2.3 | 1.2 | 0.58 | ug/kg | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 2.3 | U | 4.6 | 2.3 | 1.2 | ug/kg | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 1.2 | U | 2.3 | 1.2 | 0.58 | ug/kg | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 1.2 | U | 2.3 | 1.2 | 0.58 | ug/kg | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 1.2 | U | 2.3 | 1.2 | 0.58 | ug/kg | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 1.2 | U | 2.3 | 1.2 | 0.58 | ug/kg | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.23 | ug/kg | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.23 | ug/kg | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.23 | ug/kg | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.23 | ug/kg | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.23 | ug/kg | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.23 | ug/kg | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.23 | ug/kg | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.23 | ug/kg | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.23 | ug/kg | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.23 | ug/kg | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.23 | ug/kg | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.23 | ug/kg | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.23 | ug/kg | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.23 | ug/kg | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.23 | ug/kg | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.23 | ug/kg | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.23 | ug/kg | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 1.9 | | 1.2 | 0.60 | 0.23 | ug/kg | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 86 | 50-150 |
| 13C2_6:2FTS | | 114 | 50-150 |
| 13C2_8:2FTS | | 88 | 50-150 |
| 13C2_PFDa | | 69 | 50-150 |
| 13C2_PFTeDA | | 68 | 50-150 |
| 13C3_PFBS | | 76 | 50-150 |
| 13C3_PFHxS | | 69 | 50-150 |
| 13C3-HFPO-DA | | 70 | 50-150 |
| 13C4_PFBA | | 70 | 50-150 |
| 13C4_PFHpA | | 69 | 50-150 |
| 13C5_PFHxA | | 73 | 50-150 |
| 13C5_PFPeA | | 76 | 50-150 |
| 13C6_PFDA | | 69 | 50-150 |
| 13C7_PFUdA | | 81 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|--|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-012 |
| Description: STP1-SB0001-009.5-20211209 | Matrix: Solid |
| Date Sampled: 12/09/2021 1730 | % Solids: 79.7 12/15/2021 0111 |
| Date Received: 12/14/2021 | Project Name: KSC PFAS |
| | Project Number: 112G09237 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 71 | 50-150 |
| 13C8_PFOS | | 77 | 50-150 |
| 13C9_PFNA | | 73 | 50-150 |
| d-EtFOSA | | 79 | 50-150 |
| d5-EtFOSAA | | 76 | 50-150 |
| d3-MeFOSAA | | 79 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

Inorganic non-metals

| | |
|--|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-013 |
| Description: STP1-SB0001-021.5-20211209 | Matrix: Solid |
| Date Sampled: 12/09/2021 1735 | % Solids: 82.6 12/15/2021 0111 |
| Date Received: 12/14/2021 | Project Name: KSC PFAS |
| | Project Number: 112G09237 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|---------------------|----------|-----------------|---------|-----------|-------|
| 1 | | (TOC) Walkley-Black | 1 | 01/05/2022 1700 | DAK | | 27195 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|-----------|------------|-------------------|--------|---|-----|-----|----|-------|-----|
| TOC | | Walkley-Black | 4600 | | 200 | 100 | 99 | mg/kg | 1 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|--|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-013 |
| Description: STP1-SB0001-021.5-20211209 | Matrix: Solid |
| Date Sampled: 12/09/2021 1735 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |
| | % Solids: 82.6 12/15/2021 0111 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 12/17/2021 1505 | MMM | 12/16/2021 1855 | 25957 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------------|-----------------------|-------------|-----------|------------|-------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 1.2 | U | 2.3 | 1.2 | 0.57 | ug/kg | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 1.2 | U | 2.3 | 1.2 | 0.57 | ug/kg | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 1.2 | U | 2.3 | 1.2 | 0.57 | ug/kg | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 1.0 | VI | 2.3 | 1.2 | 0.57 | ug/kg | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 1.2 | U | 2.3 | 1.2 | 0.57 | ug/kg | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 2.3 | U | 4.5 | 2.3 | 1.1 | ug/kg | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 1.2 | U | 2.3 | 1.2 | 0.57 | ug/kg | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 1.2 | U | 2.3 | 1.2 | 0.57 | ug/kg | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 1.2 | U | 2.3 | 1.2 | 0.57 | ug/kg | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 1.2 | U | 2.3 | 1.2 | 0.57 | ug/kg | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 0.76 | I | 1.1 | 0.55 | 0.23 | ug/kg | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 92 | 50-150 |
| 13C2_6:2FTS | | 130 | 50-150 |
| 13C2_8:2FTS | | 98 | 50-150 |
| 13C2_PFDa | | 76 | 50-150 |
| 13C2_PFTeDA | | 76 | 50-150 |
| 13C3_PFBS | | 80 | 50-150 |
| 13C3_PFHxS | | 78 | 50-150 |
| 13C3-HFPO-DA | | 80 | 50-150 |
| 13C4_PFBA | | 78 | 50-150 |
| 13C4_PFHpA | | 78 | 50-150 |
| 13C5_PFHxA | | 78 | 50-150 |
| 13C5_PFPeA | | 87 | 50-150 |
| 13C6_PFDA | | 69 | 50-150 |
| 13C7_PFUdA | | 86 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|--|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-013 |
| Description: STP1-SB0001-021.5-20211209 | Matrix: Solid |
| Date Sampled: 12/09/2021 1735 | % Solids: 82.6 12/15/2021 0111 |
| Date Received: 12/14/2021 | Project Name: KSC PFAS |
| | Project Number: 112G09237 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 77 | 50-150 |
| 13C8_PFOS | | 80 | 50-150 |
| 13C9_PFNA | | 78 | 50-150 |
| d-EtFOSA | | 81 | 50-150 |
| d5-EtFOSAA | | 83 | 50-150 |
| d3-MeFOSAA | | 91 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

Inorganic non-metals

| | |
|--|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-014 |
| Description: STP1-SB0001-029.5-20211209 | Matrix: Solid |
| Date Sampled: 12/09/2021 1740 | % Solids: 85.6 12/15/2021 0111 |
| Date Received: 12/14/2021 | Project Name: KSC PFAS |
| | Project Number: 112G09237 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|---------------------|----------|-----------------|---------|-----------|-------|
| 1 | | (TOC) Walkley-Black | 1 | 01/05/2022 1700 | DAK | | 27195 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|-----------|------------|-------------------|--------|---|-----|-----|----|-------|-----|
| TOC | | Walkley-Black | 880 | | 200 | 100 | 99 | mg/kg | 1 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|--|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-014 |
| Description: STP1-SB0001-029.5-20211209 | Matrix: Solid |
| Date Sampled: 12/09/2021 1740 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |
| | % Solids: 85.6 12/15/2021 0111 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 12/17/2021 1515 | MMM | 12/16/2021 1855 | 25957 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|------------------|-----------------------|-------------|----------|------------|-------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 1.0 | U | 2.0 | 1.0 | 0.50 | ug/kg | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9 | PFAS by ID SOP | 1.0 | U | 2.0 | 1.0 | 0.50 | ug/kg | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 1.0 | U | 2.0 | 1.0 | 0.50 | ug/kg | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 1.0 | U | 2.0 | 1.0 | 0.50 | ug/kg | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 1.0 | U | 2.0 | 1.0 | 0.50 | ug/kg | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 2.0 | U | 4.0 | 2.0 | 1.0 | ug/kg | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 1.0 | U | 2.0 | 1.0 | 0.50 | ug/kg | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 1.0 | U | 2.0 | 1.0 | 0.50 | ug/kg | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 1.0 | U | 2.0 | 1.0 | 0.50 | ug/kg | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 1.0 | U | 2.0 | 1.0 | 0.50 | ug/kg | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 0.50 | U | 1.0 | 0.50 | 0.20 | ug/kg | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 0.50 | U | 1.0 | 0.50 | 0.20 | ug/kg | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 0.50 | U | 1.0 | 0.50 | 0.20 | ug/kg | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 0.50 | U | 1.0 | 0.50 | 0.20 | ug/kg | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 0.50 | U | 1.0 | 0.50 | 0.20 | ug/kg | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 0.50 | U | 1.0 | 0.50 | 0.20 | ug/kg | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 0.50 | U | 1.0 | 0.50 | 0.20 | ug/kg | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 0.50 | U | 1.0 | 0.50 | 0.20 | ug/kg | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 0.50 | U | 1.0 | 0.50 | 0.20 | ug/kg | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 0.50 | U | 1.0 | 0.50 | 0.20 | ug/kg | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 0.50 | U | 1.0 | 0.50 | 0.20 | ug/kg | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 0.50 | U | 1.0 | 0.50 | 0.20 | ug/kg | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 0.50 | U | 1.0 | 0.50 | 0.20 | ug/kg | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 0.50 | U | 1.0 | 0.50 | 0.20 | ug/kg | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 0.50 | U | 1.0 | 0.50 | 0.20 | ug/kg | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 0.50 | U | 1.0 | 0.50 | 0.20 | ug/kg | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 0.50 | U | 1.0 | 0.50 | 0.20 | ug/kg | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 0.55 | I | 1.0 | 0.50 | 0.20 | ug/kg | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 81 | 50-150 |
| 13C2_6:2FTS | | 111 | 50-150 |
| 13C2_8:2FTS | | 83 | 50-150 |
| 13C2_PFDaA | | 65 | 50-150 |
| 13C2_PFTeDA | | 59 | 50-150 |
| 13C3_PFBS | | 68 | 50-150 |
| 13C3_PFHxS | | 65 | 50-150 |
| 13C3-HFPO-DA | | 61 | 50-150 |
| 13C4_PFBA | | 66 | 50-150 |
| 13C4_PFHpA | | 66 | 50-150 |
| 13C5_PFHxA | | 62 | 50-150 |
| 13C5_PFPeA | | 70 | 50-150 |
| 13C6_PFDA | | 61 | 50-150 |
| 13C7_PFUdA | | 69 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|--|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-014 |
| Description: STP1-SB0001-029.5-20211209 | Matrix: Solid |
| Date Sampled: 12/09/2021 1740 | % Solids: 85.6 12/15/2021 0111 |
| Date Received: 12/14/2021 | Project Name: KSC PFAS |
| | Project Number: 112G09237 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 64 | 50-150 |
| 13C8_PFOS | | 69 | 50-150 |
| 13C9_PFNA | | 66 | 50-150 |
| d-EtFOSA | | 52 | 50-150 |
| d5-EtFOSAA | | 66 | 50-150 |
| d3-MeFOSAA | | 70 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

Inorganic non-metals

| | |
|--|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-015 |
| Description: STP1-SB0001-043.5-20211210 | Matrix: Solid |
| Date Sampled: 12/10/2021 0810 | % Solids: 76.4 12/15/2021 0111 |
| Date Received: 12/14/2021 | Project Name: KSC PFAS |
| | Project Number: 112G09237 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|---------------------|----------|-----------------|---------|-----------|-------|
| 1 | | (TOC) Walkley-Black | 1 | 01/05/2022 1700 | DAK | | 27195 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|-----------|------------|-------------------|--------|---|-----|-----|----|-------|-----|
| TOC | | Walkley-Black | 1500 | | 200 | 100 | 99 | mg/kg | 1 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|--|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-015 |
| Description: STP1-SB0001-043.5-20211210 | Matrix: Solid |
| Date Sampled: 12/10/2021 0810 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |
| | % Solids: 76.4 12/15/2021 0111 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 12/19/2021 2342 | JJG | 12/17/2021 1218 | 25999 |
| 2 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 12/27/2021 0240 | NK1 | 12/23/2021 0934 | 26623 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 1.2 | U | 2.4 | 1.2 | 0.60 | ug/kg | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9 | PFAS by ID SOP | 1.2 | U | 2.4 | 1.2 | 0.60 | ug/kg | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 1.2 | U | 2.4 | 1.2 | 0.60 | ug/kg | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.63 | ug/kg | 2 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 1.2 | U | 2.4 | 1.2 | 0.60 | ug/kg | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 2.4 | U | 4.8 | 2.4 | 1.2 | ug/kg | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 1.2 | U | 2.4 | 1.2 | 0.60 | ug/kg | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 1.2 | U | 2.4 | 1.2 | 0.60 | ug/kg | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 1.2 | U | 2.4 | 1.2 | 0.60 | ug/kg | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 1.2 | U | 2.4 | 1.2 | 0.60 | ug/kg | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-n-tridecanoic acid (PFTTrDA) | 72629-94-8 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 87 | 50-150 | | 103 | 50-150 |
| 13C2_6:2FTS | | 89 | 50-150 | | 102 | 50-150 |
| 13C2_8:2FTS | | 94 | 50-150 | | 101 | 50-150 |
| 13C2_PFDaA | | 88 | 50-150 | | 90 | 50-150 |
| 13C2_PFTeDA | | 92 | 50-150 | | 93 | 50-150 |
| 13C3_PFBFS | | 92 | 50-150 | | 99 | 50-150 |
| 13C3_PFHxS | | 92 | 50-150 | | 101 | 50-150 |
| 13C3-HFPO-DA | | 88 | 50-150 | | 98 | 50-150 |
| 13C4_PFBFA | | 87 | 50-150 | | 98 | 50-150 |
| 13C4_PFHpA | | 89 | 50-150 | | 97 | 50-150 |
| 13C5_PFHxA | | 87 | 50-150 | | 101 | 50-150 |
| 13C5_PFPeA | | 92 | 50-150 | | 95 | 50-150 |
| 13C6_PFDA | | 84 | 50-150 | | 97 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|--|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-015 |
| Description: STP1-SB0001-043.5-20211210 | Matrix: Solid |
| Date Sampled: 12/10/2021 0810 | % Solids: 76.4 12/15/2021 0111 |
| Date Received: 12/14/2021 | Project Name: KSC PFAS |
| | Project Number: 112G09237 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|---|---------------------|----------------------|
| 13C7_PFUdA | | 80 | 50-150 | | 100 | 50-150 |
| 13C8_PFOA | | 86 | 50-150 | | 94 | 50-150 |
| 13C8_PFOS | | 87 | 50-150 | | 95 | 50-150 |
| 13C9_PFNA | | 84 | 50-150 | | 95 | 50-150 |
| d-EtFOSA | | 91 | 50-150 | | 95 | 50-150 |
| d5-EtFOSAA | | 85 | 50-150 | | 98 | 50-150 |
| d3-MeFOSAA | | 91 | 50-150 | | 97 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

Inorganic non-metals

| | |
|--|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-016 |
| Description: STP1-SB0001-045.5-20211210 | Matrix: Solid |
| Date Sampled: 12/10/2021 0815 | % Solids: 74.5 12/15/2021 0111 |
| Date Received: 12/14/2021 | Project Name: KSC PFAS |
| | Project Number: 112G09237 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|---------------------|----------|-----------------|---------|-----------|-------|
| 1 | | (TOC) Walkley-Black | 1 | 01/05/2022 1700 | DAK | | 27195 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|-----------|------------|-------------------|--------|---|-----|-----|----|-------|-----|
| TOC | | Walkley-Black | 3400 | | 200 | 100 | 98 | mg/kg | 1 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|--|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-016 |
| Description: STP1-SB0001-045.5-20211210 | Matrix: Solid |
| Date Sampled: 12/10/2021 0815 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | % Solids: 74.5 12/15/2021 0111 |
| | Project Number: 112G09237 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 12/19/2021 2353 | JJG | 12/17/2021 1218 | 25999 |
| 2 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 12/27/2021 0253 | NK1 | 12/23/2021 0934 | 26623 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.63 | ug/kg | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.63 | ug/kg | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.63 | ug/kg | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 1.3 | U | 2.6 | 1.3 | 0.65 | ug/kg | 2 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.63 | ug/kg | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 2.6 | U | 5.1 | 2.6 | 1.3 | ug/kg | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.63 | ug/kg | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.63 | ug/kg | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.63 | ug/kg | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.63 | ug/kg | 1 |
| Perfluoro-1-butanefluoro-1-octanesulfonic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 0.65 | U | 1.3 | 0.65 | 0.25 | ug/kg | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 0.65 | U | 1.3 | 0.65 | 0.25 | ug/kg | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 0.65 | U | 1.3 | 0.65 | 0.25 | ug/kg | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 0.65 | U | 1.3 | 0.65 | 0.25 | ug/kg | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 0.65 | U | 1.3 | 0.65 | 0.25 | ug/kg | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 0.65 | U | 1.3 | 0.65 | 0.25 | ug/kg | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 0.65 | U | 1.3 | 0.65 | 0.25 | ug/kg | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 0.65 | U | 1.3 | 0.65 | 0.25 | ug/kg | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 0.65 | U | 1.3 | 0.65 | 0.25 | ug/kg | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 0.65 | U | 1.3 | 0.65 | 0.25 | ug/kg | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 0.65 | U | 1.3 | 0.65 | 0.25 | ug/kg | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 0.65 | U | 1.3 | 0.65 | 0.25 | ug/kg | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 0.65 | U | 1.3 | 0.65 | 0.25 | ug/kg | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 0.65 | U | 1.3 | 0.65 | 0.25 | ug/kg | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 0.65 | U | 1.3 | 0.65 | 0.25 | ug/kg | 1 |
| Perfluoro-n-tridecanoic acid (PFTTrDA) | 72629-94-8 | PFAS by ID SOP | 0.65 | U | 1.3 | 0.65 | 0.25 | ug/kg | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 0.65 | U | 1.3 | 0.65 | 0.25 | ug/kg | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 0.65 | U | 1.3 | 0.65 | 0.25 | ug/kg | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 84 | 50-150 | | 105 | 50-150 |
| 13C2_6:2FTS | | 85 | 50-150 | | 102 | 50-150 |
| 13C2_8:2FTS | | 88 | 50-150 | | 105 | 50-150 |
| 13C2_PFDa | | 84 | 50-150 | | 92 | 50-150 |
| 13C2_PFTeDA | | 86 | 50-150 | | 97 | 50-150 |
| 13C3_PFBs | | 85 | 50-150 | | 99 | 50-150 |
| 13C3_PFHxS | | 89 | 50-150 | | 102 | 50-150 |
| 13C3-HFPO-DA | | 82 | 50-150 | | 102 | 50-150 |
| 13C4_PFBa | | 83 | 50-150 | | 102 | 50-150 |
| 13C4_PFHpA | | 82 | 50-150 | | 99 | 50-150 |
| 13C5_PFHxA | | 86 | 50-150 | | 101 | 50-150 |
| 13C5_PFPeA | | 83 | 50-150 | | 97 | 50-150 |
| 13C6_PFDa | | 87 | 50-150 | | 101 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|--|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-016 |
| Description: STP1-SB0001-045.5-20211210 | Matrix: Solid |
| Date Sampled: 12/10/2021 0815 | % Solids: 74.5 12/15/2021 0111 |
| Date Received: 12/14/2021 | Project Name: KSC PFAS |
| | Project Number: 112G09237 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|---|---------------------|----------------------|
| 13C7_PFUdA | | 79 | 50-150 | | 100 | 50-150 |
| 13C8_PFOA | | 85 | 50-150 | | 100 | 50-150 |
| 13C8_PFOS | | 80 | 50-150 | | 100 | 50-150 |
| 13C9_PFNA | | 78 | 50-150 | | 98 | 50-150 |
| d-EtFOSA | | 88 | 50-150 | | 99 | 50-150 |
| d5-EtFOSAA | | 82 | 50-150 | | 102 | 50-150 |
| d3-MeFOSAA | | 87 | 50-150 | | 98 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

Inorganic non-metals

| | |
|--|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-017 |
| Description: STP1-SB0001-049.5-20211210 | Matrix: Solid |
| Date Sampled: 12/10/2021 0820 | % Solids: 77.0 12/16/2021 0210 |
| Date Received: 12/14/2021 | Project Name: KSC PFAS |
| | Project Number: 112G09237 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|---------------------|----------|-----------------|---------|-----------|-------|
| 1 | | (TOC) Walkley-Black | 1 | 01/05/2022 1700 | DAK | | 27195 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|-----------|------------|-------------------|--------|---|-----|-----|-----|-------|-----|
| TOC | | Walkley-Black | 3000 | | 200 | 100 | 100 | mg/kg | 1 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|--|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-017 |
| Description: STP1-SB0001-049.5-20211210 | Matrix: Solid |
| Date Sampled: 12/10/2021 0820 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |
| | % Solids: 77.0 12/16/2021 0210 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 12/20/2021 0004 | JJG | 12/17/2021 1218 | 25999 |
| 2 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 12/27/2021 0331 | NK1 | 12/23/2021 0934 | 26623 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 1.1 | U | 2.2 | 1.1 | 0.56 | ug/kg | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9 | PFAS by ID SOP | 1.1 | U | 2.2 | 1.1 | 0.56 | ug/kg | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 1.1 | U | 2.2 | 1.1 | 0.56 | ug/kg | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 1.2 | U | 2.4 | 1.2 | 0.60 | ug/kg | 2 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 1.1 | U | 2.2 | 1.1 | 0.56 | ug/kg | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 2.2 | U | 4.4 | 2.2 | 1.1 | ug/kg | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 1.1 | U | 2.2 | 1.1 | 0.56 | ug/kg | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 1.1 | U | 2.2 | 1.1 | 0.56 | ug/kg | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 1.1 | U | 2.2 | 1.1 | 0.56 | ug/kg | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 1.1 | U | 2.2 | 1.1 | 0.56 | ug/kg | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-n-tridecanoic acid (PFTTrDA) | 72629-94-8 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |

| Surrogate | Run 1 Q | Run 1 % Recovery | Run 1 Acceptance Limits | Run 2 Q | Run 2 % Recovery | Run 2 Acceptance Limits |
|--------------|---------|------------------|-------------------------|---------|------------------|-------------------------|
| 13C2_4:2FTS | | 66 | 50-150 | | 109 | 50-150 |
| 13C2_6:2FTS | | 72 | 50-150 | | 107 | 50-150 |
| 13C2_8:2FTS | | 72 | 50-150 | | 106 | 50-150 |
| 13C2_PFDaA | | 77 | 50-150 | | 104 | 50-150 |
| 13C2_PFTeDA | | 77 | 50-150 | | 104 | 50-150 |
| 13C3_PFBS | | 67 | 50-150 | | 105 | 50-150 |
| 13C3_PFHxS | | 72 | 50-150 | | 105 | 50-150 |
| 13C3-HFPO-DA | | 69 | 50-150 | | 104 | 50-150 |
| 13C4_PFBA | | 69 | 50-150 | | 103 | 50-150 |
| 13C4_PFHpA | | 67 | 50-150 | | 104 | 50-150 |
| 13C5_PFHxA | | 68 | 50-150 | | 104 | 50-150 |
| 13C5_PFPeA | | 70 | 50-150 | | 99 | 50-150 |
| 13C6_PFDA | | 77 | 50-150 | | 104 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|--|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-017 |
| Description: STP1-SB0001-049.5-20211210 | Matrix: Solid |
| Date Sampled: 12/10/2021 0820 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |
| | % Solids: 77.0 12/16/2021 0210 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|---|---------------------|----------------------|
| 13C7_PFUdA | | 70 | 50-150 | | 107 | 50-150 |
| 13C8_PFOA | | 71 | 50-150 | | 102 | 50-150 |
| 13C8_PFOS | | 71 | 50-150 | | 102 | 50-150 |
| 13C9_PFNA | | 68 | 50-150 | | 102 | 50-150 |
| d-EtFOSA | | 73 | 50-150 | | 103 | 50-150 |
| d5-EtFOSAA | | 72 | 50-150 | | 105 | 50-150 |
| d3-MeFOSAA | | 75 | 50-150 | | 102 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

Inorganic non-metals

| | |
|--|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-018 |
| Description: STP1-SB0001-053.5-20211210 | Matrix: Solid |
| Date Sampled: 12/10/2021 0830 | % Solids: 76.2 12/15/2021 0111 |
| Date Received: 12/14/2021 | Project Name: KSC PFAS |
| | Project Number: 112G09237 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|---------------------|----------|-----------------|---------|-----------|-------|
| 1 | | (TOC) Walkley-Black | 1 | 01/05/2022 1700 | DAK | | 27195 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|-----------|------------|-------------------|--------|---|-----|-----|----|-------|-----|
| TOC | | Walkley-Black | 3700 | | 200 | 100 | 99 | mg/kg | 1 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|--|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-018 |
| Description: STP1-SB0001-053.5-20211210 | Matrix: Solid |
| Date Sampled: 12/10/2021 0830 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |
| | % Solids: 76.2 12/15/2021 0111 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 12/20/2021 0014 | JJG | 12/17/2021 1218 | 25999 |
| 2 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 12/27/2021 0343 | NK1 | 12/23/2021 0934 | 26623 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.62 | ug/kg | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.62 | ug/kg | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.62 | ug/kg | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 1.2 | U | 2.4 | 1.2 | 0.60 | ug/kg | 2 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.62 | ug/kg | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 2.5 | U | 4.9 | 2.5 | 1.2 | ug/kg | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.62 | ug/kg | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.62 | ug/kg | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.62 | ug/kg | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.62 | ug/kg | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 90 | 50-150 | | 113 | 50-150 |
| 13C2_6:2FTS | | 103 | 50-150 | | 95 | 50-150 |
| 13C2_8:2FTS | | 104 | 50-150 | | 99 | 50-150 |
| 13C2_PFDaA | | 92 | 50-150 | | 95 | 50-150 |
| 13C2_PFTeDA | | 97 | 50-150 | | 94 | 50-150 |
| 13C3_PFBFS | | 89 | 50-150 | | 100 | 50-150 |
| 13C3_PFHxS | | 95 | 50-150 | | 97 | 50-150 |
| 13C3-HFPO-DA | | 88 | 50-150 | | 99 | 50-150 |
| 13C4_PFBFA | | 89 | 50-150 | | 98 | 50-150 |
| 13C4_PFHpA | | 95 | 50-150 | | 100 | 50-150 |
| 13C5_PFHxA | | 89 | 50-150 | | 101 | 50-150 |
| 13C5_PFPeA | | 91 | 50-150 | | 96 | 50-150 |
| 13C6_PFDA | | 87 | 50-150 | | 98 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|--|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-018 |
| Description: STP1-SB0001-053.5-20211210 | Matrix: Solid |
| Date Sampled: 12/10/2021 0830 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |
| | % Solids: 76.2 12/15/2021 0111 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|---|---------------------|----------------------|
| 13C7_PFUdA | | 79 | 50-150 | | 96 | 50-150 |
| 13C8_PFOA | | 95 | 50-150 | | 96 | 50-150 |
| 13C8_PFOS | | 88 | 50-150 | | 96 | 50-150 |
| 13C9_PFNA | | 92 | 50-150 | | 96 | 50-150 |
| d-EtFOSA | | 98 | 50-150 | | 98 | 50-150 |
| d5-EtFOSAA | | 87 | 50-150 | | 97 | 50-150 |
| d3-MeFOSAA | | 91 | 50-150 | | 96 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|--|-----------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-019 |
| Description: STP1-FB02-20211210 | Matrix: Aqueous |
| Date Sampled: 12/10/2021 0835 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 12/21/2021 1658 | JJG | 12/20/2021 1123 | 26214 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|---|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.8 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.8 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.8 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.8 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.8 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.8 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 106 | 50-150 |
| 13C2_6:2FTS | | 96 | 50-150 |
| 13C2_8:2FTS | | 96 | 50-150 |
| 13C2_PFDa | | 80 | 50-150 |
| 13C2_PFTeDA | | 75 | 50-150 |
| 13C3_PFBS | | 96 | 50-150 |
| 13C3_PFHxS | | 102 | 50-150 |
| 13C3-HFPO-DA | | 105 | 50-150 |
| 13C4_PFBA | | 101 | 50-150 |
| 13C4_PFHpA | | 106 | 50-150 |
| 13C5_PFHxA | | 105 | 50-150 |
| 13C5_PFPeA | | 101 | 50-150 |
| 13C6_PFDA | | 97 | 50-150 |
| 13C7_PFUdA | | 90 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|--|-----------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-019 |
| Description: STP1-FB02-20211210 | Matrix: Aqueous |
| Date Sampled: 12/10/2021 0835 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 100 | 50-150 |
| 13C8_PFOS | | 100 | 50-150 |
| 13C9_PFNA | | 103 | 50-150 |
| d-EtFOSA | | 87 | 50-150 |
| d5-EtFOSAA | | 82 | 50-150 |
| d3-MeFOSAA | | 91 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---------------------------------------|-----------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-020 |
| Description: FS1-RB03-20211210 | Matrix: Aqueous |
| Date Sampled: 12/10/2021 1000 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 12/21/2021 1708 | JJG | 12/20/2021 1123 | 26214 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|---|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 100 | 50-150 |
| 13C2_6:2FTS | | 93 | 50-150 |
| 13C2_8:2FTS | | 96 | 50-150 |
| 13C2_PFDa | | 82 | 50-150 |
| 13C2_PFTeDA | | 82 | 50-150 |
| 13C3_PFBS | | 96 | 50-150 |
| 13C3_PFHxS | | 102 | 50-150 |
| 13C3-HFPO-DA | | 100 | 50-150 |
| 13C4_PFBA | | 96 | 50-150 |
| 13C4_PFHpA | | 102 | 50-150 |
| 13C5_PFHxA | | 100 | 50-150 |
| 13C5_PFPeA | | 99 | 50-150 |
| 13C6_PFDA | | 96 | 50-150 |
| 13C7_PFUdA | | 84 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---------------------------------------|-----------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-020 |
| Description: FS1-RB03-20211210 | Matrix: Aqueous |
| Date Sampled: 12/10/2021 1000 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 95 | 50-150 |
| 13C8_PFOS | | 100 | 50-150 |
| 13C9_PFNA | | 100 | 50-150 |
| d-EtFOSA | | 73 | 50-150 |
| d5-EtFOSAA | | 87 | 50-150 |
| d3-MeFOSAA | | 100 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

Inorganic non-metals

| | |
|---|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-021 |
| Description: FS1-SB0001-013.5-20211210 | Matrix: Solid |
| Date Sampled: 12/10/2021 1200 | % Solids: 77.0 12/15/2021 0111 |
| Date Received: 12/14/2021 | Project Name: KSC PFAS |
| | Project Number: 112G09237 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|---------------------|----------|-----------------|---------|-----------|-------|
| 1 | | (TOC) Walkley-Black | 1 | 01/06/2022 1550 | DAK | | 27188 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|-----------|------------|-------------------|--------|---|-----|-----|-----|-------|-----|
| TOC | | Walkley-Black | 7400 | | 400 | 200 | 200 | mg/kg | 1 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-021 |
| Description: FS1-SB0001-013.5-20211210 | Matrix: Solid |
| Date Sampled: 12/10/2021 1200 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |
| | % Solids: 77.0 12/15/2021 0111 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 12/20/2021 0025 | JJG | 12/17/2021 1218 | 25999 |
| 2 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 12/27/2021 0356 | NK1 | 12/23/2021 0934 | 26623 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------------|-----------------------|-------------|----------|------------|-------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 1.1 | U | 2.2 | 1.1 | 0.55 | ug/kg | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 1.1 | U | 2.2 | 1.1 | 0.55 | ug/kg | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 2.6 | | 2.2 | 1.1 | 0.55 | ug/kg | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 1.2 | U | 2.4 | 1.2 | 0.60 | ug/kg | 2 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 1.1 | U | 2.2 | 1.1 | 0.55 | ug/kg | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 2.2 | U | 4.4 | 2.2 | 1.1 | ug/kg | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 1.1 | U | 2.2 | 1.1 | 0.55 | ug/kg | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 1.1 | U | 2.2 | 1.1 | 0.55 | ug/kg | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 1.1 | U | 2.2 | 1.1 | 0.55 | ug/kg | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 1.1 | U | 2.2 | 1.1 | 0.55 | ug/kg | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 0.53 | I | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 0.37 | I | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 0.58 | I | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 0.28 | I | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 0.57 | I | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 4.6 | V | 1.1 | 0.55 | 0.22 | ug/kg | 1 |

| Surrogate | Run 1 | | | Run 2 | | |
|--------------|-------|------------|-------------------|-------|------------|-------------------|
| | Q | % Recovery | Acceptance Limits | Q | % Recovery | Acceptance Limits |
| 13C2_4:2FTS | | 90 | 50-150 | | 123 | 50-150 |
| 13C2_6:2FTS | | 96 | 50-150 | | 119 | 50-150 |
| 13C2_8:2FTS | | 94 | 50-150 | | 124 | 50-150 |
| 13C2_PFDa | | 90 | 50-150 | | 114 | 50-150 |
| 13C2_PFTeDA | | 89 | 50-150 | | 116 | 50-150 |
| 13C3_PFBS | | 86 | 50-150 | | 124 | 50-150 |
| 13C3_PFHxS | | 93 | 50-150 | | 120 | 50-150 |
| 13C3-HFPO-DA | | 86 | 50-150 | | 122 | 50-150 |
| 13C4_PFBA | | 86 | 50-150 | | 117 | 50-150 |
| 13C4_PFHpA | | 91 | 50-150 | | 118 | 50-150 |
| 13C5_PFHxA | | 89 | 50-150 | | 119 | 50-150 |
| 13C5_PFPeA | | 87 | 50-150 | | 118 | 50-150 |
| 13C6_PFDA | | 91 | 50-150 | | 119 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-021 |
| Description: FS1-SB0001-013.5-20211210 | Matrix: Solid |
| Date Sampled: 12/10/2021 1200 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |
| | % Solids: 77.0 12/15/2021 0111 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|---|---------------------|----------------------|
| 13C7_PFUdA | | 78 | 50-150 | | 120 | 50-150 |
| 13C8_PFOA | | 93 | 50-150 | | 116 | 50-150 |
| 13C8_PFOS | | 89 | 50-150 | | 119 | 50-150 |
| 13C9_PFNA | | 86 | 50-150 | | 116 | 50-150 |
| d-EtFOSA | | 89 | 50-150 | | 115 | 50-150 |
| d5-EtFOSAA | | 85 | 50-150 | | 119 | 50-150 |
| d3-MeFOSAA | | 91 | 50-150 | | 120 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

Inorganic non-metals

| | |
|---|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-022 |
| Description: FS1-SB0001-019.5-20211210 | Matrix: Solid |
| Date Sampled: 12/10/2021 1205 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | % Solids: 78.8 12/15/2021 0111 |
| Project Number: 112G09237 | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|---------------------|----------|-----------------|---------|-----------|-------|
| 1 | | (TOC) Walkley-Black | 1 | 01/06/2022 1550 | DAK | | 27188 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|-----------|------------|-------------------|--------|---|-----|-----|----|-------|-----|
| TOC | | Walkley-Black | 4200 | | 190 | 95 | 97 | mg/kg | 1 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-022 |
| Description: FS1-SB0001-019.5-20211210 | Matrix: Solid |
| Date Sampled: 12/10/2021 1205 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |
| | % Solids: 78.8 12/15/2021 0111 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 12/20/2021 0036 | JJG | 12/17/2021 1218 | 25999 |
| 2 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 12/27/2021 0409 | NK1 | 12/23/2021 0934 | 26623 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------------|-----------------------|-------------|----------|------------|-------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.62 | ug/kg | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.62 | ug/kg | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 4.4 | | 2.5 | 1.3 | 0.62 | ug/kg | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 1.5 | I | 2.4 | 1.2 | 0.59 | ug/kg | 2 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.62 | ug/kg | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 2.5 | U | 5.0 | 2.5 | 1.2 | ug/kg | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.62 | ug/kg | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.62 | ug/kg | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.62 | ug/kg | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 1.3 | U | 2.5 | 1.3 | 0.62 | ug/kg | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 2.2 | | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 0.45 | I | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 0.61 | I | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 0.39 | I | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 0.86 | I | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 0.64 | I | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.25 | ug/kg | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 29 | V | 1.2 | 0.60 | 0.25 | ug/kg | 1 |

| Surrogate | Run 1 | | Acceptance Limits | Run 2 | |
|--------------|-------|------------|-------------------|-------|------------|
| | Q | % Recovery | | Q | % Recovery |
| 13C2_4:2FTS | | 88 | 50-150 | | 96 |
| 13C2_6:2FTS | | 94 | 50-150 | | 91 |
| 13C2_8:2FTS | | 87 | 50-150 | | 96 |
| 13C2_PFDa | | 90 | 50-150 | | 89 |
| 13C2_PFTeDA | | 93 | 50-150 | | 91 |
| 13C3_PFBs | | 90 | 50-150 | | 99 |
| 13C3_PFHxS | | 91 | 50-150 | | 95 |
| 13C3-HFPO-DA | | 90 | 50-150 | | 97 |
| 13C4_PFBa | | 87 | 50-150 | | 95 |
| 13C4_PFHpA | | 87 | 50-150 | | 95 |
| 13C5_PFHxA | | 93 | 50-150 | | 96 |
| 13C5_PFPeA | | 93 | 50-150 | | 96 |
| 13C6_PFDa | | 89 | 50-150 | | 94 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-022 |
| Description: FS1-SB0001-019.5-20211210 | Matrix: Solid |
| Date Sampled: 12/10/2021 1205 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |
| | % Solids: 78.8 12/15/2021 0111 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|---|---------------------|----------------------|
| 13C7_PFUdA | | 87 | 50-150 | | 97 | 50-150 |
| 13C8_PFOA | | 90 | 50-150 | | 93 | 50-150 |
| 13C8_PFOS | | 90 | 50-150 | | 92 | 50-150 |
| 13C9_PFNA | | 85 | 50-150 | | 94 | 50-150 |
| d-EtFOSA | | 93 | 50-150 | | 97 | 50-150 |
| d5-EtFOSAA | | 88 | 50-150 | | 95 | 50-150 |
| d3-MeFOSAA | | 88 | 50-150 | | 96 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

Inorganic non-metals

| | |
|---|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-023 |
| Description: FS1-SB0001-033.5-20211210 | Matrix: Solid |
| Date Sampled: 12/10/2021 1210 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | % Solids: 79.6 12/15/2021 0111 |
| Project Number: 112G09237 | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|---------------------|----------|-----------------|---------|-----------|-------|
| 1 | | (TOC) Walkley-Black | 1 | 01/06/2022 1550 | DAK | | 27188 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|-----------|------------|-------------------|--------|---|-----|-----|----|-------|-----|
| TOC | | Walkley-Black | 1200 | | 200 | 100 | 98 | mg/kg | 1 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-023 |
| Description: FS1-SB0001-033.5-20211210 | Matrix: Solid |
| Date Sampled: 12/10/2021 1210 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |
| | % Solids: 79.6 12/15/2021 0111 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 12/20/2021 0046 | JJG | 12/17/2021 1218 | 25999 |
| 2 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 12/27/2021 0421 | NK1 | 12/23/2021 0934 | 26623 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------------|-----------------------|-------------|----------|------------|-------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 1.2 | U | 2.4 | 1.2 | 0.61 | ug/kg | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9 | PFAS by ID SOP | 1.2 | U | 2.4 | 1.2 | 0.61 | ug/kg | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 2.2 | I | 2.4 | 1.2 | 0.61 | ug/kg | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 4.6 | | 2.5 | 1.3 | 0.62 | ug/kg | 2 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 1.2 | U | 2.4 | 1.2 | 0.61 | ug/kg | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 2.5 | U | 4.9 | 2.5 | 1.2 | ug/kg | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 1.2 | U | 2.4 | 1.2 | 0.61 | ug/kg | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 1.2 | U | 2.4 | 1.2 | 0.61 | ug/kg | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 1.2 | U | 2.4 | 1.2 | 0.61 | ug/kg | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 1.2 | U | 2.4 | 1.2 | 0.61 | ug/kg | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 0.55 | I | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 0.91 | I | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 0.64 | I | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 9.4 | | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 0.34 | I | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 0.48 | I | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 2.1 | | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 1.5 | | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 1.2 | | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 0.60 | U | 1.2 | 0.60 | 0.24 | ug/kg | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 110 | V | 1.2 | 0.60 | 0.24 | ug/kg | 1 |

| Surrogate | Run 1 | | | Run 2 | | |
|--------------|-------|------------|-------------------|-------|------------|-------------------|
| | Q | % Recovery | Acceptance Limits | Q | % Recovery | Acceptance Limits |
| 13C2_4:2FTS | | 86 | 50-150 | | 96 | 50-150 |
| 13C2_6:2FTS | | 82 | 50-150 | | 93 | 50-150 |
| 13C2_8:2FTS | | 89 | 50-150 | | 100 | 50-150 |
| 13C2_PFDa | | 90 | 50-150 | | 96 | 50-150 |
| 13C2_PFTeDA | | 89 | 50-150 | | 94 | 50-150 |
| 13C3_PFBs | | 85 | 50-150 | | 100 | 50-150 |
| 13C3_PFHxS | | 84 | 50-150 | | 96 | 50-150 |
| 13C3-HFPO-DA | | 82 | 50-150 | | 98 | 50-150 |
| 13C4_PFBa | | 83 | 50-150 | | 98 | 50-150 |
| 13C4_PFHpA | | 86 | 50-150 | | 98 | 50-150 |
| 13C5_PFHxA | | 86 | 50-150 | | 98 | 50-150 |
| 13C5_PFPeA | | 86 | 50-150 | | 98 | 50-150 |
| 13C6_PFDa | | 80 | 50-150 | | 96 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-023 |
| Description: FS1-SB0001-033.5-20211210 | Matrix: Solid |
| Date Sampled: 12/10/2021 1210 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |
| | % Solids: 79.6 12/15/2021 0111 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|---|---------------------|----------------------|
| 13C7_PFUdA | | 78 | 50-150 | | 98 | 50-150 |
| 13C8_PFOA | | 88 | 50-150 | | 95 | 50-150 |
| 13C8_PFOS | | 81 | 50-150 | | 93 | 50-150 |
| 13C9_PFNA | | 82 | 50-150 | | 94 | 50-150 |
| d-EtFOSA | | 79 | 50-150 | | 93 | 50-150 |
| d5-EtFOSAA | | 83 | 50-150 | | 98 | 50-150 |
| d3-MeFOSAA | | 87 | 50-150 | | 96 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

Inorganic non-metals

| | |
|---|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-024 |
| Description: FS1-SB0001-046.5-20211210 | Matrix: Solid |
| Date Sampled: 12/10/2021 1215 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | % Solids: 82.9 12/15/2021 0111 |
| Project Number: 112G09237 | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|---------------------|----------|-----------------|---------|-----------|-------|
| 1 | | (TOC) Walkley-Black | 1 | 01/06/2022 1550 | DAK | | 27188 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|-----------|------------|-------------------|--------|---|-----|-----|-----|-------|-----|
| TOC | | Walkley-Black | 590 | S | 200 | 100 | 100 | mg/kg | 1 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-024 |
| Description: FS1-SB0001-046.5-20211210 | Matrix: Solid |
| Date Sampled: 12/10/2021 1215 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |
| | % Solids: 82.9 12/15/2021 0111 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 12/20/2021 0057 | JJG | 12/17/2021 1218 | 25999 |
| 2 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 12/27/2021 0434 | NK1 | 12/23/2021 0934 | 26623 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|------------------|-----------------------|-------------|----------|------------|-------------|-------------|--------------|----------|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 1.2 | U | 2.3 | 1.2 | 0.57 | ug/kg | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 1.2 | U | 2.3 | 1.2 | 0.57 | ug/kg | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 1.2 | U | 2.3 | 1.2 | 0.57 | ug/kg | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 1.1 | U | 2.2 | 1.1 | 0.55 | ug/kg | 2 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 1.2 | U | 2.3 | 1.2 | 0.57 | ug/kg | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 2.3 | U | 4.6 | 2.3 | 1.1 | ug/kg | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 1.2 | U | 2.3 | 1.2 | 0.57 | ug/kg | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 1.2 | U | 2.3 | 1.2 | 0.57 | ug/kg | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 1.2 | U | 2.3 | 1.2 | 0.57 | ug/kg | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 1.2 | U | 2.3 | 1.2 | 0.57 | ug/kg | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 0.31 | I | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 0.29 | I | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 0.33 | I | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 3.2 | I | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 0.64 | I | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 0.54 | I | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 0.32 | I | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.23 | ug/kg | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 8.4 | V | 1.1 | 0.55 | 0.23 | ug/kg | 1 |

| Surrogate | Run 1 | | | Run 2 | | |
|--------------|-------|------------|-------------------|-------|------------|-------------------|
| | Q | % Recovery | Acceptance Limits | Q | % Recovery | Acceptance Limits |
| 13C2_4:2FTS | | 79 | 50-150 | | 97 | 50-150 |
| 13C2_6:2FTS | | 91 | 50-150 | | 95 | 50-150 |
| 13C2_8:2FTS | | 81 | 50-150 | | 98 | 50-150 |
| 13C2_PFDa | | 86 | 50-150 | | 88 | 50-150 |
| 13C2_PFTeDA | | 90 | 50-150 | | 91 | 50-150 |
| 13C3_PFBS | | 87 | 50-150 | | 100 | 50-150 |
| 13C3_PFHxS | | 89 | 50-150 | | 96 | 50-150 |
| 13C3-HFPO-DA | | 83 | 50-150 | | 99 | 50-150 |
| 13C4_PFBA | | 84 | 50-150 | | 97 | 50-150 |
| 13C4_PFHpA | | 83 | 50-150 | | 98 | 50-150 |
| 13C5_PFHxA | | 82 | 50-150 | | 97 | 50-150 |
| 13C5_PFPeA | | 90 | 50-150 | | 97 | 50-150 |
| 13C6_PFDA | | 80 | 50-150 | | 99 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-024 |
| Description: FS1-SB0001-046.5-20211210 | Matrix: Solid |
| Date Sampled: 12/10/2021 1215 | % Solids: 82.9 12/15/2021 0111 |
| Date Received: 12/14/2021 | Project Name: KSC PFAS |
| | Project Number: 112G09237 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|---|---------------------|----------------------|
| 13C7_PFUdA | | 80 | 50-150 | | 98 | 50-150 |
| 13C8_PFOA | | 86 | 50-150 | | 95 | 50-150 |
| 13C8_PFOS | | 80 | 50-150 | | 92 | 50-150 |
| 13C9_PFNA | | 81 | 50-150 | | 93 | 50-150 |
| d-EtFOSA | | 90 | 50-150 | | 94 | 50-150 |
| d5-EtFOSAA | | 84 | 50-150 | | 98 | 50-150 |
| d3-MeFOSAA | | 87 | 50-150 | | 97 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

Inorganic non-metals

| | |
|---|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-025 |
| Description: FS1-SB0001-052.5-20211210 | Matrix: Solid |
| Date Sampled: 12/10/2021 1220 | % Solids: 80.6 12/15/2021 0111 |
| Date Received: 12/14/2021 | Project Name: KSC PFAS |
| | Project Number: 112G09237 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|---------------------|----------|-----------------|---------|-----------|-------|
| 1 | | (TOC) Walkley-Black | 1 | 01/06/2022 1550 | DAK | | 27188 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|-----------|------------|-------------------|--------|---|-----|-----|----|-------|-----|
| TOC | | Walkley-Black | 1300 | | 200 | 100 | 98 | mg/kg | 1 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-025 |
| Description: FS1-SB0001-052.5-20211210 | Matrix: Solid |
| Date Sampled: 12/10/2021 1220 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |
| | % Solids: 80.6 12/15/2021 0111 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 12/20/2021 0107 | JJG | 12/17/2021 1218 | 25999 |
| 2 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 12/29/2021 1224 | MMM | 12/28/2021 1304 | 26872 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 1.1 | U | 2.2 | 1.1 | 0.55 | ug/kg | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 1.1 | U | 2.2 | 1.1 | 0.55 | ug/kg | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 1.1 | U | 2.2 | 1.1 | 0.55 | ug/kg | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 1.2 | U | 2.4 | 1.2 | 0.60 | ug/kg | 2 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 1.1 | U | 2.2 | 1.1 | 0.55 | ug/kg | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 2.2 | U | 4.4 | 2.2 | 1.1 | ug/kg | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 1.1 | U | 2.2 | 1.1 | 0.55 | ug/kg | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 1.1 | U | 2.2 | 1.1 | 0.55 | ug/kg | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 1.1 | U | 2.2 | 1.1 | 0.55 | ug/kg | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 1.1 | U | 2.2 | 1.1 | 0.55 | ug/kg | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 0.55 | U | 1.1 | 0.55 | 0.22 | ug/kg | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 76 | 50-150 | | 107 | 50-150 |
| 13C2_6:2FTS | | 80 | 50-150 | | 114 | 50-150 |
| 13C2_8:2FTS | | 79 | 50-150 | | 114 | 50-150 |
| 13C2_PFDa | | 87 | 50-150 | | 89 | 50-150 |
| 13C2_PFTeDA | | 83 | 50-150 | | 95 | 50-150 |
| 13C3_PFBFS | | 83 | 50-150 | | 93 | 50-150 |
| 13C3_PFHxS | | 82 | 50-150 | | 92 | 50-150 |
| 13C3-HFPO-DA | | 80 | 50-150 | | 98 | 50-150 |
| 13C4_PFBFA | | 80 | 50-150 | | 94 | 50-150 |
| 13C4_PFHpA | | 85 | 50-150 | | 93 | 50-150 |
| 13C5_PFHxA | | 79 | 50-150 | | 93 | 50-150 |
| 13C5_PFPeA | | 84 | 50-150 | | 89 | 50-150 |
| 13C6_PFDA | | 82 | 50-150 | | 87 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | | |
|---|-----------------------------------|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-025 | |
| Description: FS1-SB0001-052.5-20211210 | Matrix: Solid | |
| Date Sampled: 12/10/2021 1220 | Project Name: KSC PFAS | % Solids: 80.6 12/15/2021 0111 |
| Date Received: 12/14/2021 | Project Number: 112G09237 | |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|---|---------------------|----------------------|
| 13C7_PFUdA | | 80 | 50-150 | | 96 | 50-150 |
| 13C8_PFOA | | 84 | 50-150 | | 96 | 50-150 |
| 13C8_PFOS | | 78 | 50-150 | | 93 | 50-150 |
| 13C9_PFNA | | 80 | 50-150 | | 91 | 50-150 |
| d-EtFOSA | | 86 | 50-150 | | 98 | 50-150 |
| d5-EtFOSAA | | 87 | 50-150 | | 109 | 50-150 |
| d3-MeFOSAA | | 84 | 50-150 | | 97 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

Inorganic non-metals

| | |
|---|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-026 |
| Description: FS1-SB0001-059.5-20211210 | Matrix: Solid |
| Date Sampled: 12/10/2021 1225 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |
| | % Solids: 85.2 12/15/2021 0111 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|---------------------|----------|-----------------|---------|-----------|-------|
| 1 | | (TOC) Walkley-Black | 1 | 01/06/2022 1550 | DAK | | 27188 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|-----------|------------|-------------------|--------|---|-----|-----|-----|-------|-----|
| TOC | | Walkley-Black | 1300 | | 200 | 100 | 100 | mg/kg | 1 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-026 |
| Description: FS1-SB0001-059.5-20211210 | Matrix: Solid |
| Date Sampled: 12/10/2021 1225 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |
| | % Solids: 85.2 12/15/2021 0111 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 12/20/2021 0118 | JJG | 12/17/2021 1218 | 25999 |
| 2 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 12/29/2021 1234 | MMM | 12/28/2021 1304 | 26872 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|---|-----|------|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 1.1 | U | 2.1 | 1.1 | 0.51 | ug/kg | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 1.1 | U | 2.1 | 1.1 | 0.51 | ug/kg | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 1.1 | U | 2.1 | 1.1 | 0.51 | ug/kg | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 1.1 | U | 2.2 | 1.1 | 0.55 | ug/kg | 2 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 1.1 | U | 2.1 | 1.1 | 0.51 | ug/kg | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ug/kg | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 1.1 | U | 2.1 | 1.1 | 0.51 | ug/kg | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 1.1 | U | 2.1 | 1.1 | 0.51 | ug/kg | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 1.1 | U | 2.1 | 1.1 | 0.51 | ug/kg | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 1.1 | U | 2.1 | 1.1 | 0.51 | ug/kg | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 0.50 | U | 1.0 | 0.50 | 0.21 | ug/kg | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 0.50 | U | 1.0 | 0.50 | 0.21 | ug/kg | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 0.50 | U | 1.0 | 0.50 | 0.21 | ug/kg | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 0.50 | U | 1.0 | 0.50 | 0.21 | ug/kg | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 0.50 | U | 1.0 | 0.50 | 0.21 | ug/kg | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 0.50 | U | 1.0 | 0.50 | 0.21 | ug/kg | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 0.50 | U | 1.0 | 0.50 | 0.21 | ug/kg | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 0.50 | U | 1.0 | 0.50 | 0.21 | ug/kg | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 0.50 | U | 1.0 | 0.50 | 0.21 | ug/kg | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 0.50 | U | 1.0 | 0.50 | 0.21 | ug/kg | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 0.50 | U | 1.0 | 0.50 | 0.21 | ug/kg | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 0.50 | U | 1.0 | 0.50 | 0.21 | ug/kg | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 0.50 | U | 1.0 | 0.50 | 0.21 | ug/kg | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 0.50 | U | 1.0 | 0.50 | 0.21 | ug/kg | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 0.50 | U | 1.0 | 0.50 | 0.21 | ug/kg | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 0.50 | U | 1.0 | 0.50 | 0.21 | ug/kg | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 0.50 | U | 1.0 | 0.50 | 0.21 | ug/kg | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 0.50 | U | 1.0 | 0.50 | 0.21 | ug/kg | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 81 | 50-150 | | 115 | 50-150 |
| 13C2_6:2FTS | | 92 | 50-150 | | 118 | 50-150 |
| 13C2_8:2FTS | | 84 | 50-150 | | 111 | 50-150 |
| 13C2_PFDa | | 91 | 50-150 | | 97 | 50-150 |
| 13C2_PFTeDA | | 88 | 50-150 | | 95 | 50-150 |
| 13C3_PFBFS | | 87 | 50-150 | | 91 | 50-150 |
| 13C3_PFHxS | | 85 | 50-150 | | 104 | 50-150 |
| 13C3-HFPO-DA | | 83 | 50-150 | | 99 | 50-150 |
| 13C4_PFBFA | | 82 | 50-150 | | 95 | 50-150 |
| 13C4_PFHpA | | 84 | 50-150 | | 92 | 50-150 |
| 13C5_PFHxA | | 84 | 50-150 | | 89 | 50-150 |
| 13C5_PFPeA | | 86 | 50-150 | | 88 | 50-150 |
| 13C6_PFDA | | 80 | 50-150 | | 90 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|---------------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-026 |
| Description: FS1-SB0001-059.5-20211210 | Matrix: Solid |
| Date Sampled: 12/10/2021 1225 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | % Solids: 85.2 12/15/2021 0111 |
| | Project Number: 112G09237 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|---|---------------------|----------------------|
| 13C7_PFUdA | | 79 | 50-150 | | 93 | 50-150 |
| 13C8_PFOA | | 85 | 50-150 | | 98 | 50-150 |
| 13C8_PFOS | | 84 | 50-150 | | 91 | 50-150 |
| 13C9_PFNA | | 86 | 50-150 | | 96 | 50-150 |
| d-EtFOSA | | 83 | 50-150 | | 99 | 50-150 |
| d5-EtFOSAA | | 80 | 50-150 | | 108 | 50-150 |
| d3-MeFOSAA | | 90 | 50-150 | | 100 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---------------------------------------|-----------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-027 |
| Description: FS1-FB03-20211210 | Matrix: Aqueous |
| Date Sampled: 12/10/2021 1230 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 12/21/2021 1719 | JJG | 12/20/2021 1123 | 26214 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|---|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.9 | U | 7.8 | 3.9 | 2.0 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.9 | U | 7.8 | 3.9 | 2.0 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.9 | U | 7.8 | 3.9 | 2.0 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.9 | U | 7.8 | 3.9 | 2.0 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.9 | U | 7.8 | 3.9 | 2.0 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.9 | U | 7.8 | 3.9 | 2.0 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.9 | U | 7.8 | 3.9 | 2.0 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.9 | U | 7.8 | 3.9 | 2.0 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.9 | U | 7.8 | 3.9 | 2.0 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.9 | U | 7.8 | 3.9 | 2.0 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.98 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.98 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.98 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.98 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.98 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.98 | ng/L | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.98 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.98 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.98 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.98 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.98 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.98 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.98 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.98 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.98 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.98 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.98 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.98 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 108 | 50-150 |
| 13C2_6:2FTS | | 96 | 50-150 |
| 13C2_8:2FTS | | 102 | 50-150 |
| 13C2_PFDa | | 81 | 50-150 |
| 13C2_PFTeDA | | 75 | 50-150 |
| 13C3_PFBS | | 96 | 50-150 |
| 13C3_PFHxS | | 106 | 50-150 |
| 13C3-HFPO-DA | | 101 | 50-150 |
| 13C4_PFBA | | 99 | 50-150 |
| 13C4_PFHpA | | 100 | 50-150 |
| 13C5_PFHxA | | 105 | 50-150 |
| 13C5_PFPeA | | 100 | 50-150 |
| 13C6_PFDA | | 93 | 50-150 |
| 13C7_PFUdA | | 90 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---------------------------------------|-----------------------------------|
| Client: Tetra Tech | Laboratory ID: WL14016-027 |
| Description: FS1-FB03-20211210 | Matrix: Aqueous |
| Date Sampled: 12/10/2021 1230 | Project Name: KSC PFAS |
| Date Received: 12/14/2021 | Project Number: 112G09237 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 100 | 50-150 |
| 13C8_PFOS | | 102 | 50-150 |
| 13C9_PFNA | | 106 | 50-150 |
| d-EtFOSA | | 78 | 50-150 |
| d5-EtFOSAA | | 89 | 50-150 |
| d3-MeFOSAA | | 92 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

QC Summary

Inorganic non-metals - MB

Sample ID: XQ27188-001

Matrix: Solid

Batch: 27188

Analytical Method: Walkley-Black

| Parameter | Result | Q | Dil | LOQ | LOD | DL | Units | Analysis Date |
|-----------|--------|---|-----|-----|-----|-----|-------|-----------------|
| TOC | 100 | U | 1 | 200 | 100 | 100 | mg/kg | 01/06/2022 1550 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

Inorganic non-metals - LCS

Sample ID: XQ27188-002

Matrix: Solid

Batch: 27188

Analytical Method: Walkley-Black

| Parameter | Spike Amount (mg/kg) | Result (mg/kg) | Q | Dil | % Rec | %Rec Limit | Analysis Date |
|-----------|----------------------|----------------|---|-----|-------|------------|-----------------|
| TOC | 1000 | 1100 | | 1 | 110 | 80-120 | 01/06/2022 1550 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

Inorganic non-metals - MS

Sample ID: WL14016-024MS

Matrix: Solid

Batch: 27188

Analytical Method: Walkley-Black

| Parameter | Sample Amount (mg/kg) | Spike Amount (mg/kg) | Result (mg/kg) | Q | Dil | % Rec | %Rec Limit | Analysis Date |
|-----------|-----------------------|----------------------|----------------|---|-----|-------|------------|-----------------|
| TOC | 590 | 1000 | 1800 | | 1 | 125 | 70-130 | 01/06/2022 1550 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

Inorganic non-metals - MSD

Sample ID: WL14016-024MD

Matrix: Solid

Batch: 27188

Analytical Method: Walkley-Black

| Parameter | Sample Amount (mg/kg) | Spike Amount (mg/kg) | Result (mg/kg) | Q | Dil | % Rec | % RPD | %Rec Limit | % RPD Limit | Analysis Date |
|-----------|-----------------------|----------------------|----------------|---|-----|-------|-------|------------|-------------|-----------------|
| TOC | 590 | 990 | 1900 | N | 1 | 133 | 3.8 | 70-130 | 20 | 01/06/2022 1550 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

Inorganic non-metals - MB

Sample ID: XQ27195-001

Matrix: Solid

Batch: 27195

Analytical Method: Walkley-Black

| Parameter | Result | Q | Dil | LOQ | LOD | DL | Units | Analysis Date |
|-----------|--------|---|-----|-----|-----|-----|-------|-----------------|
| TOC | 100 | U | 1 | 200 | 100 | 100 | mg/kg | 01/05/2022 1700 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

Inorganic non-metals - LCS

Sample ID: XQ27195-002

Matrix: Solid

Batch: 27195

Analytical Method: Walkley-Black

| Parameter | Spike Amount (mg/kg) | Result (mg/kg) | Q | Dil | % Rec | %Rec Limit | Analysis Date |
|-----------|----------------------|----------------|---|-----|-------|------------|-----------------|
| TOC | 1000 | 1100 | | 1 | 113 | 80-120 | 01/05/2022 1700 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

Inorganic non-metals - MS

Sample ID: WL14016-004MS

Matrix: Solid

Batch: 27195

Analytical Method: Walkley-Black

| Parameter | Sample Amount (mg/kg) | Spike Amount (mg/kg) | Result (mg/kg) | Q | Dil | % Rec | %Rec Limit | Analysis Date |
|-----------|-----------------------|----------------------|----------------|---|-----|-------|------------|-----------------|
| TOC | 1500 | 960 | 2500 | | 1 | 106 | 70-130 | 01/05/2022 1700 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

Inorganic non-metals - MSD

Sample ID: WL14016-004MD

Matrix: Solid

Batch: 27195

Analytical Method: Walkley-Black

| Parameter | Sample Amount (mg/kg) | Spike Amount (mg/kg) | Result (mg/kg) | Q | Dil | % Rec | % RPD | %Rec Limit | % RPD Limit | Analysis Date |
|-----------|-----------------------|----------------------|----------------|---|-----|-------|-------|------------|-------------|-----------------|
| TOC | 1500 | 990 | 2600 | | 1 | 114 | 4.7 | 70-130 | 20 | 01/05/2022 1700 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

Inorganic non-metals - MS

Sample ID: WL14016-015MS

Matrix: Solid

Batch: 27195

Analytical Method: Walkley-Black

| Parameter | Sample Amount (mg/kg) | Spike Amount (mg/kg) | Result (mg/kg) | Q | Dil | % Rec | %Rec Limit | Analysis Date |
|-----------|-----------------------|----------------------|----------------|---|-----|-------|------------|-----------------|
| TOC | 1500 | 1000 | 2600 | | 1 | 114 | 70-130 | 01/05/2022 1700 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

Inorganic non-metals - MSD

Sample ID: WL14016-015MD

Matrix: Solid

Batch: 27195

Analytical Method: Walkley-Black

| Parameter | Sample Amount (mg/kg) | Spike Amount (mg/kg) | Result (mg/kg) | Q | Dil | % Rec | % RPD | %Rec Limit | % RPD Limit | Analysis Date |
|-----------|-----------------------|----------------------|----------------|---|-----|-------|-------|------------|-------------|-----------------|
| TOC | 1500 | 970 | 2600 | | 1 | 114 | 1.1 | 70-130 | 20 | 01/05/2022 1700 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MB

Sample ID: WQ25957-001

Matrix: Solid

Batch: 25957

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 12/16/2021 1855

| Parameter | Result | Q | Dil | LOQ | LOD | DL | Units | Analysis Date |
|----------------|-------------|----------|----------|------------|------------|-------------|--------------|------------------------|
| 9CI-PF3ONS | 1.0 | U | 1 | 2.0 | 1.0 | 0.50 | ug/kg | 12/17/2021 1008 |
| 11CI-PF3OUdS | 1.0 | U | 1 | 2.0 | 1.0 | 0.50 | ug/kg | 12/17/2021 1008 |
| 8:2 FTS | 1.0 | U | 1 | 2.0 | 1.0 | 0.50 | ug/kg | 12/17/2021 1008 |
| 6:2 FTS | 0.91 | I | 1 | 2.0 | 1.0 | 0.50 | ug/kg | 12/17/2021 1008 |
| 4:2 FTS | 1.0 | U | 1 | 2.0 | 1.0 | 0.50 | ug/kg | 12/17/2021 1008 |
| GenX | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ug/kg | 12/17/2021 1008 |
| ADONA | 1.0 | U | 1 | 2.0 | 1.0 | 0.50 | ug/kg | 12/17/2021 1008 |
| EtFOSA | 1.0 | U | 1 | 2.0 | 1.0 | 0.50 | ug/kg | 12/17/2021 1008 |
| EtFOSAA | 1.0 | U | 1 | 2.0 | 1.0 | 0.50 | ug/kg | 12/17/2021 1008 |
| MeFOSAA | 1.0 | U | 1 | 2.0 | 1.0 | 0.50 | ug/kg | 12/17/2021 1008 |
| PFBS | 0.50 | U | 1 | 1.0 | 0.50 | 0.20 | ug/kg | 12/17/2021 1008 |
| PFDS | 0.50 | U | 1 | 1.0 | 0.50 | 0.20 | ug/kg | 12/17/2021 1008 |
| PFHpS | 0.50 | U | 1 | 1.0 | 0.50 | 0.20 | ug/kg | 12/17/2021 1008 |
| PFNS | 0.50 | U | 1 | 1.0 | 0.50 | 0.20 | ug/kg | 12/17/2021 1008 |
| PFPeS | 0.50 | U | 1 | 1.0 | 0.50 | 0.20 | ug/kg | 12/17/2021 1008 |
| PFHxS | 0.50 | U | 1 | 1.0 | 0.50 | 0.20 | ug/kg | 12/17/2021 1008 |
| PFBA | 0.50 | U | 1 | 1.0 | 0.50 | 0.20 | ug/kg | 12/17/2021 1008 |
| PFDA | 0.50 | U | 1 | 1.0 | 0.50 | 0.20 | ug/kg | 12/17/2021 1008 |
| PFDoA | 0.50 | U | 1 | 1.0 | 0.50 | 0.20 | ug/kg | 12/17/2021 1008 |
| PFHpA | 0.50 | U | 1 | 1.0 | 0.50 | 0.20 | ug/kg | 12/17/2021 1008 |
| PFHxA | 0.50 | U | 1 | 1.0 | 0.50 | 0.20 | ug/kg | 12/17/2021 1008 |
| PFNA | 0.50 | U | 1 | 1.0 | 0.50 | 0.20 | ug/kg | 12/17/2021 1008 |
| PFOA | 0.50 | U | 1 | 1.0 | 0.50 | 0.20 | ug/kg | 12/17/2021 1008 |
| PFPeA | 0.50 | U | 1 | 1.0 | 0.50 | 0.20 | ug/kg | 12/17/2021 1008 |
| PFTeDA | 0.50 | U | 1 | 1.0 | 0.50 | 0.20 | ug/kg | 12/17/2021 1008 |
| PFTrDA | 0.50 | U | 1 | 1.0 | 0.50 | 0.20 | ug/kg | 12/17/2021 1008 |
| PFUdA | 0.50 | U | 1 | 1.0 | 0.50 | 0.20 | ug/kg | 12/17/2021 1008 |
| PFOS | 0.50 | U | 1 | 1.0 | 0.50 | 0.20 | ug/kg | 12/17/2021 1008 |

| Surrogate | Q | % Rec | Acceptance Limit |
|--------------|---|-------|------------------|
| 13C2_4:2FTS | | 89 | 50-150 |
| 13C2_6:2FTS | | 101 | 50-150 |
| 13C2_8:2FTS | | 94 | 50-150 |
| 13C2_PFDaA | | 85 | 50-150 |
| 13C2_PFTeDA | | 79 | 50-150 |
| 13C3_PFBS | | 81 | 50-150 |
| 13C3_PFHxS | | 73 | 50-150 |
| 13C3-HFPO-DA | | 85 | 50-150 |
| 13C4_PFBA | | 78 | 50-150 |
| 13C4_PFHpA | | 83 | 50-150 |
| 13C5_PFHxA | | 78 | 50-150 |
| 13C5_PFPeA | | 88 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MB

Sample ID: WQ25957-001

Matrix: Solid

Batch: 25957

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 12/16/2021 1855

| Surrogate | Q | % Rec | Acceptance Limit |
|------------|---|-------|------------------|
| 13C6_PFDA | | 70 | 50-150 |
| 13C7_PFUdA | | 83 | 50-150 |
| 13C8_PFOA | | 79 | 50-150 |
| 13C8_PFOS | | 86 | 50-150 |
| 13C9_PFNA | | 78 | 50-150 |
| d-EtFOSA | | 74 | 50-150 |
| d5-EtFOSAA | | 84 | 50-150 |
| d3-MeFOSAA | | 86 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - LCS

Sample ID: WQ25957-002

Matrix: Solid

Batch: 25957

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 12/16/2021 1855

| Parameter | Spike Amount (ug/kg) | Result (ug/kg) | Q | Dil | % Rec | %Rec Limit | Analysis Date |
|--------------|----------------------|----------------|---|-----|-------|------------|-----------------|
| 9CI-PF3ONS | 1.9 | 1.7 | | 1 | 91 | 70-130 | 12/17/2021 1019 |
| 11CI-PF3OUdS | 1.9 | 1.8 | | 1 | 94 | 70-130 | 12/17/2021 1019 |
| 8:2 FTS | 1.9 | 1.5 | | 1 | 76 | 65-137 | 12/17/2021 1019 |
| 6:2 FTS | 1.9 | 2.6 | | 1 | 139 | 64-140 | 12/17/2021 1019 |
| 4:2 FTS | 1.9 | 1.8 | | 1 | 97 | 62-145 | 12/17/2021 1019 |
| GenX | 4.0 | 4.3 | | 1 | 108 | 70-150 | 12/17/2021 1019 |
| ADONA | 1.9 | 2.0 | | 1 | 105 | 70-130 | 12/17/2021 1019 |
| EtFOSA | 2.0 | 2.1 | | 1 | 107 | 70-150 | 12/17/2021 1019 |
| EtFOSAA | 2.0 | 2.0 | | 1 | 102 | 61-139 | 12/17/2021 1019 |
| MeFOSAA | 2.0 | 1.8 | | 1 | 92 | 63-144 | 12/17/2021 1019 |
| PFBS | 1.8 | 1.6 | | 1 | 90 | 72-128 | 12/17/2021 1019 |
| PFDS | 1.9 | 1.8 | | 1 | 96 | 59-134 | 12/17/2021 1019 |
| PFHpS | 1.9 | 2.4 | | 1 | 125 | 70-132 | 12/17/2021 1019 |
| PFNS | 1.9 | 1.7 | | 1 | 87 | 69-125 | 12/17/2021 1019 |
| PFPeS | 1.9 | 1.9 | | 1 | 102 | 73-123 | 12/17/2021 1019 |
| PFHxS | 1.8 | 2.0 | | 1 | 112 | 67-130 | 12/17/2021 1019 |
| PFBA | 2.0 | 1.9 | | 1 | 96 | 71-135 | 12/17/2021 1019 |
| PFDA | 2.0 | 1.9 | | 1 | 97 | 69-133 | 12/17/2021 1019 |
| PFDaA | 2.0 | 1.9 | | 1 | 97 | 69-135 | 12/17/2021 1019 |
| PFHpA | 2.0 | 1.8 | | 1 | 92 | 71-131 | 12/17/2021 1019 |
| PFHxA | 2.0 | 1.8 | | 1 | 90 | 70-132 | 12/17/2021 1019 |
| PFNA | 2.0 | 2.1 | | 1 | 106 | 72-129 | 12/17/2021 1019 |
| PFOA | 2.0 | 2.0 | | 1 | 101 | 69-133 | 12/17/2021 1019 |
| PFPeA | 2.0 | 2.1 | | 1 | 106 | 69-132 | 12/17/2021 1019 |
| PFTeDA | 2.0 | 1.9 | | 1 | 96 | 69-133 | 12/17/2021 1019 |
| PFTTrDA | 2.0 | 1.8 | | 1 | 90 | 66-139 | 12/17/2021 1019 |
| PFUdA | 2.0 | 1.9 | | 1 | 95 | 64-136 | 12/17/2021 1019 |
| PFOS | 1.9 | 1.7 | | 1 | 91 | 68-136 | 12/17/2021 1019 |

| Surrogate | Q | % Rec | Acceptance Limit |
|--------------|---|-------|------------------|
| 13C2_4:2FTS | | 87 | 50-150 |
| 13C2_6:2FTS | | 99 | 50-150 |
| 13C2_8:2FTS | | 93 | 50-150 |
| 13C2_PFDaA | | 86 | 50-150 |
| 13C2_PFTeDA | | 84 | 50-150 |
| 13C3_PFBS | | 84 | 50-150 |
| 13C3_PFHxS | | 71 | 50-150 |
| 13C3-HFPO-DA | | 88 | 50-150 |
| 13C4_PFBA | | 82 | 50-150 |
| 13C4_PFHpA | | 87 | 50-150 |
| 13C5_PFHxA | | 81 | 50-150 |
| 13C5_PFPeA | | 87 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - LCS

Sample ID: WQ25957-002

Matrix: Solid

Batch: 25957

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 12/16/2021 1855

| Surrogate | Q | % Rec | Acceptance Limit |
|------------|---|-------|------------------|
| 13C6_PFDA | | 77 | 50-150 |
| 13C7_PFUdA | | 87 | 50-150 |
| 13C8_PFOA | | 78 | 50-150 |
| 13C8_PFOS | | 85 | 50-150 |
| 13C9_PFNA | | 80 | 50-150 |
| d-EtFOSA | | 85 | 50-150 |
| d5-EtFOSAA | | 82 | 50-150 |
| d3-MeFOSAA | | 86 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MB

Sample ID: WQ25999-001

Matrix: Solid

Batch: 25999

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 12/17/2021 1218

| Parameter | Result | Q | Dil | LOQ | LOD | DL | Units | Analysis Date |
|--------------|-------------|----------|----------|------------|-------------|-------------|--------------|------------------------|
| 9CI-PF3ONS | 1.0 | U | 1 | 2.0 | 1.0 | 0.50 | ug/kg | 12/19/2021 2321 |
| 11CI-PF3OUdS | 1.0 | U | 1 | 2.0 | 1.0 | 0.50 | ug/kg | 12/19/2021 2321 |
| 8:2 FTS | 1.0 | U | 1 | 2.0 | 1.0 | 0.50 | ug/kg | 12/19/2021 2321 |
| 4:2 FTS | 1.0 | U | 1 | 2.0 | 1.0 | 0.50 | ug/kg | 12/19/2021 2321 |
| GenX | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ug/kg | 12/19/2021 2321 |
| ADONA | 1.0 | U | 1 | 2.0 | 1.0 | 0.50 | ug/kg | 12/19/2021 2321 |
| EtFOSA | 1.0 | U | 1 | 2.0 | 1.0 | 0.50 | ug/kg | 12/19/2021 2321 |
| EtFOSAA | 1.0 | U | 1 | 2.0 | 1.0 | 0.50 | ug/kg | 12/19/2021 2321 |
| MeFOSAA | 1.0 | U | 1 | 2.0 | 1.0 | 0.50 | ug/kg | 12/19/2021 2321 |
| PFBS | 0.50 | U | 1 | 1.0 | 0.50 | 0.20 | ug/kg | 12/19/2021 2321 |
| PFDS | 0.50 | U | 1 | 1.0 | 0.50 | 0.20 | ug/kg | 12/19/2021 2321 |
| PFHpS | 0.50 | U | 1 | 1.0 | 0.50 | 0.20 | ug/kg | 12/19/2021 2321 |
| PFNS | 0.50 | U | 1 | 1.0 | 0.50 | 0.20 | ug/kg | 12/19/2021 2321 |
| PFPeS | 0.50 | U | 1 | 1.0 | 0.50 | 0.20 | ug/kg | 12/19/2021 2321 |
| PFHxS | 0.50 | U | 1 | 1.0 | 0.50 | 0.20 | ug/kg | 12/19/2021 2321 |
| PFBA | 0.50 | U | 1 | 1.0 | 0.50 | 0.20 | ug/kg | 12/19/2021 2321 |
| PFDA | 0.50 | U | 1 | 1.0 | 0.50 | 0.20 | ug/kg | 12/19/2021 2321 |
| PFDoA | 0.50 | U | 1 | 1.0 | 0.50 | 0.20 | ug/kg | 12/19/2021 2321 |
| PFHpA | 0.50 | U | 1 | 1.0 | 0.50 | 0.20 | ug/kg | 12/19/2021 2321 |
| PFHxA | 0.50 | U | 1 | 1.0 | 0.50 | 0.20 | ug/kg | 12/19/2021 2321 |
| PFNA | 0.50 | U | 1 | 1.0 | 0.50 | 0.20 | ug/kg | 12/19/2021 2321 |
| PFOA | 0.50 | U | 1 | 1.0 | 0.50 | 0.20 | ug/kg | 12/19/2021 2321 |
| PFPeA | 0.50 | U | 1 | 1.0 | 0.50 | 0.20 | ug/kg | 12/19/2021 2321 |
| PFTeDA | 0.50 | U | 1 | 1.0 | 0.50 | 0.20 | ug/kg | 12/19/2021 2321 |
| PFTTrDA | 0.50 | U | 1 | 1.0 | 0.50 | 0.20 | ug/kg | 12/19/2021 2321 |
| PFUdA | 0.50 | U | 1 | 1.0 | 0.50 | 0.20 | ug/kg | 12/19/2021 2321 |
| PFOS | 0.57 | I | 1 | 1.0 | 0.50 | 0.20 | ug/kg | 12/19/2021 2321 |

| Surrogate | Q | % Rec | Acceptance Limit |
|--------------|---|-------|------------------|
| 13C2_4:2FTS | | 82 | 50-150 |
| 13C2_6:2FTS | | 95 | 50-150 |
| 13C2_8:2FTS | | 88 | 50-150 |
| 13C2_PFDaA | | 92 | 50-150 |
| 13C2_PFTeDA | | 91 | 50-150 |
| 13C3_PFBs | | 87 | 50-150 |
| 13C3_PFHxS | | 94 | 50-150 |
| 13C3-HFPO-DA | | 87 | 50-150 |
| 13C4_PFBa | | 86 | 50-150 |
| 13C4_PFHpA | | 90 | 50-150 |
| 13C5_PFHxA | | 86 | 50-150 |
| 13C5_PFPeA | | 92 | 50-150 |
| 13C6_PFDa | | 92 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MB

Sample ID: WQ25999-001

Matrix: Solid

Batch: 25999

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 12/17/2021 1218

| Surrogate | Q | % Rec | Acceptance Limit |
|------------|---|-------|------------------|
| 13C7_PFUdA | | 83 | 50-150 |
| 13C8_PFOA | | 90 | 50-150 |
| 13C8_PFOS | | 86 | 50-150 |
| 13C9_PFNA | | 84 | 50-150 |
| d-EtFOSA | | 93 | 50-150 |
| d5-EtFOSAA | | 88 | 50-150 |
| d3-MeFOSAA | | 89 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - LCS

Sample ID: WQ25999-002

Matrix: Solid

Batch: 25999

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 12/17/2021 1218

| Parameter | Spike Amount (ug/kg) | Result (ug/kg) | Q | Dil | % Rec | %Rec Limit | Analysis Date |
|--------------|----------------------|----------------|---|-----|-------|------------|-----------------|
| 9CI-PF3ONS | 1.9 | 1.7 | | 1 | 93 | 70-130 | 12/19/2021 2332 |
| 11CI-PF3OUdS | 1.9 | 1.9 | | 1 | 102 | 70-130 | 12/19/2021 2332 |
| 8:2 FTS | 1.9 | 1.7 | | 1 | 89 | 65-137 | 12/19/2021 2332 |
| 4:2 FTS | 1.9 | 1.7 | | 1 | 94 | 62-145 | 12/19/2021 2332 |
| GenX | 4.0 | 4.0 | | 1 | 101 | 70-150 | 12/19/2021 2332 |
| ADONA | 1.9 | 1.8 | | 1 | 94 | 70-130 | 12/19/2021 2332 |
| EtFOSA | 2.0 | 2.4 | | 1 | 118 | 70-150 | 12/19/2021 2332 |
| EtFOSAA | 2.0 | 1.8 | | 1 | 90 | 61-139 | 12/19/2021 2332 |
| MeFOSAA | 2.0 | 1.6 | | 1 | 79 | 63-144 | 12/19/2021 2332 |
| PFBS | 1.8 | 1.6 | | 1 | 88 | 72-128 | 12/19/2021 2332 |
| PFDS | 1.9 | 1.9 | | 1 | 98 | 59-134 | 12/19/2021 2332 |
| PFHpS | 1.9 | 1.9 | | 1 | 100 | 70-132 | 12/19/2021 2332 |
| PFNS | 1.9 | 1.8 | | 1 | 91 | 69-125 | 12/19/2021 2332 |
| PFPeS | 1.9 | 1.6 | | 1 | 84 | 73-123 | 12/19/2021 2332 |
| PFHxS | 1.8 | 1.7 | | 1 | 94 | 67-130 | 12/19/2021 2332 |
| PFBA | 2.0 | 1.8 | | 1 | 89 | 71-135 | 12/19/2021 2332 |
| PFDA | 2.0 | 1.7 | | 1 | 86 | 69-133 | 12/19/2021 2332 |
| PFDaA | 2.0 | 1.7 | | 1 | 84 | 69-135 | 12/19/2021 2332 |
| PFHpA | 2.0 | 1.9 | | 1 | 94 | 71-131 | 12/19/2021 2332 |
| PFHxA | 2.0 | 1.9 | | 1 | 95 | 70-132 | 12/19/2021 2332 |
| PFNA | 2.0 | 1.9 | | 1 | 94 | 72-129 | 12/19/2021 2332 |
| PFOA | 2.0 | 1.7 | | 1 | 87 | 69-133 | 12/19/2021 2332 |
| PFPeA | 2.0 | 2.0 | | 1 | 99 | 69-132 | 12/19/2021 2332 |
| PFTeDA | 2.0 | 1.9 | | 1 | 94 | 69-133 | 12/19/2021 2332 |
| PFTTrDA | 2.0 | 1.9 | | 1 | 93 | 66-139 | 12/19/2021 2332 |
| PFUdA | 2.0 | 1.7 | | 1 | 87 | 64-136 | 12/19/2021 2332 |
| PFOS | 1.9 | 1.7 | | 1 | 93 | 68-136 | 12/19/2021 2332 |

| Surrogate | Q | % Rec | Acceptance Limit |
|--------------|---|-------|------------------|
| 13C2_4:2FTS | | 92 | 50-150 |
| 13C2_6:2FTS | | 93 | 50-150 |
| 13C2_8:2FTS | | 93 | 50-150 |
| 13C2_PFDaA | | 91 | 50-150 |
| 13C2_PFTeDA | | 95 | 50-150 |
| 13C3_PFBs | | 89 | 50-150 |
| 13C3_PFHxS | | 92 | 50-150 |
| 13C3-HFPO-DA | | 88 | 50-150 |
| 13C4_PFBa | | 88 | 50-150 |
| 13C4_PFHpA | | 89 | 50-150 |
| 13C5_PFHxA | | 87 | 50-150 |
| 13C5_PFPeA | | 88 | 50-150 |
| 13C6_PFDa | | 96 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - LCS

Sample ID: WQ25999-002

Matrix: Solid

Batch: 25999

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 12/17/2021 1218

| Surrogate | Q | % Rec | Acceptance Limit |
|------------|---|-------|------------------|
| 13C7_PFUdA | | 81 | 50-150 |
| 13C8_PFOA | | 90 | 50-150 |
| 13C8_PFOS | | 84 | 50-150 |
| 13C9_PFNA | | 83 | 50-150 |
| d-EtFOSA | | 87 | 50-150 |
| d5-EtFOSAA | | 91 | 50-150 |
| d3-MeFOSAA | | 89 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MB

Sample ID: WQ26214-001

Matrix: Aqueous

Batch: 26214

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 12/20/2021 1123

| Parameter | Result | Q | Dil | LOQ | LOD | DL | Units | Analysis Date |
|--------------|--------|---|-----|-----|-----|-----|-------|-----------------|
| 9CI-PF3ONS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 12/21/2021 1533 |
| 11CI-PF3OUdS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 12/21/2021 1533 |
| 8:2 FTS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 12/21/2021 1533 |
| 6:2 FTS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 12/21/2021 1533 |
| 4:2 FTS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 12/21/2021 1533 |
| GenX | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 12/21/2021 1533 |
| ADONA | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 12/21/2021 1533 |
| EtFOSA | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 12/21/2021 1533 |
| EtFOSAA | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 12/21/2021 1533 |
| MeFOSAA | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 12/21/2021 1533 |
| PFBS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 12/21/2021 1533 |
| PFDS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 12/21/2021 1533 |
| PFHpS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 12/21/2021 1533 |
| PFNS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 12/21/2021 1533 |
| PFPeS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 12/21/2021 1533 |
| PFHxS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 12/21/2021 1533 |
| PFBA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 12/21/2021 1533 |
| PFDA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 12/21/2021 1533 |
| PFDoA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 12/21/2021 1533 |
| PFHpA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 12/21/2021 1533 |
| PFHxA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 12/21/2021 1533 |
| PFNA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 12/21/2021 1533 |
| PFOA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 12/21/2021 1533 |
| PFPeA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 12/21/2021 1533 |
| PFTeDA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 12/21/2021 1533 |
| PFTrDA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 12/21/2021 1533 |
| PFUdA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 12/21/2021 1533 |
| PFOS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 12/21/2021 1533 |

| Surrogate | Q | % Rec | Acceptance Limit |
|--------------|---|-------|------------------|
| 13C2_4:2FTS | | 103 | 50-150 |
| 13C2_6:2FTS | | 103 | 50-150 |
| 13C2_8:2FTS | | 101 | 50-150 |
| 13C2_PFDaA | | 93 | 50-150 |
| 13C2_PFTeDA | | 88 | 50-150 |
| 13C3_PFBs | | 98 | 50-150 |
| 13C3_PFHxS | | 107 | 50-150 |
| 13C3-HFPO-DA | | 102 | 50-150 |
| 13C4_PFBA | | 102 | 50-150 |
| 13C4_PFHpA | | 100 | 50-150 |
| 13C5_PFHxA | | 106 | 50-150 |
| 13C5_PFPeA | | 101 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MB

Sample ID: WQ26214-001

Matrix: Aqueous

Batch: 26214

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 12/20/2021 1123

| Surrogate | Q | % Rec | Acceptance Limit |
|------------|---|-------|------------------|
| 13C6_PFDA | | 105 | 50-150 |
| 13C7_PFUdA | | 98 | 50-150 |
| 13C8_PFOA | | 108 | 50-150 |
| 13C8_PFOS | | 106 | 50-150 |
| 13C9_PFNA | | 112 | 50-150 |
| d-EtFOSA | | 94 | 50-150 |
| d5-EtFOSAA | | 100 | 50-150 |
| d3-MeFOSAA | | 100 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - LCS

Sample ID: WQ26214-002

Matrix: Aqueous

Batch: 26214

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 12/20/2021 1123

| Parameter | Spike Amount (ng/L) | Result (ng/L) | Q | Dil | % Rec | %Rec Limit | Analysis Date |
|--------------|---------------------|---------------|---|-----|-------|------------|-----------------|
| 9CI-PF3ONS | 15 | 13 | | 1 | 90 | 70-150 | 12/21/2021 1544 |
| 11CI-PF3OUdS | 15 | 12 | | 1 | 83 | 70-150 | 12/21/2021 1544 |
| 8:2 FTS | 15 | 15 | | 1 | 100 | 67-138 | 12/21/2021 1544 |
| 6:2 FTS | 15 | 15 | | 1 | 99 | 64-140 | 12/21/2021 1544 |
| 4:2 FTS | 15 | 14 | | 1 | 96 | 63-143 | 12/21/2021 1544 |
| GenX | 32 | 34 | | 1 | 107 | 70-150 | 12/21/2021 1544 |
| ADONA | 15 | 15 | | 1 | 103 | 70-150 | 12/21/2021 1544 |
| EtFOSA | 16 | 16 | | 1 | 100 | 70-150 | 12/21/2021 1544 |
| EtFOSAA | 16 | 15 | | 1 | 96 | 61-135 | 12/21/2021 1544 |
| MeFOSAA | 16 | 17 | | 1 | 107 | 65-136 | 12/21/2021 1544 |
| PFBS | 14 | 12 | | 1 | 87 | 72-130 | 12/21/2021 1544 |
| PFDS | 15 | 14 | | 1 | 91 | 53-142 | 12/21/2021 1544 |
| PFHpS | 15 | 15 | | 1 | 100 | 69-134 | 12/21/2021 1544 |
| PFNS | 15 | 14 | | 1 | 89 | 69-127 | 12/21/2021 1544 |
| PFPeS | 15 | 14 | | 1 | 91 | 71-127 | 12/21/2021 1544 |
| PFHxS | 15 | 14 | | 1 | 100 | 68-131 | 12/21/2021 1544 |
| PFBA | 16 | 15 | | 1 | 94 | 73-129 | 12/21/2021 1544 |
| PFDA | 16 | 14 | | 1 | 90 | 71-129 | 12/21/2021 1544 |
| PFDaA | 16 | 16 | | 1 | 97 | 72-134 | 12/21/2021 1544 |
| PFHpA | 16 | 15 | | 1 | 93 | 72-130 | 12/21/2021 1544 |
| PFHxA | 16 | 15 | | 1 | 96 | 72-129 | 12/21/2021 1544 |
| PFNA | 16 | 16 | | 1 | 97 | 69-130 | 12/21/2021 1544 |
| PFOA | 16 | 14 | | 1 | 88 | 71-133 | 12/21/2021 1544 |
| PFPeA | 16 | 15 | | 1 | 96 | 72-129 | 12/21/2021 1544 |
| PFTeDA | 16 | 15 | | 1 | 94 | 71-132 | 12/21/2021 1544 |
| PFTrDA | 16 | 14 | | 1 | 91 | 65-144 | 12/21/2021 1544 |
| PFUdA | 16 | 15 | | 1 | 91 | 69-133 | 12/21/2021 1544 |
| PFOS | 15 | 14 | | 1 | 97 | 65-140 | 12/21/2021 1544 |

| Surrogate | Q | % Rec | Acceptance Limit |
|--------------|---|-------|------------------|
| 13C2_4:2FTS | | 107 | 50-150 |
| 13C2_6:2FTS | | 101 | 50-150 |
| 13C2_8:2FTS | | 100 | 50-150 |
| 13C2_PFDaA | | 93 | 50-150 |
| 13C2_PFTeDA | | 82 | 50-150 |
| 13C3_PFBS | | 98 | 50-150 |
| 13C3_PFHxS | | 105 | 50-150 |
| 13C3-HFPO-DA | | 100 | 50-150 |
| 13C4_PFBA | | 104 | 50-150 |
| 13C4_PFHpA | | 101 | 50-150 |
| 13C5_PFHxA | | 104 | 50-150 |
| 13C5_PFPeA | | 101 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - LCS

Sample ID: WQ26214-002

Matrix: Aqueous

Batch: 26214

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 12/20/2021 1123

| Surrogate | Q | % Rec | Acceptance Limit |
|------------|---|-------|------------------|
| 13C6_PFDA | | 109 | 50-150 |
| 13C7_PFUdA | | 102 | 50-150 |
| 13C8_PFOA | | 104 | 50-150 |
| 13C8_PFOS | | 107 | 50-150 |
| 13C9_PFNA | | 107 | 50-150 |
| d-EtFOSA | | 92 | 50-150 |
| d5-EtFOSAA | | 91 | 50-150 |
| d3-MeFOSAA | | 99 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MB

Sample ID: WQ26623-001

Matrix: Solid

Batch: 26623

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 12/23/2021 0934

| Parameter | Result | Q | Dil | LOQ | LOD | DL | Units | Analysis Date |
|--------------|--------|-------|------------------|-----|-----|------|-------|-----------------|
| 6:2 FTS | 1.0 | U | 1 | 2.0 | 1.0 | 0.50 | ug/kg | 12/27/2021 0214 |
| Surrogate | Q | % Rec | Acceptance Limit | | | | | |
| 13C2_4:2FTS | 108 | | 50-150 | | | | | |
| 13C2_6:2FTS | 105 | | 50-150 | | | | | |
| 13C2_8:2FTS | 108 | | 50-150 | | | | | |
| 13C2_PFDaA | 97 | | 50-150 | | | | | |
| 13C2_PFTeDA | 101 | | 50-150 | | | | | |
| 13C3_PFBs | 107 | | 50-150 | | | | | |
| 13C3_PFHxS | 108 | | 50-150 | | | | | |
| 13C3-HFPO-DA | 106 | | 50-150 | | | | | |
| 13C4_PFBa | 104 | | 50-150 | | | | | |
| 13C4_PFHpA | 106 | | 50-150 | | | | | |
| 13C5_PFHxA | 104 | | 50-150 | | | | | |
| 13C5_PFPeA | 102 | | 50-150 | | | | | |
| 13C6_PFDa | 104 | | 50-150 | | | | | |
| 13C7_PFUdA | 103 | | 50-150 | | | | | |
| 13C8_PFOA | 101 | | 50-150 | | | | | |
| 13C8_PFOS | 103 | | 50-150 | | | | | |
| 13C9_PFNA | 101 | | 50-150 | | | | | |
| d-EtFOSA | 100 | | 50-150 | | | | | |
| d5-EtFOSAA | 104 | | 50-150 | | | | | |
| d3-MeFOSAA | 102 | | 50-150 | | | | | |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - LCS

Sample ID: WQ26623-002

Matrix: Solid

Batch: 26623

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 12/23/2021 0934

| Parameter | Spike Amount (ug/kg) | Result (ug/kg) | Q | Dil | % Rec | %Rec Limit | Analysis Date |
|--------------|-------------------------|-------------------|---|-----|------------------|------------|-----------------|
| 6:2 FTS | 1.9 | 2.0 | | 1 | 104 | 64-140 | 12/27/2021 0227 |
| Surrogate | Q | % Rec | | | Acceptance Limit | | |
| 13C2_4:2FTS | | 99 | | | 50-150 | | |
| 13C2_6:2FTS | | 95 | | | 50-150 | | |
| 13C2_8:2FTS | | 96 | | | 50-150 | | |
| 13C2_PFDaA | | 88 | | | 50-150 | | |
| 13C2_PFTeDA | | 84 | | | 50-150 | | |
| 13C3_PFBS | | 95 | | | 50-150 | | |
| 13C3_PFHxS | | 95 | | | 50-150 | | |
| 13C3-HFPO-DA | | 95 | | | 50-150 | | |
| 13C4_PFBA | | 96 | | | 50-150 | | |
| 13C4_PFHpA | | 93 | | | 50-150 | | |
| 13C5_PFHxA | | 94 | | | 50-150 | | |
| 13C5_PFPeA | | 92 | | | 50-150 | | |
| 13C6_PFDA | | 91 | | | 50-150 | | |
| 13C7_PFUdA | | 90 | | | 50-150 | | |
| 13C8_PFOA | | 91 | | | 50-150 | | |
| 13C8_PFOS | | 90 | | | 50-150 | | |
| 13C9_PFNA | | 90 | | | 50-150 | | |
| d-EtFOSA | | 91 | | | 50-150 | | |
| d5-EtFOSAA | | 94 | | | 50-150 | | |
| d3-MeFOSAA | | 93 | | | 50-150 | | |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MS

Sample ID: WL14016-016MS

Matrix: Solid

Batch: 26623

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 12/23/2021 0934

| Parameter | Sample Amount (ug/kg) | Spike Amount (ug/kg) | Result (ug/kg) | Q | Dil | % Rec | %Rec Limit | Analysis Date |
|--------------|-----------------------|----------------------|------------------|---|-----|-------|------------|-----------------|
| 6:2 FTS | ND | 2.2 | 2.3 | | 1 | 103 | 64-140 | 12/27/2021 0305 |
| Surrogate | Q | % Rec | Acceptance Limit | | | | | |
| 13C2_4:2FTS | | 102 | 50-150 | | | | | |
| 13C2_6:2FTS | | 100 | 50-150 | | | | | |
| 13C2_8:2FTS | | 98 | 50-150 | | | | | |
| 13C2_PFDaA | | 91 | 50-150 | | | | | |
| 13C2_PFTeDA | | 91 | 50-150 | | | | | |
| 13C3_PFBS | | 95 | 50-150 | | | | | |
| 13C3_PFHxS | | 99 | 50-150 | | | | | |
| 13C3-HFPO-DA | | 98 | 50-150 | | | | | |
| 13C4_PFBA | | 97 | 50-150 | | | | | |
| 13C4_PFHpA | | 96 | 50-150 | | | | | |
| 13C5_PFHxA | | 97 | 50-150 | | | | | |
| 13C5_PFPeA | | 95 | 50-150 | | | | | |
| 13C6_PFDA | | 95 | 50-150 | | | | | |
| 13C7_PFUdA | | 95 | 50-150 | | | | | |
| 13C8_PFOA | | 96 | 50-150 | | | | | |
| 13C8_PFOS | | 95 | 50-150 | | | | | |
| 13C9_PFNA | | 94 | 50-150 | | | | | |
| d-EtFOSA | | 95 | 50-150 | | | | | |
| d5-EtFOSAA | | 97 | 50-150 | | | | | |
| d3-MeFOSAA | | 95 | 50-150 | | | | | |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MSD

Sample ID: WL14016-016MD

Matrix: Solid

Batch: 26623

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 12/23/2021 0934

| Parameter | Sample Amount (ug/kg) | Spike Amount (ug/kg) | Result (ug/kg) | Q | Dil | % Rec | % RPD | %Rec Limit | % RPD Limit | Analysis Date |
|--------------|-----------------------|----------------------|------------------|---|-----|-------|-------|------------|-------------|-----------------|
| 6:2 FTS | ND | 2.4 | 2.6 | | 1 | 110 | 15 | 64-140 | 30 | 12/27/2021 0318 |
| Surrogate | Q | % Rec | Acceptance Limit | | | | | | | |
| 13C2_4:2FTS | | 106 | 50-150 | | | | | | | |
| 13C2_6:2FTS | | 100 | 50-150 | | | | | | | |
| 13C2_8:2FTS | | 99 | 50-150 | | | | | | | |
| 13C2_PFDaA | | 96 | 50-150 | | | | | | | |
| 13C2_PFTeDA | | 94 | 50-150 | | | | | | | |
| 13C3_PFBs | | 101 | 50-150 | | | | | | | |
| 13C3_PFHxS | | 103 | 50-150 | | | | | | | |
| 13C3-HFPO-DA | | 101 | 50-150 | | | | | | | |
| 13C4_PFBa | | 101 | 50-150 | | | | | | | |
| 13C4_PFHpA | | 99 | 50-150 | | | | | | | |
| 13C5_PFHxA | | 98 | 50-150 | | | | | | | |
| 13C5_PFPeA | | 97 | 50-150 | | | | | | | |
| 13C6_PFDa | | 99 | 50-150 | | | | | | | |
| 13C7_PFUdA | | 98 | 50-150 | | | | | | | |
| 13C8_PFOA | | 96 | 50-150 | | | | | | | |
| 13C8_PFOS | | 95 | 50-150 | | | | | | | |
| 13C9_PFNA | | 96 | 50-150 | | | | | | | |
| d-EtFOSA | | 98 | 50-150 | | | | | | | |
| d5-EtFOSAA | | 98 | 50-150 | | | | | | | |
| d3-MeFOSAA | | 97 | 50-150 | | | | | | | |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MB

Sample ID: WQ26872-001

Matrix: Solid

Batch: 26872

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 12/28/2021 1304

| Parameter | Result | Q | Dil | LOQ | LOD | DL | Units | Analysis Date |
|--------------|--------|-------|------------------|-----|-----|------|-------|-----------------|
| 6:2 FTS | 1.0 | U | 1 | 2.0 | 1.0 | 0.50 | ug/kg | 12/29/2021 1152 |
| Surrogate | Q | % Rec | Acceptance Limit | | | | | |
| 13C2_4:2FTS | | 103 | 50-150 | | | | | |
| 13C2_6:2FTS | | 116 | 50-150 | | | | | |
| 13C2_8:2FTS | | 112 | 50-150 | | | | | |
| 13C2_PFDaA | | 89 | 50-150 | | | | | |
| 13C2_PFTeDA | | 90 | 50-150 | | | | | |
| 13C3_PFBs | | 87 | 50-150 | | | | | |
| 13C3_PFHxS | | 92 | 50-150 | | | | | |
| 13C3-HFPO-DA | | 99 | 50-150 | | | | | |
| 13C4_PFBa | | 92 | 50-150 | | | | | |
| 13C4_PFHpA | | 91 | 50-150 | | | | | |
| 13C5_PFHxA | | 92 | 50-150 | | | | | |
| 13C5_PFPeA | | 87 | 50-150 | | | | | |
| 13C6_PFDa | | 91 | 50-150 | | | | | |
| 13C7_PFUdA | | 88 | 50-150 | | | | | |
| 13C8_PFOA | | 95 | 50-150 | | | | | |
| 13C8_PFOS | | 84 | 50-150 | | | | | |
| 13C9_PFNA | | 93 | 50-150 | | | | | |
| d-EtFOSA | | 103 | 50-150 | | | | | |
| d5-EtFOSAA | | 109 | 50-150 | | | | | |
| d3-MeFOSAA | | 100 | 50-150 | | | | | |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - LCS

Sample ID: WQ26872-002

Matrix: Solid

Batch: 26872

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 12/28/2021 1304

| Parameter | Spike Amount (ug/kg) | Result (ug/kg) | Q | Dil | % Rec | %Rec Limit | Analysis Date |
|--------------|-------------------------|-------------------|------------------|-----|-------|------------|-----------------|
| 6:2 FTS | 1.9 | 2.2 | | 1 | 117 | 64-140 | 12/29/2021 1202 |
| Surrogate | Q | % Rec | Acceptance Limit | | | | |
| 13C2_4:2FTS | | 108 | 50-150 | | | | |
| 13C2_6:2FTS | | 117 | 50-150 | | | | |
| 13C2_8:2FTS | | 118 | 50-150 | | | | |
| 13C2_PFDaA | | 85 | 50-150 | | | | |
| 13C2_PFTeDA | | 90 | 50-150 | | | | |
| 13C3_PFBS | | 92 | 50-150 | | | | |
| 13C3_PFHxS | | 98 | 50-150 | | | | |
| 13C3-HFPO-DA | | 100 | 50-150 | | | | |
| 13C4_PFBA | | 94 | 50-150 | | | | |
| 13C4_PFHpA | | 90 | 50-150 | | | | |
| 13C5_PFHxA | | 93 | 50-150 | | | | |
| 13C5_PFPeA | | 90 | 50-150 | | | | |
| 13C6_PFDA | | 91 | 50-150 | | | | |
| 13C7_PFUdA | | 90 | 50-150 | | | | |
| 13C8_PFOA | | 94 | 50-150 | | | | |
| 13C8_PFOS | | 90 | 50-150 | | | | |
| 13C9_PFNA | | 91 | 50-150 | | | | |
| d-EtFOSA | | 89 | 50-150 | | | | |
| d5-EtFOSAA | | 107 | 50-150 | | | | |
| d3-MeFOSAA | | 95 | 50-150 | | | | |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - LCSD

Sample ID: WQ26872-003

Matrix: Solid

Batch: 26872

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 12/28/2021 1304

| Parameter | Spike Amount (ug/kg) | Result (ug/kg) | Q | Dil | % Rec | % RPD | %Rec Limit | % RPD Limit | Analysis Date |
|--------------|-------------------------|-------------------|------------------|-----|-------|-------|------------|-------------|-----------------|
| 6:2 FTS | 1.9 | 1.9 | | 1 | 100 | 16 | 64-140 | 30 | 12/29/2021 1213 |
| Surrogate | Q | % Rec | Acceptance Limit | | | | | | |
| 13C2_4:2FTS | | 114 | 50-150 | | | | | | |
| 13C2_6:2FTS | | 115 | 50-150 | | | | | | |
| 13C2_8:2FTS | | 109 | 50-150 | | | | | | |
| 13C2_PFDaA | | 91 | 50-150 | | | | | | |
| 13C2_PFTeDA | | 96 | 50-150 | | | | | | |
| 13C3_PFBs | | 91 | 50-150 | | | | | | |
| 13C3_PFHxS | | 94 | 50-150 | | | | | | |
| 13C3-HFPO-DA | | 100 | 50-150 | | | | | | |
| 13C4_PFBa | | 95 | 50-150 | | | | | | |
| 13C4_PFHpA | | 94 | 50-150 | | | | | | |
| 13C5_PFHxA | | 92 | 50-150 | | | | | | |
| 13C5_PFPeA | | 91 | 50-150 | | | | | | |
| 13C6_PFDa | | 89 | 50-150 | | | | | | |
| 13C7_PFUdA | | 94 | 50-150 | | | | | | |
| 13C8_PFOA | | 98 | 50-150 | | | | | | |
| 13C8_PFOs | | 90 | 50-150 | | | | | | |
| 13C9_PFNa | | 92 | 50-150 | | | | | | |
| d-EtFOSA | | 108 | 50-150 | | | | | | |
| d5-EtFOSAA | | 107 | 50-150 | | | | | | |
| d3-MeFOSAA | | 109 | 50-150 | | | | | | |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

**Chain of Custody
and
Miscellaneous Documents**

PACE ANALYTICAL SERVICES, LLC



PACE ANALYTICAL SERVICES, LLC
 106 Vantage Point Drive • West Columbia, SC 29172
 Telephone No. 803-791-9700 Fax No. 803-791-9111
 www.pacelabs.com

Number 128114

| | | | |
|--|---|---|------------------------|
| Client: Tetra Tech | Report to Contact: Chuck Sorden | Telephone, Mr./E-mail: (321) 591-7580 | Quote No. _____ |
| Address: 1353 N Courteney Pkwy Ste S | Signature: <i>[Signature]</i> | Analysis (Attach list if extra space is needed) | Page 1 of _____ |
| City: Merritt Island FL 32953 | Printed Name: Scott Anderson/ Sue Rogers | | |
| Project Name: KSC PFA's Suppl'y | | | |
| Project No.: 112C-09237 | | | |
| Sample ID / Description (Containers for each sample may be combined on one line.) | Collection Time (Military) | Collection Date | |
| P53-RB01-20211209 | 930 | 12/9/21 | |
| P53-SB001-0115-20211209 | 1155 | 12/9/21 | |
| P53-SB001-0255-20211209 | 1200 | 12/9/21 | |
| P53-SB001-0385-20211209 | 1205 | 12/9/21 | |
| P53-SB001-0558-20211209 | 1210 | 12/9/21 | |
| P53-SB001-0595-20211209 | 1215 | 12/9/21 | |
| P53-SB001-0705-20211209 | 1220 | 12/9/21 | |
| P53-FB01-20211209 | 1230 | 12/9/21 | |
| SwB01-20211209 | 1235 | 12/9/21 | |
| SwB02-20211209 | 1240 | 12/9/21 | |

| No. of Containers by Preservative Type | Matrix | | | | No. of Containers by Preservative Type | Analysis | Remarks / Container I.D. |
|--|--------|------|--------|-------|--|----------|--------------------------|
| | Water | Soil | Sludge | Other | | | |
| | X | | | | | | |
| | X | | | | | | |
| | X | | | | | | |
| | X | | | | | | |
| | X | | | | | | |
| | X | | | | | | |
| | X | | | | | | |
| | X | | | | | | |
| | X | | | | | | |
| | X | | | | | | |
| | X | | | | | | |
| | X | | | | | | |
| | X | | | | | | |
| | X | | | | | | |

| | | | |
|--|---|--|---|
| Turn Around Time Required (prior lab approval required for expedited lab.) <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush (Specify) | Sample Disposal <input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Dispose by Lab | Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison <input type="checkbox"/> Unknown | QC Requirements (Specify) |
| 1. Relinquished by: <i>[Signature]</i> Date: 12/10/21 Time: 1800 | 2. Relinquished by: <i>[Signature]</i> Date: 12/13/21 Time: 3:30 | 3. Relinquished by: _____ Date: _____ Time: _____ | Date: 12/10/21 Time: 1800 Date: _____ Time: _____ Date: _____ Time: _____ |
| 4. Relinquished by: Fedex Date: 12/14/21 Time: 1040 | Note: All samples are retained for four weeks from receipt unless other arrangements are made. | 4. Laboratory received by: Greg Burkman Date: 12/14/21 Time: 1040 LAB USE ONLY Received on ice (Circle) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Ice Pack Receipt Temp. 2.4 °C | Date: _____ Time: _____ Date: _____ Time: _____ Date: _____ Time: _____ |

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Samples; PINK-Facility Copy
 Document Number: AEC0302-01

PACE ANALYTICAL SERVICES, LLC



PACE ANALYTICAL SERVICES, LLC
 106 Vantage Point Drive • West Columbia, SC 29172
 Telephone No. 803-791-9700 Fax No. 803-791-9111
 www.pacelabs.com

Number 128113

| | | | |
|---|--|--|--------------------|
| Client Tetra Tech | Report to Contact Chuck Sorden | Telephone No. / Email (321) 591-7560 | Quota No. _____ |
| Address 1353 N. Courtenay Pkwy Ste S | | Analysis (Allow only if more space is needed) | |
| City Merritt Island | State FL | Zip Code 32953 | |
| Project Name KSC PFAS Sampling | | | |
| Project No. 112609237 | P.O. No. | Printer's Signature <i>[Signature]</i> | |
| Sample ID / Description <small>(Indicate for each sample may be contained on one line)</small> | | No. of Containers by Residue Type | |
| STP1 - R082 - 20211209 | 12/9/21 | 1630 | PFAS X |
| STP1 - S0001 - 0095 - 20211209 | 12/9/21 | 1730 | PFAS X |
| STP1 - S0001 - 0215 - 20211209 | 12/9/21 | 1735 | PFAS X |
| STP1 - S0001 - 0215 - 20211209 | 12/9/21 | 1740 | PFAS X |
| STP1 - S0001 - 0435 - 20211210 | 12/10/21 | 810 | PFAS X |
| STP1 - S0001 - 0435 - 20211210 | 12/10/21 | 815 | PFAS X |
| STP1 - S0001 - 0495 - 20211210 | 12/10/21 | 820 | PFAS X |
| STP1 - S0001 - 0535 - 20211210 | 12/10/21 | 830 | PFAS X |
| STP1 - FB02 - 20211210 | 12/10/21 | 835 | PFAS X |
| ES1 - R003 - 20211210 | 12/10/21 | 1000 | PFAS X |

| | | | |
|--|---|--|---|
| Turn Around Time Required (Prior lab approval required for expedited TAT) | Sample Disposal | Possible Hazard Identification | OC Requirements (Specify) |
| <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush (Specify) | <input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal by (Lab) | <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Poison <input type="checkbox"/> Irritant <input type="checkbox"/> Unknown | |
| 1. Received by <i>[Signature]</i> | Date 12/10/21 | 1. Received by | Date 12/10/21 |
| 2. Requisitioned by <i>[Signature]</i> | Time 1800 | 2. Received by <i>[Signature]</i> | Time 1808 |
| 3. Requisitioned by | Date 12/13/21 | 3. Received by | Date |
| 1. Requisitioned by Fedex | Date 12/14/21 | 4. Laboratory received by Grand Jordanian | Date 12/14/21 |
| Note: All samples are retained for four weeks from receipt unless other arrangements are made. | | LAB USE ONLY Received on ice (Check) <input type="checkbox"/> No <input checked="" type="checkbox"/> Ice Pack <input type="checkbox"/> Receipt Temp. 2.4 °C | Temp Blank <input type="checkbox"/> Y <input checked="" type="checkbox"/> N |

DISTRIBUTION: W-101 & YELLOW-Paper to laboratory with Sample(s); Public Field/Client Copy
 Document Number: AEC0002-07



PACE ANALYTICAL SERVICES, LLC
 106 Vantage Point Drive • West Columbia, SC 29172
 Telephone No. 803-791-9700 Fax No. 803-791-9111
 www.pacelabs.com

Number 128115

PACE ANALYTICAL SERVICES, LLC

| | | | | |
|---|---|--|--|---------------------------------------|
| Client: Tetra Tech | Project No. / Contract: 1353 N-Courthouse Pkwy Ste S | Project Name: Merritt-Island FL 32953 | Project No. / Equal: (52) 591-7580 | QC No.: |
| Address: 1353 N-Courthouse Pkwy Ste S | State: FL | City: 32953 | Analysis (Attach list if more space is needed) | Page: of |
| City: Merritt-Island | State: FL | Zip Code: 32953 | Barcode: | VMSZ: VML14016 |
| Project Name: KSC PFA Sampling | Printed Name: Scott Allison / Suz Rojas | Signature: | Remarks / Order I.D. | |
| Project No. 112G09237 | PC No. | Matrix | No. of Colonnets by Preservative Type | |
| Sample ID / Description (Containers for each sample may be combined on one line.) | Collection Date (M:Day) | Conversion Time (M:Day) | Matrix | No. of Colonnets by Preservative Type |
| F51-SB001-013.5-20211210 | 12/10/21 | 12:00 | G | X |
| F51-SB001-013.5-20211210 | 12/10/21 | 12:05 | G | X |
| F51-SB001-033.5-20211210 | 12/10/21 | 12:10 | G | X |
| F51-SB001-046.5-20211210 | 12/10/21 | 12:15 | G | X |
| F51-SB001-052.5-20211210 | 12/10/21 | 12:20 | G | X |
| F51-SB001-058.5-20211210 | 12/10/21 | 12:25 | G | X |
| F51-FB03-20211210 | 12/10/21 | 12:30 | G | X |
| <p>Turn Around Time Required (Prior lab approval required for expedited AT):</p> <p><input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush (Specify)</p> <p>1. Requested by: </p> <p>2. Requested by: </p> <p>3. Requested by:</p> <p>4. Requested by: Fedex</p> <p>Note: All samples are retained for four weeks from receipt unless other arrangements are made.</p> | | | | |
| <p>Sample Disposal</p> <p><input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Request by Lab</p> <p>Date: 12/13/21 Time: 1530</p> <p>Date: 12/13/21 Time: 1530</p> <p>Date:</p> | | <p>Possible Hazard Identification</p> <p><input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Polux <input type="checkbox"/> Unknown</p> <p>1. Received by: </p> <p>2. Received by: Yo Felix</p> <p>3. Received by:</p> <p>4. Laboratory received by: Yo Felix</p> <p>LAB USE ONLY</p> <p>Received on site: (Circle) <input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> No Ice Pack <input type="radio"/> Yes <input type="radio"/> No</p> <p>Receipt Temp. 2:4 °C</p> | | |
| <p>QC Requirements (Specify)</p> <p>Date: 12/10/21 Time: 1800</p> <p>Date:</p> <p>Date:</p> | | <p>Date: 12/14/21 Time: 1040</p> <p>Date:</p> <p>Date:</p> | | |

Document Number: M00302-07

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

PACE ANALYTICAL SERVICES, LLC



Samples Receipt Checklist (SRC) (ME0018C-15)
Issuing Authority: Pace ENV - WCOL

Revised: 9/29/2020
Page 1 of 1

Sample Receipt Checklist (SRC)

Client: Tetra Tech

Cooler Inspected by/date: JRG2 / 12/14/2021

Lot #: WL14016

| | |
|--|---|
| Means of receipt: <input type="checkbox"/> Pace <input type="checkbox"/> Client <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Other: | |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 1. Were custody seals present on the cooler? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA | 2. If custody seals were present, were they intact and unbroken? |
| pH Strip ID: NA | Chlorine Strip ID: NA |
| Original temperature upon receipt / Derived (Corrected) temperature upon receipt Tested by: NA | |
| 2.4 / 2.4 °C NA / NA °C NA / NA °C NA / NA °C %Solid Snap-Cup ID: 21-2661 | |
| Method: <input checked="" type="checkbox"/> Temperature Blank <input type="checkbox"/> Against Bottles IR Gun ID: 3 IR Gun Correction Factor: 0 °C | |
| Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Ice Packs <input type="checkbox"/> Dry Ice <input type="checkbox"/> None | |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA | 3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one). |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA | 4. Is the commercial courier's packing slip attached to this form? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 5. Were proper custody procedures (relinquished/received) followed? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 6. Were sample IDs listed on the COC? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 7. Were sample IDs listed on all sample containers? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 8. Was collection date & time listed on the COC? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 9. Was collection date & time listed on all sample containers? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 10. Did all container label information (ID, date, time) agree with the COC? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 11. Were tests to be performed listed on the COC? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 13. Was adequate sample volume available? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 14. Were all samples received within ¼ the holding time or 48 hours, whichever comes first? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 15. Were any samples containers missing/excess (circle one) samples Not listed on COC? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA | 16. For VOA and RSK-175 samples, were bubbles present >"pca-size" (½" or 6mm in diameter) in any of the VOA vials? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA | 17. Were all DRO/metals/nutrient samples received at a pH of < 2? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA | 18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA | 19. Were all applicable NH ₃ /TKN/cyanide/phenol/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA | 20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 21. Was the quote number listed on the container label? If yes, Quote # 24582 |
| Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.) | |
| Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA | |
| Time of preservation NA. If more than one preservative is needed, please note in the comments below. | |
| Sample(s) NA were received with bubbles >6 mm in diameter. | |
| Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is no) and were adjusted accordingly in sample receiving with sodium thiosulfate (Na ₂ S ₂ O ₃) with Sacaly ID: NA | |
| SR barcode labels applied by: CBP Date: 12/14/2021 | |
| Comments: | |
| | |
| | |
| | |
| | |
| | |



Report of Analysis

Tetra Tech
Foster Plaza 7
661 Anderson Drive
Pittsburgh, PA 15220
Attention: Mark Jonnet

Project Name: KSC-FS1
Project Number: 112G09581
Lot Number: **XB16023**
Date Completed: 03/13/2022

Kathy Smith

03/14/2022 10:09 AM
Approved and released by:
Project Manager II: **Kathy E. Smith**



The electronic signature above is the equivalent of a handwritten signature.
This report shall not be reproduced, except in its entirety, without the written approval of Pace Analytical Services, LLC.

PACE ANALYTICAL SERVICES, LLC

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative Tetra Tech Lot Number: XB16023

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

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

Sample receipt, sample analysis, and data review have been performed in accordance with the Pace Quality Assurance Management Plan (QAMP), applicable Shealy standard operating procedures (SOPs), the 2003 NELAC standard, and Shealy policies. Additionally, the DoD QSM version 5.3 has been followed for these samples, and specifically Table B-15 was followed for all PFAS samples. Any exceptions to the QAMP, SOPs, NELAC standards, the DoD QSM, or policies are qualified on the results page or discussed below.

All QC associated with these samples was in compliance with DOD QSM 5.3 table B-15 and our PFAS SOP.

Correction factors (CF) are used to calculate the original sample concentration. The CF is the inverse of the concentration factor (sample volume / extract final volume) times the dilution factor (DF). For undiluted analysis. For undiluted analysis, the extract is prepared for injection by adding 182 uL of sample extract + 8 uL of reagent water + 10 uL of internal standard solution to a polypropylene autosampler vial. An extra correction factor of 0.91 (182 uL / 200 uL = 0.91) applies. The CF is calculated as follows:

$$CF = DF * FV / Vo$$

FV is volume of extract (mL)

Vo is initial sample volume (mL)

DF is dilution factor. For undiluted analysis, DF = 1/0.91.

Sample concentration for aqueous samples:

Concentration (ng/L) = Cs*CF,

$$C_s = \frac{\left(\frac{A_s \times C_{is}}{A_{is}} \right) - B}{M1}$$

Where

C_s is on column concentration of target analyte in the sample (ng/L)

C_{is} is concentration of internal standard in the sample (ng/L)

A_s is peak response of target analyte in the sample

A_{is} is peak response of internal standard in the sample

M1 is the average RF from ICAL or the slope from linear regression ICAL

B is the y-intercept from the ICAL

PACE ANALYTICAL SERVICES, LLC

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Pace is a TNI accredited laboratory; however, the following analyses are currently not listed on our TNI scope of accreditation: Drinking Water: VOC (excluding BTEX, MTBE, Naphthalene, & 1,2-dichloroethane) EPA 524.2, E. coli and Total coliforms SM 9223 B-2004, Solid Chemical Material: TOC Walkley-Black, Biological Tissue: All, Non-Potable Water: SGT-HEM EPA 1664B, Silica EPA 200.7, Boron, Calcium, Silicon, Strontium EPA 200.8, Bicarbonate, Carbonate, and Hydroxide Alkalinity SM 2320 B-2011, SM 9221 C E-2006 & SM 9222D-2006, Strontium SW-846 6010D, VOC SM 6200 B-2011, Fecal Coliform Colilert-18.

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

Samples XB16023-001, XB16023-002, XB16023-003, XB16023-004, XB16023-005, XB16023-006, XB16023-007, XB16023-008, XB16023-009, XB16023-010, XB16023-011, XB16023-012, XB16023-014, XB16023-016, XB16023-017, XB16023-018, XB16023-019, XB16023-020, XB16023-025, XB16023-026, XB16023-027, XB16023-028, XB16023-032, XB16023-033, XB16023-034, XB16023-035, XB16023-036, XB16023-038 required centrifugation prior to extraction, due to excessive solids present in the samples. Centrifugation was performed following the PFAS Aqueous Centrifuge Protocol; samples were spiked with Surrogate (SUR; Extracted Internal Standard/EIS) and shaken vigorously before being poured into a conical bottle and centrifuged. The centrifuged aqueous sample was decanted back into the original sample bottle, off of the condensed solids remaining in the centrifuge bottle. Original sample bottle was rinsed as normal and centrifuge bottle was rinsed with 4mL of MeOH. Centrifuge bottle rinsate was added to the elution. Samples concentrated to <10mL and reconstituted to 10mL using MeOH by transfer pipet.

Surrogate recovery for the following samples was outside control limits: XB16023-001, XB16023-002, XB16023-003, XB16023-004, XB16023-005, XB16023-006, XB16023-007, XB16023-008, XB16023-009, XB16023-010, XB16023-011, XB16023-012, XB16023-014, XB16023-016, XB16023-017, XB16023-018, XB16023-019, XB16023-020, XB16023-025, XB16023-026, XB16023-027, XB16023-028, XB16023-032, XB16023-033, XB16023-034, XB16023-036, XB16023-038. Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

The MS/MSD associated with sample XB16023-019 had analytes recovered outside of the acceptance limits. The LCS was recovered within the required acceptance limits; therefore, this demonstrates a matrix effect and data quality is not impacted.

PACE ANALYTICAL SERVICES, LLC

Sample Summary

Tetra Tech

Lot Number: XB16023

Project Name: KSC-FS1

Project Number: 112G09581

| Sample Number | Sample ID | Matrix | Date Sampled | Date Received |
|---------------|----------------------------|---------|-----------------|---------------|
| 001 | FS1-DPT0001-005.0-20220214 | Aqueous | 02/14/2022 1010 | 02/16/2022 |
| 002 | FS1-DPT0001-012.0-20220214 | Aqueous | 02/14/2022 1030 | 02/16/2022 |
| 003 | FS1-DPT0001-017.0-20220214 | Aqueous | 02/14/2022 1050 | 02/16/2022 |
| 004 | FS1-DPT0001-025.0-20220214 | Aqueous | 02/14/2022 1115 | 02/16/2022 |
| 005 | FS1-DPT0001-035.0-20220214 | Aqueous | 02/14/2022 1140 | 02/16/2022 |
| 006 | FS1-DPT0001-045.0-20220214 | Aqueous | 02/14/2022 1230 | 02/16/2022 |
| 007 | FS1-DPT0002-006.0-20220214 | Aqueous | 02/14/2022 1335 | 02/16/2022 |
| 008 | FS1-DPT0002-012.0-20220214 | Aqueous | 02/14/2022 1400 | 02/16/2022 |
| 009 | FS1-DPT0002-017.0-20220214 | Aqueous | 02/14/2022 1430 | 02/16/2022 |
| 010 | FS1-DPT0002-025.0-20220214 | Aqueous | 02/14/2022 1500 | 02/16/2022 |
| 011 | FS1-DPT0002-035.0-20220214 | Aqueous | 02/14/2022 1525 | 02/16/2022 |
| 012 | FS1-DPT0002-045.0-20220214 | Aqueous | 02/14/2022 1555 | 02/16/2022 |
| 013 | FS1-FB-20220215-01 | Aqueous | 02/15/2022 0705 | 02/16/2022 |
| 014 | FS1-DPT0003-005.0-20220215 | Aqueous | 02/15/2022 0720 | 02/16/2022 |
| 015 | FS1-EB-20220215-01 | Aqueous | 02/15/2022 0730 | 02/16/2022 |
| 016 | FS1-DPT0003-012.0-20220215 | Aqueous | 02/15/2022 0740 | 02/16/2022 |
| 017 | FS1-DPT0003-017.0-20220215 | Aqueous | 02/15/2022 0800 | 02/16/2022 |
| 018 | FS1-DPT0003-025.0-20220215 | Aqueous | 02/15/2022 0825 | 02/16/2022 |
| 019 | FS1-DPT0003-035.0-20220215 | Aqueous | 02/15/2022 0855 | 02/16/2022 |
| 020 | FS1-DPT0003-045.0-20220215 | Aqueous | 02/15/2022 0925 | 02/16/2022 |
| 021 | FS1-EB-20220215-02 | Aqueous | 02/15/2022 1000 | 02/16/2022 |
| 022 | FS1-DPT0004-005.0-20220215 | Aqueous | 02/15/2022 1035 | 02/16/2022 |
| 023 | FS1-DPT0004-012.0-20220215 | Aqueous | 02/15/2022 1055 | 02/16/2022 |
| 024 | FS1-FB-20220215-02 | Aqueous | 02/15/2022 1110 | 02/16/2022 |
| 025 | FS1-DPT0004-017.0-20220215 | Aqueous | 02/15/2022 1115 | 02/16/2022 |
| 026 | FS1-DPT0004-025.0-20220215 | Aqueous | 02/15/2022 1140 | 02/16/2022 |
| 027 | FS1-DPT0004-035.0-20220215 | Aqueous | 02/15/2022 1205 | 02/16/2022 |
| 028 | FS1-DPT0004-045.0-20220215 | Aqueous | 02/15/2022 1230 | 02/16/2022 |
| 029 | FS1-DPT0005-005.0-20220215 | Aqueous | 02/15/2022 1335 | 02/16/2022 |
| 030 | FS1-DPT0005-012.0-20220215 | Aqueous | 02/15/2022 1355 | 02/16/2022 |
| 031 | FS1-DPT0005-017.0-20220215 | Aqueous | 02/15/2022 1415 | 02/16/2022 |
| 032 | FS1-DPT0005-025.0-20220215 | Aqueous | 02/15/2022 1435 | 02/16/2022 |
| 033 | FS1-DPT0005-035.0-20220215 | Aqueous | 02/15/2022 1500 | 02/16/2022 |
| 034 | FS1-DPT0005-045.0-20220215 | Aqueous | 02/15/2022 1530 | 02/16/2022 |
| 035 | FS1-EB-20220215-03 | Aqueous | 02/15/2022 1540 | 02/16/2022 |
| 036 | FS1-FD-20220215-01 | Aqueous | 02/15/2022 | 02/16/2022 |
| 037 | FS1-FD-20220215-02 | Aqueous | 02/15/2022 | 02/16/2022 |
| 038 | FS1-FD-20220215-03 | Aqueous | 02/15/2022 | 02/16/2022 |

(38 samples)

PACE ANALYTICAL SERVICES, LLC

Detection Summary

Tetra Tech

Lot Number: XB16023

Project Name: KSC-FS1

Project Number: 112G09581

| Sample | Sample ID | Matrix | Parameter | Method | Result | Q | Units | Page |
|--------|----------------------------|---------|-----------|------------|--------|---|-------|------|
| 001 | FS1-DPT0001-005.0-20220214 | Aqueous | PFHxS | PFAS by ID | 2.8 | I | ng/L | 13 |
| 001 | FS1-DPT0001-005.0-20220214 | Aqueous | PFBA | PFAS by ID | 5.0 | | ng/L | 13 |
| 001 | FS1-DPT0001-005.0-20220214 | Aqueous | PFHxA | PFAS by ID | 1.4 | I | ng/L | 13 |
| 001 | FS1-DPT0001-005.0-20220214 | Aqueous | PFOA | PFAS by ID | 2.9 | I | ng/L | 13 |
| 001 | FS1-DPT0001-005.0-20220214 | Aqueous | PFOS | PFAS by ID | 13 | | ng/L | 13 |
| 002 | FS1-DPT0001-012.0-20220214 | Aqueous | PFBS | PFAS by ID | 1.9 | I | ng/L | 15 |
| 002 | FS1-DPT0001-012.0-20220214 | Aqueous | PFHpS | PFAS by ID | 3.0 | I | ng/L | 15 |
| 002 | FS1-DPT0001-012.0-20220214 | Aqueous | PFPeS | PFAS by ID | 1.8 | I | ng/L | 15 |
| 002 | FS1-DPT0001-012.0-20220214 | Aqueous | PFHxS | PFAS by ID | 16 | | ng/L | 15 |
| 002 | FS1-DPT0001-012.0-20220214 | Aqueous | PFBA | PFAS by ID | 9.8 | Q | ng/L | 15 |
| 002 | FS1-DPT0001-012.0-20220214 | Aqueous | PFHpA | PFAS by ID | 3.5 | I | ng/L | 15 |
| 002 | FS1-DPT0001-012.0-20220214 | Aqueous | PFHxA | PFAS by ID | 3.8 | | ng/L | 15 |
| 002 | FS1-DPT0001-012.0-20220214 | Aqueous | PFOA | PFAS by ID | 21 | | ng/L | 15 |
| 002 | FS1-DPT0001-012.0-20220214 | Aqueous | PFPeA | PFAS by ID | 4.4 | | ng/L | 15 |
| 002 | FS1-DPT0001-012.0-20220214 | Aqueous | PFOS | PFAS by ID | 9.6 | | ng/L | 15 |
| 003 | FS1-DPT0001-017.0-20220214 | Aqueous | PFBS | PFAS by ID | 2.8 | I | ng/L | 17 |
| 003 | FS1-DPT0001-017.0-20220214 | Aqueous | PFHpS | PFAS by ID | 1.3 | I | ng/L | 17 |
| 003 | FS1-DPT0001-017.0-20220214 | Aqueous | PFPeS | PFAS by ID | 1.8 | I | ng/L | 17 |
| 003 | FS1-DPT0001-017.0-20220214 | Aqueous | PFHxS | PFAS by ID | 21 | | ng/L | 17 |
| 003 | FS1-DPT0001-017.0-20220214 | Aqueous | PFBA | PFAS by ID | 9.1 | Q | ng/L | 17 |
| 003 | FS1-DPT0001-017.0-20220214 | Aqueous | PFHpA | PFAS by ID | 5.3 | | ng/L | 17 |
| 003 | FS1-DPT0001-017.0-20220214 | Aqueous | PFHxA | PFAS by ID | 5.5 | | ng/L | 17 |
| 003 | FS1-DPT0001-017.0-20220214 | Aqueous | PFOA | PFAS by ID | 28 | | ng/L | 17 |
| 003 | FS1-DPT0001-017.0-20220214 | Aqueous | PFPeA | PFAS by ID | 5.9 | | ng/L | 17 |
| 004 | FS1-DPT0001-025.0-20220214 | Aqueous | PFBS | PFAS by ID | 5.7 | | ng/L | 19 |
| 004 | FS1-DPT0001-025.0-20220214 | Aqueous | PFPeS | PFAS by ID | 6.6 | | ng/L | 19 |
| 004 | FS1-DPT0001-025.0-20220214 | Aqueous | PFHxS | PFAS by ID | 41 | | ng/L | 19 |
| 004 | FS1-DPT0001-025.0-20220214 | Aqueous | PFBA | PFAS by ID | 3.7 | Q | ng/L | 19 |
| 004 | FS1-DPT0001-025.0-20220214 | Aqueous | PFHpA | PFAS by ID | 4.5 | | ng/L | 19 |
| 004 | FS1-DPT0001-025.0-20220214 | Aqueous | PFHxA | PFAS by ID | 7.7 | | ng/L | 19 |
| 004 | FS1-DPT0001-025.0-20220214 | Aqueous | PFOA | PFAS by ID | 5.0 | | ng/L | 19 |
| 004 | FS1-DPT0001-025.0-20220214 | Aqueous | PFPeA | PFAS by ID | 6.6 | | ng/L | 19 |
| 005 | FS1-DPT0001-035.0-20220214 | Aqueous | 6:2 FTS | PFAS by ID | 14 | | ng/L | 21 |
| 005 | FS1-DPT0001-035.0-20220214 | Aqueous | PFBS | PFAS by ID | 3.3 | I | ng/L | 21 |
| 005 | FS1-DPT0001-035.0-20220214 | Aqueous | PFHpS | PFAS by ID | 1.1 | I | ng/L | 21 |
| 005 | FS1-DPT0001-035.0-20220214 | Aqueous | PFPeS | PFAS by ID | 3.0 | I | ng/L | 21 |
| 005 | FS1-DPT0001-035.0-20220214 | Aqueous | PFHxS | PFAS by ID | 24 | | ng/L | 21 |
| 005 | FS1-DPT0001-035.0-20220214 | Aqueous | PFBA | PFAS by ID | 11 | Q | ng/L | 21 |
| 005 | FS1-DPT0001-035.0-20220214 | Aqueous | PFHpA | PFAS by ID | 5.1 | | ng/L | 21 |
| 005 | FS1-DPT0001-035.0-20220214 | Aqueous | PFHxA | PFAS by ID | 9.9 | | ng/L | 21 |
| 005 | FS1-DPT0001-035.0-20220214 | Aqueous | PFOA | PFAS by ID | 12 | | ng/L | 21 |
| 005 | FS1-DPT0001-035.0-20220214 | Aqueous | PFPeA | PFAS by ID | 11 | | ng/L | 21 |
| 005 | FS1-DPT0001-035.0-20220214 | Aqueous | PFOS | PFAS by ID | 10 | | ng/L | 21 |

Detection Summary (Continued)

Lot Number: XB16023

| Sample | Sample ID | Matrix | Parameter | Method | Result | Q | Units | Page |
|--------|----------------------------|---------|-----------|------------|--------|----|-------|------|
| 006 | FS1-DPT0001-045.0-20220214 | Aqueous | PFBS | PFAS by ID | 0.98 | I | ng/L | 23 |
| 006 | FS1-DPT0001-045.0-20220214 | Aqueous | PFPeS | PFAS by ID | 1.8 | I | ng/L | 23 |
| 006 | FS1-DPT0001-045.0-20220214 | Aqueous | PFHxS | PFAS by ID | 8.9 | | ng/L | 23 |
| 006 | FS1-DPT0001-045.0-20220214 | Aqueous | PFBA | PFAS by ID | 4.1 | Q | ng/L | 23 |
| 006 | FS1-DPT0001-045.0-20220214 | Aqueous | PFHpA | PFAS by ID | 2.6 | I | ng/L | 23 |
| 006 | FS1-DPT0001-045.0-20220214 | Aqueous | PFHxA | PFAS by ID | 4.8 | | ng/L | 23 |
| 006 | FS1-DPT0001-045.0-20220214 | Aqueous | PFOA | PFAS by ID | 4.4 | | ng/L | 23 |
| 006 | FS1-DPT0001-045.0-20220214 | Aqueous | PFPeA | PFAS by ID | 5.2 | | ng/L | 23 |
| 007 | FS1-DPT0002-006.0-20220214 | Aqueous | PFBS | PFAS by ID | 220 | | ng/L | 25 |
| 007 | FS1-DPT0002-006.0-20220214 | Aqueous | PFPeS | PFAS by ID | 110 | | ng/L | 25 |
| 007 | FS1-DPT0002-006.0-20220214 | Aqueous | PFHxS | PFAS by ID | 82 | | ng/L | 25 |
| 007 | FS1-DPT0002-006.0-20220214 | Aqueous | PFBA | PFAS by ID | 200 | Q | ng/L | 25 |
| 007 | FS1-DPT0002-006.0-20220214 | Aqueous | PFHpA | PFAS by ID | 7.4 | | ng/L | 25 |
| 007 | FS1-DPT0002-006.0-20220214 | Aqueous | PFHxA | PFAS by ID | 61 | | ng/L | 25 |
| 007 | FS1-DPT0002-006.0-20220214 | Aqueous | PFOA | PFAS by ID | 7.2 | | ng/L | 25 |
| 007 | FS1-DPT0002-006.0-20220214 | Aqueous | PFPeA | PFAS by ID | 150 | | ng/L | 25 |
| 007 | FS1-DPT0002-006.0-20220214 | Aqueous | PFOS | PFAS by ID | 2.2 | I | ng/L | 25 |
| 008 | FS1-DPT0002-012.0-20220214 | Aqueous | PFBS | PFAS by ID | 19 | | ng/L | 27 |
| 008 | FS1-DPT0002-012.0-20220214 | Aqueous | PFPeS | PFAS by ID | 4.4 | | ng/L | 27 |
| 008 | FS1-DPT0002-012.0-20220214 | Aqueous | PFHxS | PFAS by ID | 5.7 | | ng/L | 27 |
| 008 | FS1-DPT0002-012.0-20220214 | Aqueous | PFBA | PFAS by ID | 43 | | ng/L | 27 |
| 008 | FS1-DPT0002-012.0-20220214 | Aqueous | PFHpA | PFAS by ID | 1.5 | I | ng/L | 27 |
| 008 | FS1-DPT0002-012.0-20220214 | Aqueous | PFHxA | PFAS by ID | 6.8 | | ng/L | 27 |
| 008 | FS1-DPT0002-012.0-20220214 | Aqueous | PFOA | PFAS by ID | 2.1 | I | ng/L | 27 |
| 008 | FS1-DPT0002-012.0-20220214 | Aqueous | PFPeA | PFAS by ID | 16 | | ng/L | 27 |
| 009 | FS1-DPT0002-017.0-20220214 | Aqueous | PFBS | PFAS by ID | 1.9 | I | ng/L | 29 |
| 009 | FS1-DPT0002-017.0-20220214 | Aqueous | PFPeS | PFAS by ID | 2.1 | I | ng/L | 29 |
| 009 | FS1-DPT0002-017.0-20220214 | Aqueous | PFHxS | PFAS by ID | 4.1 | | ng/L | 29 |
| 009 | FS1-DPT0002-017.0-20220214 | Aqueous | PFBA | PFAS by ID | 2.9 | IQ | ng/L | 29 |
| 009 | FS1-DPT0002-017.0-20220214 | Aqueous | PFHpA | PFAS by ID | 1.0 | I | ng/L | 29 |
| 009 | FS1-DPT0002-017.0-20220214 | Aqueous | PFHxA | PFAS by ID | 1.4 | I | ng/L | 29 |
| 009 | FS1-DPT0002-017.0-20220214 | Aqueous | PFOA | PFAS by ID | 2.0 | I | ng/L | 29 |
| 009 | FS1-DPT0002-017.0-20220214 | Aqueous | PFPeA | PFAS by ID | 1.5 | I | ng/L | 29 |
| 010 | FS1-DPT0002-025.0-20220214 | Aqueous | PFBS | PFAS by ID | 4.3 | | ng/L | 31 |
| 010 | FS1-DPT0002-025.0-20220214 | Aqueous | PFPeS | PFAS by ID | 4.5 | | ng/L | 31 |
| 010 | FS1-DPT0002-025.0-20220214 | Aqueous | PFHxS | PFAS by ID | 4.1 | | ng/L | 31 |
| 010 | FS1-DPT0002-025.0-20220214 | Aqueous | PFHpA | PFAS by ID | 1.9 | I | ng/L | 31 |
| 010 | FS1-DPT0002-025.0-20220214 | Aqueous | PFHxA | PFAS by ID | 3.4 | I | ng/L | 31 |
| 012 | FS1-DPT0002-045.0-20220214 | Aqueous | PFBS | PFAS by ID | 1.7 | I | ng/L | 35 |
| 012 | FS1-DPT0002-045.0-20220214 | Aqueous | PFPeS | PFAS by ID | 1.4 | I | ng/L | 35 |
| 012 | FS1-DPT0002-045.0-20220214 | Aqueous | PFHxS | PFAS by ID | 3.8 | | ng/L | 35 |
| 012 | FS1-DPT0002-045.0-20220214 | Aqueous | PFBA | PFAS by ID | 2.6 | I | ng/L | 35 |
| 012 | FS1-DPT0002-045.0-20220214 | Aqueous | PFPeA | PFAS by ID | 1.3 | I | ng/L | 35 |
| 014 | FS1-DPT0003-005.0-20220215 | Aqueous | PFHxS | PFAS by ID | 3.6 | | ng/L | 39 |
| 014 | FS1-DPT0003-005.0-20220215 | Aqueous | PFBA | PFAS by ID | 7.4 | Q | ng/L | 39 |
| 014 | FS1-DPT0003-005.0-20220215 | Aqueous | PFOS | PFAS by ID | 4.4 | Q | ng/L | 39 |
| 016 | FS1-DPT0003-012.0-20220215 | Aqueous | PFHxS | PFAS by ID | 7.9 | | ng/L | 43 |
| 016 | FS1-DPT0003-012.0-20220215 | Aqueous | PFBA | PFAS by ID | 8.6 | | ng/L | 43 |

Detection Summary (Continued)

Lot Number: XB16023

| Sample | Sample ID | Matrix | Parameter | Method | Result | Q | Units | Page |
|--------|----------------------------|---------|-----------|------------|--------|---|-------|------|
| 016 | FS1-DPT0003-012.0-20220215 | Aqueous | PFOS | PFAS by ID | 2.9 | I | ng/L | 43 |
| 017 | FS1-DPT0003-017.0-20220215 | Aqueous | PFHxS | PFAS by ID | 3.1 | I | ng/L | 45 |
| 017 | FS1-DPT0003-017.0-20220215 | Aqueous | PFBA | PFAS by ID | 15 | | ng/L | 45 |
| 017 | FS1-DPT0003-017.0-20220215 | Aqueous | PFHxA | PFAS by ID | 0.98 | I | ng/L | 45 |
| 017 | FS1-DPT0003-017.0-20220215 | Aqueous | PFPeA | PFAS by ID | 1.1 | I | ng/L | 45 |
| 017 | FS1-DPT0003-017.0-20220215 | Aqueous | PFOS | PFAS by ID | 5.3 | | ng/L | 45 |
| 018 | FS1-DPT0003-025.0-20220215 | Aqueous | PFBS | PFAS by ID | 1.4 | I | ng/L | 47 |
| 018 | FS1-DPT0003-025.0-20220215 | Aqueous | PFHxS | PFAS by ID | 5.0 | | ng/L | 47 |
| 018 | FS1-DPT0003-025.0-20220215 | Aqueous | PFBA | PFAS by ID | 21 | | ng/L | 47 |
| 018 | FS1-DPT0003-025.0-20220215 | Aqueous | PFOA | PFAS by ID | 2.1 | I | ng/L | 47 |
| 018 | FS1-DPT0003-025.0-20220215 | Aqueous | PFPeA | PFAS by ID | 1.3 | I | ng/L | 47 |
| 018 | FS1-DPT0003-025.0-20220215 | Aqueous | PFOS | PFAS by ID | 1.9 | I | ng/L | 47 |
| 019 | FS1-DPT0003-035.0-20220215 | Aqueous | PFBS | PFAS by ID | 1.4 | I | ng/L | 49 |
| 019 | FS1-DPT0003-035.0-20220215 | Aqueous | PFHxS | PFAS by ID | 4.8 | | ng/L | 49 |
| 019 | FS1-DPT0003-035.0-20220215 | Aqueous | PFBA | PFAS by ID | 51 | Q | ng/L | 49 |
| 019 | FS1-DPT0003-035.0-20220215 | Aqueous | PFHpA | PFAS by ID | 1.1 | I | ng/L | 49 |
| 019 | FS1-DPT0003-035.0-20220215 | Aqueous | PFHxA | PFAS by ID | 2.7 | I | ng/L | 49 |
| 019 | FS1-DPT0003-035.0-20220215 | Aqueous | PFOA | PFAS by ID | 1.1 | I | ng/L | 49 |
| 019 | FS1-DPT0003-035.0-20220215 | Aqueous | PFPeA | PFAS by ID | 3.3 | I | ng/L | 49 |
| 019 | FS1-DPT0003-035.0-20220215 | Aqueous | PFOS | PFAS by ID | 5.0 | | ng/L | 49 |
| 022 | FS1-DPT0004-005.0-20220215 | Aqueous | PFHxS | PFAS by ID | 17 | I | ng/L | 55 |
| 022 | FS1-DPT0004-005.0-20220215 | Aqueous | PFOS | PFAS by ID | 28 | I | ng/L | 55 |
| 023 | FS1-DPT0004-012.0-20220215 | Aqueous | PFHxS | PFAS by ID | 28 | I | ng/L | 57 |
| 023 | FS1-DPT0004-012.0-20220215 | Aqueous | PFBA | PFAS by ID | 11 | I | ng/L | 57 |
| 023 | FS1-DPT0004-012.0-20220215 | Aqueous | PFHxA | PFAS by ID | 13 | I | ng/L | 57 |
| 023 | FS1-DPT0004-012.0-20220215 | Aqueous | PFPeA | PFAS by ID | 15 | I | ng/L | 57 |
| 025 | FS1-DPT0004-017.0-20220215 | Aqueous | 6:2 FTS | PFAS by ID | 3.7 | I | ng/L | 61 |
| 025 | FS1-DPT0004-017.0-20220215 | Aqueous | PFBS | PFAS by ID | 2.3 | I | ng/L | 61 |
| 025 | FS1-DPT0004-017.0-20220215 | Aqueous | PFPeS | PFAS by ID | 2.0 | I | ng/L | 61 |
| 025 | FS1-DPT0004-017.0-20220215 | Aqueous | PFHxS | PFAS by ID | 24 | | ng/L | 61 |
| 025 | FS1-DPT0004-017.0-20220215 | Aqueous | PFBA | PFAS by ID | 10 | | ng/L | 61 |
| 025 | FS1-DPT0004-017.0-20220215 | Aqueous | PFHpA | PFAS by ID | 6.4 | | ng/L | 61 |
| 025 | FS1-DPT0004-017.0-20220215 | Aqueous | PFHxA | PFAS by ID | 6.6 | | ng/L | 61 |
| 025 | FS1-DPT0004-017.0-20220215 | Aqueous | PFOA | PFAS by ID | 20 | | ng/L | 61 |
| 025 | FS1-DPT0004-017.0-20220215 | Aqueous | PFPeA | PFAS by ID | 7.2 | | ng/L | 61 |
| 025 | FS1-DPT0004-017.0-20220215 | Aqueous | PFOS | PFAS by ID | 2.2 | I | ng/L | 61 |
| 026 | FS1-DPT0004-025.0-20220215 | Aqueous | PFBS | PFAS by ID | 6.8 | | ng/L | 63 |
| 026 | FS1-DPT0004-025.0-20220215 | Aqueous | PFPeS | PFAS by ID | 6.1 | | ng/L | 63 |
| 026 | FS1-DPT0004-025.0-20220215 | Aqueous | PFHxS | PFAS by ID | 34 | | ng/L | 63 |
| 026 | FS1-DPT0004-025.0-20220215 | Aqueous | PFBA | PFAS by ID | 6.4 | | ng/L | 63 |
| 026 | FS1-DPT0004-025.0-20220215 | Aqueous | PFHpA | PFAS by ID | 5.8 | | ng/L | 63 |
| 026 | FS1-DPT0004-025.0-20220215 | Aqueous | PFHxA | PFAS by ID | 11 | | ng/L | 63 |
| 026 | FS1-DPT0004-025.0-20220215 | Aqueous | PFOA | PFAS by ID | 5.1 | | ng/L | 63 |
| 026 | FS1-DPT0004-025.0-20220215 | Aqueous | PFPeA | PFAS by ID | 10 | | ng/L | 63 |
| 027 | FS1-DPT0004-035.0-20220215 | Aqueous | PFBS | PFAS by ID | 7.4 | | ng/L | 65 |
| 027 | FS1-DPT0004-035.0-20220215 | Aqueous | PFPeS | PFAS by ID | 6.1 | | ng/L | 65 |
| 027 | FS1-DPT0004-035.0-20220215 | Aqueous | PFHxS | PFAS by ID | 34 | | ng/L | 65 |
| 027 | FS1-DPT0004-035.0-20220215 | Aqueous | PFBA | PFAS by ID | 7.5 | | ng/L | 65 |

Detection Summary (Continued)

Lot Number: XB16023

| Sample | Sample ID | Matrix | Parameter | Method | Result | Q | Units | Page |
|--------|----------------------------|---------|-----------|------------|--------|---|-------|------|
| 027 | FS1-DPT0004-035.0-20220215 | Aqueous | PFHpA | PFAS by ID | 6.5 | | ng/L | 65 |
| 027 | FS1-DPT0004-035.0-20220215 | Aqueous | PFHxA | PFAS by ID | 12 | | ng/L | 65 |
| 027 | FS1-DPT0004-035.0-20220215 | Aqueous | PFOA | PFAS by ID | 6.4 | | ng/L | 65 |
| 027 | FS1-DPT0004-035.0-20220215 | Aqueous | PFPeA | PFAS by ID | 11 | | ng/L | 65 |
| 028 | FS1-DPT0004-045.0-20220215 | Aqueous | PFHxS | PFAS by ID | 2.7 | I | ng/L | 67 |
| 028 | FS1-DPT0004-045.0-20220215 | Aqueous | PFBA | PFAS by ID | 0.99 | I | ng/L | 67 |
| 028 | FS1-DPT0004-045.0-20220215 | Aqueous | PFHxA | PFAS by ID | 1.3 | I | ng/L | 67 |
| 029 | FS1-DPT0005-005.0-20220215 | Aqueous | PFBA | PFAS by ID | 10 | I | ng/L | 69 |
| 032 | FS1-DPT0005-025.0-20220215 | Aqueous | PFBS | PFAS by ID | 1.9 | I | ng/L | 75 |
| 032 | FS1-DPT0005-025.0-20220215 | Aqueous | PFPeS | PFAS by ID | 2.2 | I | ng/L | 75 |
| 032 | FS1-DPT0005-025.0-20220215 | Aqueous | PFHxS | PFAS by ID | 12 | | ng/L | 75 |
| 032 | FS1-DPT0005-025.0-20220215 | Aqueous | PFBA | PFAS by ID | 11 | Q | ng/L | 75 |
| 032 | FS1-DPT0005-025.0-20220215 | Aqueous | PFHpA | PFAS by ID | 10 | | ng/L | 75 |
| 032 | FS1-DPT0005-025.0-20220215 | Aqueous | PFHxA | PFAS by ID | 21 | | ng/L | 75 |
| 032 | FS1-DPT0005-025.0-20220215 | Aqueous | PFOA | PFAS by ID | 5.9 | | ng/L | 75 |
| 032 | FS1-DPT0005-025.0-20220215 | Aqueous | PFPeA | PFAS by ID | 32 | | ng/L | 75 |
| 036 | FS1-FD-20220215-01 | Aqueous | PFBS | PFAS by ID | 1.3 | I | ng/L | 83 |
| 036 | FS1-FD-20220215-01 | Aqueous | PFHxS | PFAS by ID | 3.3 | I | ng/L | 83 |
| 036 | FS1-FD-20220215-01 | Aqueous | PFBA | PFAS by ID | 15 | | ng/L | 83 |
| 036 | FS1-FD-20220215-01 | Aqueous | PFOA | PFAS by ID | 0.99 | I | ng/L | 83 |
| 036 | FS1-FD-20220215-01 | Aqueous | PFPeA | PFAS by ID | 1.2 | I | ng/L | 83 |
| 036 | FS1-FD-20220215-01 | Aqueous | PFOS | PFAS by ID | 4.8 | | ng/L | 83 |
| 037 | FS1-FD-20220215-02 | Aqueous | PFHxS | PFAS by ID | 28 | I | ng/L | 85 |
| 037 | FS1-FD-20220215-02 | Aqueous | PFBA | PFAS by ID | 10 | I | ng/L | 85 |
| 037 | FS1-FD-20220215-02 | Aqueous | PFHxA | PFAS by ID | 11 | I | ng/L | 85 |
| 037 | FS1-FD-20220215-02 | Aqueous | PFPeA | PFAS by ID | 13 | I | ng/L | 85 |

(165 detections)

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-001 |
| Description: FS1-DPT0001-005.0-20220214 | Matrix: Aqueous |
| Date Sampled: 02/14/2022 1010 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/08/2022 1325 | MMM | 03/07/2022 1618 | 33989 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.6 | UQ | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 2.8 | I | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 5.0 | | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 1.4 | I | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 2.9 | I | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 13 | | 3.5 | 1.8 | 0.88 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 201 | 50-150 |
| 13C2_6:2FTS | | 128 | 50-150 |
| 13C2_8:2FTS | | 118 | 50-150 |
| 13C2_PFDa | | 89 | 50-150 |
| 13C2_PFTeDA | | 77 | 50-150 |
| 13C3_PFBs | | 89 | 50-150 |
| 13C3_PFHxS | | 95 | 50-150 |
| 13C3-HFPO-DA | | 90 | 50-150 |
| 13C4_PFBa | | 69 | 50-150 |
| 13C4_PFHpA | | 88 | 50-150 |
| 13C5_PFHxA | | 92 | 50-150 |
| 13C5_PFPeA | | 88 | 50-150 |
| 13C6_PFDa | | 93 | 50-150 |
| 13C7_PFUdA | | 89 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-001 |
| Description: FS1-DPT0001-005.0-20220214 | Matrix: Aqueous |
| Date Sampled: 02/14/2022 1010 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 93 | 50-150 |
| 13C8_PFOS | | 84 | 50-150 |
| 13C9_PFNA | | 98 | 50-150 |
| d-EtFOSA | | 70 | 50-150 |
| d5-EtFOSAA | | 106 | 50-150 |
| d3-MeFOSAA | | 94 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-002 |
| Description: FS1-DPT0001-012.0-20220214 | Matrix: Aqueous |
| Date Sampled: 02/14/2022 1030 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/08/2022 1336 | MMM | 03/07/2022 1618 | 33989 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.6 | UQ | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 1.9 | I | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 3.0 | I | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 1.8 | I | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 16 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 9.8 | Q | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 3.5 | I | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 3.8 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 21 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 4.4 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 9.6 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 199 | 50-150 |
| 13C2_6:2FTS | | 146 | 50-150 |
| 13C2_8:2FTS | | 133 | 50-150 |
| 13C2_PFDa | | 87 | 50-150 |
| 13C2_PFTeDA | | 57 | 50-150 |
| 13C3_PFBs | | 73 | 50-150 |
| 13C3_PFHxS | | 101 | 50-150 |
| 13C3-HFPO-DA | | 78 | 50-150 |
| 13C4_PFBa | N | 31 | 50-150 |
| 13C4_PFHpA | | 95 | 50-150 |
| 13C5_PFHxA | | 85 | 50-150 |
| 13C5_PFPeA | | 64 | 50-150 |
| 13C6_PFDa | | 96 | 50-150 |
| 13C7_PFUdA | | 93 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-002 |
| Description: FS1-DPT0001-012.0-20220214 | Matrix: Aqueous |
| Date Sampled: 02/14/2022 1030 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 96 | 50-150 |
| 13C8_PFOS | | 93 | 50-150 |
| 13C9_PFNA | | 98 | 50-150 |
| d-EtFOSA | | 53 | 50-150 |
| d5-EtFOSAA | | 95 | 50-150 |
| d3-MeFOSAA | | 92 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-003 |
| Description: FS1-DPT0001-017.0-20220214 | Matrix: Aqueous |
| Date Sampled: 02/14/2022 1050 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/08/2022 1346 | MMM | 03/07/2022 1618 | 33989 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.6 | UQ | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 2.8 | I | 3.5 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.3 | I | 3.5 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 1.8 | I | 3.5 | 1.8 | 0.89 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 21 | | 3.5 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 9.1 | Q | 3.5 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 5.3 | | 3.5 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 5.5 | | 3.5 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 28 | | 3.5 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 5.9 | | 3.5 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.89 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.89 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 196 | 50-150 |
| 13C2_6:2FTS | | 132 | 50-150 |
| 13C2_8:2FTS | | 116 | 50-150 |
| 13C2_PFDaA | | 89 | 50-150 |
| 13C2_PFTeDA | | 77 | 50-150 |
| 13C3_PFBs | | 82 | 50-150 |
| 13C3_PFHxS | | 91 | 50-150 |
| 13C3-HFPO-DA | | 83 | 50-150 |
| 13C4_PFBa | N | 39 | 50-150 |
| 13C4_PFHpA | | 87 | 50-150 |
| 13C5_PFHxA | | 86 | 50-150 |
| 13C5_PFPeA | | 71 | 50-150 |
| 13C6_PFDa | | 100 | 50-150 |
| 13C7_PFUdA | | 86 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-003 |
| Description: FS1-DPT0001-017.0-20220214 | Matrix: Aqueous |
| Date Sampled: 02/14/2022 1050 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 92 | 50-150 |
| 13C8_PFOS | | 92 | 50-150 |
| 13C9_PFNA | | 93 | 50-150 |
| d-EtFOSA | | 71 | 50-150 |
| d5-EtFOSAA | | 99 | 50-150 |
| d3-MeFOSAA | | 86 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-004 |
| Description: FS1-DPT0001-025.0-20220214 | Matrix: Aqueous |
| Date Sampled: 02/14/2022 1115 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/08/2022 1357 | MMM | 03/07/2022 1618 | 33989 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.9 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.9 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.9 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.7 | UQ | 7.4 | 3.7 | 1.9 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.7 | UQ | 7.4 | 3.7 | 1.9 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.9 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.9 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.9 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.9 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.9 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 5.7 | | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 6.6 | | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 41 | | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 3.7 | Q | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 4.5 | | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 7.7 | | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 5.0 | | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 6.6 | | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 213 | 50-150 |
| 13C2_6:2FTS | N | 155 | 50-150 |
| 13C2_8:2FTS | | 132 | 50-150 |
| 13C2_PFDa | | 81 | 50-150 |
| 13C2_PFTeDA | | 68 | 50-150 |
| 13C3_PFBs | | 73 | 50-150 |
| 13C3_PFHxS | | 93 | 50-150 |
| 13C3-HFPO-DA | | 76 | 50-150 |
| 13C4_PFBa | N | 35 | 50-150 |
| 13C4_PFHpA | | 89 | 50-150 |
| 13C5_PFHxA | | 82 | 50-150 |
| 13C5_PFPeA | | 66 | 50-150 |
| 13C6_PFDa | | 96 | 50-150 |
| 13C7_PFUdA | | 88 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-004 |
| Description: FS1-DPT0001-025.0-20220214 | Matrix: Aqueous |
| Date Sampled: 02/14/2022 1115 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 93 | 50-150 |
| 13C8_PFOS | | 90 | 50-150 |
| 13C9_PFNA | | 98 | 50-150 |
| d-EtFOSA | | 54 | 50-150 |
| d5-EtFOSAA | | 99 | 50-150 |
| d3-MeFOSAA | | 89 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-005 |
| Description: FS1-DPT0001-035.0-20220214 | Matrix: Aqueous |
| Date Sampled: 02/14/2022 1140 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/08/2022 1407 | MMM | 03/07/2022 1618 | 33989 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 14 | | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.6 | UQ | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 3.3 | I | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.1 | I | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 3.0 | I | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 24 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 11 | Q | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 5.1 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 9.9 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 12 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 11 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 10 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 227 | 50-150 |
| 13C2_6:2FTS | | 57 | 50-150 |
| 13C2_8:2FTS | | 121 | 50-150 |
| 13C2_PFDaA | | 94 | 50-150 |
| 13C2_PFTeDA | | 74 | 50-150 |
| 13C3_PFBs | | 89 | 50-150 |
| 13C3_PFHxS | | 104 | 50-150 |
| 13C3-HFPO-DA | | 89 | 50-150 |
| 13C4_PFBa | N | 46 | 50-150 |
| 13C4_PFHpA | | 96 | 50-150 |
| 13C5_PFHxA | | 94 | 50-150 |
| 13C5_PFPeA | | 79 | 50-150 |
| 13C6_PFDa | | 103 | 50-150 |
| 13C7_PFUdA | | 95 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-005 |
| Description: FS1-DPT0001-035.0-20220214 | Matrix: Aqueous |
| Date Sampled: 02/14/2022 1140 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 97 | 50-150 |
| 13C8_PFOS | | 97 | 50-150 |
| 13C9_PFNA | | 101 | 50-150 |
| d-EtFOSA | | 70 | 50-150 |
| d5-EtFOSAA | | 112 | 50-150 |
| d3-MeFOSAA | | 98 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-006 |
| Description: FS1-DPT0001-045.0-20220214 | Matrix: Aqueous |
| Date Sampled: 02/14/2022 1230 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/08/2022 1418 | MMM | 03/07/2022 1618 | 33989 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.6 | UQ | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 0.98 | I | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 1.8 | I | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 8.9 | | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 4.1 | Q | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 2.6 | I | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 4.8 | | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 4.4 | | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 5.2 | | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 215 | 50-150 |
| 13C2_6:2FTS | | 142 | 50-150 |
| 13C2_8:2FTS | | 116 | 50-150 |
| 13C2_PFDa | | 87 | 50-150 |
| 13C2_PFTeDA | | 77 | 50-150 |
| 13C3_PFBS | | 86 | 50-150 |
| 13C3_PFHxS | | 96 | 50-150 |
| 13C3-HFPO-DA | | 82 | 50-150 |
| 13C4_PFBA | N | 48 | 50-150 |
| 13C4_PFHpA | | 90 | 50-150 |
| 13C5_PFHxA | | 84 | 50-150 |
| 13C5_PFPeA | | 77 | 50-150 |
| 13C6_PFDA | | 98 | 50-150 |
| 13C7_PFUdA | | 85 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-006 |
| Description: FS1-DPT0001-045.0-20220214 | Matrix: Aqueous |
| Date Sampled: 02/14/2022 1230 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 94 | 50-150 |
| 13C8_PFOS | | 90 | 50-150 |
| 13C9_PFNA | | 103 | 50-150 |
| d-EtFOSA | | 72 | 50-150 |
| d5-EtFOSAA | | 104 | 50-150 |
| d3-MeFOSAA | | 93 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-007 |
| Description: FS1-DPT0002-006.0-20220214 | Matrix: Aqueous |
| Date Sampled: 02/14/2022 1335 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/08/2022 1429 | MMM | 03/07/2022 1618 | 33989 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.8 | UQ | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 220 | | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 110 | | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 82 | | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 200 | Q | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 7.4 | | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 61 | | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 7.2 | | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 150 | | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 2.2 | I | 3.8 | 1.9 | 0.94 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 179 | 50-150 |
| 13C2_6:2FTS | | 111 | 50-150 |
| 13C2_8:2FTS | | 86 | 50-150 |
| 13C2_PFDaA | | 79 | 50-150 |
| 13C2_PFTeDA | | 70 | 50-150 |
| 13C3_PFBS | | 71 | 50-150 |
| 13C3_PFHxS | | 95 | 50-150 |
| 13C3-HFPO-DA | | 85 | 50-150 |
| 13C4_PFBA | N | 23 | 50-150 |
| 13C4_PFHpA | | 84 | 50-150 |
| 13C5_PFHxA | | 83 | 50-150 |
| 13C5_PFPeA | | 60 | 50-150 |
| 13C6_PFDA | | 93 | 50-150 |
| 13C7_PFUdA | | 81 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-007 |
| Description: FS1-DPT0002-006.0-20220214 | Matrix: Aqueous |
| Date Sampled: 02/14/2022 1335 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 91 | 50-150 |
| 13C8_PFOS | | 88 | 50-150 |
| 13C9_PFNA | | 91 | 50-150 |
| d-EtFOSA | | 66 | 50-150 |
| d5-EtFOSAA | | 91 | 50-150 |
| d3-MeFOSAA | | 88 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-008 |
| Description: FS1-DPT0002-012.0-20220214 | Matrix: Aqueous |
| Date Sampled: 02/14/2022 1400 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 2 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/10/2022 1903 | ASD | 03/09/2022 1643 | 34285 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.8 | U | 7.6 | 3.8 | 1.9 | ng/L | 2 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.8 | U | 7.6 | 3.8 | 1.9 | ng/L | 2 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.8 | U | 7.6 | 3.8 | 1.9 | ng/L | 2 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.8 | U | 7.6 | 3.8 | 1.9 | ng/L | 2 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.8 | U | 7.6 | 3.8 | 1.9 | ng/L | 2 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.8 | U | 7.6 | 3.8 | 1.9 | ng/L | 2 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.8 | U | 7.6 | 3.8 | 1.9 | ng/L | 2 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.8 | UQ | 7.6 | 3.8 | 1.9 | ng/L | 2 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.8 | UQ | 7.6 | 3.8 | 1.9 | ng/L | 2 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.8 | UQ | 7.6 | 3.8 | 1.9 | ng/L | 2 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 19 | | 3.8 | 1.9 | 0.95 | ng/L | 2 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.95 | ng/L | 2 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.95 | ng/L | 2 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.95 | ng/L | 2 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 4.4 | | 3.8 | 1.9 | 0.95 | ng/L | 2 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 5.7 | | 3.8 | 1.9 | 0.95 | ng/L | 2 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 43 | | 3.8 | 1.9 | 0.95 | ng/L | 2 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.95 | ng/L | 2 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.9 | UQ | 3.8 | 1.9 | 0.95 | ng/L | 2 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 1.5 | I | 3.8 | 1.9 | 0.95 | ng/L | 2 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 6.8 | | 3.8 | 1.9 | 0.95 | ng/L | 2 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.95 | ng/L | 2 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 2.1 | I | 3.8 | 1.9 | 0.95 | ng/L | 2 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 16 | | 3.8 | 1.9 | 0.95 | ng/L | 2 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.9 | UQ | 3.8 | 1.9 | 0.95 | ng/L | 2 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.9 | UQ | 3.8 | 1.9 | 0.95 | ng/L | 2 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.9 | UQ | 3.8 | 1.9 | 0.95 | ng/L | 2 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.95 | ng/L | 2 |

| Surrogate | Q | Run 2 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 134 | 50-150 |
| 13C2_6:2FTS | | 104 | 50-150 |
| 13C2_8:2FTS | | 66 | 50-150 |
| 13C2_PFDa | N | 18 | 50-150 |
| 13C2_PFTeDA | N | 4.5 | 50-150 |
| 13C3_PFBs | | 83 | 50-150 |
| 13C3_PFHxS | | 86 | 50-150 |
| 13C3-HFPO-DA | | 79 | 50-150 |
| 13C4_PFBa | | 53 | 50-150 |
| 13C4_PFHpA | | 85 | 50-150 |
| 13C5_PFHxA | | 87 | 50-150 |
| 13C5_PFPeA | | 83 | 50-150 |
| 13C6_PFDa | | 56 | 50-150 |
| 13C7_PFUdA | N | 37 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-008 |
| Description: FS1-DPT0002-012.0-20220214 | Matrix: Aqueous |
| Date Sampled: 02/14/2022 1400 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 2 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 84 | 50-150 |
| 13C8_PFOS | | 57 | 50-150 |
| 13C9_PFNA | | 73 | 50-150 |
| d-EtFOSA | N | 12 | 50-150 |
| d5-EtFOSAA | N | 25 | 50-150 |
| d3-MeFOSAA | N | 30 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-009 |
| Description: FS1-DPT0002-017.0-20220214 | Matrix: Aqueous |
| Date Sampled: 02/14/2022 1430 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/08/2022 1450 | MMM | 03/07/2022 1618 | 33989 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.7 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.7 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.7 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.7 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.5 | UQ | 7.0 | 3.5 | 1.7 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.7 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.7 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.7 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.7 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.7 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 1.9 | I | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 2.1 | I | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 4.1 | | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 2.9 | IQ | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 1.0 | I | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 1.4 | I | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 2.0 | I | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 1.5 | I | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 164 | 50-150 |
| 13C2_6:2FTS | | 106 | 50-150 |
| 13C2_8:2FTS | | 106 | 50-150 |
| 13C2_PFDa | | 84 | 50-150 |
| 13C2_PFTeDA | | 76 | 50-150 |
| 13C3_PFBs | | 86 | 50-150 |
| 13C3_PFHxS | | 87 | 50-150 |
| 13C3-HFPO-DA | | 94 | 50-150 |
| 13C4_PFBa | N | 47 | 50-150 |
| 13C4_PFHpA | | 86 | 50-150 |
| 13C5_PFHxA | | 93 | 50-150 |
| 13C5_PFPeA | | 78 | 50-150 |
| 13C6_PFDa | | 87 | 50-150 |
| 13C7_PFUdA | | 85 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-009 |
| Description: FS1-DPT0002-017.0-20220214 | Matrix: Aqueous |
| Date Sampled: 02/14/2022 1430 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 90 | 50-150 |
| 13C8_PFOS | | 91 | 50-150 |
| 13C9_PFNA | | 88 | 50-150 |
| d-EtFOSA | | 63 | 50-150 |
| d5-EtFOSAA | | 91 | 50-150 |
| d3-MeFOSAA | | 79 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-010 |
| Description: FS1-DPT0002-025.0-20220214 | Matrix: Aqueous |
| Date Sampled: 02/14/2022 1500 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/08/2022 1500 | MMM | 03/07/2022 1618 | 33989 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.7 | UQ | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.7 | UQ | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 4.3 | | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 4.5 | | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 4.1 | | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 1.9 | I | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 3.4 | I | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 207 | 50-150 |
| 13C2_6:2FTS | | 132 | 50-150 |
| 13C2_8:2FTS | | 118 | 50-150 |
| 13C2_PFDa | | 86 | 50-150 |
| 13C2_PFTeDA | | 59 | 50-150 |
| 13C3_PFBS | | 80 | 50-150 |
| 13C3_PFHxS | | 95 | 50-150 |
| 13C3-HFPO-DA | | 89 | 50-150 |
| 13C4_PFBA | | 50 | 50-150 |
| 13C4_PFHpA | | 91 | 50-150 |
| 13C5_PFHxA | | 84 | 50-150 |
| 13C5_PFPeA | | 82 | 50-150 |
| 13C6_PFDA | | 104 | 50-150 |
| 13C7_PFUdA | | 88 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-010 |
| Description: FS1-DPT0002-025.0-20220214 | Matrix: Aqueous |
| Date Sampled: 02/14/2022 1500 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 90 | 50-150 |
| 13C8_PFOS | | 92 | 50-150 |
| 13C9_PFNA | | 97 | 50-150 |
| d-EtFOSA | N | 43 | 50-150 |
| d5-EtFOSAA | | 107 | 50-150 |
| d3-MeFOSAA | | 94 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-011 |
| Description: FS1-DPT0002-035.0-20220214 | Matrix: Aqueous |
| Date Sampled: 02/14/2022 1525 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/08/2022 1532 | MMM | 03/07/2022 1618 | 33989 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.8 | UQ | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.8 | UQ | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.94 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 1.9 | UQ | 3.7 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.94 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.94 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 168 | 50-150 |
| 13C2_6:2FTS | | 125 | 50-150 |
| 13C2_8:2FTS | | 106 | 50-150 |
| 13C2_PFDa | | 79 | 50-150 |
| 13C2_PFTeDA | | 52 | 50-150 |
| 13C3_PFBS | | 86 | 50-150 |
| 13C3_PFHxS | | 86 | 50-150 |
| 13C3-HFPO-DA | | 86 | 50-150 |
| 13C4_PFBA | | 62 | 50-150 |
| 13C4_PFHpA | | 81 | 50-150 |
| 13C5_PFHxA | | 87 | 50-150 |
| 13C5_PFPeA | | 82 | 50-150 |
| 13C6_PFDA | | 89 | 50-150 |
| 13C7_PFUdA | | 91 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-011 |
| Description: FS1-DPT0002-035.0-20220214 | Matrix: Aqueous |
| Date Sampled: 02/14/2022 1525 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | N | 22 | 50-150 |
| 13C8_PFOS | | 89 | 50-150 |
| 13C9_PFNA | | 93 | 50-150 |
| d-EtFOSA | N | 45 | 50-150 |
| d5-EtFOSAA | | 94 | 50-150 |
| d3-MeFOSAA | | 89 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-012 |
| Description: FS1-DPT0002-045.0-20220214 | Matrix: Aqueous |
| Date Sampled: 02/14/2022 1555 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/08/2022 1543 | MMM | 03/07/2022 1618 | 33989 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.8 | U | 7.6 | 3.8 | 1.9 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.8 | U | 7.6 | 3.8 | 1.9 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.8 | U | 7.6 | 3.8 | 1.9 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.8 | U | 7.6 | 3.8 | 1.9 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.8 | UQ | 7.6 | 3.8 | 1.9 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.8 | U | 7.6 | 3.8 | 1.9 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.8 | U | 7.6 | 3.8 | 1.9 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.8 | U | 7.6 | 3.8 | 1.9 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.8 | U | 7.6 | 3.8 | 1.9 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.8 | U | 7.6 | 3.8 | 1.9 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 1.7 | I | 3.8 | 1.9 | 0.95 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.95 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.95 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.95 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 1.4 | I | 3.8 | 1.9 | 0.95 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 3.8 | | 3.8 | 1.9 | 0.95 | ng/L | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 2.6 | I | 3.8 | 1.9 | 0.95 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.95 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.95 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.95 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.95 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.95 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.95 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 1.3 | I | 3.8 | 1.9 | 0.95 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.95 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.95 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.95 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.95 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 188 | 50-150 |
| 13C2_6:2FTS | | 130 | 50-150 |
| 13C2_8:2FTS | | 107 | 50-150 |
| 13C2_PFDa | | 86 | 50-150 |
| 13C2_PFTeDA | | 77 | 50-150 |
| 13C3_PFBs | | 82 | 50-150 |
| 13C3_PFHxS | | 98 | 50-150 |
| 13C3-HFPO-DA | | 91 | 50-150 |
| 13C4_PFBa | | 57 | 50-150 |
| 13C4_PFHpA | | 86 | 50-150 |
| 13C5_PFHxA | | 85 | 50-150 |
| 13C5_PFPeA | | 81 | 50-150 |
| 13C6_PFDa | | 97 | 50-150 |
| 13C7_PFUdA | | 90 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-012 |
| Description: FS1-DPT0002-045.0-20220214 | Matrix: Aqueous |
| Date Sampled: 02/14/2022 1555 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 94 | 50-150 |
| 13C8_PFOS | | 92 | 50-150 |
| 13C9_PFNA | | 96 | 50-150 |
| d-EtFOSA | | 68 | 50-150 |
| d5-EtFOSAA | | 103 | 50-150 |
| d3-MeFOSAA | | 96 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---------------------------------|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-013 |
| Description: FS1-FB-20220215-01 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 0705 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/08/2022 1553 | MMM | 03/07/2022 1618 | 33989 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|---|-----|-----|-----|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 4.3 | U | 8.6 | 4.3 | 2.1 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 4.3 | U | 8.6 | 4.3 | 2.1 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 4.3 | U | 8.6 | 4.3 | 2.1 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 4.3 | U | 8.6 | 4.3 | 2.1 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 4.3 | U | 8.6 | 4.3 | 2.1 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 4.3 | U | 8.6 | 4.3 | 2.1 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 4.3 | U | 8.6 | 4.3 | 2.1 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 4.3 | U | 8.6 | 4.3 | 2.1 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 4.3 | U | 8.6 | 4.3 | 2.1 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 4.3 | U | 8.6 | 4.3 | 2.1 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 2.2 | U | 4.3 | 2.2 | 1.1 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 2.2 | U | 4.3 | 2.2 | 1.1 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 2.2 | U | 4.3 | 2.2 | 1.1 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 2.2 | U | 4.3 | 2.2 | 1.1 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 2.2 | U | 4.3 | 2.2 | 1.1 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 2.2 | U | 4.3 | 2.2 | 1.1 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 2.2 | U | 4.3 | 2.2 | 1.1 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 2.2 | U | 4.3 | 2.2 | 1.1 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 2.2 | U | 4.3 | 2.2 | 1.1 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 2.2 | U | 4.3 | 2.2 | 1.1 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 2.2 | U | 4.3 | 2.2 | 1.1 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 2.2 | U | 4.3 | 2.2 | 1.1 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 2.2 | U | 4.3 | 2.2 | 1.1 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 2.2 | U | 4.3 | 2.2 | 1.1 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 2.2 | U | 4.3 | 2.2 | 1.1 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 2.2 | U | 4.3 | 2.2 | 1.1 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 2.2 | U | 4.3 | 2.2 | 1.1 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 2.2 | U | 4.3 | 2.2 | 1.1 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 111 | 50-150 |
| 13C2_6:2FTS | | 105 | 50-150 |
| 13C2_8:2FTS | | 112 | 50-150 |
| 13C2_PFDa | | 92 | 50-150 |
| 13C2_PFTeDA | | 89 | 50-150 |
| 13C3_PFBS | | 96 | 50-150 |
| 13C3_PFHxS | | 99 | 50-150 |
| 13C3-HFPO-DA | | 104 | 50-150 |
| 13C4_PFBA | | 95 | 50-150 |
| 13C4_PFHpA | | 93 | 50-150 |
| 13C5_PFHxA | | 92 | 50-150 |
| 13C5_PFPeA | | 95 | 50-150 |
| 13C6_PFDA | | 99 | 50-150 |
| 13C7_PFUdA | | 89 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---------------------------------|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-013 |
| Description: FS1-FB-20220215-01 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 0705 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 95 | 50-150 |
| 13C8_PFOS | | 92 | 50-150 |
| 13C9_PFNA | | 102 | 50-150 |
| d-EtFOSA | | 72 | 50-150 |
| d5-EtFOSAA | | 111 | 50-150 |
| d3-MeFOSAA | | 98 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-014 |
| Description: FS1-DPT0003-005.0-20220215 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 0720 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/08/2022 1604 | MMM | 03/07/2022 1618 | 33989 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.6 | UQ | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.6 | UQ | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.6 | UQ | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.8 | UQ | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.8 | UQ | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 3.6 | | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 7.4 | Q | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 4.4 | Q | 3.5 | 1.8 | 0.88 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 203 | 50-150 |
| 13C2_6:2FTS | | 143 | 50-150 |
| 13C2_8:2FTS | | 118 | 50-150 |
| 13C2_PFDa | | 87 | 50-150 |
| 13C2_PFTeDA | | 78 | 50-150 |
| 13C3_PFBs | | 88 | 50-150 |
| 13C3_PFHxS | | 96 | 50-150 |
| 13C3-HFPO-DA | | 93 | 50-150 |
| 13C4_PFBa | N | 49 | 50-150 |
| 13C4_PFHpA | | 93 | 50-150 |
| 13C5_PFHxA | | 94 | 50-150 |
| 13C5_PFPeA | | 86 | 50-150 |
| 13C6_PFDa | | 100 | 50-150 |
| 13C7_PFUdA | | 91 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-014 |
| Description: FS1-DPT0003-005.0-20220215 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 0720 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 98 | 50-150 |
| 13C8_PFOS | N | 31 | 50-150 |
| 13C9_PFNA | | 99 | 50-150 |
| d-EtFOSA | | 79 | 50-150 |
| d5-EtFOSAA | | 108 | 50-150 |
| d3-MeFOSAA | | 99 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---------------------------------|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-015 |
| Description: FS1-EB-20220215-01 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 0730 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/08/2022 1615 | MMM | 03/07/2022 1618 | 33989 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|---|-----|-----|-----|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 4.4 | U | 8.7 | 4.4 | 2.2 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 4.4 | U | 8.7 | 4.4 | 2.2 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 4.4 | U | 8.7 | 4.4 | 2.2 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 4.4 | U | 8.7 | 4.4 | 2.2 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 4.4 | U | 8.7 | 4.4 | 2.2 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 4.4 | U | 8.7 | 4.4 | 2.2 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 4.4 | U | 8.7 | 4.4 | 2.2 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 4.4 | U | 8.7 | 4.4 | 2.2 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 4.4 | U | 8.7 | 4.4 | 2.2 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 4.4 | U | 8.7 | 4.4 | 2.2 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 2.2 | U | 4.3 | 2.2 | 1.1 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 2.2 | U | 4.3 | 2.2 | 1.1 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 2.2 | U | 4.3 | 2.2 | 1.1 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 2.2 | U | 4.3 | 2.2 | 1.1 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 2.2 | U | 4.3 | 2.2 | 1.1 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 2.2 | U | 4.3 | 2.2 | 1.1 | ng/L | 1 |
| Perfluoro-n-butyanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 2.2 | U | 4.3 | 2.2 | 1.1 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 2.2 | U | 4.3 | 2.2 | 1.1 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 2.2 | U | 4.3 | 2.2 | 1.1 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 2.2 | U | 4.3 | 2.2 | 1.1 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 2.2 | U | 4.3 | 2.2 | 1.1 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 2.2 | U | 4.3 | 2.2 | 1.1 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 2.2 | U | 4.3 | 2.2 | 1.1 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 2.2 | U | 4.3 | 2.2 | 1.1 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 2.2 | U | 4.3 | 2.2 | 1.1 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 2.2 | U | 4.3 | 2.2 | 1.1 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 2.2 | U | 4.3 | 2.2 | 1.1 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 2.2 | U | 4.3 | 2.2 | 1.1 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 120 | 50-150 |
| 13C2_6:2FTS | | 77 | 50-150 |
| 13C2_8:2FTS | | 117 | 50-150 |
| 13C2_PFDa | | 97 | 50-150 |
| 13C2_PFTeDA | | 88 | 50-150 |
| 13C3_PFBs | | 100 | 50-150 |
| 13C3_PFHxS | | 100 | 50-150 |
| 13C3-HFPO-DA | | 108 | 50-150 |
| 13C4_PFBa | | 98 | 50-150 |
| 13C4_PFHpA | | 96 | 50-150 |
| 13C5_PFHxA | | 96 | 50-150 |
| 13C5_PFPeA | | 98 | 50-150 |
| 13C6_PFDa | | 102 | 50-150 |
| 13C7_PFUdA | | 95 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---------------------------------|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-015 |
| Description: FS1-EB-20220215-01 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 0730 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 96 | 50-150 |
| 13C8_PFOS | | 94 | 50-150 |
| 13C9_PFNA | | 104 | 50-150 |
| d-EtFOSA | | 77 | 50-150 |
| d5-EtFOSAA | | 113 | 50-150 |
| d3-MeFOSAA | | 100 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-016 |
| Description: FS1-DPT0003-012.0-20220215 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 0740 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/08/2022 1625 | MMM | 03/07/2022 1618 | 33989 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.7 | UQ | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 7.9 | | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 8.6 | | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 2.9 | I | 3.7 | 1.9 | 0.92 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 180 | 50-150 |
| 13C2_6:2FTS | | 124 | 50-150 |
| 13C2_8:2FTS | | 115 | 50-150 |
| 13C2_PFDa | | 90 | 50-150 |
| 13C2_PFTeDA | | 69 | 50-150 |
| 13C3_PFBs | | 87 | 50-150 |
| 13C3_PFHxS | | 89 | 50-150 |
| 13C3-HFPO-DA | | 90 | 50-150 |
| 13C4_PFBa | | 58 | 50-150 |
| 13C4_PFHpA | | 92 | 50-150 |
| 13C5_PFHxA | | 88 | 50-150 |
| 13C5_PFPeA | | 87 | 50-150 |
| 13C6_PFDa | | 94 | 50-150 |
| 13C7_PFUdA | | 85 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-016 |
| Description: FS1-DPT0003-012.0-20220215 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 0740 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 89 | 50-150 |
| 13C8_PFOS | | 87 | 50-150 |
| 13C9_PFNA | | 95 | 50-150 |
| d-EtFOSA | | 69 | 50-150 |
| d5-EtFOSAA | | 103 | 50-150 |
| d3-MeFOSAA | | 90 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-017 |
| Description: FS1-DPT0003-017.0-20220215 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 0800 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/08/2022 1636 | MMM | 03/07/2022 1618 | 33989 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.8 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.8 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.7 | UQ | 7.4 | 3.7 | 1.8 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.8 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.8 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.8 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 3.1 | I | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 15 | | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 0.98 | I | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 1.1 | I | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 5.3 | | 3.7 | 1.9 | 0.92 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 179 | 50-150 |
| 13C2_6:2FTS | | 123 | 50-150 |
| 13C2_8:2FTS | | 130 | 50-150 |
| 13C2_PFDa | | 92 | 50-150 |
| 13C2_PFTeDA | | 86 | 50-150 |
| 13C3_PFBs | | 93 | 50-150 |
| 13C3_PFHxS | | 99 | 50-150 |
| 13C3-HFPO-DA | | 101 | 50-150 |
| 13C4_PFBa | | 70 | 50-150 |
| 13C4_PFHpA | | 90 | 50-150 |
| 13C5_PFHxA | | 93 | 50-150 |
| 13C5_PFPeA | | 96 | 50-150 |
| 13C6_PFDa | | 106 | 50-150 |
| 13C7_PFUdA | | 99 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-017 |
| Description: FS1-DPT0003-017.0-20220215 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 0800 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 96 | 50-150 |
| 13C8_PFOS | | 97 | 50-150 |
| 13C9_PFNA | | 104 | 50-150 |
| d-EtFOSA | | 78 | 50-150 |
| d5-EtFOSAA | | 112 | 50-150 |
| d3-MeFOSAA | | 101 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-018 |
| Description: FS1-DPT0003-025.0-20220215 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 0825 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/09/2022 1640 | JJG | 03/08/2022 1247 | 34087 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.7 | UQ | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 1.4 | I | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 5.0 | | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 21 | | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 2.1 | I | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 1.3 | I | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 1.9 | I | 3.6 | 1.8 | 0.91 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 187 | 50-150 |
| 13C2_6:2FTS | | 104 | 50-150 |
| 13C2_8:2FTS | | 104 | 50-150 |
| 13C2_PFDa | | 84 | 50-150 |
| 13C2_PFTeDA | | 65 | 50-150 |
| 13C3_PFBs | | 86 | 50-150 |
| 13C3_PFHxS | | 89 | 50-150 |
| 13C3-HFPO-DA | | 94 | 50-150 |
| 13C4_PFBa | | 57 | 50-150 |
| 13C4_PFHpA | | 96 | 50-150 |
| 13C5_PFHxA | | 93 | 50-150 |
| 13C5_PFPeA | | 85 | 50-150 |
| 13C6_PFDa | | 95 | 50-150 |
| 13C7_PFUdA | | 89 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-018 |
| Description: FS1-DPT0003-025.0-20220215 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 0825 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 91 | 50-150 |
| 13C8_PFOS | | 91 | 50-150 |
| 13C9_PFNA | | 94 | 50-150 |
| d-EtFOSA | | 63 | 50-150 |
| d5-EtFOSAA | | 91 | 50-150 |
| d3-MeFOSAA | | 92 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-019 |
| Description: FS1-DPT0003-035.0-20220215 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 0855 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/08/2022 1647 | MMM | 03/07/2022 1618 | 33989 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.7 | UQ | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 1.4 | I | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.9 | US | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 4.8 | | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 51 | Q | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 1.1 | I | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 2.7 | I | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 1.1 | I | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 3.3 | I | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 5.0 | | 3.7 | 1.9 | 0.92 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 192 | 50-150 |
| 13C2_6:2FTS | | 124 | 50-150 |
| 13C2_8:2FTS | | 109 | 50-150 |
| 13C2_PFDa | | 89 | 50-150 |
| 13C2_PFTeDA | | 75 | 50-150 |
| 13C3_PFBS | | 83 | 50-150 |
| 13C3_PFHxS | | 94 | 50-150 |
| 13C3-HFPO-DA | | 83 | 50-150 |
| 13C4_PFBA | N | 44 | 50-150 |
| 13C4_PFHpA | | 90 | 50-150 |
| 13C5_PFHxA | | 86 | 50-150 |
| 13C5_PFPeA | | 76 | 50-150 |
| 13C6_PFDA | | 94 | 50-150 |
| 13C7_PFUdA | | 92 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-019 |
| Description: FS1-DPT0003-035.0-20220215 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 0855 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 92 | 50-150 |
| 13C8_PFOS | | 90 | 50-150 |
| 13C9_PFNA | | 98 | 50-150 |
| d-EtFOSA | | 66 | 50-150 |
| d5-EtFOSAA | | 105 | 50-150 |
| d3-MeFOSAA | | 97 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-020 |
| Description: FS1-DPT0003-045.0-20220215 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 0925 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/09/2022 1651 | JJG | 03/08/2022 1247 | 34087 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.7 | UQ | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 190 | 50-150 |
| 13C2_6:2FTS | | 113 | 50-150 |
| 13C2_8:2FTS | | 110 | 50-150 |
| 13C2_PFDa | | 87 | 50-150 |
| 13C2_PFTeDA | | 74 | 50-150 |
| 13C3_PFBs | | 94 | 50-150 |
| 13C3_PFHxS | | 91 | 50-150 |
| 13C3-HFPO-DA | | 98 | 50-150 |
| 13C4_PFBa | | 60 | 50-150 |
| 13C4_PFHpA | | 99 | 50-150 |
| 13C5_PFHxA | | 94 | 50-150 |
| 13C5_PFPeA | | 87 | 50-150 |
| 13C6_PFDa | | 102 | 50-150 |
| 13C7_PFUdA | | 91 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-020 |
| Description: FS1-DPT0003-045.0-20220215 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 0925 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 95 | 50-150 |
| 13C8_PFOS | | 95 | 50-150 |
| 13C9_PFNA | | 98 | 50-150 |
| d-EtFOSA | | 77 | 50-150 |
| d5-EtFOSAA | | 93 | 50-150 |
| d3-MeFOSAA | | 97 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---------------------------------|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-021 |
| Description: FS1-EB-20220215-02 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 1000 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/09/2022 1702 | JJG | 03/08/2022 1247 | 34087 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|---|-----|-----|-----|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 4.0 | U | 8.0 | 4.0 | 2.0 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 4.0 | U | 8.0 | 4.0 | 2.0 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 4.0 | U | 8.0 | 4.0 | 2.0 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 4.0 | U | 8.0 | 4.0 | 2.0 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 4.0 | U | 8.0 | 4.0 | 2.0 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 4.0 | U | 8.0 | 4.0 | 2.0 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 4.0 | U | 8.0 | 4.0 | 2.0 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 4.0 | U | 8.0 | 4.0 | 2.0 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 4.0 | U | 8.0 | 4.0 | 2.0 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 4.0 | U | 8.0 | 4.0 | 2.0 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 2.0 | U | 4.0 | 2.0 | 1.0 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 2.0 | U | 4.0 | 2.0 | 1.0 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 2.0 | U | 4.0 | 2.0 | 1.0 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 2.0 | U | 4.0 | 2.0 | 1.0 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 2.0 | U | 4.0 | 2.0 | 1.0 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 2.0 | U | 4.0 | 2.0 | 1.0 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 2.0 | U | 4.0 | 2.0 | 1.0 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 2.0 | U | 4.0 | 2.0 | 1.0 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 2.0 | U | 4.0 | 2.0 | 1.0 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 2.0 | U | 4.0 | 2.0 | 1.0 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 2.0 | U | 4.0 | 2.0 | 1.0 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 2.0 | U | 4.0 | 2.0 | 1.0 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 2.0 | U | 4.0 | 2.0 | 1.0 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 2.0 | U | 4.0 | 2.0 | 1.0 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 2.0 | U | 4.0 | 2.0 | 1.0 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 2.0 | U | 4.0 | 2.0 | 1.0 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 2.0 | U | 4.0 | 2.0 | 1.0 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 2.0 | U | 4.0 | 2.0 | 1.0 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 108 | 50-150 |
| 13C2_6:2FTS | | 113 | 50-150 |
| 13C2_8:2FTS | | 118 | 50-150 |
| 13C2_PFDa | | 98 | 50-150 |
| 13C2_PFTeDA | | 87 | 50-150 |
| 13C3_PFBs | | 102 | 50-150 |
| 13C3_PFHxS | | 97 | 50-150 |
| 13C3-HFPO-DA | | 110 | 50-150 |
| 13C4_PFBa | | 104 | 50-150 |
| 13C4_PFHpA | | 104 | 50-150 |
| 13C5_PFHxA | | 98 | 50-150 |
| 13C5_PFPeA | | 106 | 50-150 |
| 13C6_PFDa | | 110 | 50-150 |
| 13C7_PFUdA | | 98 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---------------------------------|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-021 |
| Description: FS1-EB-20220215-02 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 1000 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 105 | 50-150 |
| 13C8_PFOS | | 100 | 50-150 |
| 13C9_PFNA | | 101 | 50-150 |
| d-EtFOSA | | 90 | 50-150 |
| d5-EtFOSAA | | 99 | 50-150 |
| d3-MeFOSAA | | 102 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-022 |
| Description: FS1-DPT0004-005.0-20220215 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 1035 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/09/2022 1713 | JJG | 03/08/2022 1247 | 34087 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|---|-----|-----|----|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 17 | I | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 28 | I | 40 | 20 | 10 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 124 | 50-150 |
| 13C2_6:2FTS | | 104 | 50-150 |
| 13C2_8:2FTS | | 110 | 50-150 |
| 13C2_PFDaA | | 93 | 50-150 |
| 13C2_PFTeDA | | 80 | 50-150 |
| 13C3_PFBs | | 105 | 50-150 |
| 13C3_PFHxS | | 98 | 50-150 |
| 13C3-HFPO-DA | | 109 | 50-150 |
| 13C4_PFBa | | 106 | 50-150 |
| 13C4_PFHpA | | 98 | 50-150 |
| 13C5_PFHxA | | 95 | 50-150 |
| 13C5_PFPeA | | 103 | 50-150 |
| 13C6_PFDa | | 104 | 50-150 |
| 13C7_PFUdA | | 95 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-022 |
| Description: FS1-DPT0004-005.0-20220215 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 1035 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 92 | 50-150 |
| 13C8_PFOS | | 101 | 50-150 |
| 13C9_PFNA | | 102 | 50-150 |
| d-EtFOSA | | 83 | 50-150 |
| d5-EtFOSAA | | 96 | 50-150 |
| d3-MeFOSAA | | 101 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-023 |
| Description: FS1-DPT0004-012.0-20220215 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 1055 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/09/2022 1723 | JJG | 03/08/2022 1247 | 34087 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|---|-----|-----|----|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 28 | I | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 11 | I | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 13 | I | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 15 | I | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 114 | 50-150 |
| 13C2_6:2FTS | | 107 | 50-150 |
| 13C2_8:2FTS | | 114 | 50-150 |
| 13C2_PFDa | | 92 | 50-150 |
| 13C2_PFTeDA | | 83 | 50-150 |
| 13C3_PFBs | | 102 | 50-150 |
| 13C3_PFHxS | | 97 | 50-150 |
| 13C3-HFPO-DA | | 103 | 50-150 |
| 13C4_PFBa | | 106 | 50-150 |
| 13C4_PFHpA | | 99 | 50-150 |
| 13C5_PFHxA | | 97 | 50-150 |
| 13C5_PFPeA | | 105 | 50-150 |
| 13C6_PFDa | | 104 | 50-150 |
| 13C7_PFUdA | | 93 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-023 |
| Description: FS1-DPT0004-012.0-20220215 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 1055 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 99 | 50-150 |
| 13C8_PFOS | | 98 | 50-150 |
| 13C9_PFNA | | 99 | 50-150 |
| d-EtFOSA | | 88 | 50-150 |
| d5-EtFOSAA | | 87 | 50-150 |
| d3-MeFOSAA | | 94 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---------------------------------|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-024 |
| Description: FS1-FB-20220215-02 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 1110 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/09/2022 1756 | JJG | 03/08/2022 1247 | 34087 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|---|-----|-----|-----|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 4.1 | U | 8.2 | 4.1 | 2.0 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 4.1 | U | 8.2 | 4.1 | 2.0 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 4.1 | U | 8.2 | 4.1 | 2.0 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 4.1 | U | 8.2 | 4.1 | 2.0 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 4.1 | U | 8.2 | 4.1 | 2.0 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 4.1 | U | 8.2 | 4.1 | 2.0 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 4.1 | U | 8.2 | 4.1 | 2.0 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 4.1 | U | 8.2 | 4.1 | 2.0 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 4.1 | U | 8.2 | 4.1 | 2.0 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 4.1 | U | 8.2 | 4.1 | 2.0 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-butyanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 122 | 50-150 |
| 13C2_6:2FTS | | 121 | 50-150 |
| 13C2_8:2FTS | | 127 | 50-150 |
| 13C2_PFDa | | 101 | 50-150 |
| 13C2_PFTeDA | | 89 | 50-150 |
| 13C3_PFBs | | 111 | 50-150 |
| 13C3_PFHxS | | 106 | 50-150 |
| 13C3-HFPO-DA | | 113 | 50-150 |
| 13C4_PFBa | | 110 | 50-150 |
| 13C4_PFHpA | | 106 | 50-150 |
| 13C5_PFHxA | | 103 | 50-150 |
| 13C5_PFPeA | | 110 | 50-150 |
| 13C6_PFDa | | 114 | 50-150 |
| 13C7_PFUdA | | 102 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---------------------------------|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-024 |
| Description: FS1-FB-20220215-02 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 1110 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 107 | 50-150 |
| 13C8_PFOS | | 104 | 50-150 |
| 13C9_PFNA | | 109 | 50-150 |
| d-EtFOSA | | 92 | 50-150 |
| d5-EtFOSAA | | 107 | 50-150 |
| d3-MeFOSAA | | 108 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-025 |
| Description: FS1-DPT0004-017.0-20220215 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 1115 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/09/2022 1807 | JJG | 03/08/2022 1247 | 34087 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.8 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.7 | I | 7.0 | 3.5 | 1.8 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.5 | UQ | 7.0 | 3.5 | 1.8 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.8 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.8 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.8 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 2.3 | I | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 2.0 | I | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 24 | | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 10 | | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 6.4 | | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 6.6 | | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 20 | | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 7.2 | | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 2.2 | I | 3.5 | 1.8 | 0.88 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 205 | 50-150 |
| 13C2_6:2FTS | | 105 | 50-150 |
| 13C2_8:2FTS | | 116 | 50-150 |
| 13C2_PFDaA | | 91 | 50-150 |
| 13C2_PFTeDA | | 77 | 50-150 |
| 13C3_PFBS | | 88 | 50-150 |
| 13C3_PFHxS | | 91 | 50-150 |
| 13C3-HFPO-DA | | 96 | 50-150 |
| 13C4_PFBA | | 54 | 50-150 |
| 13C4_PFHpA | | 100 | 50-150 |
| 13C5_PFHxA | | 90 | 50-150 |
| 13C5_PFPeA | | 81 | 50-150 |
| 13C6_PFDA | | 102 | 50-150 |
| 13C7_PFUdA | | 88 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-025 |
| Description: FS1-DPT0004-017.0-20220215 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 1115 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 90 | 50-150 |
| 13C8_PFOS | | 91 | 50-150 |
| 13C9_PFNA | | 95 | 50-150 |
| d-EtFOSA | | 73 | 50-150 |
| d5-EtFOSAA | | 98 | 50-150 |
| d3-MeFOSAA | | 95 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-026 |
| Description: FS1-DPT0004-025.0-20220215 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 1140 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/09/2022 1818 | JJG | 03/08/2022 1247 | 34087 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.6 | UQ | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 6.8 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 6.1 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 34 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 6.4 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 5.8 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 11 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 5.1 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 10 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 227 | 50-150 |
| 13C2_6:2FTS | | 115 | 50-150 |
| 13C2_8:2FTS | | 109 | 50-150 |
| 13C2_PFDa | | 85 | 50-150 |
| 13C2_PFTeDA | | 66 | 50-150 |
| 13C3_PFBS | | 86 | 50-150 |
| 13C3_PFHxS | | 93 | 50-150 |
| 13C3-HFPO-DA | | 94 | 50-150 |
| 13C4_PFBA | | 51 | 50-150 |
| 13C4_PFHpA | | 98 | 50-150 |
| 13C5_PFHxA | | 93 | 50-150 |
| 13C5_PFPeA | | 81 | 50-150 |
| 13C6_PFDA | | 101 | 50-150 |
| 13C7_PFUdA | | 90 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-026 |
| Description: FS1-DPT0004-025.0-20220215 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 1140 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 93 | 50-150 |
| 13C8_PFOS | | 94 | 50-150 |
| 13C9_PFNA | | 96 | 50-150 |
| d-EtFOSA | | 66 | 50-150 |
| d5-EtFOSAA | | 92 | 50-150 |
| d3-MeFOSAA | | 96 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-027 |
| Description: FS1-DPT0004-035.0-20220215 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 1205 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/09/2022 1829 | JJG | 03/08/2022 1247 | 34087 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.7 | UQ | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.7 | UQ | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 7.4 | | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 6.1 | | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 34 | | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 7.5 | | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 6.5 | | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 12 | | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 6.4 | | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 11 | | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.9 | UQ | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 215 | 50-150 |
| 13C2_6:2FTS | | 113 | 50-150 |
| 13C2_8:2FTS | | 113 | 50-150 |
| 13C2_PFDaA | | 79 | 50-150 |
| 13C2_PFTeDA | N | 45 | 50-150 |
| 13C3_PFBS | | 92 | 50-150 |
| 13C3_PFHxS | | 92 | 50-150 |
| 13C3-HFPO-DA | | 93 | 50-150 |
| 13C4_PFBA | | 58 | 50-150 |
| 13C4_PFHpA | | 96 | 50-150 |
| 13C5_PFHxA | | 91 | 50-150 |
| 13C5_PFPeA | | 83 | 50-150 |
| 13C6_PFDA | | 104 | 50-150 |
| 13C7_PFUdA | | 85 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-027 |
| Description: FS1-DPT0004-035.0-20220215 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 1205 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 91 | 50-150 |
| 13C8_PFOS | | 95 | 50-150 |
| 13C9_PFNA | | 99 | 50-150 |
| d-EtFOSA | N | 48 | 50-150 |
| d5-EtFOSAA | | 88 | 50-150 |
| d3-MeFOSAA | | 94 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-028 |
| Description: FS1-DPT0004-045.0-20220215 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 1230 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/09/2022 1840 | JJG | 03/08/2022 1247 | 34087 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.8 | UQ | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 2.7 | I | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 0.99 | I | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 1.3 | I | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 203 | 50-150 |
| 13C2_6:2FTS | | 109 | 50-150 |
| 13C2_8:2FTS | | 109 | 50-150 |
| 13C2_PFDaA | | 78 | 50-150 |
| 13C2_PFTeDA | | 61 | 50-150 |
| 13C3_PFBs | | 82 | 50-150 |
| 13C3_PFHxS | | 85 | 50-150 |
| 13C3-HFPO-DA | | 88 | 50-150 |
| 13C4_PFBa | | 51 | 50-150 |
| 13C4_PFHpA | | 88 | 50-150 |
| 13C5_PFHxA | | 87 | 50-150 |
| 13C5_PFPeA | | 80 | 50-150 |
| 13C6_PFDa | | 96 | 50-150 |
| 13C7_PFUdA | | 81 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-028 |
| Description: FS1-DPT0004-045.0-20220215 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 1230 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 87 | 50-150 |
| 13C8_PFOS | | 87 | 50-150 |
| 13C9_PFNA | | 89 | 50-150 |
| d-EtFOSA | | 65 | 50-150 |
| d5-EtFOSAA | | 85 | 50-150 |
| d3-MeFOSAA | | 90 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-029 |
| Description: FS1-DPT0005-005.0-20220215 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 1335 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/09/2022 1913 | JJG | 03/08/2022 1247 | 34087 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|---|-----|-----|----|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 10 | I | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 129 | 50-150 |
| 13C2_6:2FTS | | 114 | 50-150 |
| 13C2_8:2FTS | | 126 | 50-150 |
| 13C2_PFDa | | 102 | 50-150 |
| 13C2_PFTeDA | | 94 | 50-150 |
| 13C3_PFBs | | 114 | 50-150 |
| 13C3_PFHxS | | 101 | 50-150 |
| 13C3-HFPO-DA | | 114 | 50-150 |
| 13C4_PFBa | | 110 | 50-150 |
| 13C4_PFHpA | | 106 | 50-150 |
| 13C5_PFHxA | | 106 | 50-150 |
| 13C5_PFPeA | | 115 | 50-150 |
| 13C6_PFDa | | 114 | 50-150 |
| 13C7_PFUdA | | 111 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-029 |
| Description: FS1-DPT0005-005.0-20220215 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 1335 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 107 | 50-150 |
| 13C8_PFOS | | 107 | 50-150 |
| 13C9_PFNA | | 110 | 50-150 |
| d-EtFOSA | | 94 | 50-150 |
| d5-EtFOSAA | | 109 | 50-150 |
| d3-MeFOSAA | | 111 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-030 |
| Description: FS1-DPT0005-012.0-20220215 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 1355 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/09/2022 1924 | JJG | 03/08/2022 1247 | 34087 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|---|-----|-----|----|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 130 | 50-150 |
| 13C2_6:2FTS | | 115 | 50-150 |
| 13C2_8:2FTS | | 124 | 50-150 |
| 13C2_PFDa | | 102 | 50-150 |
| 13C2_PFTeDA | | 73 | 50-150 |
| 13C3_PFBS | | 114 | 50-150 |
| 13C3_PFHxS | | 103 | 50-150 |
| 13C3-HFPO-DA | | 115 | 50-150 |
| 13C4_PFBA | | 107 | 50-150 |
| 13C4_PFHpA | | 106 | 50-150 |
| 13C5_PFHxA | | 102 | 50-150 |
| 13C5_PFPeA | | 114 | 50-150 |
| 13C6_PFDA | | 115 | 50-150 |
| 13C7_PFUdA | | 99 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-030 |
| Description: FS1-DPT0005-012.0-20220215 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 1355 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 103 | 50-150 |
| 13C8_PFOS | | 106 | 50-150 |
| 13C9_PFNA | | 109 | 50-150 |
| d-EtFOSA | | 80 | 50-150 |
| d5-EtFOSAA | | 96 | 50-150 |
| d3-MeFOSAA | | 99 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-031 |
| Description: FS1-DPT0005-017.0-20220215 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 1415 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/09/2022 1935 | JJG | 03/08/2022 1247 | 34087 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|---|-----|-----|----|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 124 | 50-150 |
| 13C2_6:2FTS | | 109 | 50-150 |
| 13C2_8:2FTS | | 118 | 50-150 |
| 13C2_PFDa | | 93 | 50-150 |
| 13C2_PFTeDA | | 77 | 50-150 |
| 13C3_PFBS | | 102 | 50-150 |
| 13C3_PFHxS | | 94 | 50-150 |
| 13C3-HFPO-DA | | 106 | 50-150 |
| 13C4_PFBA | | 103 | 50-150 |
| 13C4_PFHpA | | 97 | 50-150 |
| 13C5_PFHxA | | 102 | 50-150 |
| 13C5_PFPeA | | 105 | 50-150 |
| 13C6_PFDA | | 106 | 50-150 |
| 13C7_PFUdA | | 91 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-031 |
| Description: FS1-DPT0005-017.0-20220215 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 1415 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 100 | 50-150 |
| 13C8_PFOS | | 93 | 50-150 |
| 13C9_PFNA | | 101 | 50-150 |
| d-EtFOSA | | 78 | 50-150 |
| d5-EtFOSAA | | 90 | 50-150 |
| d3-MeFOSAA | | 93 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-032 |
| Description: FS1-DPT0005-025.0-20220215 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 1435 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/09/2022 1946 | JJG | 03/08/2022 1247 | 34087 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.6 | UQ | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 1.9 | I | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 2.2 | I | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 12 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 11 | Q | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 10 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 21 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 5.9 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 32 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 226 | 50-150 |
| 13C2_6:2FTS | | 121 | 50-150 |
| 13C2_8:2FTS | | 115 | 50-150 |
| 13C2_PFDa | | 86 | 50-150 |
| 13C2_PFTeDA | | 68 | 50-150 |
| 13C3_PFBS | | 88 | 50-150 |
| 13C3_PFHxS | | 92 | 50-150 |
| 13C3-HFPO-DA | | 91 | 50-150 |
| 13C4_PFBA | N | 49 | 50-150 |
| 13C4_PFHpA | | 95 | 50-150 |
| 13C5_PFHxA | | 91 | 50-150 |
| 13C5_PFPeA | | 81 | 50-150 |
| 13C6_PFDA | | 102 | 50-150 |
| 13C7_PFUdA | | 95 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-032 |
| Description: FS1-DPT0005-025.0-20220215 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 1435 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 91 | 50-150 |
| 13C8_PFOS | | 95 | 50-150 |
| 13C9_PFNA | | 96 | 50-150 |
| d-EtFOSA | | 63 | 50-150 |
| d5-EtFOSAA | | 99 | 50-150 |
| d3-MeFOSAA | | 97 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-033 |
| Description: FS1-DPT0005-035.0-20220215 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 1500 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/09/2022 1957 | JJG | 03/08/2022 1247 | 34087 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.7 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.7 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.7 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.7 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.5 | UQ | 7.0 | 3.5 | 1.7 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.7 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.7 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.7 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.7 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.7 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 198 | 50-150 |
| 13C2_6:2FTS | | 116 | 50-150 |
| 13C2_8:2FTS | | 112 | 50-150 |
| 13C2_PFDa | | 85 | 50-150 |
| 13C2_PFTeDA | | 67 | 50-150 |
| 13C3_PFBs | | 91 | 50-150 |
| 13C3_PFHxS | | 93 | 50-150 |
| 13C3-HFPO-DA | | 95 | 50-150 |
| 13C4_PFBa | | 59 | 50-150 |
| 13C4_PFHpA | | 96 | 50-150 |
| 13C5_PFHxA | | 96 | 50-150 |
| 13C5_PFPeA | | 86 | 50-150 |
| 13C6_PFDa | | 105 | 50-150 |
| 13C7_PFUdA | | 88 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-033 |
| Description: FS1-DPT0005-035.0-20220215 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 1500 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 94 | 50-150 |
| 13C8_PFOS | | 96 | 50-150 |
| 13C9_PFNA | | 98 | 50-150 |
| d-EtFOSA | | 67 | 50-150 |
| d5-EtFOSAA | | 93 | 50-150 |
| d3-MeFOSAA | | 95 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-034 |
| Description: FS1-DPT0005-045.0-20220215 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 1530 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/09/2022 2008 | JJG | 03/08/2022 1247 | 34087 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.8 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.8 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.7 | UQ | 7.4 | 3.7 | 1.8 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.8 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.8 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.8 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 215 | 50-150 |
| 13C2_6:2FTS | | 115 | 50-150 |
| 13C2_8:2FTS | | 110 | 50-150 |
| 13C2_PFDa | | 83 | 50-150 |
| 13C2_PFTeDA | | 68 | 50-150 |
| 13C3_PFBS | | 92 | 50-150 |
| 13C3_PFHxS | | 93 | 50-150 |
| 13C3-HFPO-DA | | 94 | 50-150 |
| 13C4_PFBA | | 61 | 50-150 |
| 13C4_PFHpA | | 97 | 50-150 |
| 13C5_PFHxA | | 94 | 50-150 |
| 13C5_PFPeA | | 87 | 50-150 |
| 13C6_PFDA | | 102 | 50-150 |
| 13C7_PFUdA | | 90 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-034 |
| Description: FS1-DPT0005-045.0-20220215 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 1530 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 90 | 50-150 |
| 13C8_PFOS | | 97 | 50-150 |
| 13C9_PFNA | | 96 | 50-150 |
| d-EtFOSA | | 69 | 50-150 |
| d5-EtFOSAA | | 92 | 50-150 |
| d3-MeFOSAA | | 98 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---------------------------------|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-035 |
| Description: FS1-EB-20220215-03 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 1540 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/09/2022 2019 | JJG | 03/08/2022 1247 | 34087 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|---|-----|-----|-----|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 4.2 | U | 8.3 | 4.2 | 2.1 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 4.2 | U | 8.3 | 4.2 | 2.1 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 4.2 | U | 8.3 | 4.2 | 2.1 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 4.2 | U | 8.3 | 4.2 | 2.1 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 4.2 | U | 8.3 | 4.2 | 2.1 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 4.2 | U | 8.3 | 4.2 | 2.1 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 4.2 | U | 8.3 | 4.2 | 2.1 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 4.2 | U | 8.3 | 4.2 | 2.1 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 4.2 | U | 8.3 | 4.2 | 2.1 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 4.2 | U | 8.3 | 4.2 | 2.1 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 120 | 50-150 |
| 13C2_6:2FTS | | 114 | 50-150 |
| 13C2_8:2FTS | | 116 | 50-150 |
| 13C2_PFDa | | 101 | 50-150 |
| 13C2_PFTeDA | | 95 | 50-150 |
| 13C3_PFBS | | 113 | 50-150 |
| 13C3_PFHxS | | 107 | 50-150 |
| 13C3-HFPO-DA | | 112 | 50-150 |
| 13C4_PFBA | | 109 | 50-150 |
| 13C4_PFHpA | | 104 | 50-150 |
| 13C5_PFHxA | | 104 | 50-150 |
| 13C5_PFPeA | | 109 | 50-150 |
| 13C6_PFDA | | 113 | 50-150 |
| 13C7_PFUdA | | 104 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---------------------------------|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-035 |
| Description: FS1-EB-20220215-03 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 1540 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 109 | 50-150 |
| 13C8_PFOS | | 106 | 50-150 |
| 13C9_PFNA | | 107 | 50-150 |
| d-EtFOSA | | 93 | 50-150 |
| d5-EtFOSAA | | 108 | 50-150 |
| d3-MeFOSAA | | 112 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---------------------------------|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-036 |
| Description: FS1-FD-20220215-01 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|---------------|---------|------------|------------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/09/2022 | JJG | 03/08/2022 | 1247 34087 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.8 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.8 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.7 | UQ | 7.4 | 3.7 | 1.8 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.8 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.8 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.8 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 1.3 | I | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 3.3 | I | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 15 | | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 0.99 | I | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 1.2 | I | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 4.8 | | 3.7 | 1.9 | 0.92 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 168 | 50-150 |
| 13C2_6:2FTS | | 113 | 50-150 |
| 13C2_8:2FTS | | 116 | 50-150 |
| 13C2_PFDa | | 85 | 50-150 |
| 13C2_PFTeDA | | 65 | 50-150 |
| 13C3_PFBs | | 96 | 50-150 |
| 13C3_PFHxS | | 93 | 50-150 |
| 13C3-HFPO-DA | | 98 | 50-150 |
| 13C4_PFBa | | 72 | 50-150 |
| 13C4_PFHpA | | 96 | 50-150 |
| 13C5_PFHxA | | 95 | 50-150 |
| 13C5_PFPeA | | 96 | 50-150 |
| 13C6_PFDa | | 102 | 50-150 |
| 13C7_PFUdA | | 87 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---------------------------------|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-036 |
| Description: FS1-FD-20220215-01 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 93 | 50-150 |
| 13C8_PFOS | | 96 | 50-150 |
| 13C9_PFNA | | 94 | 50-150 |
| d-EtFOSA | | 64 | 50-150 |
| d5-EtFOSAA | | 95 | 50-150 |
| d3-MeFOSAA | | 97 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---------------------------------|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-037 |
| Description: FS1-FD-20220215-02 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/09/2022 2040 | JJG | 03/08/2022 1247 | 34087 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|---|-----|-----|----|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 28 | I | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 10 | I | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 11 | I | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 13 | I | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 120 | 50-150 |
| 13C2_6:2FTS | | 111 | 50-150 |
| 13C2_8:2FTS | | 117 | 50-150 |
| 13C2_PFDa | | 93 | 50-150 |
| 13C2_PFTeDA | | 79 | 50-150 |
| 13C3_PFBs | | 109 | 50-150 |
| 13C3_PFHxS | | 104 | 50-150 |
| 13C3-HFPO-DA | | 110 | 50-150 |
| 13C4_PFBa | | 110 | 50-150 |
| 13C4_PFHpA | | 105 | 50-150 |
| 13C5_PFHxA | | 102 | 50-150 |
| 13C5_PFPeA | | 112 | 50-150 |
| 13C6_PFDa | | 110 | 50-150 |
| 13C7_PFUdA | | 95 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---------------------------------|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-037 |
| Description: FS1-FD-20220215-02 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 103 | 50-150 |
| 13C8_PFOS | | 103 | 50-150 |
| 13C9_PFNA | | 104 | 50-150 |
| d-EtFOSA | | 77 | 50-150 |
| d5-EtFOSAA | | 82 | 50-150 |
| d3-MeFOSAA | | 90 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---------------------------------|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-038 |
| Description: FS1-FD-20220215-03 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/09/2022 2051 | JJG | 03/08/2022 1247 | 34087 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.6 | UQ | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.89 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 208 | 50-150 |
| 13C2_6:2FTS | | 120 | 50-150 |
| 13C2_8:2FTS | | 113 | 50-150 |
| 13C2_PFDa | | 86 | 50-150 |
| 13C2_PFTeDA | | 70 | 50-150 |
| 13C3_PFBs | | 97 | 50-150 |
| 13C3_PFHxS | | 95 | 50-150 |
| 13C3-HFPO-DA | | 98 | 50-150 |
| 13C4_PFBa | | 62 | 50-150 |
| 13C4_PFHpA | | 100 | 50-150 |
| 13C5_PFHxA | | 94 | 50-150 |
| 13C5_PFPeA | | 90 | 50-150 |
| 13C6_PFDa | | 102 | 50-150 |
| 13C7_PFUdA | | 94 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---------------------------------|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB16023-038 |
| Description: FS1-FD-20220215-03 | Matrix: Aqueous |
| Date Sampled: 02/15/2022 | Project Name: KSC-FS1 |
| Date Received: 02/16/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 95 | 50-150 |
| 13C8_PFOS | | 100 | 50-150 |
| 13C9_PFNA | | 101 | 50-150 |
| d-EtFOSA | | 75 | 50-150 |
| d5-EtFOSAA | | 95 | 50-150 |
| d3-MeFOSAA | | 100 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

QC Summary

PFAS by LC/MS/MS - MB

Sample ID: XQ33989-001

Matrix: Aqueous

Batch: 33989

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/07/2022 1618

| Parameter | Result | Q | Dil | LOQ | LOD | DL | Units | Analysis Date |
|--------------|--------|---|-----|-----|-----|-----|-------|-----------------|
| 9CI-PF3ONS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/08/2022 1221 |
| 11CI-PF3OUdS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/08/2022 1221 |
| 8:2 FTS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/08/2022 1221 |
| 6:2 FTS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/08/2022 1221 |
| 4:2 FTS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/08/2022 1221 |
| GenX | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/08/2022 1221 |
| ADONA | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/08/2022 1221 |
| EtFOSA | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/08/2022 1221 |
| EtFOSAA | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/08/2022 1221 |
| MeFOSAA | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/08/2022 1221 |
| PFBS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/08/2022 1221 |
| PFDS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/08/2022 1221 |
| PFHpS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/08/2022 1221 |
| PFNS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/08/2022 1221 |
| PFPeS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/08/2022 1221 |
| PFHxS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/08/2022 1221 |
| PFBA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/08/2022 1221 |
| PFDA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/08/2022 1221 |
| PFDoA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/08/2022 1221 |
| PFHpA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/08/2022 1221 |
| PFHxA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/08/2022 1221 |
| PFNA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/08/2022 1221 |
| PFOA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/08/2022 1221 |
| PFPeA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/08/2022 1221 |
| PFTeDA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/08/2022 1221 |
| PFTTrDA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/08/2022 1221 |
| PFUdA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/08/2022 1221 |
| PFOS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/08/2022 1221 |

| Surrogate | Q | % Rec | Acceptance Limit |
|--------------|---|-------|------------------|
| 13C2_4:2FTS | | 105 | 50-150 |
| 13C2_6:2FTS | | 103 | 50-150 |
| 13C2_8:2FTS | | 128 | 50-150 |
| 13C2_PFDaA | | 96 | 50-150 |
| 13C2_PFTeDA | | 95 | 50-150 |
| 13C3_PFBs | | 99 | 50-150 |
| 13C3_PFHxS | | 99 | 50-150 |
| 13C3-HFPO-DA | | 108 | 50-150 |
| 13C4_PFBa | | 101 | 50-150 |
| 13C4_PFHpA | | 92 | 50-150 |
| 13C5_PFHxA | | 93 | 50-150 |
| 13C5_PFPeA | | 95 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MB

Sample ID: XQ33989-001

Matrix: Aqueous

Batch: 33989

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/07/2022 1618

| Surrogate | Q | % Rec | Acceptance Limit |
|------------|---|-------|------------------|
| 13C6_PFDA | | 100 | 50-150 |
| 13C7_PFUdA | | 103 | 50-150 |
| 13C8_PFOA | | 96 | 50-150 |
| 13C8_PFOS | | 98 | 50-150 |
| 13C9_PFNA | | 103 | 50-150 |
| d-EtFOSA | | 85 | 50-150 |
| d5-EtFOSAA | | 104 | 50-150 |
| d3-MeFOSAA | | 104 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - LCS

Sample ID: XQ33989-002

Matrix: Aqueous

Batch: 33989

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/07/2022 1618

| Parameter | Spike Amount (ng/L) | Result (ng/L) | Q | Dil | % Rec | %Rec Limit | Analysis Date |
|--------------|---------------------|---------------|------------------|-----|-------|------------|-----------------|
| 9CI-PF3ONS | 15 | 15 | | 1 | 100 | 70-150 | 03/08/2022 1232 |
| 11CI-PF3OUdS | 15 | 15 | | 1 | 97 | 70-150 | 03/08/2022 1232 |
| 8:2 FTS | 15 | 14 | | 1 | 93 | 67-138 | 03/08/2022 1232 |
| 6:2 FTS | 15 | 16 | | 1 | 104 | 64-140 | 03/08/2022 1232 |
| 4:2 FTS | 15 | 14 | | 1 | 94 | 63-143 | 03/08/2022 1232 |
| GenX | 32 | 27 | | 1 | 84 | 70-150 | 03/08/2022 1232 |
| ADONA | 15 | 16 | | 1 | 104 | 70-150 | 03/08/2022 1232 |
| EtFOSA | 16 | 16 | | 1 | 99 | 70-150 | 03/08/2022 1232 |
| EtFOSAA | 16 | 15 | | 1 | 96 | 61-135 | 03/08/2022 1232 |
| MeFOSAA | 16 | 14 | | 1 | 91 | 65-136 | 03/08/2022 1232 |
| PFBS | 14 | 15 | | 1 | 106 | 72-130 | 03/08/2022 1232 |
| PFDS | 15 | 16 | | 1 | 107 | 53-142 | 03/08/2022 1232 |
| PFHpS | 15 | 16 | | 1 | 107 | 69-134 | 03/08/2022 1232 |
| PFNS | 15 | 15 | | 1 | 100 | 69-127 | 03/08/2022 1232 |
| PFPeS | 15 | 15 | | 1 | 102 | 71-127 | 03/08/2022 1232 |
| PFHxS | 15 | 14 | | 1 | 93 | 68-131 | 03/08/2022 1232 |
| PFBA | 16 | 16 | | 1 | 102 | 73-129 | 03/08/2022 1232 |
| PFDA | 16 | 16 | | 1 | 103 | 71-129 | 03/08/2022 1232 |
| PFDaA | 16 | 18 | | 1 | 114 | 72-134 | 03/08/2022 1232 |
| PFHpA | 16 | 18 | | 1 | 111 | 72-130 | 03/08/2022 1232 |
| PFHxA | 16 | 16 | | 1 | 99 | 72-129 | 03/08/2022 1232 |
| PFNA | 16 | 18 | | 1 | 110 | 69-130 | 03/08/2022 1232 |
| PFOA | 16 | 17 | | 1 | 106 | 71-133 | 03/08/2022 1232 |
| PFPeA | 16 | 16 | | 1 | 101 | 72-129 | 03/08/2022 1232 |
| PFTeDA | 16 | 17 | | 1 | 107 | 71-132 | 03/08/2022 1232 |
| PFTTrDA | 16 | 16 | | 1 | 99 | 65-144 | 03/08/2022 1232 |
| PFUdA | 16 | 16 | | 1 | 103 | 69-133 | 03/08/2022 1232 |
| PFOS | 15 | 16 | | 1 | 105 | 65-140 | 03/08/2022 1232 |
| Surrogate | Q | % Rec | Acceptance Limit | | | | |
| 13C2_4:2FTS | | 105 | 50-150 | | | | |
| 13C2_6:2FTS | | 100 | 50-150 | | | | |
| 13C2_8:2FTS | | 109 | 50-150 | | | | |
| 13C2_PFDaA | | 97 | 50-150 | | | | |
| 13C2_PFTeDA | | 91 | 50-150 | | | | |
| 13C3_PFBs | | 91 | 50-150 | | | | |
| 13C3_PFHxS | | 97 | 50-150 | | | | |
| 13C3-HFPO-DA | | 102 | 50-150 | | | | |
| 13C4_PFBa | | 93 | 50-150 | | | | |
| 13C4_PFHpA | | 90 | 50-150 | | | | |
| 13C5_PFHxA | | 89 | 50-150 | | | | |
| 13C5_PFPeA | | 94 | 50-150 | | | | |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - LCS

Sample ID: XQ33989-002

Matrix: Aqueous

Batch: 33989

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/07/2022 1618

| Surrogate | Q | % Rec | Acceptance Limit |
|------------|---|-------|------------------|
| 13C6_PFDA | | 95 | 50-150 |
| 13C7_PFUdA | | 97 | 50-150 |
| 13C8_PFOA | | 94 | 50-150 |
| 13C8_PFOS | | 92 | 50-150 |
| 13C9_PFNA | | 100 | 50-150 |
| d-EtFOSA | | 78 | 50-150 |
| d5-EtFOSAA | | 104 | 50-150 |
| d3-MeFOSAA | | 94 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MS

Sample ID: XB16023-019MS

Matrix: Aqueous

Batch: 33989

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/07/2022 1618

| Parameter | Sample Amount (ng/L) | Spike Amount (ng/L) | Result (ng/L) | Q | Dil | % Rec | %Rec Limit | Analysis Date |
|--------------|----------------------|---------------------|------------------|---|-----|-------|------------|-----------------|
| 9CI-PF3ONS | ND | 13 | 13 | | 1 | 100 | 70-150 | 03/08/2022 1657 |
| 11CI-PF3OUdS | ND | 14 | 11 | | 1 | 84 | 70-150 | 03/08/2022 1657 |
| 8:2 FTS | ND | 14 | 12 | | 1 | 85 | 67-138 | 03/08/2022 1657 |
| 6:2 FTS | ND | 14 | 11 | | 1 | 81 | 64-140 | 03/08/2022 1657 |
| 4:2 FTS | ND | 13 | 13 | | 1 | 93 | 63-143 | 03/08/2022 1657 |
| GenX | ND | 29 | 27 | | 1 | 94 | 70-150 | 03/08/2022 1657 |
| ADONA | ND | 14 | 14 | | 1 | 101 | 70-150 | 03/08/2022 1657 |
| EtFOSA | ND | 14 | 15 | | 1 | 107 | 70-150 | 03/08/2022 1657 |
| EtFOSAA | ND | 14 | 14 | | 1 | 99 | 61-135 | 03/08/2022 1657 |
| MeFOSAA | ND | 14 | 14 | | 1 | 94 | 65-136 | 03/08/2022 1657 |
| PFBS | 1.4 | 13 | 14 | | 1 | 96 | 72-130 | 03/08/2022 1657 |
| PFDS | ND | 14 | 5.2 | N | 1 | 38 | 53-142 | 03/08/2022 1657 |
| PFHpS | ND | 14 | 14 | | 1 | 101 | 69-134 | 03/08/2022 1657 |
| PFNS | ND | 14 | 13 | | 1 | 91 | 69-127 | 03/08/2022 1657 |
| PFPeS | ND | 14 | 16 | | 1 | 118 | 71-127 | 03/08/2022 1657 |
| PFHxS | 4.8 | 13 | 18 | | 1 | 101 | 68-131 | 03/08/2022 1657 |
| PFBA | 51 | 14 | 65 | | 1 | 95 | 73-129 | 03/08/2022 1657 |
| PFDA | ND | 14 | 15 | | 1 | 101 | 71-129 | 03/08/2022 1657 |
| PFDoA | ND | 14 | 15 | | 1 | 106 | 72-134 | 03/08/2022 1657 |
| PFHpA | 1.1 | 14 | 15 | | 1 | 97 | 72-130 | 03/08/2022 1657 |
| PFHxA | 2.7 | 14 | 16 | | 1 | 95 | 72-129 | 03/08/2022 1657 |
| PFNA | ND | 14 | 15 | | 1 | 102 | 69-130 | 03/08/2022 1657 |
| PFOA | 1.1 | 14 | 15 | | 1 | 96 | 71-133 | 03/08/2022 1657 |
| PFPeA | 3.3 | 14 | 17 | | 1 | 98 | 72-129 | 03/08/2022 1657 |
| PFTeDA | ND | 14 | 15 | | 1 | 102 | 71-132 | 03/08/2022 1657 |
| PFTTrDA | ND | 14 | 14 | | 1 | 97 | 65-144 | 03/08/2022 1657 |
| PFUdA | ND | 14 | 14 | | 1 | 99 | 69-133 | 03/08/2022 1657 |
| PFOS | 5.0 | 13 | 18 | | 1 | 97 | 65-140 | 03/08/2022 1657 |
| Surrogate | Q | % Rec | Acceptance Limit | | | | | |
| 13C2_4:2FTS | N | 187 | 50-150 | | | | | |
| 13C2_6:2FTS | | 127 | 50-150 | | | | | |
| 13C2_8:2FTS | | 116 | 50-150 | | | | | |
| 13C2_PFDoA | | 87 | 50-150 | | | | | |
| 13C2_PFTeDA | | 74 | 50-150 | | | | | |
| 13C3_PFBS | | 82 | 50-150 | | | | | |
| 13C3_PFHxS | | 91 | 50-150 | | | | | |
| 13C3-HFPO-DA | | 90 | 50-150 | | | | | |
| 13C4_PFBA | N | 44 | 50-150 | | | | | |
| 13C4_PFHpA | | 96 | 50-150 | | | | | |
| 13C5_PFHxA | | 87 | 50-150 | | | | | |
| 13C5_PFPeA | | 75 | 50-150 | | | | | |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MS

Sample ID: XB16023-019MS

Matrix: Aqueous

Batch: 33989

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/07/2022 1618

| Surrogate | Q | % Rec | Acceptance Limit |
|------------|---|-------|------------------|
| 13C6_PFDA | | 97 | 50-150 |
| 13C7_PFUdA | | 91 | 50-150 |
| 13C8_PFOA | | 92 | 50-150 |
| 13C8_PFOS | | 90 | 50-150 |
| 13C9_PFNA | | 98 | 50-150 |
| d-EtFOSA | | 77 | 50-150 |
| d5-EtFOSAA | | 100 | 50-150 |
| d3-MeFOSAA | | 97 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MSD

Sample ID: XB16023-019MD

Matrix: Aqueous

Batch: 33989

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/07/2022 1618

| Parameter | Sample Amount (ng/L) | Spike Amount (ng/L) | Result (ng/L) | Q | Dil | % Rec | % RPD | %Rec Limit | % RPD Limit | Analysis Date |
|--------------|----------------------|---------------------|------------------|---|-----|-------|---------|------------|-------------|-----------------|
| 9CI-PF3ONS | ND | 13 | 12 | | 1 | 93 | 12 | 70-150 | 30 | 03/08/2022 1708 |
| 11CI-PF3OUdS | ND | 13 | 11 | | 1 | 88 | 0.00090 | 70-150 | 30 | 03/08/2022 1708 |
| 8:2 FTS | ND | 13 | 12 | | 1 | 93 | 5.1 | 67-138 | 30 | 03/08/2022 1708 |
| 6:2 FTS | ND | 13 | 12 | | 1 | 93 | 9.0 | 64-140 | 30 | 03/08/2022 1708 |
| 4:2 FTS | ND | 13 | 11 | | 1 | 84 | 14 | 63-143 | 30 | 03/08/2022 1708 |
| GenX | ND | 28 | 26 | | 1 | 93 | 5.9 | 70-150 | 30 | 03/08/2022 1708 |
| ADONA | ND | 13 | 13 | | 1 | 99 | 6.0 | 70-150 | 30 | 03/08/2022 1708 |
| EtFOSA | ND | 14 | 14 | | 1 | 100 | 11 | 70-150 | 30 | 03/08/2022 1708 |
| EtFOSAA | ND | 14 | 12 | | 1 | 85 | 19 | 61-135 | 30 | 03/08/2022 1708 |
| MeFOSAA | ND | 14 | 13 | | 1 | 96 | 2.8 | 65-136 | 30 | 03/08/2022 1708 |
| PFBS | 1.4 | 12 | 13 | | 1 | 95 | 5.0 | 72-130 | 30 | 03/08/2022 1708 |
| PFDS | ND | 13 | 11 | + | 1 | 86 | 74 | 53-142 | 30 | 03/08/2022 1708 |
| PFHpS | ND | 13 | 13 | | 1 | 102 | 4.1 | 69-134 | 30 | 03/08/2022 1708 |
| PFNS | ND | 13 | 12 | | 1 | 91 | 3.6 | 69-127 | 30 | 03/08/2022 1708 |
| PFPeS | ND | 13 | 14 | | 1 | 112 | 10 | 71-127 | 30 | 03/08/2022 1708 |
| PFHxS | 4.8 | 13 | 17 | | 1 | 93 | 8.6 | 68-131 | 30 | 03/08/2022 1708 |
| PFBA | 51 | 14 | 62 | | 1 | 81 | 4.1 | 73-129 | 30 | 03/08/2022 1708 |
| PFDA | ND | 14 | 13 | | 1 | 98 | 7.6 | 71-129 | 30 | 03/08/2022 1708 |
| PFDoA | ND | 14 | 14 | | 1 | 100 | 10 | 72-134 | 30 | 03/08/2022 1708 |
| PFHpA | 1.1 | 14 | 16 | | 1 | 105 | 3.7 | 72-130 | 30 | 03/08/2022 1708 |
| PFHxA | 2.7 | 14 | 16 | | 1 | 93 | 5.5 | 72-129 | 30 | 03/08/2022 1708 |
| PFNA | ND | 14 | 14 | | 1 | 102 | 5.0 | 69-130 | 30 | 03/08/2022 1708 |
| PFOA | 1.1 | 14 | 15 | | 1 | 99 | 1.4 | 71-133 | 30 | 03/08/2022 1708 |
| PFPeA | 3.3 | 14 | 17 | | 1 | 102 | 0.64 | 72-129 | 30 | 03/08/2022 1708 |
| PFTeDA | ND | 14 | 14 | | 1 | 102 | 4.8 | 71-132 | 30 | 03/08/2022 1708 |
| PFTrDA | ND | 14 | 13 | | 1 | 92 | 9.6 | 65-144 | 30 | 03/08/2022 1708 |
| PFUdA | ND | 14 | 13 | | 1 | 92 | 12 | 69-133 | 30 | 03/08/2022 1708 |
| PFOS | 5.0 | 13 | 17 | | 1 | 96 | 4.0 | 65-140 | 30 | 03/08/2022 1708 |
| Surrogate | Q | % Rec | Acceptance Limit | | | | | | | |
| 13C2_4:2FTS | N | 202 | 50-150 | | | | | | | |
| 13C2_6:2FTS | | 130 | 50-150 | | | | | | | |
| 13C2_8:2FTS | | 111 | 50-150 | | | | | | | |
| 13C2_PFDoA | | 91 | 50-150 | | | | | | | |
| 13C2_PFTeDA | | 73 | 50-150 | | | | | | | |
| 13C3_PFBS | | 85 | 50-150 | | | | | | | |
| 13C3_PFHxS | | 98 | 50-150 | | | | | | | |
| 13C3-HFPO-DA | | 92 | 50-150 | | | | | | | |
| 13C4_PFBA | N | 44 | 50-150 | | | | | | | |
| 13C4_PFHpA | | 91 | 50-150 | | | | | | | |
| 13C5_PFHxA | | 91 | 50-150 | | | | | | | |
| 13C5_PFPeA | | 78 | 50-150 | | | | | | | |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MSD

Sample ID: XB16023-019MD

Matrix: Aqueous

Batch: 33989

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/07/2022 1618

| Surrogate | Q | % Rec | Acceptance Limit |
|------------|---|-------|------------------|
| 13C6_PFDA | | 94 | 50-150 |
| 13C7_PFUdA | | 93 | 50-150 |
| 13C8_PFOA | | 94 | 50-150 |
| 13C8_PFOS | | 96 | 50-150 |
| 13C9_PFNA | | 100 | 50-150 |
| d-EtFOSA | | 68 | 50-150 |
| d5-EtFOSAA | | 111 | 50-150 |
| d3-MeFOSAA | | 99 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MB

Sample ID: XQ34087-001

Matrix: Aqueous

Batch: 34087

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/08/2022 1247

| Parameter | Result | Q | Dil | LOQ | LOD | DL | Units | Analysis Date |
|--------------|--------|-------|------------------|-----|-----|-----|-------|-----------------|
| 9CI-PF3ONS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/09/2022 1301 |
| 11CI-PF3OUdS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/09/2022 1301 |
| 8:2 FTS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/09/2022 1301 |
| 6:2 FTS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/09/2022 1301 |
| 4:2 FTS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/09/2022 1301 |
| GenX | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/09/2022 1301 |
| ADONA | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/09/2022 1301 |
| EtFOSA | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/09/2022 1301 |
| EtFOSAA | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/09/2022 1301 |
| MeFOSAA | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/09/2022 1301 |
| PFBS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/09/2022 1301 |
| PFDS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/09/2022 1301 |
| PFHpS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/09/2022 1301 |
| PFNS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/09/2022 1301 |
| PFPeS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/09/2022 1301 |
| PFHxS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/09/2022 1301 |
| PFBA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/09/2022 1301 |
| PFDA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/09/2022 1301 |
| PFDoA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/09/2022 1301 |
| PFHpA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/09/2022 1301 |
| PFHxA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/09/2022 1301 |
| PFNA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/09/2022 1301 |
| PFOA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/09/2022 1301 |
| PFPeA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/09/2022 1301 |
| PFTeDA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/09/2022 1301 |
| PFTTrDA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/09/2022 1301 |
| PFUdA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/09/2022 1301 |
| PFOS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/09/2022 1301 |
| Surrogate | Q | % Rec | Acceptance Limit | | | | | |
| 13C2_4:2FTS | | 108 | 50-150 | | | | | |
| 13C2_6:2FTS | | 98 | 50-150 | | | | | |
| 13C2_8:2FTS | | 102 | 50-150 | | | | | |
| 13C2_PFDoA | | 92 | 50-150 | | | | | |
| 13C2_PFTeDA | | 83 | 50-150 | | | | | |
| 13C3_PFBs | | 95 | 50-150 | | | | | |
| 13C3_PFHxS | | 85 | 50-150 | | | | | |
| 13C3-HFPO-DA | | 100 | 50-150 | | | | | |
| 13C4_PFBA | | 96 | 50-150 | | | | | |
| 13C4_PFHpA | | 94 | 50-150 | | | | | |
| 13C5_PFHxA | | 88 | 50-150 | | | | | |
| 13C5_PFPeA | | 98 | 50-150 | | | | | |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MB

Sample ID: XQ34087-001

Matrix: Aqueous

Batch: 34087

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/08/2022 1247

| Surrogate | Q | % Rec | Acceptance Limit |
|------------|---|-------|------------------|
| 13C6_PFDA | | 97 | 50-150 |
| 13C7_PFUdA | | 91 | 50-150 |
| 13C8_PFOA | | 91 | 50-150 |
| 13C8_PFOS | | 91 | 50-150 |
| 13C9_PFNA | | 95 | 50-150 |
| d-EtFOSA | | 77 | 50-150 |
| d5-EtFOSAA | | 91 | 50-150 |
| d3-MeFOSAA | | 89 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - LCS

Sample ID: XQ34087-002

Matrix: Aqueous

Batch: 34087

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/08/2022 1247

| Parameter | Spike Amount (ng/L) | Result (ng/L) | Q | Dil | % Rec | %Rec Limit | Analysis Date |
|--------------|---------------------|---------------|------------------|-----|-------|------------|-----------------|
| 9CI-PF3ONS | 15 | 13 | | 1 | 90 | 70-150 | 03/09/2022 1312 |
| 11CI-PF3OUdS | 15 | 13 | | 1 | 87 | 70-150 | 03/09/2022 1312 |
| 8:2 FTS | 15 | 13 | | 1 | 86 | 67-138 | 03/09/2022 1312 |
| 6:2 FTS | 15 | 16 | | 1 | 102 | 64-140 | 03/09/2022 1312 |
| 4:2 FTS | 15 | 14 | | 1 | 96 | 63-143 | 03/09/2022 1312 |
| GenX | 32 | 29 | | 1 | 90 | 70-150 | 03/09/2022 1312 |
| ADONA | 15 | 14 | | 1 | 96 | 70-150 | 03/09/2022 1312 |
| EtFOSA | 16 | 18 | | 1 | 110 | 70-150 | 03/09/2022 1312 |
| EtFOSAA | 16 | 15 | | 1 | 94 | 61-135 | 03/09/2022 1312 |
| MeFOSAA | 16 | 14 | | 1 | 87 | 65-136 | 03/09/2022 1312 |
| PFBS | 14 | 13 | | 1 | 93 | 72-130 | 03/09/2022 1312 |
| PFDS | 15 | 15 | | 1 | 99 | 53-142 | 03/09/2022 1312 |
| PFHpS | 15 | 15 | | 1 | 100 | 69-134 | 03/09/2022 1312 |
| PFNS | 15 | 15 | | 1 | 97 | 69-127 | 03/09/2022 1312 |
| PFPeS | 15 | 15 | | 1 | 101 | 71-127 | 03/09/2022 1312 |
| PFHxS | 15 | 14 | | 1 | 97 | 68-131 | 03/09/2022 1312 |
| PFBA | 16 | 16 | | 1 | 102 | 73-129 | 03/09/2022 1312 |
| PFDA | 16 | 15 | | 1 | 91 | 71-129 | 03/09/2022 1312 |
| PFDaA | 16 | 16 | | 1 | 99 | 72-134 | 03/09/2022 1312 |
| PFHpA | 16 | 16 | | 1 | 101 | 72-130 | 03/09/2022 1312 |
| PFHxA | 16 | 16 | | 1 | 102 | 72-129 | 03/09/2022 1312 |
| PFNA | 16 | 15 | | 1 | 96 | 69-130 | 03/09/2022 1312 |
| PFOA | 16 | 15 | | 1 | 92 | 71-133 | 03/09/2022 1312 |
| PFPeA | 16 | 16 | | 1 | 99 | 72-129 | 03/09/2022 1312 |
| PFTeDA | 16 | 16 | | 1 | 103 | 71-132 | 03/09/2022 1312 |
| PFTTrDA | 16 | 17 | | 1 | 104 | 65-144 | 03/09/2022 1312 |
| PFUdA | 16 | 16 | | 1 | 98 | 69-133 | 03/09/2022 1312 |
| PFOS | 15 | 14 | | 1 | 97 | 65-140 | 03/09/2022 1312 |
| Surrogate | Q | % Rec | Acceptance Limit | | | | |
| 13C2_4:2FTS | | 104 | 50-150 | | | | |
| 13C2_6:2FTS | | 96 | 50-150 | | | | |
| 13C2_8:2FTS | | 105 | 50-150 | | | | |
| 13C2_PFDaA | | 93 | 50-150 | | | | |
| 13C2_PFTeDA | | 87 | 50-150 | | | | |
| 13C3_PFBs | | 100 | 50-150 | | | | |
| 13C3_PFHxS | | 94 | 50-150 | | | | |
| 13C3-HFPO-DA | | 98 | 50-150 | | | | |
| 13C4_PFBa | | 98 | 50-150 | | | | |
| 13C4_PFHpA | | 100 | 50-150 | | | | |
| 13C5_PFHxA | | 93 | 50-150 | | | | |
| 13C5_PFPeA | | 100 | 50-150 | | | | |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - LCS

Sample ID: XQ34087-002

Matrix: Aqueous

Batch: 34087

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/08/2022 1247

| Surrogate | Q | % Rec | Acceptance Limit |
|------------|---|-------|------------------|
| 13C6_PFDA | | 103 | 50-150 |
| 13C7_PFUdA | | 94 | 50-150 |
| 13C8_PFOA | | 98 | 50-150 |
| 13C8_PFOS | | 97 | 50-150 |
| 13C9_PFNA | | 97 | 50-150 |
| d-EtFOSA | | 74 | 50-150 |
| d5-EtFOSAA | | 93 | 50-150 |
| d3-MeFOSAA | | 95 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MS

Sample ID: XB16023-023MS

Matrix: Aqueous

Batch: 34087

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/08/2022 1247

| Parameter | Sample Amount (ng/L) | Spike Amount (ng/L) | Result (ng/L) | Q | Dil | % Rec | %Rec Limit | Analysis Date |
|--------------|----------------------|---------------------|---------------|---|-----|-------|------------|-----------------|
| 9CI-PF3ONS | ND | 150 | 130 | | 1 | 89 | 70-150 | 03/09/2022 1734 |
| 11CI-PF3OUdS | ND | 150 | 120 | | 1 | 81 | 70-150 | 03/09/2022 1734 |
| 8:2 FTS | ND | 150 | 130 | | 1 | 83 | 67-138 | 03/09/2022 1734 |
| 6:2 FTS | ND | 150 | 140 | | 1 | 91 | 64-140 | 03/09/2022 1734 |
| 4:2 FTS | ND | 150 | 130 | | 1 | 86 | 63-143 | 03/09/2022 1734 |
| GenX | ND | 320 | 270 | | 1 | 85 | 70-150 | 03/09/2022 1734 |
| ADONA | ND | 150 | 140 | | 1 | 91 | 70-150 | 03/09/2022 1734 |
| EtFOSA | ND | 160 | 160 | | 1 | 100 | 70-150 | 03/09/2022 1734 |
| EtFOSAA | ND | 160 | 140 | | 1 | 90 | 61-135 | 03/09/2022 1734 |
| MeFOSAA | ND | 160 | 140 | | 1 | 85 | 65-136 | 03/09/2022 1734 |
| PFBS | ND | 140 | 130 | | 1 | 85 | 72-130 | 03/09/2022 1734 |
| PFDS | ND | 150 | 140 | | 1 | 93 | 53-142 | 03/09/2022 1734 |
| PFHpS | ND | 150 | 150 | | 1 | 96 | 69-134 | 03/09/2022 1734 |
| PFNS | ND | 150 | 150 | | 1 | 97 | 69-127 | 03/09/2022 1734 |
| PFPeS | ND | 150 | 140 | | 1 | 93 | 71-127 | 03/09/2022 1734 |
| PFHxS | 28 | 150 | 150 | | 1 | 85 | 68-131 | 03/09/2022 1734 |
| PFBA | 11 | 160 | 160 | | 1 | 95 | 73-129 | 03/09/2022 1734 |
| PFDA | ND | 160 | 140 | | 1 | 89 | 71-129 | 03/09/2022 1734 |
| PFDaA | ND | 160 | 150 | | 1 | 95 | 72-134 | 03/09/2022 1734 |
| PFHpA | ND | 160 | 160 | | 1 | 94 | 72-130 | 03/09/2022 1734 |
| PFHxA | 13 | 160 | 160 | | 1 | 93 | 72-129 | 03/09/2022 1734 |
| PFNA | ND | 160 | 150 | | 1 | 94 | 69-130 | 03/09/2022 1734 |
| PFOA | ND | 160 | 150 | | 1 | 94 | 71-133 | 03/09/2022 1734 |
| PFPeA | 15 | 160 | 170 | | 1 | 96 | 72-129 | 03/09/2022 1734 |
| PFTeDA | ND | 160 | 160 | | 1 | 97 | 71-132 | 03/09/2022 1734 |
| PFTTrDA | ND | 160 | 150 | | 1 | 95 | 65-144 | 03/09/2022 1734 |
| PFUdA | ND | 160 | 140 | | 1 | 86 | 69-133 | 03/09/2022 1734 |
| PFOS | ND | 150 | 150 | | 1 | 102 | 65-140 | 03/09/2022 1734 |

| Surrogate | Q | % Rec | Acceptance Limit |
|--------------|---|-------|------------------|
| 13C2_4:2FTS | | 112 | 50-150 |
| 13C2_6:2FTS | | 98 | 50-150 |
| 13C2_8:2FTS | | 112 | 50-150 |
| 13C2_PFDaA | | 91 | 50-150 |
| 13C2_PFTeDA | | 84 | 50-150 |
| 13C3_PFBs | | 103 | 50-150 |
| 13C3_PFHxS | | 94 | 50-150 |
| 13C3-HFPO-DA | | 102 | 50-150 |
| 13C4_PFBa | | 101 | 50-150 |
| 13C4_PFHpA | | 97 | 50-150 |
| 13C5_PFHxA | | 90 | 50-150 |
| 13C5_PFPeA | | 101 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

PFAS by LC/MS/MS - MS

Sample ID: XB16023-023MS

Matrix: Aqueous

Batch: 34087

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/08/2022 1247

| Surrogate | Q | % Rec | Acceptance Limit |
|------------|---|-------|------------------|
| 13C6_PFDA | | 104 | 50-150 |
| 13C7_PFUdA | | 96 | 50-150 |
| 13C8_PFOA | | 93 | 50-150 |
| 13C8_PFOS | | 98 | 50-150 |
| 13C9_PFNA | | 97 | 50-150 |
| d-EtFOSA | | 82 | 50-150 |
| d5-EtFOSAA | | 91 | 50-150 |
| d3-MeFOSAA | | 94 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MSD

Sample ID: XB16023-023MD

Matrix: Aqueous

Batch: 34087

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/08/2022 1247

| Parameter | Sample Amount (ng/L) | Spike Amount (ng/L) | Result (ng/L) | Q | Dil | % Rec | % RPD | %Rec Limit | % RPD Limit | Analysis Date |
|--------------|----------------------|---------------------|---------------|---|-----|-------|-------|------------|-------------|-----------------|
| 9CI-PF3ONS | ND | 150 | 150 | 1 | | 98 | 9.5 | 70-150 | 30 | 03/09/2022 1745 |
| 11CI-PF3OUdS | ND | 150 | 140 | 1 | | 92 | 13 | 70-150 | 30 | 03/09/2022 1745 |
| 8:2 FTS | ND | 150 | 140 | 1 | | 93 | 11 | 67-138 | 30 | 03/09/2022 1745 |
| 6:2 FTS | ND | 150 | 140 | 1 | | 96 | 4.6 | 64-140 | 30 | 03/09/2022 1745 |
| 4:2 FTS | ND | 150 | 130 | 1 | | 90 | 4.4 | 63-143 | 30 | 03/09/2022 1745 |
| GenX | ND | 320 | 300 | 1 | | 93 | 8.7 | 70-150 | 30 | 03/09/2022 1745 |
| ADONA | ND | 150 | 150 | 1 | | 103 | 12 | 70-150 | 30 | 03/09/2022 1745 |
| EtFOSA | ND | 160 | 160 | 1 | | 101 | 0.81 | 70-150 | 30 | 03/09/2022 1745 |
| EtFOSAA | ND | 160 | 160 | 1 | | 99 | 9.7 | 61-135 | 30 | 03/09/2022 1745 |
| MeFOSAA | ND | 160 | 150 | 1 | | 96 | 12 | 65-136 | 30 | 03/09/2022 1745 |
| PFBS | ND | 140 | 140 | 1 | | 95 | 11 | 72-130 | 30 | 03/09/2022 1745 |
| PFDS | ND | 150 | 150 | 1 | | 97 | 4.3 | 53-142 | 30 | 03/09/2022 1745 |
| PFHpS | ND | 150 | 150 | 1 | | 96 | 0.74 | 69-134 | 30 | 03/09/2022 1745 |
| PFNS | ND | 150 | 140 | 1 | | 94 | 3.5 | 69-127 | 30 | 03/09/2022 1745 |
| PFPeS | ND | 150 | 150 | 1 | | 100 | 7.5 | 71-127 | 30 | 03/09/2022 1745 |
| PFHxS | 28 | 150 | 180 | 1 | | 106 | 19 | 68-131 | 30 | 03/09/2022 1745 |
| PFBA | 11 | 160 | 170 | 1 | | 100 | 5.1 | 73-129 | 30 | 03/09/2022 1745 |
| PFDA | ND | 160 | 150 | 1 | | 95 | 6.6 | 71-129 | 30 | 03/09/2022 1745 |
| PFDoA | ND | 160 | 160 | 1 | | 103 | 8.2 | 72-134 | 30 | 03/09/2022 1745 |
| PFHpA | ND | 160 | 160 | 1 | | 98 | 4.0 | 72-130 | 30 | 03/09/2022 1745 |
| PFHxA | 13 | 160 | 170 | 1 | | 96 | 3.1 | 72-129 | 30 | 03/09/2022 1745 |
| PFNA | ND | 160 | 160 | 1 | | 98 | 3.5 | 69-130 | 30 | 03/09/2022 1745 |
| PFOA | ND | 160 | 150 | 1 | | 94 | 0.16 | 71-133 | 30 | 03/09/2022 1745 |
| PFPeA | 15 | 160 | 170 | 1 | | 95 | 0.76 | 72-129 | 30 | 03/09/2022 1745 |
| PFTeDA | ND | 160 | 160 | 1 | | 101 | 4.1 | 71-132 | 30 | 03/09/2022 1745 |
| PFTTrDA | ND | 160 | 150 | 1 | | 96 | 1.9 | 65-144 | 30 | 03/09/2022 1745 |
| PFUdA | ND | 160 | 160 | 1 | | 102 | 17 | 69-133 | 30 | 03/09/2022 1745 |
| PFOS | ND | 150 | 160 | 1 | | 108 | 5.4 | 65-140 | 30 | 03/09/2022 1745 |

| Surrogate | Q | % Rec | Acceptance Limit |
|--------------|---|-------|------------------|
| 13C2_4:2FTS | | 113 | 50-150 |
| 13C2_6:2FTS | | 102 | 50-150 |
| 13C2_8:2FTS | | 109 | 50-150 |
| 13C2_PFDoA | | 92 | 50-150 |
| 13C2_PFTeDA | | 85 | 50-150 |
| 13C3_PFBS | | 102 | 50-150 |
| 13C3_PFHxS | | 94 | 50-150 |
| 13C3-HFPO-DA | | 106 | 50-150 |
| 13C4_PFBA | | 107 | 50-150 |
| 13C4_PFHpA | | 102 | 50-150 |
| 13C5_PFHxA | | 96 | 50-150 |
| 13C5_PFPeA | | 103 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MSD

Sample ID: XB16023-023MD

Matrix: Aqueous

Batch: 34087

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/08/2022 1247

| Surrogate | Q | % Rec | Acceptance Limit |
|------------|---|-------|------------------|
| 13C6_PFDA | | 106 | 50-150 |
| 13C7_PFUdA | | 92 | 50-150 |
| 13C8_PFOA | | 98 | 50-150 |
| 13C8_PFOS | | 96 | 50-150 |
| 13C9_PFNA | | 100 | 50-150 |
| d-EtFOSA | | 81 | 50-150 |
| d5-EtFOSAA | | 91 | 50-150 |
| d3-MeFOSAA | | 92 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MB

Sample ID: XQ34285-001

Matrix: Aqueous

Batch: 34285

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/09/2022 1643

| Parameter | Result | Q | Dil | LOQ | LOD | DL | Units | Analysis Date |
|--------------|--------|-------|------------------|-----|-----|-----|-------|-----------------|
| 9CI-PF3ONS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/10/2022 1842 |
| 11CI-PF3OUdS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/10/2022 1842 |
| 8:2 FTS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/10/2022 1842 |
| 6:2 FTS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/10/2022 1842 |
| 4:2 FTS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/10/2022 1842 |
| GenX | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/10/2022 1842 |
| ADONA | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/10/2022 1842 |
| EtFOSA | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/10/2022 1842 |
| EtFOSAA | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/10/2022 1842 |
| MeFOSAA | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/10/2022 1842 |
| PFBS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/10/2022 1842 |
| PFDS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/10/2022 1842 |
| PFHpS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/10/2022 1842 |
| PFNS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/10/2022 1842 |
| PFPeS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/10/2022 1842 |
| PFHxS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/10/2022 1842 |
| PFBA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/10/2022 1842 |
| PFDA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/10/2022 1842 |
| PFDoA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/10/2022 1842 |
| PFHpA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/10/2022 1842 |
| PFHxA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/10/2022 1842 |
| PFNA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/10/2022 1842 |
| PFOA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/10/2022 1842 |
| PFPeA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/10/2022 1842 |
| PFTeDA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/10/2022 1842 |
| PFTTrDA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/10/2022 1842 |
| PFUdA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/10/2022 1842 |
| PFOS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/10/2022 1842 |
| Surrogate | Q | % Rec | Acceptance Limit | | | | | |
| 13C2_4:2FTS | | 116 | 50-150 | | | | | |
| 13C2_6:2FTS | | 121 | 50-150 | | | | | |
| 13C2_8:2FTS | | 103 | 50-150 | | | | | |
| 13C2_PFDoA | | 97 | 50-150 | | | | | |
| 13C2_PFTeDA | | 95 | 50-150 | | | | | |
| 13C3_PFBS | | 101 | 50-150 | | | | | |
| 13C3_PFHxS | | 104 | 50-150 | | | | | |
| 13C3-HFPO-DA | | 92 | 50-150 | | | | | |
| 13C4_PFBA | | 100 | 50-150 | | | | | |
| 13C4_PFHpA | | 100 | 50-150 | | | | | |
| 13C5_PFHxA | | 100 | 50-150 | | | | | |
| 13C5_PFPeA | | 99 | 50-150 | | | | | |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MB

Sample ID: XQ34285-001

Matrix: Aqueous

Batch: 34285

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/09/2022 1643

| Surrogate | Q | % Rec | Acceptance Limit |
|------------|---|-------|------------------|
| 13C6_PFDA | | 104 | 50-150 |
| 13C7_PFUdA | | 98 | 50-150 |
| 13C8_PFOA | | 104 | 50-150 |
| 13C8_PFOS | | 99 | 50-150 |
| 13C9_PFNA | | 99 | 50-150 |
| d-EtFOSA | | 79 | 50-150 |
| d5-EtFOSAA | | 104 | 50-150 |
| d3-MeFOSAA | | 93 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - LCS

Sample ID: XQ34285-002

Matrix: Aqueous

Batch: 34285

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/09/2022 1643

| Parameter | Spike Amount (ng/L) | Result (ng/L) | Q | Dil | % Rec | %Rec Limit | Analysis Date |
|--------------|---------------------|---------------|------------------|-----|-------|------------|-----------------|
| 9CI-PF3ONS | 15 | 14 | | 1 | 95 | 70-150 | 03/10/2022 1853 |
| 11CI-PF3OUdS | 15 | 14 | | 1 | 93 | 70-150 | 03/10/2022 1853 |
| 8:2 FTS | 15 | 14 | | 1 | 91 | 67-138 | 03/10/2022 1853 |
| 6:2 FTS | 15 | 14 | | 1 | 91 | 64-140 | 03/10/2022 1853 |
| 4:2 FTS | 15 | 13 | | 1 | 90 | 63-143 | 03/10/2022 1853 |
| GenX | 32 | 28 | | 1 | 87 | 70-150 | 03/10/2022 1853 |
| ADONA | 15 | 15 | | 1 | 99 | 70-150 | 03/10/2022 1853 |
| EtFOSA | 16 | 14 | | 1 | 90 | 70-150 | 03/10/2022 1853 |
| EtFOSAA | 16 | 14 | | 1 | 89 | 61-135 | 03/10/2022 1853 |
| MeFOSAA | 16 | 13 | | 1 | 84 | 65-136 | 03/10/2022 1853 |
| PFBS | 14 | 13 | | 1 | 93 | 72-130 | 03/10/2022 1853 |
| PFDS | 15 | 15 | | 1 | 95 | 53-142 | 03/10/2022 1853 |
| PFHpS | 15 | 15 | | 1 | 98 | 69-134 | 03/10/2022 1853 |
| PFNS | 15 | 14 | | 1 | 92 | 69-127 | 03/10/2022 1853 |
| PFPeS | 15 | 14 | | 1 | 92 | 71-127 | 03/10/2022 1853 |
| PFHxS | 15 | 14 | | 1 | 99 | 68-131 | 03/10/2022 1853 |
| PFBA | 16 | 15 | | 1 | 91 | 73-129 | 03/10/2022 1853 |
| PFDA | 16 | 16 | | 1 | 97 | 71-129 | 03/10/2022 1853 |
| PFDoA | 16 | 15 | | 1 | 92 | 72-134 | 03/10/2022 1853 |
| PFHpA | 16 | 16 | | 1 | 100 | 72-130 | 03/10/2022 1853 |
| PFHxA | 16 | 15 | | 1 | 93 | 72-129 | 03/10/2022 1853 |
| PFNA | 16 | 15 | | 1 | 95 | 69-130 | 03/10/2022 1853 |
| PFOA | 16 | 15 | | 1 | 92 | 71-133 | 03/10/2022 1853 |
| PFPeA | 16 | 15 | | 1 | 92 | 72-129 | 03/10/2022 1853 |
| PFTeDA | 16 | 15 | | 1 | 93 | 71-132 | 03/10/2022 1853 |
| PFTTrDA | 16 | 15 | | 1 | 96 | 65-144 | 03/10/2022 1853 |
| PFUdA | 16 | 14 | | 1 | 87 | 69-133 | 03/10/2022 1853 |
| PFOS | 15 | 13 | | 1 | 87 | 65-140 | 03/10/2022 1853 |
| Surrogate | Q | % Rec | Acceptance Limit | | | | |
| 13C2_4:2FTS | | 107 | 50-150 | | | | |
| 13C2_6:2FTS | | 122 | 50-150 | | | | |
| 13C2_8:2FTS | | 97 | 50-150 | | | | |
| 13C2_PFDoA | | 101 | 50-150 | | | | |
| 13C2_PFTeDA | | 93 | 50-150 | | | | |
| 13C3_PFBs | | 101 | 50-150 | | | | |
| 13C3_PFHxS | | 100 | 50-150 | | | | |
| 13C3-HFPO-DA | | 95 | 50-150 | | | | |
| 13C4_PFBA | | 98 | 50-150 | | | | |
| 13C4_PFHpA | | 98 | 50-150 | | | | |
| 13C5_PFHxA | | 97 | 50-150 | | | | |
| 13C5_PFPeA | | 101 | 50-150 | | | | |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - LCS

Sample ID: XQ34285-002

Matrix: Aqueous

Batch: 34285

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/09/2022 1643

| Surrogate | Q | % Rec | Acceptance Limit |
|------------|---|-------|------------------|
| 13C6_PFDA | | 96 | 50-150 |
| 13C7_PFUdA | | 104 | 50-150 |
| 13C8_PFOA | | 104 | 50-150 |
| 13C8_PFOS | | 96 | 50-150 |
| 13C9_PFNA | | 97 | 50-150 |
| d-EtFOSA | | 91 | 50-150 |
| d5-EtFOSAA | | 101 | 50-150 |
| d3-MeFOSAA | | 91 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

Chain of Custody
and
Miscellaneous Documents

NUMBER No. 2564 PAGE 1 OF 3

CHAIN OF CUSTODY

Tetra Tech, Inc.

PROJECT NO: 126-09581 FACILITY: KSL-F51
 SAMPLERS (SIGNATURE): [Signature] - Chuck Sorden

PROJECT MANAGER: Mark Sorden
 FIELD OPERATIONS LEADER: Chuck Sorden
 CARRIERWAYBILL NUMBER: [Blank]

LABORATORY NAME AND CONTACT: Pace Analytical - Testing Site
 ADDRESS: 106 Vantage Point Dr.
 CITY, STATE: West Columbia, SC

PHONE NUMBER (410) 921-8023
 PHONE NUMBER (321) 591-7580

CONTAINER TYPE: PLASTIC (P) or GLASS (G) [P]
 PRESERVATIVE USED: [Blank]

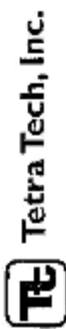
STANDARD TAT 24 hr. 48 hr. 72 hr. 14 day

| DATE YEAR | TIME | SAMPLE ID | LOCATION ID | TOP DEPTH (FT) | BOTTOM DEPTH (FT) | MATRIX (GW, SO, SW, SD, GC, ETC.) | COLLECTION METHOD (GRAB (G) COMP (C)) | NO. OF CONTAINERS | TYPE OF ANALYSIS | COMMENTS |
|--------------------------------|------|----------------------------|-------------|----------------|-------------------|-----------------------------------|---------------------------------------|-------------------|------------------|----------|
| 02/14 | 1010 | F51-DT0001-005-0-2022-0214 | 17 | 3 | 7 | GW | G | 2 | X | |
| 1 | 1030 | F51-DT0001-012-0-2022-0214 | 17 | 10 | 14 | | 1 | 1 | 1 | |
| 1 | 1050 | F51-DT0001-010-0-2022-0214 | 17 | 15 | 14 | | | | | |
| 1 | 1115 | F51-DT0001-016-0-2022-0214 | 17 | 23 | 27 | | | | | |
| 1 | 1140 | F51-DT0001-035-0-2022-0214 | 17 | 33 | 37 | | | | | |
| 1 | 1230 | F51-DT0001-045-0-2022-0214 | 17 | 43 | 47 | | | | | |
| 1 | 1335 | F51-DT0002-001-0-2022-0214 | 15 | 78 | 8 | | | | | |
| 1 | 1400 | F51-DT0002-012-0-2022-0214 | 15 | 10 | 14 | | | | | |
| 1 | 1730 | F51-DT0002-017-0-2022-0214 | 15 | 15 | 14 | | | | | |
| 1 | 1500 | F51-DT0002-025-0-2022-0214 | 15 | 23 | 27 | | | | | |
| 1 | 1525 | F51-DT0002-055-0-2022-0214 | 15 | 33 | 37 | | | | | |
| 02/14 | 1555 | F51-DT0002-045-0-2022-0214 | 15 | 43 | 47 | GW | G | 1 | 1 | |
| 02/15 | 0705 | F51-F0-2022-0215-01 | - | - | - | GW | G | 2 | X | |
| 1. RELINQUISHED BY [Signature] | | | | DATE | TIME | 1. RECEIVED BY | DATE | TIME | DATE | TIME |
| 2. RELINQUISHED BY [Signature] | | | | 02/15/22 | 1030 | FedEx | 02/15/22 | 1630 | 02/15/22 | 1630 |
| 3. RELINQUISHED BY [Signature] | | | | DATE | TIME | DATE | DATE | DATE | DATE | DATE |
| | | | | 2/16/22 | 1600 | [Signature] | 2/16/22 | 1600 | 2/16/22 | 1600 |
| | | | | | | F-18,3,20C | | | | |

COMMENTS: [Blank]

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

FORM NO. TNUS-001



CHAIN OF CUSTODY | NUMBER No. 2565 | PAGE 2 OF 3

PROJECT NO: 112-004581
 FACILITY: KSC-FS1
 SAMPLERS (SIGNATURE): *Chuck Sarden*
 PROJECT MANAGER: *Mark Sommer*
 FIELD OPERATIONS LEADER: *Chuck Sarden*
 CARRIERWAYBILL NUMBER: *West Columbia, SC*

| DATE | TIME | SAMPLE ID | LOCATION ID | TOP DEPTH (FT) | BOTTOM DEPTH (FT) | MATRIX (GW, SO, SW, SD, QC, ETC.) | COLLECTION METHOD | GRAB (G) COMP (C) | NO. OF CONTAINERS | CONTAINER TYPE PLASTIC (P) or GLASS (G) | PRESERVATIVE USED | COMMENTS |
|------|---------------------------|-----------|-------------|----------------|-------------------|-----------------------------------|-------------------|-------------------|-------------------|--|-------------------|----------|
| 0720 | FS1-DP0003-005.0-20220215 | 18 | 3 | 7 | GW | GC | 2 | X | | | | |
| 0730 | FS1-ED-20220215-01 | - | - | - | QC | 1 | 1 | | | | | |
| 0740 | FS1-DP0003-012.0-20220215 | 18 | 10 | 14 | GW | 1 | 1 | | | | | |
| 0800 | FS1-DP0003-07.0-20220215 | 18 | 15 | 19 | 1 | 1 | 2 | | | | | |
| 0835 | FS1-DP0003-025.0-20220215 | 18 | 23 | 27 | 1 | 1 | 6 | | | | | |
| 0855 | FS1-DP0003-055.0-20220215 | 18 | 33 | 37 | 1 | 1 | 2 | | | | | |
| 0925 | FS1-DP0003-045.0-20220215 | 18 | 43 | 47 | GW | GC | 1 | | | | | |
| 1000 | FS1-ED-20220215-02 | - | - | - | QC | 1 | 1 | | | | | |
| 1035 | FS1-DP0004-005.0-20220215 | 19 | 3 | 7 | GW | GC | 1 | | | | | |
| 1055 | FS1-DP0001-012.0-20220215 | 19 | 10 | 14 | GW | GC | 1 | | | | | |
| 1110 | FS1-FB-20220215-02 | - | - | - | QC | 1 | 1 | | | | | |
| 1115 | FS1-DP0001-017.0-20220215 | 19 | 15 | 19 | GW | GC | 1 | | | | | |
| 1140 | FS1-DP0004-025.0-20220215 | 19 | 23 | 27 | GW | GC | 2 | X | | | | |

RECEIVED BY: *Fed Ex* DATE: 02/15/22 TIME: 1630
 RECEIVED BY: *[Signature]* DATE: 2/14/22 TIME: 1600
 RECEIVED BY: *[Signature]* DATE: 2-15-22 TIME: 1600

LABORATORY NAME AND CONTACT: *Pace Analytical Services - Kitting Station*
 ADDRESS: *106 Vantage Point Dr.*
 CITY, STATE: *West Columbia, SC*

PHONE NUMBER: *(412) 921-8622*
 PHONE NUMBER: *(321) 591-7580*

TYPE OF ANALYSIS: *PERMS 65, 74, 110, 115*

BARCODE:

XB16023

COMMENTS: *Gas/mud Collected*

STANDARD TAT: 24 hr. 48 hr. 72 hr. 7 day 14 day

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

FORM NO. TMLUS-001

4/02R

Tetra Tech, Inc.

CHAIN OF CUSTODY NUMBER **No. 2582** 1 PAGE **3** OF **3**

PROJECT NO: **112-G-01581** FACILITY: **KSC-FSI** LABORATORY NAME AND CONTACT: **Pace Analytical - Kathy Smith**
 SAMPLERS (SIGNATURE): *[Signature]* - **Chuck Sarden** ADDRESS: **106 Vantage Point Dr.**
 PROJECT MANAGER: **Mark Sonnet** PHONE NUMBER: **(803) 791-8000** CITY, STATE: **West Columbia, SC**
 FIELD OPERATIONS LEADER: **Chuck Sarden** PHONE NUMBER: **(803) 791-7550**
 CARRIER/WAYBILL NUMBER: _____

| DATE | TIME | SAMPLE ID | LOCATION ID | TOP DEPTH (FT) | BOTTOM DEPTH (FT) | MATRIX (GW, SQ, SW, SD, OC, ETC) | COLLECTION METHOD | GRAB (G) COMP (G) | No. OF CONTAINERS | CONTAINER TYPE PLASTIC (P) OR GLASS (G) | PRESERVATIVE USED | COMMENTS |
|-------|-------|----------------------------|-------------|----------------|-------------------|----------------------------------|-------------------|-------------------|-------------------|---|-------------------|----------|
| 02/15 | 12:05 | FSI-DPT0004-035.0-20220215 | 19 | 33 | 37 | GW | G | | 2 | P | | |
| 1 | 12:30 | FSI-DPT0004-045.0-20220215 | 19 | 43 | 47 | | | | 1 | | | |
| | 13:35 | FSI-DPT0005-005.0-20220215 | 20 | 3 | 7 | | | | 1 | | | |
| | 13:55 | FSI-DPT0005-010.0-20220215 | 20 | 10 | 14 | | | | 1 | | | |
| | 14:15 | FSI-DPT0005-017.0-20220215 | 20 | 15 | 19 | | | | 1 | | | |
| | 14:35 | FSI-DPT0005-025.0-20220215 | 20 | 23 | 27 | | | | 1 | | | |
| | 15:00 | FSI-DPT0005-035.0-20220215 | 20 | 33 | 37 | | | | 1 | | | |
| | 15:30 | FSI-DPT0005-045.0-20220215 | 20 | 43 | 47 | GW | | | 1 | | | |
| | 15:40 | FSI-EB-20220215-03 | - | - | - | QC | | | 1 | | | |
| | 0000 | FSI-FD-20220215-01 | - | - | - | | | | 1 | | | |
| | 0000 | FSI-FD-20220215-02 | - | - | - | | | | 1 | | | |
| | 0000 | FSI-FD-20220215-03 | - | - | - | QC | G | | 2 | X | | |

STANDARD TAT 24 hr. 48 hr. 72 hr. 7 day 14 day

DATE: **02/15/22** TIME: **1630**
 DATE: **02/15/22** TIME: **1630**
 DATE: **02/16/22** TIME: **1630**

1. RELINQUISHED BY: *[Signature]* DATE: **02/15/22** TIME: **1630**
 2. RELINQUISHED BY: **Fed Ex** DATE: **02/16/22** TIME: **1630**
 3. RELINQUISHED BY: *[Signature]* DATE: **02/16/22** TIME: **1630**

COMMENTS: **TYPE OF ANALYSIS: PHS 05MTHL-8-15**
XB16023
MESS

DISTRIBUTION: _____ WHITE (ACCOMPANIES SAMPLE) _____ YELLOW (FIELD COPY) _____ PINK (FILE COPY) _____

FORM NO. TINCUS-001 4/02R

PACE ANALYTICAL SERVICES, LLC



Samples Receipt Checklist (SRC) (ME0018C-15)
Issuing Authority: Pace ENV - WCOL

Revised: 9/29/2020
Page 1 of 1

Sample Receipt Checklist (SRC)

Client: TETRA TECH Cooler Inspected by/date: JSH / 02/16/2022 Lot #: XB16025

| | |
|---|---|
| Means of receipt: <input type="checkbox"/> Pace <input type="checkbox"/> Client <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Other: _____ | |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 1. Were custody seals present on the cooler? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA | 2. If custody seals were present, were they intact and unbroken? |
| pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA | |
| Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA 1.8 / 1.8 °C 3.2 / 3.2 °C NA / NA °C NA / NA °C | |
| Method: <input checked="" type="checkbox"/> Temperature Blank <input type="checkbox"/> Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C | |
| Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Ice Packs <input type="checkbox"/> Dry Ice <input type="checkbox"/> None | |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA | 3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one). |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA | 4. Is the commercial courier's packing slip attached to this form? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 5. Were proper custody procedures (relinquished/received) followed? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 6. Were sample IDs listed on the COC? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 7. Were sample IDs listed on all sample containers? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 8. Was collection date & time listed on the COC? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 9. Was collection date & time listed on all sample containers? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 10. Did all container label information (ID, date, time) agree with the COC? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 11. Were tests to be performed listed on the COC? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 13. Was adequate sample volume available? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 14. Were all samples received within 1/2 the holding time or 48 hours, whichever comes first? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 15. Were any samples containers missing/excess (circle one) samples Not listed on COC? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA | 16. For VOA and RSK-175 samples, were bubbles present >"pen-size" (1/4" or 6mm in diameter) in any of the VOA vials? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA | 17. Were all DRO/metals/nutrient samples received at a pH of < 2? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA | 18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA | 19. Were all applicable NH ₃ /TKN/cyanide/phenol/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA | 20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 21. Was the quote number listed on the container label? If yes, Quote # |
| Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.) | |
| Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA | |
| Time of preservation NA. If more than one preservative is needed, please note in the comments below. | |
| Sample(s) NA were received with bubbles >6 mm in diameter. | |
| Sample(s) NA were received with TRC > 0.5 mg/L (If #19 is NO) and were adjusted accordingly in sample receiving with sodium thiosulfate (Na ₂ S ₂ O ₃) with Shealy ID: NA | |
| SR barcode labels applied by: MEI Date: 02/16/2022 | |

Comments:



Report of Analysis

Tetra Tech
Foster Plaza 7
661 Anderson Drive
Pittsburgh, PA 15220
Attention: Mark Jonnet

Project Name: KSC-FS1
Project Number: 112G09581
Lot Number: **XB18038**
Date Completed: 03/24/2022

Kathy Smith

03/24/2022 9:30 AM
Approved and released by:
Project Manager II: **Kathy E. Smith**



The electronic signature above is the equivalent of a handwritten signature.
This report shall not be reproduced, except in its entirety, without the written approval of Pace Analytical Services, LLC.

PACE ANALYTICAL SERVICES, LLC

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative Tetra Tech Lot Number: XB18038

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

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

Sample receipt, sample analysis, and data review have been performed in accordance with the Pace Quality Assurance Management Plan (QAMP), applicable Shealy standard operating procedures (SOPs), the 2003 NELAC standard, and Shealy policies. Additionally, the DoD QSM version 5.3 has been followed for these samples, and specifically Table B-15 was followed for all PFAS samples. Any exceptions to the QAMP, SOPs, NELAC standards, the DoD QSM, or policies are qualified on the results page or discussed below.

All QC associated with these samples was in compliance with DOD QSM 5.3 table B-15 and our PFAS SOP.

Correction factors (CF) are used to calculate the original sample concentration. The CF is the inverse of the concentration factor (sample volume / extract final volume) times the dilution factor (DF). For undiluted analysis. For undiluted analysis, the extract is prepared for injection by adding 182 uL of sample extract + 8 uL of reagent water + 10 uL of internal standard solution to a polypropylene autosampler vial. An extra correction factor of 0.91 (182 uL / 200 uL = 0.91) applies. The CF is calculated as follows:

$$CF = DF * FV / Vo$$

FV is volume of extract (mL)

Vo is initial sample volume (mL)

DF is dilution factor. For undiluted analysis, DF = 1/0.91.

Sample concentration for aqueous samples:

Concentration (ng/L) = Cs*CF,

$$C_s = \frac{\left(\frac{A_s \times C_{is}}{A_{is}} \right) - B}{M1}$$

Where

C_s is on column concentration of target analyte in the sample (ng/L)

C_{is} is concentration of internal standard in the sample (ng/L)

A_s is peak response of target analyte in the sample

A_{is} is peak response of internal standard in the sample

M1 is the average RF from ICAL or the slope from linear regression ICAL

B is the y-intercept from the ICAL

PACE ANALYTICAL SERVICES, LLC

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Pace is a TNI accredited laboratory; however, the following analyses are currently not listed on our TNI scope of accreditation: Drinking Water: VOC (excluding BTEX, MTBE, Naphthalene, & 1,2-dichloroethane) EPA 524.2, E. coli and Total coliforms SM 9223 B-2004, Solid Chemical Material: TOC Walkley-Black, Biological Tissue: All, Non-Potable Water: SGT-HEM EPA 1664B, Silica EPA 200.7, Boron, Calcium, Silicon, Strontium EPA 200.8, Bicarbonate, Carbonate, and Hydroxide Alkalinity SM 2320 B-2011, SM 9221 C E-2006 & SM 9222D-2006, Strontium SW-846 6010D, VOC SM 6200 B-2011, Fecal Coliform Colilert-18.

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

Samples XB18038-001, XB18038-002, XB18038-003, XB18038-004, XB18038-005, XB18038-006, XB18038-010, XB18038-011, XB18038-012, XB18038-017, XB18038-018, XB18038-019, XB18038-021 required centrifugation prior to extraction, due to excessive solids present in the samples. Centrifugation was performed following the PFAS Aqueous Centrifuge Protocol; samples were spiked with Surrogate (SUR; Extracted Internal Standard/EIS) and shaken vigorously before being poured into a conical bottle and centrifuged. The centrifuged aqueous sample was decanted back into the original sample bottle, off of the condensed solids remaining in the centrifuge bottle. Original sample bottle was rinsed as normal and centrifuge bottle was rinsed with 4mL of MeOH. Centrifuge bottle rinsate was added to the elution. Samples concentrated to <10mL and reconstituted to 10mL using MeOH by transfer pipet.

Despite centrifugation, for samples XB18038-001, XB18038-021, sample matrix prevented full volume from being extracted, precluding method mandated bottle rinse. Elution solvent was aliquoted directly into the reservoir, rinsing the inside. Surrogate recovery may be adversely affected.

Samples XB18038-007, XB18038-008, XB18038-009, XB18038-014, XB18038-015, XB18038-016 were prepped at a 10X dilution due to sample matrix.

Surrogate recovery for the following samples was outside control limits: XB18038-001, XB18038-002, XB18038-003, XB18038-004, XB18038-006, XB18038-010, XB18038-011, XB18038-012, XB18038-017, XB18038-018, XB18038-019, XB18038-021. Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

The MS/MSD associated with sample XB18038-010 had compounds recovered outside of the acceptance limits. The LCS was recovered within the required acceptance limits; therefore, this demonstrates a matrix effect and data quality is not impacted.

The LCS associated with batch 34241 had 6:2 FTS recovered above the acceptance limits. This demonstrates a high bias on analytical results. There were no detections for this compound in the samples associated with this batch; therefore, data quality is not impacted.

PACE ANALYTICAL SERVICES, LLC

Sample Summary

Tetra Tech

Lot Number: XB18038

Project Name: KSC-FS1

Project Number: 112G09581

| Sample Number | Sample ID | Matrix | Date Sampled | Date Received |
|---------------|----------------------------|---------|-----------------|---------------|
| 001 | FS1-DPT0006-005.0-20220216 | Aqueous | 02/16/2022 0810 | 02/18/2022 |
| 002 | FS1-DPT0006-012.0-20220216 | Aqueous | 02/16/2022 0830 | 02/18/2022 |
| 003 | FS1-DPT0006-017.0-20220216 | Aqueous | 02/16/2022 0850 | 02/18/2022 |
| 004 | FS1-DPT0006-025.0-20220216 | Aqueous | 02/16/2022 0915 | 02/18/2022 |
| 005 | FS1-DPT0006-035.0-20220216 | Aqueous | 02/16/2022 0940 | 02/18/2022 |
| 006 | FS1-DPT0006-045.0-20220216 | Aqueous | 02/16/2022 1010 | 02/18/2022 |
| 007 | FS1-DPT0007-005.0-20220216 | Aqueous | 02/16/2022 1120 | 02/18/2022 |
| 008 | FS1-DPT0007-012.0-20220216 | Aqueous | 02/16/2022 1140 | 02/18/2022 |
| 009 | FS1-DPT0007-017.0-20220216 | Aqueous | 02/16/2022 1200 | 02/18/2022 |
| 010 | FS1-DPT0007-025.0-20220216 | Aqueous | 02/16/2022 1225 | 02/18/2022 |
| 011 | FS1-DPT0007-035.0-20220216 | Aqueous | 02/16/2022 1250 | 02/18/2022 |
| 012 | FS1-DPT0007-045.0-20220216 | Aqueous | 02/16/2022 1315 | 02/18/2022 |
| 013 | FS1-EB-20220216-01 | Aqueous | 02/16/2022 1400 | 02/18/2022 |
| 014 | FS1-DPT0008-005.0-20220216 | Aqueous | 02/16/2022 1445 | 02/18/2022 |
| 015 | FS1-DPT0008-012.0-20220216 | Aqueous | 02/16/2022 1515 | 02/18/2022 |
| 016 | FS1-DPT0008-017.0-20220216 | Aqueous | 02/16/2022 1545 | 02/18/2022 |
| 017 | FS1-DPT0008-025.0-20220216 | Aqueous | 02/16/2022 1615 | 02/18/2022 |
| 018 | FS1-DPT0008-035.0-20220217 | Aqueous | 02/17/2022 0720 | 02/18/2022 |
| 019 | FS1-DPT0008-045.0-20220217 | Aqueous | 02/17/2022 0745 | 02/18/2022 |
| 020 | FS1-FB-20220217-01 | Aqueous | 02/17/2022 0750 | 02/18/2022 |
| 021 | FS1-FD-20220216-01 | Aqueous | 02/16/2022 | 02/18/2022 |

(21 samples)

PACE ANALYTICAL SERVICES, LLC

Detection Summary

Tetra Tech

Lot Number: XB18038

Project Name: KSC-FS1

Project Number: 112G09581

| Sample | Sample ID | Matrix | Parameter | Method | Result | Q | Units | Page |
|--------|----------------------------|---------|-----------|------------|--------|----|-------|------|
| 001 | FS1-DPT0006-005.0-20220216 | Aqueous | 6:2 FTS | PFAS by ID | 6.2 | I | ng/L | 13 |
| 001 | FS1-DPT0006-005.0-20220216 | Aqueous | PFBS | PFAS by ID | 5.8 | I | ng/L | 13 |
| 001 | FS1-DPT0006-005.0-20220216 | Aqueous | PFHpS | PFAS by ID | 31 | | ng/L | 13 |
| 001 | FS1-DPT0006-005.0-20220216 | Aqueous | PFNS | PFAS by ID | 1.8 | IQ | ng/L | 13 |
| 001 | FS1-DPT0006-005.0-20220216 | Aqueous | PFPeS | PFAS by ID | 11 | | ng/L | 13 |
| 001 | FS1-DPT0006-005.0-20220216 | Aqueous | PFHxS | PFAS by ID | 360 | | ng/L | 13 |
| 001 | FS1-DPT0006-005.0-20220216 | Aqueous | PFBA | PFAS by ID | 76 | Q | ng/L | 13 |
| 001 | FS1-DPT0006-005.0-20220216 | Aqueous | PFDA | PFAS by ID | 6.2 | I | ng/L | 13 |
| 001 | FS1-DPT0006-005.0-20220216 | Aqueous | PFHpA | PFAS by ID | 110 | | ng/L | 13 |
| 001 | FS1-DPT0006-005.0-20220216 | Aqueous | PFHxA | PFAS by ID | 110 | | ng/L | 13 |
| 001 | FS1-DPT0006-005.0-20220216 | Aqueous | PFNA | PFAS by ID | 110 | Q | ng/L | 13 |
| 001 | FS1-DPT0006-005.0-20220216 | Aqueous | PFOA | PFAS by ID | 110 | Q | ng/L | 13 |
| 001 | FS1-DPT0006-005.0-20220216 | Aqueous | PFPeA | PFAS by ID | 130 | | ng/L | 13 |
| 001 | FS1-DPT0006-005.0-20220216 | Aqueous | PFOS | PFAS by ID | 1800 | D | ng/L | 13 |
| 002 | FS1-DPT0006-012.0-20220216 | Aqueous | 6:2 FTS | PFAS by ID | 20000 | D | ng/L | 15 |
| 002 | FS1-DPT0006-012.0-20220216 | Aqueous | 4:2 FTS | PFAS by ID | 88 | | ng/L | 15 |
| 002 | FS1-DPT0006-012.0-20220216 | Aqueous | PFBS | PFAS by ID | 2700 | D | ng/L | 15 |
| 002 | FS1-DPT0006-012.0-20220216 | Aqueous | PFHpS | PFAS by ID | 4400 | D | ng/L | 15 |
| 002 | FS1-DPT0006-012.0-20220216 | Aqueous | PFPeS | PFAS by ID | 3300 | D | ng/L | 15 |
| 002 | FS1-DPT0006-012.0-20220216 | Aqueous | PFHxS | PFAS by ID | 27000 | D | ng/L | 15 |
| 002 | FS1-DPT0006-012.0-20220216 | Aqueous | PFBA | PFAS by ID | 1000 | D | ng/L | 15 |
| 002 | FS1-DPT0006-012.0-20220216 | Aqueous | PFHpA | PFAS by ID | 1700 | D | ng/L | 15 |
| 002 | FS1-DPT0006-012.0-20220216 | Aqueous | PFHxA | PFAS by ID | 4100 | D | ng/L | 15 |
| 002 | FS1-DPT0006-012.0-20220216 | Aqueous | PFNA | PFAS by ID | 490 | | ng/L | 15 |
| 002 | FS1-DPT0006-012.0-20220216 | Aqueous | PFOA | PFAS by ID | 6200 | D | ng/L | 15 |
| 002 | FS1-DPT0006-012.0-20220216 | Aqueous | PFPeA | PFAS by ID | 3100 | D | ng/L | 15 |
| 002 | FS1-DPT0006-012.0-20220216 | Aqueous | PFOS | PFAS by ID | 27000 | D | ng/L | 15 |
| 003 | FS1-DPT0006-017.0-20220216 | Aqueous | 6:2 FTS | PFAS by ID | 95000 | D | ng/L | 17 |
| 003 | FS1-DPT0006-017.0-20220216 | Aqueous | 4:2 FTS | PFAS by ID | 3800 | D | ng/L | 17 |
| 003 | FS1-DPT0006-017.0-20220216 | Aqueous | PFBS | PFAS by ID | 7000 | D | ng/L | 17 |
| 003 | FS1-DPT0006-017.0-20220216 | Aqueous | PFHpS | PFAS by ID | 2000 | D | ng/L | 17 |
| 003 | FS1-DPT0006-017.0-20220216 | Aqueous | PFPeS | PFAS by ID | 9000 | D | ng/L | 17 |
| 003 | FS1-DPT0006-017.0-20220216 | Aqueous | PFHxS | PFAS by ID | 100000 | D | ng/L | 17 |
| 003 | FS1-DPT0006-017.0-20220216 | Aqueous | PFBA | PFAS by ID | 4200 | D | ng/L | 17 |
| 003 | FS1-DPT0006-017.0-20220216 | Aqueous | PFHpA | PFAS by ID | 10000 | D | ng/L | 17 |
| 003 | FS1-DPT0006-017.0-20220216 | Aqueous | PFHxA | PFAS by ID | 21000 | D | ng/L | 17 |
| 003 | FS1-DPT0006-017.0-20220216 | Aqueous | PFNA | PFAS by ID | 96 | | ng/L | 17 |
| 003 | FS1-DPT0006-017.0-20220216 | Aqueous | PFOA | PFAS by ID | 12000 | D | ng/L | 17 |
| 003 | FS1-DPT0006-017.0-20220216 | Aqueous | PFPeA | PFAS by ID | 15000 | D | ng/L | 17 |
| 003 | FS1-DPT0006-017.0-20220216 | Aqueous | PFOS | PFAS by ID | 25000 | D | ng/L | 17 |
| 004 | FS1-DPT0006-025.0-20220216 | Aqueous | 6:2 FTS | PFAS by ID | 22000 | D | ng/L | 19 |
| 004 | FS1-DPT0006-025.0-20220216 | Aqueous | 4:2 FTS | PFAS by ID | 3100 | D | ng/L | 19 |
| 004 | FS1-DPT0006-025.0-20220216 | Aqueous | PFBS | PFAS by ID | 2100 | D | ng/L | 19 |

Detection Summary (Continued)

Lot Number: XB18038

| Sample | Sample ID | Matrix | Parameter | Method | Result | Q | Units | Page |
|--------|----------------------------|---------|-----------|------------|--------|----|-------|------|
| 004 | FS1-DPT0006-025.0-20220216 | Aqueous | PFHpS | PFAS by ID | 42 | Q | ng/L | 19 |
| 004 | FS1-DPT0006-025.0-20220216 | Aqueous | PFPeS | PFAS by ID | 2400 | D | ng/L | 19 |
| 004 | FS1-DPT0006-025.0-20220216 | Aqueous | PFHxS | PFAS by ID | 18000 | D | ng/L | 19 |
| 004 | FS1-DPT0006-025.0-20220216 | Aqueous | PFBA | PFAS by ID | 2300 | D | ng/L | 19 |
| 004 | FS1-DPT0006-025.0-20220216 | Aqueous | PFHpA | PFAS by ID | 2300 | D | ng/L | 19 |
| 004 | FS1-DPT0006-025.0-20220216 | Aqueous | PFHxA | PFAS by ID | 9300 | D | ng/L | 19 |
| 004 | FS1-DPT0006-025.0-20220216 | Aqueous | PFOA | PFAS by ID | 830 | D | ng/L | 19 |
| 004 | FS1-DPT0006-025.0-20220216 | Aqueous | PFPeA | PFAS by ID | 9100 | D | ng/L | 19 |
| 004 | FS1-DPT0006-025.0-20220216 | Aqueous | PFOS | PFAS by ID | 49 | | ng/L | 19 |
| 005 | FS1-DPT0006-035.0-20220216 | Aqueous | 6:2 FTS | PFAS by ID | 160 | D | ng/L | 21 |
| 005 | FS1-DPT0006-035.0-20220216 | Aqueous | PFPeS | PFAS by ID | 550 | D | ng/L | 21 |
| 005 | FS1-DPT0006-035.0-20220216 | Aqueous | PFHpS | PFAS by ID | 28 | ID | ng/L | 21 |
| 005 | FS1-DPT0006-035.0-20220216 | Aqueous | PFPeS | PFAS by ID | 490 | D | ng/L | 21 |
| 005 | FS1-DPT0006-035.0-20220216 | Aqueous | PFHxS | PFAS by ID | 3800 | D | ng/L | 21 |
| 005 | FS1-DPT0006-035.0-20220216 | Aqueous | PFBA | PFAS by ID | 110 | D | ng/L | 21 |
| 005 | FS1-DPT0006-035.0-20220216 | Aqueous | PFHpA | PFAS by ID | 180 | D | ng/L | 21 |
| 005 | FS1-DPT0006-035.0-20220216 | Aqueous | PFHxA | PFAS by ID | 810 | D | ng/L | 21 |
| 005 | FS1-DPT0006-035.0-20220216 | Aqueous | PFOA | PFAS by ID | 690 | D | ng/L | 21 |
| 005 | FS1-DPT0006-035.0-20220216 | Aqueous | PFPeA | PFAS by ID | 230 | D | ng/L | 21 |
| 005 | FS1-DPT0006-035.0-20220216 | Aqueous | PFOS | PFAS by ID | 99 | D | ng/L | 21 |
| 006 | FS1-DPT0006-045.0-20220216 | Aqueous | 6:2 FTS | PFAS by ID | 2.6 | IQ | ng/L | 23 |
| 006 | FS1-DPT0006-045.0-20220216 | Aqueous | PFHxS | PFAS by ID | 3.9 | | ng/L | 23 |
| 006 | FS1-DPT0006-045.0-20220216 | Aqueous | PFOS | PFAS by ID | 6.8 | | ng/L | 23 |
| 007 | FS1-DPT0007-005.0-20220216 | Aqueous | PFHxS | PFAS by ID | 48 | | ng/L | 25 |
| 007 | FS1-DPT0007-005.0-20220216 | Aqueous | PFHxA | PFAS by ID | 10 | I | ng/L | 25 |
| 007 | FS1-DPT0007-005.0-20220216 | Aqueous | PFOS | PFAS by ID | 47 | | ng/L | 25 |
| 008 | FS1-DPT0007-012.0-20220216 | Aqueous | PFPeS | PFAS by ID | 14 | I | ng/L | 27 |
| 008 | FS1-DPT0007-012.0-20220216 | Aqueous | PFPeS | PFAS by ID | 17 | I | ng/L | 27 |
| 008 | FS1-DPT0007-012.0-20220216 | Aqueous | PFHxS | PFAS by ID | 79 | | ng/L | 27 |
| 009 | FS1-DPT0007-017.0-20220216 | Aqueous | PFPeS | PFAS by ID | 19 | I | ng/L | 29 |
| 009 | FS1-DPT0007-017.0-20220216 | Aqueous | PFPeS | PFAS by ID | 21 | I | ng/L | 29 |
| 009 | FS1-DPT0007-017.0-20220216 | Aqueous | PFHxS | PFAS by ID | 100 | | ng/L | 29 |
| 010 | FS1-DPT0007-025.0-20220216 | Aqueous | PFPeS | PFAS by ID | 76 | S | ng/L | 31 |
| 010 | FS1-DPT0007-025.0-20220216 | Aqueous | PFPeS | PFAS by ID | 43 | | ng/L | 31 |
| 010 | FS1-DPT0007-025.0-20220216 | Aqueous | PFHxS | PFAS by ID | 29 | S | ng/L | 31 |
| 010 | FS1-DPT0007-025.0-20220216 | Aqueous | PFBA | PFAS by ID | 4.1 | Q | ng/L | 31 |
| 010 | FS1-DPT0007-025.0-20220216 | Aqueous | PFHpA | PFAS by ID | 2.0 | I | ng/L | 31 |
| 010 | FS1-DPT0007-025.0-20220216 | Aqueous | PFHxA | PFAS by ID | 10 | | ng/L | 31 |
| 010 | FS1-DPT0007-025.0-20220216 | Aqueous | PFPeA | PFAS by ID | 6.2 | | ng/L | 31 |
| 010 | FS1-DPT0007-025.0-20220216 | Aqueous | PFOS | PFAS by ID | 1.5 | I | ng/L | 31 |
| 011 | FS1-DPT0007-035.0-20220216 | Aqueous | 6:2 FTS | PFAS by ID | 7500 | D | ng/L | 33 |
| 011 | FS1-DPT0007-035.0-20220216 | Aqueous | 4:2 FTS | PFAS by ID | 530 | ID | ng/L | 33 |
| 011 | FS1-DPT0007-035.0-20220216 | Aqueous | PFPeS | PFAS by ID | 4300 | D | ng/L | 33 |
| 011 | FS1-DPT0007-035.0-20220216 | Aqueous | PFHxS | PFAS by ID | 240 | Q | ng/L | 33 |
| 011 | FS1-DPT0007-035.0-20220216 | Aqueous | PFPeS | PFAS by ID | 3300 | D | ng/L | 33 |
| 011 | FS1-DPT0007-035.0-20220216 | Aqueous | PFHxS | PFAS by ID | 15000 | D | ng/L | 33 |
| 011 | FS1-DPT0007-035.0-20220216 | Aqueous | PFBA | PFAS by ID | 830 | D | ng/L | 33 |
| 011 | FS1-DPT0007-035.0-20220216 | Aqueous | PFHpA | PFAS by ID | 650 | D | ng/L | 33 |

Detection Summary (Continued)

Lot Number: XB18038

| Sample | Sample ID | Matrix | Parameter | Method | Result | Q | Units | Page |
|--------|----------------------------|---------|-----------|------------|--------|----|-------|------|
| 011 | FS1-DPT0007-035.0-20220216 | Aqueous | PFHxA | PFAS by ID | 4600 | D | ng/L | 33 |
| 011 | FS1-DPT0007-035.0-20220216 | Aqueous | PFOA | PFAS by ID | 510 | D | ng/L | 33 |
| 011 | FS1-DPT0007-035.0-20220216 | Aqueous | PFPeA | PFAS by ID | 1900 | D | ng/L | 33 |
| 011 | FS1-DPT0007-035.0-20220216 | Aqueous | PFOS | PFAS by ID | 94 | | ng/L | 33 |
| 012 | FS1-DPT0007-045.0-20220216 | Aqueous | 6:2 FTS | PFAS by ID | 1.9 | IQ | ng/L | 35 |
| 012 | FS1-DPT0007-045.0-20220216 | Aqueous | PFBS | PFAS by ID | 2.4 | I | ng/L | 35 |
| 012 | FS1-DPT0007-045.0-20220216 | Aqueous | PFHpS | PFAS by ID | 0.89 | I | ng/L | 35 |
| 012 | FS1-DPT0007-045.0-20220216 | Aqueous | PFPeS | PFAS by ID | 2.8 | I | ng/L | 35 |
| 012 | FS1-DPT0007-045.0-20220216 | Aqueous | PFHxS | PFAS by ID | 12 | | ng/L | 35 |
| 012 | FS1-DPT0007-045.0-20220216 | Aqueous | PFBA | PFAS by ID | 1.1 | I | ng/L | 35 |
| 012 | FS1-DPT0007-045.0-20220216 | Aqueous | PFHpA | PFAS by ID | 1.9 | I | ng/L | 35 |
| 012 | FS1-DPT0007-045.0-20220216 | Aqueous | PFHxA | PFAS by ID | 4.1 | | ng/L | 35 |
| 012 | FS1-DPT0007-045.0-20220216 | Aqueous | PFOA | PFAS by ID | 28 | | ng/L | 35 |
| 012 | FS1-DPT0007-045.0-20220216 | Aqueous | PFPeA | PFAS by ID | 1.6 | I | ng/L | 35 |
| 012 | FS1-DPT0007-045.0-20220216 | Aqueous | PFOS | PFAS by ID | 7.6 | | ng/L | 35 |
| 014 | FS1-DPT0008-005.0-20220216 | Aqueous | PFHxS | PFAS by ID | 13 | I | ng/L | 39 |
| 014 | FS1-DPT0008-005.0-20220216 | Aqueous | PFBA | PFAS by ID | 17 | I | ng/L | 39 |
| 015 | FS1-DPT0008-012.0-20220216 | Aqueous | PFHxS | PFAS by ID | 13 | I | ng/L | 41 |
| 015 | FS1-DPT0008-012.0-20220216 | Aqueous | PFOS | PFAS by ID | 18 | I | ng/L | 41 |
| 016 | FS1-DPT0008-017.0-20220216 | Aqueous | PFHxS | PFAS by ID | 57 | | ng/L | 43 |
| 016 | FS1-DPT0008-017.0-20220216 | Aqueous | PFBA | PFAS by ID | 11 | I | ng/L | 43 |
| 017 | FS1-DPT0008-025.0-20220216 | Aqueous | 6:2 FTS | PFAS by ID | 10 | | ng/L | 45 |
| 017 | FS1-DPT0008-025.0-20220216 | Aqueous | PFBS | PFAS by ID | 19 | | ng/L | 45 |
| 017 | FS1-DPT0008-025.0-20220216 | Aqueous | PFHpS | PFAS by ID | 1.5 | I | ng/L | 45 |
| 017 | FS1-DPT0008-025.0-20220216 | Aqueous | PFPeS | PFAS by ID | 25 | | ng/L | 45 |
| 017 | FS1-DPT0008-025.0-20220216 | Aqueous | PFHxS | PFAS by ID | 490 | | ng/L | 45 |
| 017 | FS1-DPT0008-025.0-20220216 | Aqueous | PFBA | PFAS by ID | 11 | Q | ng/L | 45 |
| 017 | FS1-DPT0008-025.0-20220216 | Aqueous | PFHpA | PFAS by ID | 11 | | ng/L | 45 |
| 017 | FS1-DPT0008-025.0-20220216 | Aqueous | PFHxA | PFAS by ID | 41 | | ng/L | 45 |
| 017 | FS1-DPT0008-025.0-20220216 | Aqueous | PFOA | PFAS by ID | 130 | | ng/L | 45 |
| 017 | FS1-DPT0008-025.0-20220216 | Aqueous | PFPeA | PFAS by ID | 25 | | ng/L | 45 |
| 017 | FS1-DPT0008-025.0-20220216 | Aqueous | PFOS | PFAS by ID | 1.2 | I | ng/L | 45 |
| 018 | FS1-DPT0008-035.0-20220217 | Aqueous | PFBS | PFAS by ID | 5.2 | | ng/L | 47 |
| 018 | FS1-DPT0008-035.0-20220217 | Aqueous | PFPeS | PFAS by ID | 4.9 | | ng/L | 47 |
| 018 | FS1-DPT0008-035.0-20220217 | Aqueous | PFHxS | PFAS by ID | 8.8 | | ng/L | 47 |
| 018 | FS1-DPT0008-035.0-20220217 | Aqueous | PFBA | PFAS by ID | 1.8 | I | ng/L | 47 |
| 018 | FS1-DPT0008-035.0-20220217 | Aqueous | PFHpA | PFAS by ID | 1.0 | I | ng/L | 47 |
| 018 | FS1-DPT0008-035.0-20220217 | Aqueous | PFHxA | PFAS by ID | 9.8 | | ng/L | 47 |
| 018 | FS1-DPT0008-035.0-20220217 | Aqueous | PFOA | PFAS by ID | 2.6 | I | ng/L | 47 |
| 021 | FS1-FD-20220216-01 | Aqueous | PFBS | PFAS by ID | 86 | | ng/L | 53 |
| 021 | FS1-FD-20220216-01 | Aqueous | PFPeS | PFAS by ID | 48 | | ng/L | 53 |
| 021 | FS1-FD-20220216-01 | Aqueous | PFHxS | PFAS by ID | 36 | | ng/L | 53 |
| 021 | FS1-FD-20220216-01 | Aqueous | PFBA | PFAS by ID | 3.8 | IQ | ng/L | 53 |
| 021 | FS1-FD-20220216-01 | Aqueous | PFHpA | PFAS by ID | 2.0 | I | ng/L | 53 |
| 021 | FS1-FD-20220216-01 | Aqueous | PFHxA | PFAS by ID | 11 | | ng/L | 53 |
| 021 | FS1-FD-20220216-01 | Aqueous | PFPeA | PFAS by ID | 6.8 | | ng/L | 53 |

Detection Summary (Continued)

Lot Number: XB18038

| Sample | Sample ID | Matrix | Parameter | Method | Result | Q | Units | Page |
|--------|-----------|--------|-----------|--------|--------|---|-------|------|
|--------|-----------|--------|-----------|--------|--------|---|-------|------|

(137 detections)

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-001 |
| Description: FS1-DPT0006-005.0-20220216 | Matrix: Aqueous |
| Date Sampled: 02/16/2022 0810 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 5 | 03/17/2022 1218 | MMM | 03/08/2022 1620 | 34124 |
| 2 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/15/2022 1428 | MMM | 03/08/2022 1620 | 34124 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|-----|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 6.5 | UQ | 13 | 6.5 | 3.4 | ng/L | 2 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 6.5 | UQ | 13 | 6.5 | 3.4 | ng/L | 2 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 6.5 | U | 13 | 6.5 | 3.4 | ng/L | 2 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 6.2 | I | 13 | 6.5 | 3.4 | ng/L | 2 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 6.5 | U | 13 | 6.5 | 3.4 | ng/L | 2 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 6.5 | UQ | 13 | 6.5 | 3.4 | ng/L | 2 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 6.5 | U | 13 | 6.5 | 3.4 | ng/L | 2 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 6.5 | U | 13 | 6.5 | 3.4 | ng/L | 2 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 6.5 | U | 13 | 6.5 | 3.4 | ng/L | 2 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 6.5 | U | 13 | 6.5 | 3.4 | ng/L | 2 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 5.8 | I | 6.7 | 3.4 | 1.7 | ng/L | 2 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 3.4 | UQ | 6.7 | 3.4 | 1.7 | ng/L | 2 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 31 | | 6.7 | 3.4 | 1.7 | ng/L | 2 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.8 | IQ | 6.7 | 3.4 | 1.7 | ng/L | 2 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 11 | | 6.7 | 3.4 | 1.7 | ng/L | 2 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 360 | | 6.7 | 3.4 | 1.7 | ng/L | 2 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 76 | Q | 6.7 | 3.4 | 1.7 | ng/L | 2 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 6.2 | I | 6.7 | 3.4 | 1.7 | ng/L | 2 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 3.4 | U | 6.7 | 3.4 | 1.7 | ng/L | 2 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 110 | | 6.7 | 3.4 | 1.7 | ng/L | 2 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 110 | | 6.7 | 3.4 | 1.7 | ng/L | 2 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 110 | Q | 6.7 | 3.4 | 1.7 | ng/L | 2 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 110 | Q | 6.7 | 3.4 | 1.7 | ng/L | 2 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 130 | | 6.7 | 3.4 | 1.7 | ng/L | 2 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 3.4 | UQ | 6.7 | 3.4 | 1.7 | ng/L | 2 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 3.4 | U | 6.7 | 3.4 | 1.7 | ng/L | 2 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 3.4 | U | 6.7 | 3.4 | 1.7 | ng/L | 2 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 1800 | D | 34 | 17 | 8.4 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 104 | 50-150 | | 84 | 50-150 |
| 13C2_6:2FTS | | 83 | 50-150 | | 52 | 50-150 |
| 13C2_8:2FTS | | 88 | 50-150 | | 59 | 50-150 |
| 13C2_PFDaA | | 88 | 50-150 | | 51 | 50-150 |
| 13C2_PFTeDA | | 99 | 50-150 | N | 47 | 50-150 |
| 13C3_PFBFS | | 90 | 50-150 | | 50 | 50-150 |
| 13C3_PFHxS | | 87 | 50-150 | | 50 | 50-150 |
| 13C3-HFPO-DA | | 92 | 50-150 | N | 48 | 50-150 |
| 13C4_PFBFA | | 94 | 50-150 | N | 35 | 50-150 |
| 13C4_PFHpA | | 91 | 50-150 | | 51 | 50-150 |
| 13C5_PFHxA | | 88 | 50-150 | | 51 | 50-150 |
| 13C5_PFPeA | | 95 | 50-150 | | 51 | 50-150 |
| 13C6_PFDA | | 93 | 50-150 | | 53 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-001 |
| Description: FS1-DPT0006-005.0-20220216 | Matrix: Aqueous |
| Date Sampled: 02/16/2022 0810 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|---|---------------------|----------------------|
| 13C7_PFUdA | | 89 | 50-150 | | 50 | 50-150 |
| 13C8_PFOA | | 86 | 50-150 | N | 46 | 50-150 |
| 13C8_PFOS | | 94 | 50-150 | N | 47 | 50-150 |
| 13C9_PFNA | | 93 | 50-150 | N | 47 | 50-150 |
| d-EtFOSA | | 96 | 50-150 | | 58 | 50-150 |
| d5-EtFOSAA | | 101 | 50-150 | | 61 | 50-150 |
| d3-MeFOSAA | | 87 | 50-150 | | 51 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-002 |
| Description: FS1-DPT0006-012.0-20220216 | Matrix: Aqueous |
| Date Sampled: 02/16/2022 0830 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/12/2022 2231 | ASD | 03/08/2022 1620 | 34124 |
| 2 | SOP SPE | PFAS by ID SOP QSM B-15 | 100 | 03/13/2022 1230 | MMM | 03/08/2022 1620 | 34124 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 20000 | D | 720 | 360 | 180 | ng/L | 2 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 88 | | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.6 | UQ | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 2700 | D | 360 | 180 | 90 | ng/L | 2 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 4400 | D | 360 | 180 | 90 | ng/L | 2 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 3300 | D | 360 | 180 | 90 | ng/L | 2 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 27000 | D | 360 | 180 | 90 | ng/L | 2 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 1000 | D | 360 | 180 | 90 | ng/L | 2 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 1700 | D | 360 | 180 | 90 | ng/L | 2 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 4100 | D | 360 | 180 | 90 | ng/L | 2 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 490 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 6200 | D | 360 | 180 | 90 | ng/L | 2 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 3100 | D | 360 | 180 | 90 | ng/L | 2 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 27000 | D | 360 | 180 | 90 | ng/L | 2 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 112 | 50-150 | | 126 | 50-150 |
| 13C2_6:2FTS | | 79 | 50-150 | | 101 | 50-150 |
| 13C2_8:2FTS | | 80 | 50-150 | | 115 | 50-150 |
| 13C2_PFDaA | | 61 | 50-150 | | 108 | 50-150 |
| 13C2_PFTeDA | | 50 | 50-150 | | 109 | 50-150 |
| 13C3_PFBFS | | 59 | 50-150 | | 114 | 50-150 |
| 13C3_PFHxS | N | 29 | 50-150 | | 114 | 50-150 |
| 13C3-HFPO-DA | | 74 | 50-150 | | 109 | 50-150 |
| 13C4_PFBFA | N | 49 | 50-150 | | 112 | 50-150 |
| 13C4_PFHpA | N | 38 | 50-150 | | 108 | 50-150 |
| 13C5_PFHxA | | 58 | 50-150 | | 108 | 50-150 |
| 13C5_PFPeA | | 60 | 50-150 | | 105 | 50-150 |
| 13C6_PFDA | | 73 | 50-150 | | 99 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-002 |
| Description: FS1-DPT0006-012.0-20220216 | Matrix: Aqueous |
| Date Sampled: 02/16/2022 0830 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|---|---------------------|----------------------|
| 13C7_PFUdA | | 66 | 50-150 | | 108 | 50-150 |
| 13C8_PFOA | N | 46 | 50-150 | | 113 | 50-150 |
| 13C8_PFOS | | 56 | 50-150 | | 110 | 50-150 |
| 13C9_PFNA | | 54 | 50-150 | | 106 | 50-150 |
| d-EtFOSA | | 54 | 50-150 | | 107 | 50-150 |
| d5-EtFOSAA | | 66 | 50-150 | | 112 | 50-150 |
| d3-MeFOSAA | | 59 | 50-150 | | 109 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-003 |
| Description: FS1-DPT0006-017.0-20220216 | Matrix: Aqueous |
| Date Sampled: 02/16/2022 0850 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/12/2022 2242 | ASD | 03/08/2022 1620 | 34124 |
| 2 | SOP SPE | PFAS by ID SOP QSM B-15 | 500 | 03/13/2022 1241 | MMM | 03/08/2022 1620 | 34124 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|------|------|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 95000 | D | 3600 | 1800 | 900 | ng/L | 2 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3800 | D | 3600 | 1800 | 900 | ng/L | 2 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.6 | UQ | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.6 | UQ | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 7000 | D | 1800 | 900 | 450 | ng/L | 2 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 2000 | D | 1800 | 900 | 450 | ng/L | 2 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 9000 | D | 1800 | 900 | 450 | ng/L | 2 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 100000 | D | 1800 | 900 | 450 | ng/L | 2 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 4200 | D | 1800 | 900 | 450 | ng/L | 2 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 10000 | D | 1800 | 900 | 450 | ng/L | 2 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 21000 | D | 1800 | 900 | 450 | ng/L | 2 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 96 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 12000 | D | 1800 | 900 | 450 | ng/L | 2 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 15000 | D | 1800 | 900 | 450 | ng/L | 2 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.8 | UQ | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 25000 | D | 1800 | 900 | 450 | ng/L | 2 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 68 | 50-150 | | 121 | 50-150 |
| 13C2_6:2FTS | | 108 | 50-150 | | 101 | 50-150 |
| 13C2_8:2FTS | | 62 | 50-150 | | 117 | 50-150 |
| 13C2_PFDa | | 53 | 50-150 | | 109 | 50-150 |
| 13C2_PFTeDA | N | 41 | 50-150 | | 112 | 50-150 |
| 13C3_PFBS | N | 43 | 50-150 | | 114 | 50-150 |
| 13C3_PFHxS | N | 14 | 50-150 | | 111 | 50-150 |
| 13C3-HFPO-DA | | 66 | 50-150 | | 110 | 50-150 |
| 13C4_PFBA | N | 38 | 50-150 | | 113 | 50-150 |
| 13C4_PFHpA | N | 21 | 50-150 | | 110 | 50-150 |
| 13C5_PFHxA | N | 35 | 50-150 | | 108 | 50-150 |
| 13C5_PFPeA | N | 36 | 50-150 | | 105 | 50-150 |
| 13C6_PFDA | | 58 | 50-150 | | 98 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-003 |
| Description: FS1-DPT0006-017.0-20220216 | Matrix: Aqueous |
| Date Sampled: 02/16/2022 0850 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|---|---------------------|----------------------|
| 13C7_PFUdA | | 51 | 50-150 | | 111 | 50-150 |
| 13C8_PFOA | N | 32 | 50-150 | | 113 | 50-150 |
| 13C8_PFOS | | 55 | 50-150 | | 105 | 50-150 |
| 13C9_PFNA | | 52 | 50-150 | | 110 | 50-150 |
| d-EtFOSA | N | 44 | 50-150 | | 93 | 50-150 |
| d5-EtFOSAA | | 55 | 50-150 | | 115 | 50-150 |
| d3-MeFOSAA | | 51 | 50-150 | | 103 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-004 |
| Description: FS1-DPT0006-025.0-20220216 | Matrix: Aqueous |
| Date Sampled: 02/16/2022 0915 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/12/2022 2314 | MMM | 03/08/2022 1620 | 34124 |
| 2 | SOP SPE | PFAS by ID SOP QSM B-15 | 50 | 03/13/2022 1251 | MMM | 03/08/2022 1620 | 34124 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 22000 | D | 350 | 180 | 87 | ng/L | 2 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3100 | D | 350 | 180 | 87 | ng/L | 2 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.5 | UQ | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 2100 | D | 170 | 85 | 43 | ng/L | 2 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 42 | Q | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 2400 | D | 170 | 85 | 43 | ng/L | 2 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 18000 | D | 170 | 85 | 43 | ng/L | 2 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 2300 | D | 170 | 85 | 43 | ng/L | 2 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 2300 | D | 170 | 85 | 43 | ng/L | 2 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 9300 | D | 170 | 85 | 43 | ng/L | 2 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 830 | D | 170 | 85 | 43 | ng/L | 2 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 9100 | D | 170 | 85 | 43 | ng/L | 2 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 49 | | 3.5 | 1.8 | 0.87 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 118 | 50-150 | | 129 | 50-150 |
| 13C2_6:2FTS | | 117 | 50-150 | | 105 | 50-150 |
| 13C2_8:2FTS | | 103 | 50-150 | | 119 | 50-150 |
| 13C2_PFDaA | | 66 | 50-150 | | 109 | 50-150 |
| 13C2_PFTeDA | | 50 | 50-150 | | 105 | 50-150 |
| 13C3_PFBFS | N | 49 | 50-150 | | 112 | 50-150 |
| 13C3_PFHxS | N | 41 | 50-150 | | 107 | 50-150 |
| 13C3-HFPO-DA | | 58 | 50-150 | | 109 | 50-150 |
| 13C4_PFBFA | N | 22 | 50-150 | | 110 | 50-150 |
| 13C4_PFHpA | N | 46 | 50-150 | | 109 | 50-150 |
| 13C5_PFHxA | N | 46 | 50-150 | | 107 | 50-150 |
| 13C5_PFPeA | N | 37 | 50-150 | | 105 | 50-150 |
| 13C6_PFDA | | 80 | 50-150 | | 103 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-004 |
| Description: FS1-DPT0006-025.0-20220216 | Matrix: Aqueous |
| Date Sampled: 02/16/2022 0915 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|---|---------------------|----------------------|
| 13C7_PFUdA | | 71 | 50-150 | | 105 | 50-150 |
| 13C8_PFOA | | 66 | 50-150 | | 115 | 50-150 |
| 13C8_PFOS | | 82 | 50-150 | | 114 | 50-150 |
| 13C9_PFNA | | 80 | 50-150 | | 109 | 50-150 |
| d-EtFOSA | | 56 | 50-150 | | 107 | 50-150 |
| d5-EtFOSAA | | 78 | 50-150 | | 113 | 50-150 |
| d3-MeFOSAA | | 71 | 50-150 | | 110 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-005 |
| Description: FS1-DPT0006-035.0-20220216 | Matrix: Aqueous |
| Date Sampled: 02/16/2022 0940 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 10 | 03/13/2022 1302 | MMM | 03/08/2022 1620 | 34124 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|-----|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 37 | U | 73 | 37 | 18 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 37 | U | 73 | 37 | 18 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 37 | U | 73 | 37 | 18 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 160 | D | 73 | 37 | 18 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 37 | U | 73 | 37 | 18 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 37 | U | 73 | 37 | 18 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 37 | U | 73 | 37 | 18 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 37 | U | 73 | 37 | 18 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 37 | U | 73 | 37 | 18 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 37 | U | 73 | 37 | 18 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 550 | D | 36 | 18 | 9.1 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 18 | U | 36 | 18 | 9.1 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 28 | ID | 36 | 18 | 9.1 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 18 | U | 36 | 18 | 9.1 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 490 | D | 36 | 18 | 9.1 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 3800 | D | 36 | 18 | 9.1 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 110 | D | 36 | 18 | 9.1 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 18 | U | 36 | 18 | 9.1 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 18 | U | 36 | 18 | 9.1 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 180 | D | 36 | 18 | 9.1 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 810 | D | 36 | 18 | 9.1 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 18 | U | 36 | 18 | 9.1 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 690 | D | 36 | 18 | 9.1 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 230 | D | 36 | 18 | 9.1 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 18 | U | 36 | 18 | 9.1 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 18 | U | 36 | 18 | 9.1 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 18 | U | 36 | 18 | 9.1 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 99 | D | 36 | 18 | 9.1 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 144 | 50-150 |
| 13C2_6:2FTS | | 108 | 50-150 |
| 13C2_8:2FTS | | 105 | 50-150 |
| 13C2_PFDa | | 108 | 50-150 |
| 13C2_PFTeDA | | 104 | 50-150 |
| 13C3_PFBs | | 109 | 50-150 |
| 13C3_PFHxS | | 114 | 50-150 |
| 13C3-HFPO-DA | | 101 | 50-150 |
| 13C4_PFBa | | 107 | 50-150 |
| 13C4_PFHpA | | 108 | 50-150 |
| 13C5_PFHxA | | 108 | 50-150 |
| 13C5_PFPeA | | 108 | 50-150 |
| 13C6_PFDa | | 98 | 50-150 |
| 13C7_PFUdA | | 101 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-005 |
| Description: FS1-DPT0006-035.0-20220216 | Matrix: Aqueous |
| Date Sampled: 02/16/2022 0940 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 113 | 50-150 |
| 13C8_PFOS | | 113 | 50-150 |
| 13C9_PFNA | | 108 | 50-150 |
| d-EtFOSA | | 101 | 50-150 |
| d5-EtFOSAA | | 109 | 50-150 |
| d3-MeFOSAA | | 105 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-006 |
| Description: FS1-DPT0006-045.0-20220216 | Matrix: Aqueous |
| Date Sampled: 02/16/2022 1010 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/12/2022 1816 | ASD | 03/09/2022 1157 | 34241 |
| 2 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/15/2022 1337 | ASD | 03/14/2022 1626 | 34774 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 2.6 | IQ | 7.2 | 3.6 | 1.8 | ng/L | 2 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.6 | UQ | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.6 | UQ | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 3.9 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUDA) | 2058-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 6.8 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 213 | 50-150 | N | 207 | 50-150 |
| 13C2_6:2FTS | N | 230 | 50-150 | N | 164 | 50-150 |
| 13C2_8:2FTS | | 110 | 50-150 | | 101 | 50-150 |
| 13C2_PFDaA | | 82 | 50-150 | | 82 | 50-150 |
| 13C2_PFTeDA | | 55 | 50-150 | | 72 | 50-150 |
| 13C3_PFBs | | 81 | 50-150 | | 89 | 50-150 |
| 13C3_PFHxS | | 88 | 50-150 | | 93 | 50-150 |
| 13C3-HFPO-DA | | 82 | 50-150 | | 83 | 50-150 |
| 13C4_PFBa | | 57 | 50-150 | | 56 | 50-150 |
| 13C4_PFHpA | | 82 | 50-150 | | 89 | 50-150 |
| 13C5_PFHxA | | 89 | 50-150 | | 91 | 50-150 |
| 13C5_PFPeA | | 82 | 50-150 | | 84 | 50-150 |
| 13C6_PFDa | | 89 | 50-150 | | 91 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-006 |
| Description: FS1-DPT0006-045.0-20220216 | Matrix: Aqueous |
| Date Sampled: 02/16/2022 1010 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|---|---------------------|----------------------|
| 13C7_PFUdA | | 84 | 50-150 | | 92 | 50-150 |
| 13C8_PFOA | | 100 | 50-150 | | 96 | 50-150 |
| 13C8_PFOS | | 93 | 50-150 | | 93 | 50-150 |
| 13C9_PFNA | | 95 | 50-150 | | 90 | 50-150 |
| d-EtFOSA | N | 23 | 50-150 | | 73 | 50-150 |
| d5-EtFOSAA | | 88 | 50-150 | | 51 | 50-150 |
| d3-MeFOSAA | | 85 | 50-150 | | 90 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-007 |
| Description: FS1-DPT0007-005.0-20220216 | Matrix: Aqueous |
| Date Sampled: 02/16/2022 1120 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/12/2022 1827 | ASD | 03/09/2022 1157 | 34241 |
| 2 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/15/2022 1348 | ASD | 03/14/2022 1626 | 34774 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|---|-----|-----|----|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 2 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 48 | | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 10 | I | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUDA) | 2058-94-8 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 47 | | 40 | 20 | 10 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 139 | 50-150 | | 119 | 50-150 |
| 13C2_6:2FTS | | 114 | 50-150 | | 96 | 50-150 |
| 13C2_8:2FTS | | 121 | 50-150 | | 94 | 50-150 |
| 13C2_PFDaA | | 107 | 50-150 | | 86 | 50-150 |
| 13C2_PFTeDA | | 79 | 50-150 | | 76 | 50-150 |
| 13C3_PFBs | | 110 | 50-150 | | 103 | 50-150 |
| 13C3_PFHxS | | 107 | 50-150 | | 100 | 50-150 |
| 13C3-HFPO-DA | | 106 | 50-150 | | 99 | 50-150 |
| 13C4_PFBa | | 108 | 50-150 | | 97 | 50-150 |
| 13C4_PFHpA | | 104 | 50-150 | | 99 | 50-150 |
| 13C5_PFHxA | | 113 | 50-150 | | 98 | 50-150 |
| 13C5_PFPeA | | 113 | 50-150 | | 101 | 50-150 |
| 13C6_PFDa | | 114 | 50-150 | | 97 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-007 |
| Description: FS1-DPT0007-005.0-20220216 | Matrix: Aqueous |
| Date Sampled: 02/16/2022 1120 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|---|---------------------|----------------------|
| 13C7_PFUdA | | 109 | 50-150 | | 98 | 50-150 |
| 13C8_PFOA | | 117 | 50-150 | | 101 | 50-150 |
| 13C8_PFOS | | 112 | 50-150 | | 102 | 50-150 |
| 13C9_PFNA | | 109 | 50-150 | | 98 | 50-150 |
| d-EtFOSA | | 85 | 50-150 | | 71 | 50-150 |
| d5-EtFOSAA | | 109 | 50-150 | | 95 | 50-150 |
| d3-MeFOSAA | | 94 | 50-150 | | 91 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-008 |
| Description: FS1-DPT0007-012.0-20220216 | Matrix: Aqueous |
| Date Sampled: 02/16/2022 1140 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/12/2022 1838 | ASD | 03/09/2022 1157 | 34241 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|----|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 40 | UL | 80 | 40 | 20 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 14 | I | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 17 | I | 40 | 20 | 10 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 79 | | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 103 | 50-150 |
| 13C2_6:2FTS | | 90 | 50-150 |
| 13C2_8:2FTS | | 84 | 50-150 |
| 13C2_PFDaA | | 72 | 50-150 |
| 13C2_PFTeDA | | 70 | 50-150 |
| 13C3_PFBS | | 78 | 50-150 |
| 13C3_PFHxS | | 82 | 50-150 |
| 13C3-HFPO-DA | | 88 | 50-150 |
| 13C4_PFBA | | 83 | 50-150 |
| 13C4_PFHpA | | 76 | 50-150 |
| 13C5_PFHxA | | 82 | 50-150 |
| 13C5_PFPeA | | 83 | 50-150 |
| 13C6_PFDA | | 91 | 50-150 |
| 13C7_PFUdA | | 79 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-008 |
| Description: FS1-DPT0007-012.0-20220216 | Matrix: Aqueous |
| Date Sampled: 02/16/2022 1140 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 92 | 50-150 |
| 13C8_PFOS | | 88 | 50-150 |
| 13C9_PFNA | | 80 | 50-150 |
| d-EtFOSA | | 76 | 50-150 |
| d5-EtFOSAA | | 78 | 50-150 |
| d3-MeFOSAA | | 72 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-009 |
| Description: FS1-DPT0007-017.0-20220216 | Matrix: Aqueous |
| Date Sampled: 02/16/2022 1200 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/12/2022 1848 | ASD | 03/09/2022 1157 | 34241 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|----|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 40 | UL | 80 | 40 | 20 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 19 | I | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 21 | I | 40 | 20 | 10 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 100 | | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 118 | 50-150 |
| 13C2_6:2FTS | | 106 | 50-150 |
| 13C2_8:2FTS | | 102 | 50-150 |
| 13C2_PFDa | | 96 | 50-150 |
| 13C2_PFTeDA | | 85 | 50-150 |
| 13C3_PFBS | | 90 | 50-150 |
| 13C3_PFHxS | | 96 | 50-150 |
| 13C3-HFPO-DA | | 96 | 50-150 |
| 13C4_PFBA | | 98 | 50-150 |
| 13C4_PFHpA | | 99 | 50-150 |
| 13C5_PFHxA | | 101 | 50-150 |
| 13C5_PFPeA | | 96 | 50-150 |
| 13C6_PFDA | | 101 | 50-150 |
| 13C7_PFUdA | | 92 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-009 |
| Description: FS1-DPT0007-017.0-20220216 | Matrix: Aqueous |
| Date Sampled: 02/16/2022 1200 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 101 | 50-150 |
| 13C8_PFOS | | 100 | 50-150 |
| 13C9_PFNA | | 97 | 50-150 |
| d-EtFOSA | | 86 | 50-150 |
| d5-EtFOSAA | | 97 | 50-150 |
| d3-MeFOSAA | | 90 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-010 |
| Description: FS1-DPT0007-025.0-20220216 | Matrix: Aqueous |
| Date Sampled: 02/16/2022 1225 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/12/2022 2335 | ASD | 03/08/2022 1620 | 34124 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.5 | UQ | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 76 | S | 3.4 | 1.7 | 0.86 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.7 | U | 3.4 | 1.7 | 0.86 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.7 | U | 3.4 | 1.7 | 0.86 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.7 | U | 3.4 | 1.7 | 0.86 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 43 | | 3.4 | 1.7 | 0.86 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 29 | S | 3.4 | 1.7 | 0.86 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 4.1 | Q | 3.4 | 1.7 | 0.86 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.7 | U | 3.4 | 1.7 | 0.86 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.7 | U | 3.4 | 1.7 | 0.86 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 2.0 | I | 3.4 | 1.7 | 0.86 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 10 | | 3.4 | 1.7 | 0.86 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.7 | U | 3.4 | 1.7 | 0.86 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 1.7 | U | 3.4 | 1.7 | 0.86 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 6.2 | | 3.4 | 1.7 | 0.86 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.7 | U | 3.4 | 1.7 | 0.86 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.7 | U | 3.4 | 1.7 | 0.86 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.7 | U | 3.4 | 1.7 | 0.86 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 1.5 | I | 3.4 | 1.7 | 0.86 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 206 | 50-150 |
| 13C2_6:2FTS | | 147 | 50-150 |
| 13C2_8:2FTS | | 93 | 50-150 |
| 13C2_PFDa | | 77 | 50-150 |
| 13C2_PFTeDA | | 63 | 50-150 |
| 13C3_PFBs | | 79 | 50-150 |
| 13C3_PFHxS | | 99 | 50-150 |
| 13C3-HFPO-DA | | 87 | 50-150 |
| 13C4_PFBa | N | 45 | 50-150 |
| 13C4_PFHpA | | 87 | 50-150 |
| 13C5_PFHxA | | 89 | 50-150 |
| 13C5_PFPeA | | 75 | 50-150 |
| 13C6_PFDa | | 92 | 50-150 |
| 13C7_PFUdA | | 86 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-010 |
| Description: FS1-DPT0007-025.0-20220216 | Matrix: Aqueous |
| Date Sampled: 02/16/2022 1225 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 93 | 50-150 |
| 13C8_PFOS | | 99 | 50-150 |
| 13C9_PFNA | | 87 | 50-150 |
| d-EtFOSA | | 61 | 50-150 |
| d5-EtFOSAA | | 90 | 50-150 |
| d3-MeFOSAA | | 80 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-011 |
| Description: FS1-DPT0007-035.0-20220216 | Matrix: Aqueous |
| Date Sampled: 02/16/2022 1250 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/12/2022 1920 | ASD | 03/09/2022 1157 | 34241 |
| 2 | SOP SPE | PFAS by ID SOP QSM B-15 | 100 | 03/17/2022 1229 | MMM | 03/09/2022 1157 | 34241 |
| 4 | SOP SPE | PFAS by ID SOP QSM B-15 | 100 | 03/16/2022 1846 | NK1 | 03/14/2022 1626 | 34774 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 7500 | D | 710 | 360 | 180 | ng/L | 4 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 530 | ID | 720 | 360 | 180 | ng/L | 2 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.6 | UQ | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.6 | UQ | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 4300 | D | 360 | 180 | 91 | ng/L | 2 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 240 | Q | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 3300 | D | 360 | 180 | 91 | ng/L | 2 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 15000 | D | 360 | 180 | 91 | ng/L | 2 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 830 | D | 360 | 180 | 91 | ng/L | 2 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 650 | D | 360 | 180 | 91 | ng/L | 2 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 4600 | D | 360 | 180 | 91 | ng/L | 2 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 510 | D | 360 | 180 | 91 | ng/L | 2 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 1900 | D | 360 | 180 | 91 | ng/L | 2 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.8 | UQ | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 94 | | 3.6 | 1.8 | 0.91 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits | Q | Run 4 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|---|------------------|-------------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 116 | 50-150 | | 99 | 50-150 | | 98 | 50-150 |
| 13C2_6:2FTS | | 108 | 50-150 | | 90 | 50-150 | | 97 | 50-150 |
| 13C2_8:2FTS | | 93 | 50-150 | | 91 | 50-150 | | 114 | 50-150 |
| 13C2_PFDaA | | 70 | 50-150 | | 108 | 50-150 | | 95 | 50-150 |
| 13C2_PFTeDA | N | 36 | 50-150 | | 105 | 50-150 | | 99 | 50-150 |
| 13C3_PFBs | | 86 | 50-150 | | 100 | 50-150 | | 96 | 50-150 |
| 13C3_PFHxA | N | 41 | 50-150 | | 95 | 50-150 | | 94 | 50-150 |
| 13C3-HFPO-DA | | 81 | 50-150 | | 103 | 50-150 | | 92 | 50-150 |
| 13C4_PFBa | N | 46 | 50-150 | | 100 | 50-150 | | 102 | 50-150 |
| 13C4_PFHpA | N | 48 | 50-150 | | 106 | 50-150 | | 91 | 50-150 |
| 13C5_PFHxA | | 54 | 50-150 | | 94 | 50-150 | | 98 | 50-150 |
| 13C5_PFPeA | | 62 | 50-150 | | 97 | 50-150 | | 92 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-011 |
| Description: FS1-DPT0007-035.0-20220216 | Matrix: Aqueous |
| Date Sampled: 02/16/2022 1250 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits | Q | Run 4 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|---|---------------------|----------------------|---|---------------------|----------------------|
| 13C6_PFDA | | 86 | 50-150 | | 99 | 50-150 | | 94 | 50-150 |
| 13C7_PFUdA | | 77 | 50-150 | | 94 | 50-150 | | 94 | 50-150 |
| 13C8_PFOA | | 81 | 50-150 | | 93 | 50-150 | | 104 | 50-150 |
| 13C8_PFOS | | 87 | 50-150 | | 105 | 50-150 | | 102 | 50-150 |
| 13C9_PFNA | | 87 | 50-150 | | 104 | 50-150 | | 105 | 50-150 |
| d-EtFOSA | N | 14 | 50-150 | | 107 | 50-150 | | 85 | 50-150 |
| d5-EtFOSAA | | 86 | 50-150 | | 103 | 50-150 | | 96 | 50-150 |
| d3-MeFOSAA | | 77 | 50-150 | | 91 | 50-150 | | 94 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-012 |
| Description: FS1-DPT0007-045.0-20220216 | Matrix: Aqueous |
| Date Sampled: 02/16/2022 1315 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/13/2022 1209 | MMM | 03/09/2022 1157 | 34241 |
| 2 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/15/2022 1410 | ASD | 03/14/2022 1626 | 34774 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 1.9 | IQ | 6.9 | 3.5 | 1.7 | ng/L | 2 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.6 | UQ | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.6 | UQ | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.6 | U | 7.1 | 3.6 | 1.8 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 2.4 | I | 3.5 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 0.89 | I | 3.5 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 2.8 | I | 3.5 | 1.8 | 0.89 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 12 | | 3.5 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 1.1 | I | 3.5 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 1.9 | I | 3.5 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 4.1 | | 3.5 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 28 | | 3.5 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 1.6 | I | 3.5 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.89 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.89 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 7.6 | | 3.5 | 1.8 | 0.89 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 261 | 50-150 | N | 210 | 50-150 |
| 13C2_6:2FTS | N | 219 | 50-150 | N | 182 | 50-150 |
| 13C2_8:2FTS | | 132 | 50-150 | | 111 | 50-150 |
| 13C2_PFDaA | | 86 | 50-150 | | 83 | 50-150 |
| 13C2_PFTeDA | | 60 | 50-150 | | 75 | 50-150 |
| 13C3_PFBFS | | 84 | 50-150 | | 87 | 50-150 |
| 13C3_PFHxS | | 96 | 50-150 | | 95 | 50-150 |
| 13C3-HFPO-DA | | 82 | 50-150 | | 87 | 50-150 |
| 13C4_PFBFA | | 54 | 50-150 | | 54 | 50-150 |
| 13C4_PFHpA | | 99 | 50-150 | | 97 | 50-150 |
| 13C5_PFHxA | | 90 | 50-150 | | 96 | 50-150 |
| 13C5_PFPeA | | 81 | 50-150 | | 81 | 50-150 |
| 13C6_PFDA | | 101 | 50-150 | | 99 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-012 |
| Description: FS1-DPT0007-045.0-20220216 | Matrix: Aqueous |
| Date Sampled: 02/16/2022 1315 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|---|---------------------|----------------------|
| 13C7_PFUdA | | 90 | 50-150 | | 95 | 50-150 |
| 13C8_PFOA | | 105 | 50-150 | | 101 | 50-150 |
| 13C8_PFOS | | 92 | 50-150 | | 102 | 50-150 |
| 13C9_PFNA | | 102 | 50-150 | | 95 | 50-150 |
| d-EtFOSA | N | 34 | 50-150 | | 63 | 50-150 |
| d5-EtFOSAA | | 98 | 50-150 | | 101 | 50-150 |
| d3-MeFOSAA | | 93 | 50-150 | | 94 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---------------------------------|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-013 |
| Description: FS1-EB-20220216-01 | Matrix: Aqueous |
| Date Sampled: 02/16/2022 1400 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/12/2022 1941 | ASD | 03/09/2022 1157 | 34241 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.6 | UL | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 104 | 50-150 |
| 13C2_6:2FTS | | 103 | 50-150 |
| 13C2_8:2FTS | | 91 | 50-150 |
| 13C2_PFDa | | 92 | 50-150 |
| 13C2_PFTeDA | | 84 | 50-150 |
| 13C3_PFBS | | 90 | 50-150 |
| 13C3_PFHxS | | 85 | 50-150 |
| 13C3-HFPO-DA | | 94 | 50-150 |
| 13C4_PFBA | | 94 | 50-150 |
| 13C4_PFHpA | | 91 | 50-150 |
| 13C5_PFHxA | | 90 | 50-150 |
| 13C5_PFPeA | | 93 | 50-150 |
| 13C6_PFDA | | 95 | 50-150 |
| 13C7_PFUdA | | 92 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---------------------------------|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-013 |
| Description: FS1-EB-20220216-01 | Matrix: Aqueous |
| Date Sampled: 02/16/2022 1400 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 102 | 50-150 |
| 13C8_PFOS | | 91 | 50-150 |
| 13C9_PFNA | | 91 | 50-150 |
| d-EtFOSA | | 86 | 50-150 |
| d5-EtFOSAA | | 101 | 50-150 |
| d3-MeFOSAA | | 93 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-014 |
| Description: FS1-DPT0008-005.0-20220216 | Matrix: Aqueous |
| Date Sampled: 02/16/2022 1445 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/12/2022 1952 | ASD | 03/09/2022 1157 | 34241 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|----|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 40 | UL | 80 | 40 | 20 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 13 | I | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 17 | I | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 120 | 50-150 |
| 13C2_6:2FTS | | 116 | 50-150 |
| 13C2_8:2FTS | | 106 | 50-150 |
| 13C2_PFDa | | 98 | 50-150 |
| 13C2_PFTeDA | | 75 | 50-150 |
| 13C3_PFBs | | 99 | 50-150 |
| 13C3_PFHxS | | 103 | 50-150 |
| 13C3-HFPO-DA | | 99 | 50-150 |
| 13C4_PFBa | | 99 | 50-150 |
| 13C4_PFHpA | | 95 | 50-150 |
| 13C5_PFHxA | | 98 | 50-150 |
| 13C5_PFPeA | | 102 | 50-150 |
| 13C6_PFDa | | 107 | 50-150 |
| 13C7_PFUdA | | 100 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-014 |
| Description: FS1-DPT0008-005.0-20220216 | Matrix: Aqueous |
| Date Sampled: 02/16/2022 1445 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 109 | 50-150 |
| 13C8_PFOS | | 104 | 50-150 |
| 13C9_PFNA | | 106 | 50-150 |
| d-EtFOSA | | 76 | 50-150 |
| d5-EtFOSAA | | 108 | 50-150 |
| d3-MeFOSAA | | 102 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-015 |
| Description: FS1-DPT0008-012.0-20220216 | Matrix: Aqueous |
| Date Sampled: 02/16/2022 1515 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/12/2022 2003 | ASD | 03/09/2022 1157 | 34241 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|----|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 40 | UL | 80 | 40 | 20 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 13 | I | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 18 | I | 40 | 20 | 10 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 118 | 50-150 |
| 13C2_6:2FTS | | 112 | 50-150 |
| 13C2_8:2FTS | | 94 | 50-150 |
| 13C2_PFDa | | 84 | 50-150 |
| 13C2_PFTeDA | | 71 | 50-150 |
| 13C3_PFBS | | 92 | 50-150 |
| 13C3_PFHxS | | 88 | 50-150 |
| 13C3-HFPO-DA | | 87 | 50-150 |
| 13C4_PFBA | | 94 | 50-150 |
| 13C4_PFHpA | | 91 | 50-150 |
| 13C5_PFHxA | | 97 | 50-150 |
| 13C5_PFPeA | | 91 | 50-150 |
| 13C6_PFDA | | 100 | 50-150 |
| 13C7_PFUdA | | 86 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-015 |
| Description: FS1-DPT0008-012.0-20220216 | Matrix: Aqueous |
| Date Sampled: 02/16/2022 1515 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 101 | 50-150 |
| 13C8_PFOS | | 95 | 50-150 |
| 13C9_PFNA | | 89 | 50-150 |
| d-EtFOSA | | 80 | 50-150 |
| d5-EtFOSAA | | 85 | 50-150 |
| d3-MeFOSAA | | 82 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-016 |
| Description: FS1-DPT0008-017.0-20220216 | Matrix: Aqueous |
| Date Sampled: 02/16/2022 1545 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/12/2022 2013 | ASD | 03/09/2022 1157 | 34241 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|----|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 40 | UL | 80 | 40 | 20 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 40 | U | 80 | 40 | 20 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 57 | | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 11 | I | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 20 | U | 40 | 20 | 10 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 114 | 50-150 |
| 13C2_6:2FTS | | 100 | 50-150 |
| 13C2_8:2FTS | | 102 | 50-150 |
| 13C2_PFDa | | 100 | 50-150 |
| 13C2_PFTeDA | | 81 | 50-150 |
| 13C3_PFBs | | 94 | 50-150 |
| 13C3_PFHxS | | 102 | 50-150 |
| 13C3-HFPO-DA | | 95 | 50-150 |
| 13C4_PFBa | | 90 | 50-150 |
| 13C4_PFHpA | | 100 | 50-150 |
| 13C5_PFHxA | | 102 | 50-150 |
| 13C5_PFPeA | | 99 | 50-150 |
| 13C6_PFDa | | 101 | 50-150 |
| 13C7_PFUdA | | 90 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-016 |
| Description: FS1-DPT0008-017.0-20220216 | Matrix: Aqueous |
| Date Sampled: 02/16/2022 1545 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 99 | 50-150 |
| 13C8_PFOS | | 100 | 50-150 |
| 13C9_PFNA | | 96 | 50-150 |
| d-EtFOSA | | 81 | 50-150 |
| d5-EtFOSAA | | 88 | 50-150 |
| d3-MeFOSAA | | 89 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-017 |
| Description: FS1-DPT0008-025.0-20220216 | Matrix: Aqueous |
| Date Sampled: 02/16/2022 1615 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/15/2022 1449 | MMM | 03/09/2022 1157 | 34241 |
| 2 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/15/2022 1421 | ASD | 03/14/2022 1626 | 34774 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.9 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.9 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.9 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 10 | | 6.9 | 3.5 | 1.7 | ng/L | 2 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.7 | UQ | 7.4 | 3.7 | 1.9 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.9 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.9 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.7 | UQ | 7.4 | 3.7 | 1.9 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.9 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.7 | U | 7.4 | 3.7 | 1.9 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 19 | | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.5 | I | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 25 | | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 490 | | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 11 | Q | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 11 | | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 41 | | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 130 | | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 25 | | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.93 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 1.2 | I | 3.7 | 1.9 | 0.93 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 202 | 50-150 | N | 152 | 50-150 |
| 13C2_6:2FTS | | 125 | 50-150 | | 106 | 50-150 |
| 13C2_8:2FTS | | 106 | 50-150 | | 73 | 50-150 |
| 13C2_PFDaA | | 85 | 50-150 | | 65 | 50-150 |
| 13C2_PFTeDA | | 74 | 50-150 | | 60 | 50-150 |
| 13C3_PFBs | | 88 | 50-150 | | 72 | 50-150 |
| 13C3_PFHxS | | 84 | 50-150 | | 76 | 50-150 |
| 13C3-HFPO-DA | | 88 | 50-150 | | 71 | 50-150 |
| 13C4_PFBa | N | 49 | 50-150 | N | 41 | 50-150 |
| 13C4_PFHpA | | 91 | 50-150 | | 74 | 50-150 |
| 13C5_PFHxA | | 93 | 50-150 | | 75 | 50-150 |
| 13C5_PFPeA | | 85 | 50-150 | | 66 | 50-150 |
| 13C6_PFDa | | 100 | 50-150 | | 71 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-017 |
| Description: FS1-DPT0008-025.0-20220216 | Matrix: Aqueous |
| Date Sampled: 02/16/2022 1615 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|---|---------------------|----------------------|
| 13C7_PFUdA | | 94 | 50-150 | | 72 | 50-150 |
| 13C8_PFOA | | 90 | 50-150 | | 79 | 50-150 |
| 13C8_PFOS | | 94 | 50-150 | | 77 | 50-150 |
| 13C9_PFNA | | 103 | 50-150 | | 72 | 50-150 |
| d-EtFOSA | N | 37 | 50-150 | | 54 | 50-150 |
| d5-EtFOSAA | | 101 | 50-150 | | 74 | 50-150 |
| d3-MeFOSAA | | 82 | 50-150 | | 70 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-018 |
| Description: FS1-DPT0008-035.0-20220217 | Matrix: Aqueous |
| Date Sampled: 02/17/2022 0720 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/15/2022 1500 | MMM | 03/09/2022 1157 | 34241 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.6 | UL | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.6 | UQ | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.6 | UQ | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 5.2 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 4.9 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 8.8 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 1.8 | I | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 1.0 | I | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 9.8 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 2.6 | I | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.8 | UQ | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 202 | 50-150 |
| 13C2_6:2FTS | | 144 | 50-150 |
| 13C2_8:2FTS | | 98 | 50-150 |
| 13C2_PFDa | | 76 | 50-150 |
| 13C2_PFTeDA | N | 48 | 50-150 |
| 13C3_PFBS | | 84 | 50-150 |
| 13C3_PFHxS | | 94 | 50-150 |
| 13C3-HFPO-DA | | 87 | 50-150 |
| 13C4_PFBA | | 55 | 50-150 |
| 13C4_PFHpA | | 95 | 50-150 |
| 13C5_PFHxA | | 91 | 50-150 |
| 13C5_PFPeA | | 85 | 50-150 |
| 13C6_PFDA | | 96 | 50-150 |
| 13C7_PFUdA | | 91 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-018 |
| Description: FS1-DPT0008-035.0-20220217 | Matrix: Aqueous |
| Date Sampled: 02/17/2022 0720 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 97 | 50-150 |
| 13C8_PFOS | | 92 | 50-150 |
| 13C9_PFNA | | 98 | 50-150 |
| d-EtFOSA | N | 27 | 50-150 |
| d5-EtFOSAA | | 100 | 50-150 |
| d3-MeFOSAA | | 88 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-019 |
| Description: FS1-DPT0008-045.0-20220217 | Matrix: Aqueous |
| Date Sampled: 02/17/2022 0745 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/12/2022 2106 | ASD | 03/09/2022 1157 | 34241 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.7 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.7 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.7 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.5 | UL | 7.0 | 3.5 | 1.7 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.5 | UQ | 7.0 | 3.5 | 1.7 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.7 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.7 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.5 | UQ | 7.0 | 3.5 | 1.7 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.7 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.7 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 163 | 50-150 |
| 13C2_6:2FTS | | 125 | 50-150 |
| 13C2_8:2FTS | | 90 | 50-150 |
| 13C2_PFDa | | 72 | 50-150 |
| 13C2_PFTeDA | | 52 | 50-150 |
| 13C3_PFBS | | 76 | 50-150 |
| 13C3_PFHxS | | 84 | 50-150 |
| 13C3-HFPO-DA | | 75 | 50-150 |
| 13C4_PFBA | | 52 | 50-150 |
| 13C4_PFHpA | | 75 | 50-150 |
| 13C5_PFHxA | | 82 | 50-150 |
| 13C5_PFPeA | | 75 | 50-150 |
| 13C6_PFDA | | 75 | 50-150 |
| 13C7_PFUdA | | 70 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-019 |
| Description: FS1-DPT0008-045.0-20220217 | Matrix: Aqueous |
| Date Sampled: 02/17/2022 0745 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 82 | 50-150 |
| 13C8_PFOS | | 86 | 50-150 |
| 13C9_PFNA | | 81 | 50-150 |
| d-EtFOSA | N | 16 | 50-150 |
| d5-EtFOSAA | | 77 | 50-150 |
| d3-MeFOSAA | | 77 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---------------------------------|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-020 |
| Description: FS1-FB-20220217-01 | Matrix: Aqueous |
| Date Sampled: 02/17/2022 0750 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/12/2022 2117 | ASD | 03/09/2022 1157 | 34241 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|-----|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 4.1 | U | 8.1 | 4.1 | 2.0 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 4.1 | U | 8.1 | 4.1 | 2.0 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 4.1 | U | 8.1 | 4.1 | 2.0 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 4.1 | UL | 8.1 | 4.1 | 2.0 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 4.1 | U | 8.1 | 4.1 | 2.0 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 4.1 | U | 8.1 | 4.1 | 2.0 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 4.1 | U | 8.1 | 4.1 | 2.0 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 4.1 | U | 8.1 | 4.1 | 2.0 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 4.1 | U | 8.1 | 4.1 | 2.0 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 4.1 | U | 8.1 | 4.1 | 2.0 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 2.0 | U | 4.0 | 2.0 | 1.0 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 2.0 | U | 4.0 | 2.0 | 1.0 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 2.0 | U | 4.0 | 2.0 | 1.0 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 2.0 | U | 4.0 | 2.0 | 1.0 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 2.0 | U | 4.0 | 2.0 | 1.0 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 2.0 | U | 4.0 | 2.0 | 1.0 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 2.0 | U | 4.0 | 2.0 | 1.0 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 2.0 | U | 4.0 | 2.0 | 1.0 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 2.0 | U | 4.0 | 2.0 | 1.0 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 2.0 | U | 4.0 | 2.0 | 1.0 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 2.0 | U | 4.0 | 2.0 | 1.0 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 2.0 | U | 4.0 | 2.0 | 1.0 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 2.0 | U | 4.0 | 2.0 | 1.0 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 2.0 | U | 4.0 | 2.0 | 1.0 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 2.0 | U | 4.0 | 2.0 | 1.0 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 2.0 | U | 4.0 | 2.0 | 1.0 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 2.0 | U | 4.0 | 2.0 | 1.0 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 2.0 | U | 4.0 | 2.0 | 1.0 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 105 | 50-150 |
| 13C2_6:2FTS | | 106 | 50-150 |
| 13C2_8:2FTS | | 109 | 50-150 |
| 13C2_PFDa | | 86 | 50-150 |
| 13C2_PFTeDA | | 74 | 50-150 |
| 13C3_PFBs | | 89 | 50-150 |
| 13C3_PFHxS | | 97 | 50-150 |
| 13C3-HFPO-DA | | 95 | 50-150 |
| 13C4_PFBa | | 94 | 50-150 |
| 13C4_PFHpA | | 92 | 50-150 |
| 13C5_PFHxA | | 91 | 50-150 |
| 13C5_PFPeA | | 91 | 50-150 |
| 13C6_PFDa | | 93 | 50-150 |
| 13C7_PFUdA | | 83 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---------------------------------|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-020 |
| Description: FS1-FB-20220217-01 | Matrix: Aqueous |
| Date Sampled: 02/17/2022 0750 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 97 | 50-150 |
| 13C8_PFOS | | 93 | 50-150 |
| 13C9_PFNA | | 93 | 50-150 |
| d-EtFOSA | | 81 | 50-150 |
| d5-EtFOSAA | | 96 | 50-150 |
| d3-MeFOSAA | | 87 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---------------------------------|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-021 |
| Description: FS1-FD-20220216-01 | Matrix: Aqueous |
| Date Sampled: 02/16/2022 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/12/2022 2127 | ASD | 03/09/2022 1157 | 34241 |
| 2 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/15/2022 1432 | ASD | 03/14/2022 1626 | 34774 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|-----|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 4.2 | U | 8.3 | 4.2 | 2.1 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 4.2 | U | 8.3 | 4.2 | 2.1 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 4.2 | U | 8.3 | 4.2 | 2.1 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 2 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 4.2 | UQ | 8.3 | 4.2 | 2.1 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 4.2 | U | 8.3 | 4.2 | 2.1 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 4.2 | U | 8.3 | 4.2 | 2.1 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 4.2 | UQ | 8.3 | 4.2 | 2.1 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 4.2 | U | 8.3 | 4.2 | 2.1 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 4.2 | U | 8.3 | 4.2 | 2.1 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 86 | | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 48 | | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 36 | | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 3.8 | IQ | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 2.0 | I | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 11 | | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 6.8 | | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 2.1 | UQ | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 2.1 | U | 4.1 | 2.1 | 1.0 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 153 | 50-150 | | 149 | 50-150 |
| 13C2_6:2FTS | | 132 | 50-150 | | 116 | 50-150 |
| 13C2_8:2FTS | | 77 | 50-150 | | 77 | 50-150 |
| 13C2_PFDaA | | 68 | 50-150 | | 65 | 50-150 |
| 13C2_PFTeDA | N | 45 | 50-150 | | 55 | 50-150 |
| 13C3_PFBFS | | 68 | 50-150 | | 72 | 50-150 |
| 13C3_PFHxS | | 74 | 50-150 | | 75 | 50-150 |
| 13C3-HFPO-DA | | 70 | 50-150 | | 75 | 50-150 |
| 13C4_PFBFA | N | 43 | 50-150 | N | 42 | 50-150 |
| 13C4_PFHpA | | 72 | 50-150 | | 80 | 50-150 |
| 13C5_PFHxA | | 74 | 50-150 | | 79 | 50-150 |
| 13C5_PFPeA | | 68 | 50-150 | | 66 | 50-150 |
| 13C6_PFDA | | 75 | 50-150 | | 76 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---------------------------------|----------------------------|
| Client: Tetra Tech | Laboratory ID: XB18038-021 |
| Description: FS1-FD-20220216-01 | Matrix: Aqueous |
| Date Sampled: 02/16/2022 | Project Name: KSC-FS1 |
| Date Received: 02/18/2022 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|---|---------------------|----------------------|
| 13C7_PFUdA | | 70 | 50-150 | | 76 | 50-150 |
| 13C8_PFOA | | 81 | 50-150 | | 79 | 50-150 |
| 13C8_PFOS | | 75 | 50-150 | | 81 | 50-150 |
| 13C9_PFNA | | 73 | 50-150 | | 75 | 50-150 |
| d-EtFOSA | N | 9.7 | 50-150 | | 55 | 50-150 |
| d5-EtFOSAA | | 77 | 50-150 | | 78 | 50-150 |
| d3-MeFOSAA | | 71 | 50-150 | | 71 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

QC Summary

PFAS by LC/MS/MS - MB

Sample ID: XQ34124-001

Matrix: Aqueous

Batch: 34124

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/08/2022 1620

| Parameter | Result | Q | Dil | LOQ | LOD | DL | Units | Analysis Date |
|--------------|--------|-------|------------------|-----|-----|-----|-------|-----------------|
| 9CI-PF3ONS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/09/2022 2124 |
| 11CI-PF3OUdS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/09/2022 2124 |
| 8:2 FTS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/09/2022 2124 |
| 6:2 FTS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/09/2022 2124 |
| 4:2 FTS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/09/2022 2124 |
| GenX | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/09/2022 2124 |
| ADONA | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/09/2022 2124 |
| EtFOSA | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/09/2022 2124 |
| EtFOSAA | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/09/2022 2124 |
| MeFOSAA | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/09/2022 2124 |
| PFBS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/09/2022 2124 |
| PFDS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/09/2022 2124 |
| PFHpS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/09/2022 2124 |
| PFNS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/09/2022 2124 |
| PFPeS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/09/2022 2124 |
| PFHxS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/09/2022 2124 |
| PFBA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/09/2022 2124 |
| PFDA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/09/2022 2124 |
| PFDoA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/09/2022 2124 |
| PFHpA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/09/2022 2124 |
| PFHxA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/09/2022 2124 |
| PFNA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/09/2022 2124 |
| PFOA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/09/2022 2124 |
| PFPeA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/09/2022 2124 |
| PFTeDA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/09/2022 2124 |
| PFTTrDA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/09/2022 2124 |
| PFUdA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/09/2022 2124 |
| PFOS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/09/2022 2124 |
| Surrogate | Q | % Rec | Acceptance Limit | | | | | |
| 13C2_4:2FTS | | 106 | 50-150 | | | | | |
| 13C2_6:2FTS | | 103 | 50-150 | | | | | |
| 13C2_8:2FTS | | 110 | 50-150 | | | | | |
| 13C2_PFDoA | | 91 | 50-150 | | | | | |
| 13C2_PFTeDA | | 80 | 50-150 | | | | | |
| 13C3_PFBS | | 98 | 50-150 | | | | | |
| 13C3_PFHxS | | 87 | 50-150 | | | | | |
| 13C3-HFPO-DA | | 99 | 50-150 | | | | | |
| 13C4_PFBA | | 97 | 50-150 | | | | | |
| 13C4_PFHpA | | 94 | 50-150 | | | | | |
| 13C5_PFHxA | | 89 | 50-150 | | | | | |
| 13C5_PFPeA | | 97 | 50-150 | | | | | |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MB

Sample ID: XQ34124-001

Matrix: Aqueous

Batch: 34124

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/08/2022 1620

| Surrogate | Q | % Rec | Acceptance Limit |
|------------|---|-------|------------------|
| 13C6_PFDA | | 98 | 50-150 |
| 13C7_PFUdA | | 90 | 50-150 |
| 13C8_PFOA | | 95 | 50-150 |
| 13C8_PFOS | | 93 | 50-150 |
| 13C9_PFNA | | 94 | 50-150 |
| d-EtFOSA | | 77 | 50-150 |
| d5-EtFOSAA | | 95 | 50-150 |
| d3-MeFOSAA | | 97 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - LCS

Sample ID: XQ34124-002

Matrix: Aqueous

Batch: 34124

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/08/2022 1620

| Parameter | Spike Amount (ng/L) | Result (ng/L) | Q | Dil | % Rec | %Rec Limit | Analysis Date |
|--------------|---------------------|---------------|------------------|-----|-------|------------|-----------------|
| 9CI-PF3ONS | 15 | 14 | | 1 | 94 | 70-150 | 03/09/2022 2135 |
| 11CI-PF3OUdS | 15 | 13 | | 1 | 89 | 70-150 | 03/09/2022 2135 |
| 8:2 FTS | 15 | 15 | | 1 | 96 | 67-138 | 03/09/2022 2135 |
| 6:2 FTS | 15 | 15 | | 1 | 98 | 64-140 | 03/09/2022 2135 |
| 4:2 FTS | 15 | 12 | | 1 | 83 | 63-143 | 03/09/2022 2135 |
| GenX | 32 | 29 | | 1 | 89 | 70-150 | 03/09/2022 2135 |
| ADONA | 15 | 15 | | 1 | 98 | 70-150 | 03/09/2022 2135 |
| EtFOSA | 16 | 19 | | 1 | 118 | 70-150 | 03/09/2022 2135 |
| EtFOSAA | 16 | 14 | | 1 | 87 | 61-135 | 03/09/2022 2135 |
| MeFOSAA | 16 | 13 | | 1 | 83 | 65-136 | 03/09/2022 2135 |
| PFBS | 14 | 13 | | 1 | 93 | 72-130 | 03/09/2022 2135 |
| PFDS | 15 | 14 | | 1 | 93 | 53-142 | 03/09/2022 2135 |
| PFHpS | 15 | 14 | | 1 | 94 | 69-134 | 03/09/2022 2135 |
| PFNS | 15 | 16 | | 1 | 104 | 69-127 | 03/09/2022 2135 |
| PFPeS | 15 | 16 | | 1 | 105 | 71-127 | 03/09/2022 2135 |
| PFHxS | 15 | 14 | | 1 | 97 | 68-131 | 03/09/2022 2135 |
| PFBA | 16 | 16 | | 1 | 100 | 73-129 | 03/09/2022 2135 |
| PFDA | 16 | 14 | | 1 | 90 | 71-129 | 03/09/2022 2135 |
| PFDaA | 16 | 16 | | 1 | 100 | 72-134 | 03/09/2022 2135 |
| PFHpA | 16 | 17 | | 1 | 108 | 72-130 | 03/09/2022 2135 |
| PFHxA | 16 | 16 | | 1 | 100 | 72-129 | 03/09/2022 2135 |
| PFNA | 16 | 16 | | 1 | 99 | 69-130 | 03/09/2022 2135 |
| PFOA | 16 | 15 | | 1 | 95 | 71-133 | 03/09/2022 2135 |
| PFPeA | 16 | 16 | | 1 | 102 | 72-129 | 03/09/2022 2135 |
| PFTeDA | 16 | 16 | | 1 | 103 | 71-132 | 03/09/2022 2135 |
| PFTTrDA | 16 | 16 | | 1 | 102 | 65-144 | 03/09/2022 2135 |
| PFUdA | 16 | 16 | | 1 | 99 | 69-133 | 03/09/2022 2135 |
| PFOS | 15 | 15 | | 1 | 101 | 65-140 | 03/09/2022 2135 |
| Surrogate | Q | % Rec | Acceptance Limit | | | | |
| 13C2_4:2FTS | | 96 | 50-150 | | | | |
| 13C2_6:2FTS | | 89 | 50-150 | | | | |
| 13C2_8:2FTS | | 95 | 50-150 | | | | |
| 13C2_PFDaA | | 83 | 50-150 | | | | |
| 13C2_PFTeDA | | 77 | 50-150 | | | | |
| 13C3_PFBS | | 92 | 50-150 | | | | |
| 13C3_PFHxS | | 85 | 50-150 | | | | |
| 13C3-HFPO-DA | | 94 | 50-150 | | | | |
| 13C4_PFBA | | 91 | 50-150 | | | | |
| 13C4_PFHpA | | 85 | 50-150 | | | | |
| 13C5_PFHxA | | 84 | 50-150 | | | | |
| 13C5_PFPeA | | 91 | 50-150 | | | | |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - LCS

Sample ID: XQ34124-002

Matrix: Aqueous

Batch: 34124

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/08/2022 1620

| Surrogate | Q | % Rec | Acceptance Limit |
|------------|---|-------|------------------|
| 13C6_PFDA | | 92 | 50-150 |
| 13C7_PFUdA | | 85 | 50-150 |
| 13C8_PFOA | | 87 | 50-150 |
| 13C8_PFOS | | 88 | 50-150 |
| 13C9_PFNA | | 92 | 50-150 |
| d-EtFOSA | | 63 | 50-150 |
| d5-EtFOSAA | | 89 | 50-150 |
| d3-MeFOSAA | | 93 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MS

Sample ID: XB18038-010MS

Matrix: Aqueous

Batch: 34124

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/08/2022 1620

| Parameter | Sample Amount (ng/L) | Spike Amount (ng/L) | Result (ng/L) | Q | Dil | % Rec | %Rec Limit | Analysis Date |
|--------------|----------------------|---------------------|------------------|---|-----|-------|------------|-----------------|
| 9CI-PF3ONS | ND | 14 | 13 | | 1 | 97 | 70-150 | 03/12/2022 2346 |
| 11CI-PF3OUdS | ND | 14 | 11 | | 1 | 83 | 70-150 | 03/12/2022 2346 |
| 8:2 FTS | ND | 14 | 12 | | 1 | 89 | 67-138 | 03/12/2022 2346 |
| 6:2 FTS | ND | 14 | 14 | | 1 | 103 | 64-140 | 03/12/2022 2346 |
| 4:2 FTS | ND | 14 | 12 | | 1 | 88 | 63-143 | 03/12/2022 2346 |
| GenX | ND | 29 | 29 | | 1 | 99 | 70-150 | 03/12/2022 2346 |
| ADONA | ND | 14 | 14 | | 1 | 99 | 70-150 | 03/12/2022 2346 |
| EtFOSA | ND | 15 | 12 | | 1 | 84 | 70-150 | 03/12/2022 2346 |
| EtFOSAA | ND | 15 | 13 | | 1 | 90 | 61-135 | 03/12/2022 2346 |
| MeFOSAA | ND | 15 | 13 | | 1 | 92 | 65-136 | 03/12/2022 2346 |
| PFBS | 76 | 13 | 88 | | 1 | 93 | 72-130 | 03/12/2022 2346 |
| PFDS | ND | 14 | 14 | | 1 | 101 | 53-142 | 03/12/2022 2346 |
| PFHpS | ND | 14 | 14 | | 1 | 102 | 69-134 | 03/12/2022 2346 |
| PFNS | ND | 14 | 13 | | 1 | 94 | 69-127 | 03/12/2022 2346 |
| PFPeS | 43 | 14 | 54 | | 1 | 81 | 71-127 | 03/12/2022 2346 |
| PFHxS | 29 | 13 | 45 | | 1 | 123 | 68-131 | 03/12/2022 2346 |
| PFBA | 4.1 | 15 | 18 | | 1 | 96 | 73-129 | 03/12/2022 2346 |
| PFDA | ND | 15 | 15 | | 1 | 101 | 71-129 | 03/12/2022 2346 |
| PFDoA | ND | 15 | 15 | | 1 | 101 | 72-134 | 03/12/2022 2346 |
| PFHpA | 2.0 | 15 | 17 | | 1 | 105 | 72-130 | 03/12/2022 2346 |
| PFHxA | 10 | 15 | 23 | | 1 | 88 | 72-129 | 03/12/2022 2346 |
| PFNA | ND | 15 | 15 | | 1 | 102 | 69-130 | 03/12/2022 2346 |
| PFOA | ND | 15 | 14 | | 1 | 95 | 71-133 | 03/12/2022 2346 |
| PFPeA | 6.2 | 15 | 20 | | 1 | 94 | 72-129 | 03/12/2022 2346 |
| PFTeDA | ND | 15 | 15 | | 1 | 105 | 71-132 | 03/12/2022 2346 |
| PFTTrDA | ND | 15 | 14 | | 1 | 95 | 65-144 | 03/12/2022 2346 |
| PFUdA | ND | 15 | 15 | | 1 | 102 | 69-133 | 03/12/2022 2346 |
| PFOS | 1.5 | 13 | 14 | | 1 | 95 | 65-140 | 03/12/2022 2346 |
| Surrogate | Q | % Rec | Acceptance Limit | | | | | |
| 13C2_4:2FTS | N | 184 | 50-150 | | | | | |
| 13C2_6:2FTS | | 129 | 50-150 | | | | | |
| 13C2_8:2FTS | | 97 | 50-150 | | | | | |
| 13C2_PFDoA | | 82 | 50-150 | | | | | |
| 13C2_PFTeDA | | 63 | 50-150 | | | | | |
| 13C3_PFBS | | 77 | 50-150 | | | | | |
| 13C3_PFHxS | | 92 | 50-150 | | | | | |
| 13C3-HFPO-DA | | 77 | 50-150 | | | | | |
| 13C4_PFBA | N | 46 | 50-150 | | | | | |
| 13C4_PFHpA | | 85 | 50-150 | | | | | |
| 13C5_PFHxA | | 88 | 50-150 | | | | | |
| 13C5_PFPeA | | 77 | 50-150 | | | | | |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MS

Sample ID: XB18038-010MS

Matrix: Aqueous

Batch: 34124

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/08/2022 1620

| Surrogate | Q | % Rec | Acceptance Limit |
|------------|---|-------|------------------|
| 13C6_PFDA | | 88 | 50-150 |
| 13C7_PFUdA | | 77 | 50-150 |
| 13C8_PFOA | | 97 | 50-150 |
| 13C8_PFOS | | 93 | 50-150 |
| 13C9_PFNA | | 90 | 50-150 |
| d-EtFOSA | | 64 | 50-150 |
| d5-EtFOSAA | | 90 | 50-150 |
| d3-MeFOSAA | | 85 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MSD

Sample ID: XB18038-010MD

Matrix: Aqueous

Batch: 34124

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/08/2022 1620

| Parameter | Sample Amount (ng/L) | Spike Amount (ng/L) | Result (ng/L) | Q | Dil | % Rec | % RPD | %Rec Limit | % RPD Limit | Analysis Date |
|--------------|----------------------|---------------------|------------------|---|-----|-------|-------|------------|-------------|-----------------|
| 9CI-PF3ONS | ND | 13 | 13 | | 1 | 102 | 2.7 | 70-150 | 30 | 03/12/2022 2356 |
| 11CI-PF3OUdS | ND | 13 | 12 | | 1 | 87 | 1.5 | 70-150 | 30 | 03/12/2022 2356 |
| 8:2 FTS | ND | 14 | 13 | | 1 | 93 | 1.4 | 67-138 | 30 | 03/12/2022 2356 |
| 6:2 FTS | ND | 13 | 14 | | 1 | 104 | 1.3 | 64-140 | 30 | 03/12/2022 2356 |
| 4:2 FTS | ND | 13 | 12 | | 1 | 90 | 0.11 | 63-143 | 30 | 03/12/2022 2356 |
| GenX | ND | 28 | 27 | | 1 | 96 | 5.9 | 70-150 | 30 | 03/12/2022 2356 |
| ADONA | ND | 13 | 14 | | 1 | 106 | 4.6 | 70-150 | 30 | 03/12/2022 2356 |
| EtFOSA | ND | 14 | 17 | + | 1 | 123 | 35 | 70-150 | 30 | 03/12/2022 2356 |
| EtFOSAA | ND | 14 | 15 | | 1 | 108 | 15 | 61-135 | 30 | 03/12/2022 2356 |
| MeFOSAA | ND | 14 | 14 | | 1 | 101 | 6.8 | 65-136 | 30 | 03/12/2022 2356 |
| PFBS | 76 | 13 | 96 | N | 1 | 161 | 8.9 | 72-130 | 30 | 03/12/2022 2356 |
| PFDS | ND | 14 | 14 | | 1 | 106 | 1.8 | 53-142 | 30 | 03/12/2022 2356 |
| PFHpS | ND | 14 | 14 | | 1 | 106 | 1.7 | 69-134 | 30 | 03/12/2022 2356 |
| PFNS | ND | 14 | 13 | | 1 | 92 | 4.0 | 69-127 | 30 | 03/12/2022 2356 |
| PFPeS | 43 | 13 | 58 | | 1 | 111 | 6.6 | 71-127 | 30 | 03/12/2022 2356 |
| PFHxS | 29 | 13 | 48 | N | 1 | 146 | 5.5 | 68-131 | 30 | 03/12/2022 2356 |
| PFBA | 4.1 | 14 | 18 | | 1 | 100 | 1.2 | 73-129 | 30 | 03/12/2022 2356 |
| PFDA | ND | 14 | 14 | | 1 | 99 | 4.0 | 71-129 | 30 | 03/12/2022 2356 |
| PFDoA | ND | 14 | 15 | | 1 | 109 | 5.4 | 72-134 | 30 | 03/12/2022 2356 |
| PFHpA | 2.0 | 14 | 18 | | 1 | 111 | 3.2 | 72-130 | 30 | 03/12/2022 2356 |
| PFHxA | 10 | 14 | 24 | | 1 | 101 | 6.3 | 72-129 | 30 | 03/12/2022 2356 |
| PFNA | ND | 14 | 15 | | 1 | 105 | 0.28 | 69-130 | 30 | 03/12/2022 2356 |
| PFOA | ND | 14 | 14 | | 1 | 102 | 4.7 | 71-133 | 30 | 03/12/2022 2356 |
| PFPeA | 6.2 | 14 | 21 | | 1 | 104 | 5.6 | 72-129 | 30 | 03/12/2022 2356 |
| PFTeDA | ND | 14 | 14 | | 1 | 99 | 8.1 | 71-132 | 30 | 03/12/2022 2356 |
| PFTTrDA | ND | 14 | 15 | | 1 | 106 | 9.1 | 65-144 | 30 | 03/12/2022 2356 |
| PFUdA | ND | 14 | 14 | | 1 | 99 | 5.7 | 69-133 | 30 | 03/12/2022 2356 |
| PFOS | 1.5 | 13 | 16 | | 1 | 107 | 8.5 | 65-140 | 30 | 03/12/2022 2356 |
| Surrogate | Q | % Rec | Acceptance Limit | | | | | | | |
| 13C2_4:2FTS | N | 180 | 50-150 | | | | | | | |
| 13C2_6:2FTS | | 122 | 50-150 | | | | | | | |
| 13C2_8:2FTS | | 92 | 50-150 | | | | | | | |
| 13C2_PFDoA | | 77 | 50-150 | | | | | | | |
| 13C2_PFTeDA | | 67 | 50-150 | | | | | | | |
| 13C3_PFBS | | 73 | 50-150 | | | | | | | |
| 13C3_PFHxS | | 82 | 50-150 | | | | | | | |
| 13C3-HFPO-DA | | 76 | 50-150 | | | | | | | |
| 13C4_PFBA | N | 44 | 50-150 | | | | | | | |
| 13C4_PFHpA | | 81 | 50-150 | | | | | | | |
| 13C5_PFHxA | | 89 | 50-150 | | | | | | | |
| 13C5_PFPeA | | 73 | 50-150 | | | | | | | |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MSD

Sample ID: XB18038-010MD

Matrix: Aqueous

Batch: 34124

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/08/2022 1620

| Surrogate | Q | % Rec | Acceptance Limit |
|------------|---|-------|------------------|
| 13C6_PFDA | | 83 | 50-150 |
| 13C7_PFUdA | | 79 | 50-150 |
| 13C8_PFOA | | 89 | 50-150 |
| 13C8_PFOS | | 88 | 50-150 |
| 13C9_PFNA | | 85 | 50-150 |
| d-EtFOSA | | 57 | 50-150 |
| d5-EtFOSAA | | 80 | 50-150 |
| d3-MeFOSAA | | 82 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MB

Sample ID: XQ34241-001

Matrix: Aqueous

Batch: 34241

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/09/2022 1157

| Parameter | Result | Q | Dil | LOQ | LOD | DL | Units | Analysis Date |
|--------------|--------|-------|------------------|-----|-----|-----|-------|-----------------|
| 9CI-PF3ONS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/12/2022 1755 |
| 11CI-PF3OUdS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/12/2022 1755 |
| 8:2 FTS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/12/2022 1755 |
| 6:2 FTS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/12/2022 1755 |
| 4:2 FTS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/12/2022 1755 |
| GenX | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/12/2022 1755 |
| ADONA | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/12/2022 1755 |
| EtFOSA | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/12/2022 1755 |
| EtFOSAA | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/12/2022 1755 |
| MeFOSAA | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/12/2022 1755 |
| PFBS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/12/2022 1755 |
| PFDS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/12/2022 1755 |
| PFHpS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/12/2022 1755 |
| PFNS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/12/2022 1755 |
| PFPeS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/12/2022 1755 |
| PFHxS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/12/2022 1755 |
| PFBA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/12/2022 1755 |
| PFDA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/12/2022 1755 |
| PFDoA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/12/2022 1755 |
| PFHpA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/12/2022 1755 |
| PFHxA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/12/2022 1755 |
| PFNA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/12/2022 1755 |
| PFOA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/12/2022 1755 |
| PFPeA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/12/2022 1755 |
| PFTeDA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/12/2022 1755 |
| PFTTrDA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/12/2022 1755 |
| PFUdA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/12/2022 1755 |
| PFOS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/12/2022 1755 |
| Surrogate | Q | % Rec | Acceptance Limit | | | | | |
| 13C2_4:2FTS | | 106 | 50-150 | | | | | |
| 13C2_6:2FTS | | 118 | 50-150 | | | | | |
| 13C2_8:2FTS | | 98 | 50-150 | | | | | |
| 13C2_PFDoA | | 96 | 50-150 | | | | | |
| 13C2_PFTeDA | | 82 | 50-150 | | | | | |
| 13C3_PFBS | | 92 | 50-150 | | | | | |
| 13C3_PFHxS | | 101 | 50-150 | | | | | |
| 13C3-HFPO-DA | | 97 | 50-150 | | | | | |
| 13C4_PFBA | | 95 | 50-150 | | | | | |
| 13C4_PFHpA | | 88 | 50-150 | | | | | |
| 13C5_PFHxA | | 94 | 50-150 | | | | | |
| 13C5_PFPeA | | 90 | 50-150 | | | | | |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MB

Sample ID: XQ34241-001

Matrix: Aqueous

Batch: 34241

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/09/2022 1157

| Surrogate | Q | % Rec | Acceptance Limit |
|------------|---|-------|------------------|
| 13C6_PFDA | | 98 | 50-150 |
| 13C7_PFUdA | | 88 | 50-150 |
| 13C8_PFOA | | 99 | 50-150 |
| 13C8_PFOS | | 106 | 50-150 |
| 13C9_PFNA | | 98 | 50-150 |
| d-EtFOSA | | 54 | 50-150 |
| d5-EtFOSAA | | 103 | 50-150 |
| d3-MeFOSAA | | 90 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - LCS

Sample ID: XQ34241-002

Matrix: Aqueous

Batch: 34241

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/09/2022 1157

| Parameter | Spike Amount (ng/L) | Result (ng/L) | Q | Dil | % Rec | %Rec Limit | Analysis Date |
|--------------|---------------------|---------------|------------------|-----|-------|------------|-----------------|
| 9CI-PF3ONS | 15 | 18 | | 1 | 119 | 70-150 | 03/12/2022 1806 |
| 11CI-PF3OUdS | 15 | 17 | | 1 | 113 | 70-150 | 03/12/2022 1806 |
| 8:2 FTS | 15 | 15 | | 1 | 97 | 67-138 | 03/12/2022 1806 |
| 6:2 FTS | 15 | 35 | N | 1 | 230 | 64-140 | 03/12/2022 1806 |
| 4:2 FTS | 15 | 16 | | 1 | 106 | 63-143 | 03/12/2022 1806 |
| GenX | 32 | 34 | | 1 | 106 | 70-150 | 03/12/2022 1806 |
| ADONA | 15 | 17 | | 1 | 115 | 70-150 | 03/12/2022 1806 |
| EtFOSA | 16 | 18 | | 1 | 113 | 70-150 | 03/12/2022 1806 |
| EtFOSAA | 16 | 17 | | 1 | 105 | 61-135 | 03/12/2022 1806 |
| MeFOSAA | 16 | 18 | | 1 | 113 | 65-136 | 03/12/2022 1806 |
| PFBS | 14 | 15 | | 1 | 105 | 72-130 | 03/12/2022 1806 |
| PFDS | 15 | 17 | | 1 | 107 | 53-142 | 03/12/2022 1806 |
| PFHpS | 15 | 17 | | 1 | 113 | 69-134 | 03/12/2022 1806 |
| PFNS | 15 | 16 | | 1 | 105 | 69-127 | 03/12/2022 1806 |
| PFPeS | 15 | 16 | | 1 | 107 | 71-127 | 03/12/2022 1806 |
| PFHxS | 15 | 17 | | 1 | 114 | 68-131 | 03/12/2022 1806 |
| PFBA | 16 | 17 | | 1 | 108 | 73-129 | 03/12/2022 1806 |
| PFDA | 16 | 18 | | 1 | 114 | 71-129 | 03/12/2022 1806 |
| PFDaA | 16 | 19 | | 1 | 116 | 72-134 | 03/12/2022 1806 |
| PFHpA | 16 | 20 | | 1 | 125 | 72-130 | 03/12/2022 1806 |
| PFHxA | 16 | 17 | | 1 | 106 | 72-129 | 03/12/2022 1806 |
| PFNA | 16 | 18 | | 1 | 110 | 69-130 | 03/12/2022 1806 |
| PFOA | 16 | 18 | | 1 | 110 | 71-133 | 03/12/2022 1806 |
| PFPeA | 16 | 18 | | 1 | 112 | 72-129 | 03/12/2022 1806 |
| PFTeDA | 16 | 18 | | 1 | 110 | 71-132 | 03/12/2022 1806 |
| PFTTrDA | 16 | 17 | | 1 | 108 | 65-144 | 03/12/2022 1806 |
| PFUdA | 16 | 16 | | 1 | 100 | 69-133 | 03/12/2022 1806 |
| PFOS | 15 | 16 | | 1 | 109 | 65-140 | 03/12/2022 1806 |
| Surrogate | Q | % Rec | Acceptance Limit | | | | |
| 13C2_4:2FTS | | 106 | 50-150 | | | | |
| 13C2_6:2FTS | N | 158 | 50-150 | | | | |
| 13C2_8:2FTS | | 97 | 50-150 | | | | |
| 13C2_PFDaA | | 91 | 50-150 | | | | |
| 13C2_PFTeDA | | 76 | 50-150 | | | | |
| 13C3_PFBS | | 96 | 50-150 | | | | |
| 13C3_PFHxS | | 97 | 50-150 | | | | |
| 13C3-HFPO-DA | | 97 | 50-150 | | | | |
| 13C4_PFBA | | 96 | 50-150 | | | | |
| 13C4_PFHpA | | 94 | 50-150 | | | | |
| 13C5_PFHxA | | 96 | 50-150 | | | | |
| 13C5_PFPeA | | 96 | 50-150 | | | | |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - LCS

Sample ID: XQ34241-002

Matrix: Aqueous

Batch: 34241

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/09/2022 1157

| Surrogate | Q | % Rec | Acceptance Limit |
|------------|---|-------|------------------|
| 13C6_PFDA | | 98 | 50-150 |
| 13C7_PFUdA | | 100 | 50-150 |
| 13C8_PFOA | | 109 | 50-150 |
| 13C8_PFOS | | 98 | 50-150 |
| 13C9_PFNA | | 96 | 50-150 |
| d-EtFOSA | | 84 | 50-150 |
| d5-EtFOSAA | | 96 | 50-150 |
| d3-MeFOSAA | | 88 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MS

Sample ID: XB18038-009MS

Matrix: Aqueous

Batch: 34241

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/09/2022 1157

| Parameter | Sample Amount (ng/L) | Spike Amount (ng/L) | Result (ng/L) | Q | Dil | % Rec | %Rec Limit | Analysis Date |
|--------------|----------------------|---------------------|------------------|---|-----|-------|------------|-----------------|
| 9CI-PF3ONS | ND | 150 | 160 | | 1 | 111 | 70-150 | 03/12/2022 1859 |
| 11CI-PF3OUdS | ND | 150 | 150 | | 1 | 102 | 70-150 | 03/12/2022 1859 |
| 8:2 FTS | ND | 150 | 160 | | 1 | 107 | 67-138 | 03/12/2022 1859 |
| 6:2 FTS | ND | 150 | 180 | | 1 | 108 | 64-140 | 03/12/2022 1859 |
| 4:2 FTS | ND | 150 | 160 | | 1 | 104 | 63-143 | 03/12/2022 1859 |
| GenX | ND | 320 | 320 | | 1 | 100 | 70-150 | 03/12/2022 1859 |
| ADONA | ND | 150 | 170 | | 1 | 115 | 70-150 | 03/12/2022 1859 |
| EtFOSA | ND | 160 | 190 | | 1 | 122 | 70-150 | 03/12/2022 1859 |
| EtFOSAA | ND | 160 | 140 | | 1 | 87 | 61-135 | 03/12/2022 1859 |
| MeFOSAA | ND | 160 | 140 | | 1 | 89 | 65-136 | 03/12/2022 1859 |
| PFBS | 19 | 140 | 170 | | 1 | 105 | 72-130 | 03/12/2022 1859 |
| PFDS | ND | 150 | 160 | | 1 | 102 | 53-142 | 03/12/2022 1859 |
| PFHpS | ND | 150 | 160 | | 1 | 106 | 69-134 | 03/12/2022 1859 |
| PFNS | ND | 150 | 150 | | 1 | 100 | 69-127 | 03/12/2022 1859 |
| PFPeS | 21 | 150 | 180 | | 1 | 109 | 71-127 | 03/12/2022 1859 |
| PFHxS | 100 | 150 | 250 | | 1 | 100 | 68-131 | 03/12/2022 1859 |
| PFBA | ND | 160 | 170 | | 1 | 105 | 73-129 | 03/12/2022 1859 |
| PFDA | ND | 160 | 160 | | 1 | 99 | 71-129 | 03/12/2022 1859 |
| PFDoA | ND | 160 | 180 | | 1 | 114 | 72-134 | 03/12/2022 1859 |
| PFHpA | ND | 160 | 180 | | 1 | 111 | 72-130 | 03/12/2022 1859 |
| PFHxA | ND | 160 | 190 | | 1 | 113 | 72-129 | 03/12/2022 1859 |
| PFNA | ND | 160 | 190 | | 1 | 116 | 69-130 | 03/12/2022 1859 |
| PFOA | ND | 160 | 160 | | 1 | 102 | 71-133 | 03/12/2022 1859 |
| PFPeA | ND | 160 | 170 | | 1 | 107 | 72-129 | 03/12/2022 1859 |
| PFTeDA | ND | 160 | 190 | | 1 | 116 | 71-132 | 03/12/2022 1859 |
| PFTrDA | ND | 160 | 170 | | 1 | 105 | 65-144 | 03/12/2022 1859 |
| PFUdA | ND | 160 | 150 | | 1 | 95 | 69-133 | 03/12/2022 1859 |
| PFOS | ND | 150 | 160 | | 1 | 105 | 65-140 | 03/12/2022 1859 |
| Surrogate | Q | % Rec | Acceptance Limit | | | | | |
| 13C2_4:2FTS | | 110 | 50-150 | | | | | |
| 13C2_6:2FTS | | 96 | 50-150 | | | | | |
| 13C2_8:2FTS | | 87 | 50-150 | | | | | |
| 13C2_PFDoA | | 89 | 50-150 | | | | | |
| 13C2_PFTeDA | | 76 | 50-150 | | | | | |
| 13C3_PFBS | | 94 | 50-150 | | | | | |
| 13C3_PFHxS | | 91 | 50-150 | | | | | |
| 13C3-HFPO-DA | | 92 | 50-150 | | | | | |
| 13C4_PFBA | | 97 | 50-150 | | | | | |
| 13C4_PFHpA | | 89 | 50-150 | | | | | |
| 13C5_PFHxA | | 93 | 50-150 | | | | | |
| 13C5_PFPeA | | 99 | 50-150 | | | | | |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MS

Sample ID: XB18038-009MS

Matrix: Aqueous

Batch: 34241

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/09/2022 1157

| Surrogate | Q | % Rec | Acceptance Limit |
|------------|---|-------|------------------|
| 13C6_PFDA | | 91 | 50-150 |
| 13C7_PFUdA | | 96 | 50-150 |
| 13C8_PFOA | | 96 | 50-150 |
| 13C8_PFOS | | 94 | 50-150 |
| 13C9_PFNA | | 88 | 50-150 |
| d-EtFOSA | | 78 | 50-150 |
| d5-EtFOSAA | | 84 | 50-150 |
| d3-MeFOSAA | | 82 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MSD

Sample ID: XB18038-009MD

Matrix: Aqueous

Batch: 34241

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/09/2022 1157

| Parameter | Sample Amount (ng/L) | Spike Amount (ng/L) | Result (ng/L) | Q | Dil | % Rec | % RPD | %Rec Limit | % RPD Limit | Analysis Date |
|--------------|----------------------|---------------------|------------------|---|-----|-------|-------|------------|-------------|-----------------|
| 9CI-PF3ONS | ND | 150 | 170 | 1 | | 111 | 0.28 | 70-150 | 30 | 03/12/2022 1910 |
| 11CI-PF3OUdS | ND | 150 | 150 | 1 | | 102 | 0.26 | 70-150 | 30 | 03/12/2022 1910 |
| 8:2 FTS | ND | 150 | 130 | 1 | | 86 | 22 | 67-138 | 30 | 03/12/2022 1910 |
| 6:2 FTS | ND | 150 | 170 | 1 | | 104 | 4.1 | 64-140 | 30 | 03/12/2022 1910 |
| 4:2 FTS | ND | 150 | 130 | 1 | | 86 | 19 | 63-143 | 30 | 03/12/2022 1910 |
| GenX | ND | 320 | 280 | 1 | | 89 | 12 | 70-150 | 30 | 03/12/2022 1910 |
| ADONA | ND | 150 | 170 | 1 | | 115 | 0.73 | 70-150 | 30 | 03/12/2022 1910 |
| EtFOSA | ND | 160 | 200 | 1 | | 123 | 0.88 | 70-150 | 30 | 03/12/2022 1910 |
| EtFOSAA | ND | 160 | 160 | 1 | | 97 | 10 | 61-135 | 30 | 03/12/2022 1910 |
| MeFOSAA | ND | 160 | 160 | 1 | | 97 | 8.5 | 65-136 | 30 | 03/12/2022 1910 |
| PFBS | 19 | 140 | 180 | 1 | | 112 | 5.8 | 72-130 | 30 | 03/12/2022 1910 |
| PFDS | ND | 150 | 160 | 1 | | 104 | 1.9 | 53-142 | 30 | 03/12/2022 1910 |
| PFHpS | ND | 150 | 170 | 1 | | 113 | 6.4 | 69-134 | 30 | 03/12/2022 1910 |
| PFNS | ND | 150 | 150 | 1 | | 98 | 2.6 | 69-127 | 30 | 03/12/2022 1910 |
| PFPeS | 21 | 150 | 180 | 1 | | 104 | 3.8 | 71-127 | 30 | 03/12/2022 1910 |
| PFHxS | 100 | 150 | 250 | 1 | | 103 | 1.7 | 68-131 | 30 | 03/12/2022 1910 |
| PFBA | ND | 160 | 170 | 1 | | 106 | 1.0 | 73-129 | 30 | 03/12/2022 1910 |
| PFDA | ND | 160 | 160 | 1 | | 101 | 1.9 | 71-129 | 30 | 03/12/2022 1910 |
| PFDoA | ND | 160 | 170 | 1 | | 104 | 8.8 | 72-134 | 30 | 03/12/2022 1910 |
| PFHpA | ND | 160 | 190 | 1 | | 117 | 5.8 | 72-130 | 30 | 03/12/2022 1910 |
| PFHxA | ND | 160 | 190 | 1 | | 112 | 0.21 | 72-129 | 30 | 03/12/2022 1910 |
| PFNA | ND | 160 | 170 | 1 | | 107 | 7.9 | 69-130 | 30 | 03/12/2022 1910 |
| PFOA | ND | 160 | 170 | 1 | | 105 | 3.6 | 71-133 | 30 | 03/12/2022 1910 |
| PFPeA | ND | 160 | 180 | 1 | | 111 | 3.6 | 72-129 | 30 | 03/12/2022 1910 |
| PFTeDA | ND | 160 | 170 | 1 | | 107 | 7.7 | 71-132 | 30 | 03/12/2022 1910 |
| PFTTrDA | ND | 160 | 170 | 1 | | 108 | 3.3 | 65-144 | 30 | 03/12/2022 1910 |
| PFUdA | ND | 160 | 170 | 1 | | 103 | 8.8 | 69-133 | 30 | 03/12/2022 1910 |
| PFOS | ND | 150 | 160 | 1 | | 107 | 2.3 | 65-140 | 30 | 03/12/2022 1910 |
| Surrogate | Q | % Rec | Acceptance Limit | | | | | | | |
| 13C2_4:2FTS | | 117 | 50-150 | | | | | | | |
| 13C2_6:2FTS | | 103 | 50-150 | | | | | | | |
| 13C2_8:2FTS | | 103 | 50-150 | | | | | | | |
| 13C2_PFDoA | | 96 | 50-150 | | | | | | | |
| 13C2_PFTeDA | | 84 | 50-150 | | | | | | | |
| 13C3_PFBS | | 98 | 50-150 | | | | | | | |
| 13C3_PFHxS | | 105 | 50-150 | | | | | | | |
| 13C3-HFPO-DA | | 103 | 50-150 | | | | | | | |
| 13C4_PFBA | | 101 | 50-150 | | | | | | | |
| 13C4_PFHpA | | 98 | 50-150 | | | | | | | |
| 13C5_PFHxA | | 98 | 50-150 | | | | | | | |
| 13C5_PFPeA | | 96 | 50-150 | | | | | | | |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

PFAS by LC/MS/MS - MSD

Sample ID: XB18038-009MD

Matrix: Aqueous

Batch: 34241

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/09/2022 1157

| Surrogate | Q | % Rec | Acceptance Limit |
|------------|---|-------|------------------|
| 13C6_PFDA | | 111 | 50-150 |
| 13C7_PFUdA | | 94 | 50-150 |
| 13C8_PFOA | | 112 | 50-150 |
| 13C8_PFOS | | 108 | 50-150 |
| 13C9_PFNA | | 102 | 50-150 |
| d-EtFOSA | | 85 | 50-150 |
| d5-EtFOSAA | | 91 | 50-150 |
| d3-MeFOSAA | | 92 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MB

Sample ID: XQ34774-001

Matrix: Aqueous

Batch: 34774

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/14/2022 1626

| Parameter | Result | Q | Dil | LOQ | LOD | DL | Units | Analysis Date |
|--------------|--------|-------|------------------|-----|-----|-----|-------|-----------------|
| 6:2 FTS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/15/2022 1315 |
| Surrogate | Q | % Rec | Acceptance Limit | | | | | |
| 13C2_4:2FTS | 94 | | 50-150 | | | | | |
| 13C2_6:2FTS | 105 | | 50-150 | | | | | |
| 13C2_8:2FTS | 90 | | 50-150 | | | | | |
| 13C2_PFDaA | 84 | | 50-150 | | | | | |
| 13C2_PFTeDA | 86 | | 50-150 | | | | | |
| 13C3_PFBs | 92 | | 50-150 | | | | | |
| 13C3_PFHxS | 93 | | 50-150 | | | | | |
| 13C3-HFPO-DA | 93 | | 50-150 | | | | | |
| 13C4_PFBa | 93 | | 50-150 | | | | | |
| 13C4_PFHpA | 96 | | 50-150 | | | | | |
| 13C5_PFHxA | 89 | | 50-150 | | | | | |
| 13C5_PFPeA | 94 | | 50-150 | | | | | |
| 13C6_PFDa | 95 | | 50-150 | | | | | |
| 13C7_PFUdA | 94 | | 50-150 | | | | | |
| 13C8_PFOA | 97 | | 50-150 | | | | | |
| 13C8_PFOS | 97 | | 50-150 | | | | | |
| 13C9_PFNA | 91 | | 50-150 | | | | | |
| d-EtFOSA | 76 | | 50-150 | | | | | |
| d5-EtFOSAA | 91 | | 50-150 | | | | | |
| d3-MeFOSAA | 86 | | 50-150 | | | | | |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - LCS

Sample ID: XQ34774-002

Matrix: Aqueous

Batch: 34774

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/14/2022 1626

| Parameter | Spike Amount (ng/L) | Result (ng/L) | Q | Dil | % Rec | %Rec Limit | Analysis Date |
|--------------|---------------------|---------------|------------------|-----|-------|------------|-----------------|
| 6:2 FTS | 15 | 14 | | 1 | 91 | 64-140 | 03/15/2022 1326 |
| Surrogate | Q | % Rec | Acceptance Limit | | | | |
| 13C2_4:2FTS | | 95 | 50-150 | | | | |
| 13C2_6:2FTS | | 109 | 50-150 | | | | |
| 13C2_8:2FTS | | 85 | 50-150 | | | | |
| 13C2_PFDaA | | 72 | 50-150 | | | | |
| 13C2_PFTeDA | | 79 | 50-150 | | | | |
| 13C3_PFBs | | 94 | 50-150 | | | | |
| 13C3_PFHxS | | 97 | 50-150 | | | | |
| 13C3-HFPO-DA | | 93 | 50-150 | | | | |
| 13C4_PFBa | | 95 | 50-150 | | | | |
| 13C4_PFHpA | | 95 | 50-150 | | | | |
| 13C5_PFHxA | | 94 | 50-150 | | | | |
| 13C5_PFPeA | | 94 | 50-150 | | | | |
| 13C6_PFDa | | 93 | 50-150 | | | | |
| 13C7_PFUdA | | 86 | 50-150 | | | | |
| 13C8_PFOA | | 98 | 50-150 | | | | |
| 13C8_PFOS | | 89 | 50-150 | | | | |
| 13C9_PFNAA | | 87 | 50-150 | | | | |
| d-EtFOSA | | 60 | 50-150 | | | | |
| d5-EtFOSAA | | 81 | 50-150 | | | | |
| d3-MeFOSAA | | 81 | 50-150 | | | | |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

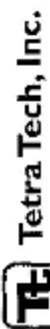
+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

Chain of Custody
and
Miscellaneous Documents



Tetra Tech, Inc.

CHAIN OF CUSTODY

NUMBER No. 2583

PAGE 1 OF 2

PROJECT NO: 112G-09581
 FACILITY: KSC-FS1
 SAMPLERS (SIGNATURE): *Chuck Sorden*
 PROJECT MANAGER: Mark J. Jorner
 FIELD OPERATIONS LEADER: Chuck Sorden
 CARRIER/WAYBILL NUMBER:
 LABORATORY NAME AND CONTACT: Pace Analytical - Kerty Smith
 ADDRESS: 106 Vantage Point Dr.
 CITY, STATE: West Columbia, SC

| DATE YEAR | TIME | SAMPLE ID | LOCATION ID | TOP DEPTH (FT) | BOTTOM DEPTH (FT) | MATRIX (GW, SO, SW, SD, OC, ETC) | COLLECTION METHOD (GRAB (G), COMP (C)) | NO. OF CONTAINERS | CONTAINER TYPE (PLASTIC (P) or GLASS (G)) | PRESERVATIVE USED | COMMENTS |
|------------|-------|-----------------------------|-------------|----------------|-------------------|----------------------------------|--|-------------------|---|-------------------|------------------|
| 02/16/2002 | 08:10 | FS1-DP10006-025.0-2022-0216 | 21 | 3 | 7 | GW | 6 | 2 | P | | |
| 02/16/2002 | 08:30 | FS1-DP10006-025.0-2022-0216 | 21 | 10 | 14 | GW | 1 | 1 | P | | |
| 02/16/2002 | 08:50 | FS1-DP10006-025.0-2022-0216 | 21 | 15 | 19 | GW | 1 | 1 | P | | |
| 02/16/2002 | 09:15 | FS1-DP10006-025.0-2022-0216 | 21 | 23 | 27 | GW | 1 | 1 | P | | |
| 02/16/2002 | 09:40 | FS1-DP10006-025.0-2022-0216 | 21 | 33 | 37 | GW | 1 | 1 | P | | |
| 02/16/2002 | 10:10 | FS1-DP10006-025.0-2022-0216 | 21 | 43 | 47 | GW | 1 | 1 | P | | |
| 02/16/2002 | 11:20 | FS1-DP10007-025.0-2022-0216 | 22 | 3 | 7 | GW | 1 | 1 | P | | |
| 02/16/2002 | 11:40 | FS1-DP10007-025.0-2022-0216 | 22 | 10 | 14 | GW | 1 | 1 | P | | |
| 02/16/2002 | 12:00 | FS1-DP10007-025.0-2022-0216 | 22 | 15 | 19 | GW | 1 | 2 | P | | |
| 02/16/2002 | 12:25 | FS1-DP10007-025.0-2022-0216 | 22 | 23 | 27 | GW | 1 | 6 | P | | MS/ASD Collected |
| 02/16/2002 | 12:50 | FS1-DP10007-025.0-2022-0216 | 22 | 33 | 37 | GW | 1 | 2 | P | | |
| 02/16/2002 | 13:15 | FS1-DP10007-025.0-2022-0216 | 22 | 43 | 47 | GW | 1 | 1 | P | | |
| 02/16/2002 | 14:00 | FS1-DP10007-025.0-2022-0216 | 22 | - | - | GW | 3 | 2 | P | | |

STANDARD TAT 24 hr. 48 hr. 72 hr. 14 day

DATE: 02/17/02 TIME: 1630
 DATE: 02/17/02 TIME: 1630
 DATE: 2/18/02 TIME: 1905

1. RELINQUISHED BY: *[Signature]* DATE: 02/17/02 TIME: 1630
 2. RELINQUISHED BY: *[Signature]* DATE: 02/17/02 TIME: 1630
 3. RELINQUISHED BY: *[Signature]* DATE: 2/18/02 TIME: 1905

COMMENTS: *MS/ASD Collected*

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

Tetra Tech, Inc. CHAIN OF CUSTODY NUMBER No. 2584 | PAGE 2 OF 2

PROJECT NO: 10209581
 FACILITY: KSC-C-51
 PROJECT MANAGER: Mark Sargent
 FIELD OPERATIONS LEADER: Chuck Sarden
 CARRIERWAYBILL NUMBER:
 LABORATORY NAME AND CONTACT: Pace Analytical - Katelyn Smith
 ADDRESS: 106 Vantage Point Dr.
 CITY, STATE: West Columbia, SC

| DATE | TIME | SAMPLE ID | LOCATION ID | TOP DEPTH (FT) | BOTTOM DEPTH (FT) | MATRIX (GW, SO, SW, SD, QC, ETC) | COLLECTION METHOD | COMP (C) | No. OF CONTAINERS | CONTAINER TYPE PLASTIC (P) or GLASS (G) | PRESERVATIVE USED | COMMENTS |
|------------|-------|--------------------------|-------------|----------------|-------------------|----------------------------------|-------------------|----------|-------------------|--|-------------------|----------|
| 03/16/2022 | 14:15 | FS1-PROD-005.0-2022-0216 | 23 | 3 | 7 | GW | G | | 2 | P | | |
| 03/17/2022 | 15:15 | FS1-PROD-012.0-2022-0216 | 23 | 10 | 14 | | | | 1 | | | |
| 03/17/2022 | 15:45 | FS1-PROD-017.0-2022-0216 | 23 | 15 | 19 | | | | 1 | | | |
| 03/17/2022 | 16:15 | FS1-PROD-025.0-2022-0216 | 23 | 23 | 27 | | | | 1 | | | |
| 03/17/2022 | 07:20 | FS1-PROD-035.0-2022-0217 | 23 | 33 | 37 | | | | 1 | | | |
| 03/17/2022 | 08:45 | FS1-PROD-045.0-2022-0217 | 23 | 43 | 47 | | | | 1 | | | |
| 03/17/2022 | 07:50 | FS1-FB-2022-0217-01 | - | - | - | QC | G | | 1 | | | |
| 03/17/2022 | 00:00 | FS1-FD-2022-0216-01 | - | - | - | QC | G | | 2 | | | |

STANDARD TAT RUSH TAT
 24 hr. 48 hr. 72 hr. 7 day 14 day

1. RELINQUISHED BY: [Signature] DATE: 02/17/22 TIME: 1630
 2. RELINQUISHED BY: FedEx DATE: 02/17/22 TIME: 1630
 3. RELINQUISHED BY: FedEx DATE: 2/18/22 TIME: 1005

COMMENTS: COMP=47215

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

FORM NO. TINUS-004 4/02R

PACE ANALYTICAL SERVICES, LLC



Samples Receipt Checklist (SRC) (ME0018C-15)
 Issuing Authority: Pace ENV - WCOL

Revised: 9/29/2020
 Page 1 of 1

Sample Receipt Checklist (SRC)

Client: TETRA TECH Cooler Inspected by/date: MEH / 02/18/2022 Lot #: XR18038

| | |
|---|---|
| Means of receipt: <input type="checkbox"/> Pace <input type="checkbox"/> Client <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Other: | |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 1. Were custody seals present on the cooler? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA | 2. If custody seals were present, were they intact and unbroken? |
| pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA | |
| Original temperature upon receipt / Derived (Corrected) temperature upon receipt | %Solid Snap-Cup ID: NA |
| 4.7 / 4.7 °C 2.1 / 2.1 °C NA / NA °C NA / NA °C | |
| Method: <input checked="" type="checkbox"/> Temperature Blank <input type="checkbox"/> Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C | |
| Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Ice Packs <input type="checkbox"/> Dry Ice <input type="checkbox"/> None | |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA | 3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one). |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA | 4. Is the commercial courier's packing slip attached to this form? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 5. Were proper custody procedures (relinquished/received) followed? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 6. Were sample IDs listed on the COC? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 7. Were sample IDs listed on all sample containers? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 8. Was collection date & time listed on the COC? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 9. Was collection date & time listed on all sample containers? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 10. Did all container label information (ID, date, time) agree with the COC? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 11. Were tests to be performed listed on the COC? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 13. Was adequate sample volume available? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 14. Were all samples received within ½ the holding time or 48 hours, whichever comes first? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 15. Were any samples containers missing/excess (circle one) samples Not listed on COC? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA | 16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼" or 6mm in diameter) in any of the VOA vials? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA | 17. Were all DRO/metals/nutrient samples received at a pH of < 2? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA | 18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA | 19. Were all applicable NH ₃ /TKN/cyanide/pheno/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA | 20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 21. Was the quote number listed on the container label? If yes, Quote # |
| Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.) | |
| Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H ₂ SO ₄ , HNO ₃ , HCl, NaOH using SR # NA | |
| Time of preservation NA. If more than one preservative is needed, please note in the comments below. | |
| Sample(s) NA were received with bubbles >6 mm in diameter. | |
| Sample(s) NA were received with TRC > 0.5 mg/L (If #19 is no) and were adjusted accordingly in sample receiving with sodium thiosulfate (Na ₂ S ₂ O ₃) with Shealy ID: NA | |
| SR barcode labels applied by: MEH Date: 02/18/2022 | |

Comments:



Report of Analysis

Tetra Tech
Foster Plaza 7
661 Anderson Drive
Pittsburgh, PA 15220
Attention: Mark Jonnet

Project Name: KSC - STP1/FS1

Project Number: 112G09581

Lot Number: **XC12009**

Date Completed: 04/04/2022

Kathy Smith

04/05/2022 12:03 PM

Approved and released by:
Project Manager II: **Kathy E. Smith**



The electronic signature above is the equivalent of a handwritten signature.
This report shall not be reproduced, except in its entirety, without the written approval of Pace Analytical Services, LLC.

PACE ANALYTICAL SERVICES, LLC

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative Tetra Tech Lot Number: XC12009

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

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

Sample receipt, sample analysis, and data review have been performed in accordance with the Pace Quality Assurance Management Plan (QAMP), applicable Shealy standard operating procedures (SOPs), the 2003 NELAC standard, and Shealy policies. Additionally, the DoD QSM version 5.3 has been followed for these samples, and specifically Table B-15 was followed for all PFAS samples. Any exceptions to the QAMP, SOPs, NELAC standards, the DoD QSM, or policies are qualified on the results page or discussed below.

All QC associated with these samples was in compliance with DOD QSM 5.3 table B-15 and our PFAS SOP.

Correction factors (CF) are used to calculate the original sample concentration. The CF is the inverse of the concentration factor (sample volume / extract final volume) times the dilution factor (DF). For undiluted analysis. For undiluted analysis, the extract is prepared for injection by adding 182 uL of sample extract + 8 uL of reagent water + 10 uL of internal standard solution to a polypropylene autosampler vial. An extra correction factor of 0.91 (182 uL / 200 uL = 0.91) applies. The CF is calculated as follows:

$$CF = DF * FV / Vo$$

FV is volume of extract (mL)

Vo is initial sample volume (mL)

DF is dilution factor. For undiluted analysis, DF = 1/0.91.

Sample concentration for aqueous samples:

Concentration (ng/L) = Cs*CF,

$$C_s = \frac{\left(\frac{A_s \times C_{is}}{A_{is}} \right) - B}{M1}$$

Where

C_s is on column concentration of target analyte in the sample (ng/L)

C_{is} is concentration of internal standard in the sample (ng/L)

A_s is peak response of target analyte in the sample

A_{is} is peak response of internal standard in the sample

M1 is the average RF from ICAL or the slope from linear regression ICAL

B is the y-intercept from the ICAL

PACE ANALYTICAL SERVICES, LLC

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Pace is a TNI accredited laboratory; however, the following analyses are currently not listed on our TNI scope of accreditation: Drinking Water: VOC (excluding BTEX, MTBE, Naphthalene, & 1,2-dichloroethane) EPA 524.2, E. coli and Total coliforms SM 9223 B-2004, Solid Chemical Material: TOC Walkley-Black, Biological Tissue: All, Non-Potable Water: SGT-HEM EPA 1664B, Silica EPA 200.7, Boron, Calcium, Silicon, Strontium EPA 200.8, Bicarbonate, Carbonate, and Hydroxide Alkalinity SM 2320 B-2011, SM 9221 C E-2006 & SM 9222D-2006, Strontium SW-846 6010D, VOC SM 6200 B-2011, Fecal Coliform Colilert-18.

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

For sample XC12009-006, sample matrix prevented full volume from being extracted, precluding method mandated bottle rinse. Elution solvent was aliquoted directly into the reservoir, rinsing the inside. Surrogate recovery may be adversely affected.

Samples XC12009-002, XC12009-003 required centrifugation prior to extraction, due to excessive solids present in the samples. Centrifugation was performed following the PFAS Aqueous Centrifuge Protocol; samples were spiked with Surrogate (SUR; Extracted Internal Standard/EIS) and shaken vigorously before being poured into a conical bottle and centrifuged. The centrifuged aqueous sample was decanted back into the original sample bottle, off of the condensed solids remaining in the centrifuge bottle. Original sample bottle was rinsed as normal and centrifuge bottle was rinsed with 4mL of MeOH. Centrifuge bottle rinsate was added to the elution. Samples concentrated to <5mL and reconstituted to 5mL using MeOH by transfer pipet.

Surrogate recovery for the following samples was outside control limits: XC12009-001, XC12009-002, XC12009-003, XC12009-004, XC12009-006, XC12009-007, XC12009-010. Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

The method blank associated with prep batch 36434 contained analyte: 6:2 FTS greater than the method criteria. For the following sample there was an insufficient amount to perform a re-extraction or re-analysis: XC12009-003. The data has been reported.

The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for prep batch 36434 exceeded acceptance criteria for the following analytes: 6:2 FTS surrogate. The associated target analyte passed, therefore the data were reported: XC12009-003.

PACE ANALYTICAL SERVICES, LLC

Sample Summary

Tetra Tech

Lot Number: XC12009

| Sample Number | Sample ID | Matrix | Date Sampled | Date Received |
|---------------|----------------------------|---------|-----------------|---------------|
| 001 | STP1-SW0010-000.5-20220310 | Aqueous | 03/10/2022 0805 | 03/12/2022 |
| 002 | FS1-SW0001-000.5-20220310 | Aqueous | 03/10/2022 0845 | 03/12/2022 |
| 003 | STP1-SW0011-000.5-20220310 | Aqueous | 03/10/2022 0910 | 03/12/2022 |
| 004 | STP1-SW0012-000.5-20220310 | Aqueous | 03/10/2022 1035 | 03/12/2022 |
| 005 | STP1-SW0013-000.5-20220310 | Aqueous | 03/10/2022 1110 | 03/12/2022 |
| 006 | STP1-SW0014-000.5-20220310 | Aqueous | 03/10/2022 1120 | 03/12/2022 |
| 007 | STP1-SW0015-000.5-20220310 | Aqueous | 03/10/2022 1145 | 03/12/2022 |
| 008 | STP1-EB-20220310-01 | Aqueous | 03/10/2022 1200 | 03/12/2022 |
| 009 | STP1-FB-20220310-01 | Aqueous | 03/10/2022 1210 | 03/12/2022 |
| 010 | STP1-FD-20220310-01 | Aqueous | 03/10/2022 | 03/12/2022 |

(10 samples)

PACE ANALYTICAL SERVICES, LLC

Detection Summary

Tetra Tech

Lot Number: XC12009

| Sample | Sample ID | Matrix | Parameter | Method | Result | Q | Units | Page |
|--------|----------------------------|---------|-----------|------------|--------|---|-------|------|
| 001 | STP1-SW0010-000.5-20220310 | Aqueous | PFBS | PFAS by ID | 2.0 | I | ng/L | 8 |
| 001 | STP1-SW0010-000.5-20220310 | Aqueous | PFPeS | PFAS by ID | 1.2 | I | ng/L | 8 |
| 001 | STP1-SW0010-000.5-20220310 | Aqueous | PFHxS | PFAS by ID | 12 | | ng/L | 8 |
| 001 | STP1-SW0010-000.5-20220310 | Aqueous | PFBA | PFAS by ID | 6.7 | Q | ng/L | 8 |
| 001 | STP1-SW0010-000.5-20220310 | Aqueous | PFHpA | PFAS by ID | 2.2 | I | ng/L | 8 |
| 001 | STP1-SW0010-000.5-20220310 | Aqueous | PFHxA | PFAS by ID | 3.7 | | ng/L | 8 |
| 001 | STP1-SW0010-000.5-20220310 | Aqueous | PFOA | PFAS by ID | 4.6 | | ng/L | 8 |
| 001 | STP1-SW0010-000.5-20220310 | Aqueous | PFPeA | PFAS by ID | 3.7 | | ng/L | 8 |
| 001 | STP1-SW0010-000.5-20220310 | Aqueous | PFOS | PFAS by ID | 9.4 | | ng/L | 8 |
| 002 | FS1-SW0001-000.5-20220310 | Aqueous | 8:2 FTS | PFAS by ID | 470 | D | ng/L | 10 |
| 002 | FS1-SW0001-000.5-20220310 | Aqueous | 6:2 FTS | PFAS by ID | 2700 | D | ng/L | 10 |
| 002 | FS1-SW0001-000.5-20220310 | Aqueous | MeFOSAA | PFAS by ID | 50 | | ng/L | 10 |
| 002 | FS1-SW0001-000.5-20220310 | Aqueous | PFBS | PFAS by ID | 79 | | ng/L | 10 |
| 002 | FS1-SW0001-000.5-20220310 | Aqueous | PFDS | PFAS by ID | 3.9 | Q | ng/L | 10 |
| 002 | FS1-SW0001-000.5-20220310 | Aqueous | PFHpS | PFAS by ID | 130 | | ng/L | 10 |
| 002 | FS1-SW0001-000.5-20220310 | Aqueous | PFNS | PFAS by ID | 23 | Q | ng/L | 10 |
| 002 | FS1-SW0001-000.5-20220310 | Aqueous | PFPeS | PFAS by ID | 140 | | ng/L | 10 |
| 002 | FS1-SW0001-000.5-20220310 | Aqueous | PFHxS | PFAS by ID | 3300 | D | ng/L | 10 |
| 002 | FS1-SW0001-000.5-20220310 | Aqueous | PFBA | PFAS by ID | 270 | Q | ng/L | 10 |
| 002 | FS1-SW0001-000.5-20220310 | Aqueous | PFDA | PFAS by ID | 18 | | ng/L | 10 |
| 002 | FS1-SW0001-000.5-20220310 | Aqueous | PFHpA | PFAS by ID | 480 | D | ng/L | 10 |
| 002 | FS1-SW0001-000.5-20220310 | Aqueous | PFHxA | PFAS by ID | 1000 | D | ng/L | 10 |
| 002 | FS1-SW0001-000.5-20220310 | Aqueous | PFNA | PFAS by ID | 110 | | ng/L | 10 |
| 002 | FS1-SW0001-000.5-20220310 | Aqueous | PFOA | PFAS by ID | 1200 | D | ng/L | 10 |
| 002 | FS1-SW0001-000.5-20220310 | Aqueous | PFPeA | PFAS by ID | 1000 | D | ng/L | 10 |
| 002 | FS1-SW0001-000.5-20220310 | Aqueous | PFUdA | PFAS by ID | 2.1 | I | ng/L | 10 |
| 002 | FS1-SW0001-000.5-20220310 | Aqueous | PFOS | PFAS by ID | 14000 | D | ng/L | 10 |
| 003 | STP1-SW0011-000.5-20220310 | Aqueous | 8:2 FTS | PFAS by ID | 9.8 | | ng/L | 12 |
| 003 | STP1-SW0011-000.5-20220310 | Aqueous | 6:2 FTS | PFAS by ID | 87 | V | ng/L | 12 |
| 003 | STP1-SW0011-000.5-20220310 | Aqueous | PFBS | PFAS by ID | 13 | | ng/L | 12 |
| 003 | STP1-SW0011-000.5-20220310 | Aqueous | PFHpS | PFAS by ID | 11 | | ng/L | 12 |
| 003 | STP1-SW0011-000.5-20220310 | Aqueous | PFNS | PFAS by ID | 1.4 | I | ng/L | 12 |
| 003 | STP1-SW0011-000.5-20220310 | Aqueous | PFPeS | PFAS by ID | 23 | | ng/L | 12 |
| 003 | STP1-SW0011-000.5-20220310 | Aqueous | PFHxS | PFAS by ID | 340 | D | ng/L | 12 |
| 003 | STP1-SW0011-000.5-20220310 | Aqueous | PFBA | PFAS by ID | 26 | Q | ng/L | 12 |
| 003 | STP1-SW0011-000.5-20220310 | Aqueous | PFDA | PFAS by ID | 3.0 | I | ng/L | 12 |
| 003 | STP1-SW0011-000.5-20220310 | Aqueous | PFHpA | PFAS by ID | 46 | | ng/L | 12 |
| 003 | STP1-SW0011-000.5-20220310 | Aqueous | PFHxA | PFAS by ID | 76 | | ng/L | 12 |
| 003 | STP1-SW0011-000.5-20220310 | Aqueous | PFNA | PFAS by ID | 20 | | ng/L | 12 |
| 003 | STP1-SW0011-000.5-20220310 | Aqueous | PFOA | PFAS by ID | 58 | | ng/L | 12 |
| 003 | STP1-SW0011-000.5-20220310 | Aqueous | PFPeA | PFAS by ID | 87 | | ng/L | 12 |
| 003 | STP1-SW0011-000.5-20220310 | Aqueous | PFOS | PFAS by ID | 1200 | D | ng/L | 12 |
| 004 | STP1-SW0012-000.5-20220310 | Aqueous | PFBS | PFAS by ID | 4.1 | | ng/L | 14 |
| 004 | STP1-SW0012-000.5-20220310 | Aqueous | PFDS | PFAS by ID | 8.2 | | ng/L | 14 |
| 004 | STP1-SW0012-000.5-20220310 | Aqueous | PFHpS | PFAS by ID | 1.0 | I | ng/L | 14 |

Detection Summary (Continued)

Lot Number: XC12009

| Sample | Sample ID | Matrix | Parameter | Method | Result | Q | Units | Page |
|--------|----------------------------|---------|-----------|------------|--------|----|-------|------|
| 004 | STP1-SW0012-000.5-20220310 | Aqueous | PFPeS | PFAS by ID | 1.0 | I | ng/L | 14 |
| 004 | STP1-SW0012-000.5-20220310 | Aqueous | PFHxS | PFAS by ID | 15 | | ng/L | 14 |
| 004 | STP1-SW0012-000.5-20220310 | Aqueous | PFBA | PFAS by ID | 33 | | ng/L | 14 |
| 004 | STP1-SW0012-000.5-20220310 | Aqueous | PFDA | PFAS by ID | 3.7 | I | ng/L | 14 |
| 004 | STP1-SW0012-000.5-20220310 | Aqueous | PFHpA | PFAS by ID | 25 | | ng/L | 14 |
| 004 | STP1-SW0012-000.5-20220310 | Aqueous | PFHxA | PFAS by ID | 33 | | ng/L | 14 |
| 004 | STP1-SW0012-000.5-20220310 | Aqueous | PFNA | PFAS by ID | 11 | | ng/L | 14 |
| 004 | STP1-SW0012-000.5-20220310 | Aqueous | PFOA | PFAS by ID | 37 | | ng/L | 14 |
| 004 | STP1-SW0012-000.5-20220310 | Aqueous | PFPeA | PFAS by ID | 41 | | ng/L | 14 |
| 004 | STP1-SW0012-000.5-20220310 | Aqueous | PFOS | PFAS by ID | 91 | | ng/L | 14 |
| 005 | STP1-SW0013-000.5-20220310 | Aqueous | PFBS | PFAS by ID | 1.9 | I | ng/L | 16 |
| 005 | STP1-SW0013-000.5-20220310 | Aqueous | PFPeS | PFAS by ID | 0.96 | I | ng/L | 16 |
| 005 | STP1-SW0013-000.5-20220310 | Aqueous | PFHxS | PFAS by ID | 4.5 | | ng/L | 16 |
| 005 | STP1-SW0013-000.5-20220310 | Aqueous | PFBA | PFAS by ID | 27 | | ng/L | 16 |
| 005 | STP1-SW0013-000.5-20220310 | Aqueous | PFHpA | PFAS by ID | 8.5 | | ng/L | 16 |
| 005 | STP1-SW0013-000.5-20220310 | Aqueous | PFHxA | PFAS by ID | 9.9 | | ng/L | 16 |
| 005 | STP1-SW0013-000.5-20220310 | Aqueous | PFOA | PFAS by ID | 5.8 | | ng/L | 16 |
| 005 | STP1-SW0013-000.5-20220310 | Aqueous | PFPeA | PFAS by ID | 6.6 | | ng/L | 16 |
| 005 | STP1-SW0013-000.5-20220310 | Aqueous | PFOS | PFAS by ID | 5.8 | | ng/L | 16 |
| 006 | STP1-SW0014-000.5-20220310 | Aqueous | PFBS | PFAS by ID | 8.4 | IQ | ng/L | 18 |
| 006 | STP1-SW0014-000.5-20220310 | Aqueous | PFHxS | PFAS by ID | 6.6 | IQ | ng/L | 18 |
| 006 | STP1-SW0014-000.5-20220310 | Aqueous | PFBA | PFAS by ID | 95 | Q | ng/L | 18 |
| 006 | STP1-SW0014-000.5-20220310 | Aqueous | PFHpA | PFAS by ID | 17 | Q | ng/L | 18 |
| 006 | STP1-SW0014-000.5-20220310 | Aqueous | PFHxA | PFAS by ID | 37 | Q | ng/L | 18 |
| 006 | STP1-SW0014-000.5-20220310 | Aqueous | PFOA | PFAS by ID | 21 | Q | ng/L | 18 |
| 006 | STP1-SW0014-000.5-20220310 | Aqueous | PFPeA | PFAS by ID | 25 | Q | ng/L | 18 |
| 006 | STP1-SW0014-000.5-20220310 | Aqueous | PFOS | PFAS by ID | 11 | IQ | ng/L | 18 |
| 007 | STP1-SW0015-000.5-20220310 | Aqueous | PFBS | PFAS by ID | 1.0 | I | ng/L | 20 |
| 007 | STP1-SW0015-000.5-20220310 | Aqueous | PFHxS | PFAS by ID | 2.3 | I | ng/L | 20 |
| 007 | STP1-SW0015-000.5-20220310 | Aqueous | PFBA | PFAS by ID | 19 | | ng/L | 20 |
| 007 | STP1-SW0015-000.5-20220310 | Aqueous | PFHpA | PFAS by ID | 3.6 | | ng/L | 20 |
| 007 | STP1-SW0015-000.5-20220310 | Aqueous | PFHxA | PFAS by ID | 8.3 | | ng/L | 20 |
| 007 | STP1-SW0015-000.5-20220310 | Aqueous | PFOA | PFAS by ID | 9.1 | | ng/L | 20 |
| 007 | STP1-SW0015-000.5-20220310 | Aqueous | PFPeA | PFAS by ID | 6.5 | | ng/L | 20 |
| 007 | STP1-SW0015-000.5-20220310 | Aqueous | PFOS | PFAS by ID | 9.5 | | ng/L | 20 |
| 010 | STP1-FD-20220310-01 | Aqueous | PFBS | PFAS by ID | 1.7 | I | ng/L | 26 |
| 010 | STP1-FD-20220310-01 | Aqueous | PFPeS | PFAS by ID | 1.1 | I | ng/L | 26 |
| 010 | STP1-FD-20220310-01 | Aqueous | PFHxS | PFAS by ID | 13 | | ng/L | 26 |
| 010 | STP1-FD-20220310-01 | Aqueous | PFBA | PFAS by ID | 6.4 | | ng/L | 26 |
| 010 | STP1-FD-20220310-01 | Aqueous | PFHpA | PFAS by ID | 2.3 | I | ng/L | 26 |
| 010 | STP1-FD-20220310-01 | Aqueous | PFHxA | PFAS by ID | 4.4 | | ng/L | 26 |
| 010 | STP1-FD-20220310-01 | Aqueous | PFOA | PFAS by ID | 4.2 | | ng/L | 26 |
| 010 | STP1-FD-20220310-01 | Aqueous | PFPeA | PFAS by ID | 4.0 | | ng/L | 26 |
| 010 | STP1-FD-20220310-01 | Aqueous | PFOS | PFAS by ID | 8.7 | | ng/L | 26 |

(89 detections)

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XC12009-001 |
| Description: STP1-SW0010-000.5-20220310 | Matrix: Aqueous |
| Date Sampled: 03/10/2022 0805 | |
| Date Received: 03/12/2022 | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/26/2022 1732 | ASD | 03/24/2022 1128 | 35925 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.7 | UQ | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.7 | UQ | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 2.0 | I | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 1.2 | I | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 12 | | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 6.7 | Q | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 2.2 | I | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 3.7 | | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 4.6 | | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 3.7 | | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 9.4 | | 3.6 | 1.8 | 0.91 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 206 | 50-150 |
| 13C2_6:2FTS | N | 171 | 50-150 |
| 13C2_8:2FTS | | 117 | 50-150 |
| 13C2_PFDa | | 89 | 50-150 |
| 13C2_PFTeDA | | 78 | 50-150 |
| 13C3_PFBS | | 81 | 50-150 |
| 13C3_PFHxS | | 98 | 50-150 |
| 13C3-HFPO-DA | | 81 | 50-150 |
| 13C4_PFBA | N | 46 | 50-150 |
| 13C4_PFHpA | | 100 | 50-150 |
| 13C5_PFHxA | | 96 | 50-150 |
| 13C5_PFPeA | | 76 | 50-150 |
| 13C6_PFDA | | 99 | 50-150 |
| 13C7_PFUdA | | 93 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XC12009-001 |
| Description: STP1-SW0010-000.5-20220310 | Matrix: Aqueous |
| Date Sampled: 03/10/2022 0805 | |
| Date Received: 03/12/2022 | |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 95 | 50-150 |
| 13C8_PFOS | | 100 | 50-150 |
| 13C9_PFNA | | 103 | 50-150 |
| d-EtFOSA | | 65 | 50-150 |
| d5-EtFOSAA | | 96 | 50-150 |
| d3-MeFOSAA | | 101 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|--|----------------------------|
| Client: Tetra Tech | Laboratory ID: XC12009-002 |
| Description: FS1-SW0001-000.5-20220310 | Matrix: Aqueous |
| Date Sampled: 03/10/2022 0845 | |
| Date Received: 03/12/2022 | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/26/2022 1804 | ASD | 03/24/2022 1128 | 35925 |
| 2 | SOP SPE | PFAS by ID SOP QSM B-15 | 50 | 03/30/2022 1251 | ASD | 03/24/2022 1128 | 35925 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.7 | UQ | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.7 | UQ | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 470 | D | 370 | 190 | 92 | ng/L | 2 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 2700 | D | 370 | 190 | 92 | ng/L | 2 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.7 | UQ | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 50 | | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| Perfluoro-1-butanefluoride (PFBS) | 375-73-5 | PFAS by ID SOP | 79 | | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 3.9 | Q | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 130 | | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 23 | Q | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 140 | | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 3300 | D | 180 | 90 | 46 | ng/L | 2 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 270 | Q | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 18 | | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 480 | D | 180 | 90 | 46 | ng/L | 2 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 1000 | D | 180 | 90 | 46 | ng/L | 2 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 110 | | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 1200 | D | 180 | 90 | 46 | ng/L | 2 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 1000 | D | 180 | 90 | 46 | ng/L | 2 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.9 | U | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 2.1 | I | 3.7 | 1.9 | 0.92 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 14000 | D | 180 | 90 | 46 | ng/L | 2 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 189 | 50-150 | | 96 | 50-150 |
| 13C2_6:2FTS | | 109 | 50-150 | | 89 | 50-150 |
| 13C2_8:2FTS | | 121 | 50-150 | | 96 | 50-150 |
| 13C2_PFDaA | | 97 | 50-150 | | 94 | 50-150 |
| 13C2_PFTeDA | | 70 | 50-150 | | 94 | 50-150 |
| 13C3_PFBs | | 77 | 50-150 | | 95 | 50-150 |
| 13C3_PFHxS | | 63 | 50-150 | | 92 | 50-150 |
| 13C3-HFPO-DA | | 75 | 50-150 | | 91 | 50-150 |
| 13C4_PFBa | N | 44 | 50-150 | | 96 | 50-150 |
| 13C4_PFHpA | | 73 | 50-150 | | 95 | 50-150 |
| 13C5_PFHxA | | 78 | 50-150 | | 95 | 50-150 |
| 13C5_PFPeA | | 64 | 50-150 | | 97 | 50-150 |
| 13C6_PFDa | | 92 | 50-150 | | 96 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|--|----------------------------|
| Client: Tetra Tech | Laboratory ID: XC12009-002 |
| Description: FS1-SW0001-000.5-20220310 | Matrix: Aqueous |
| Date Sampled: 03/10/2022 0845 | |
| Date Received: 03/12/2022 | |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|---|---------------------|----------------------|
| 13C7_PFUdA | | 95 | 50-150 | | 98 | 50-150 |
| 13C8_PFOA | | 82 | 50-150 | | 89 | 50-150 |
| 13C8_PFOS | N | 46 | 50-150 | | 92 | 50-150 |
| 13C9_PFNA | | 50 | 50-150 | | 90 | 50-150 |
| d-EtFOSA | | 58 | 50-150 | | 94 | 50-150 |
| d5-EtFOSAA | | 105 | 50-150 | | 96 | 50-150 |
| d3-MeFOSAA | | 101 | 50-150 | | 93 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XC12009-003 |
| Description: STP1-SW0011-000.5-20220310 | Matrix: Aqueous |
| Date Sampled: 03/10/2022 0910 | |
| Date Received: 03/12/2022 | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/26/2022 1815 | ASD | 03/24/2022 1128 | 35925 |
| 2 | SOP SPE | PFAS by ID SOP QSM B-15 | 10 | 03/29/2022 1859 | MMM | 03/24/2022 1128 | 35925 |
| 3 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/30/2022 2307 | MMM | 03/29/2022 1803 | 36434 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 9.8 | | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 87 | V | 8.3 | 4.2 | 2.1 | ng/L | 3 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.7 | UQ | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.7 | U | 7.3 | 3.7 | 1.8 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 13 | | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 11 | | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.4 | I | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 23 | | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 340 | D | 36 | 18 | 9.1 | ng/L | 2 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 26 | Q | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 3.0 | I | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 46 | | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 76 | | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 20 | | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 58 | | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 87 | | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.91 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 1200 | D | 36 | 18 | 9.1 | ng/L | 2 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits | Q | Run 3 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|---|------------------|-------------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 185 | 50-150 | | 110 | 50-150 | | 113 | 50-150 |
| 13C2_6:2FTS | N | 153 | 50-150 | | 117 | 50-150 | | 122 | 50-150 |
| 13C2_8:2FTS | | 118 | 50-150 | | 88 | 50-150 | | 59 | 50-150 |
| 13C2_PFDaA | | 86 | 50-150 | | 87 | 50-150 | N | 6.8 | 50-150 |
| 13C2_PFTeDA | | 65 | 50-150 | | 63 | 50-150 | N | 0.30 | 50-150 |
| 13C3_PFBs | | 79 | 50-150 | | 97 | 50-150 | | 63 | 50-150 |
| 13C3_PFHxS | | 90 | 50-150 | | 93 | 50-150 | | 58 | 50-150 |
| 13C3-HFPO-DA | | 80 | 50-150 | | 98 | 50-150 | | 56 | 50-150 |
| 13C4_PFBa | N | 48 | 50-150 | | 97 | 50-150 | N | 43 | 50-150 |
| 13C4_PFHpA | | 92 | 50-150 | | 90 | 50-150 | | 59 | 50-150 |
| 13C5_PFHxA | | 93 | 50-150 | | 97 | 50-150 | | 62 | 50-150 |
| 13C5_PFPeA | | 76 | 50-150 | | 93 | 50-150 | | 62 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XC12009-003 |
| Description: STP1-SW0011-000.5-20220310 | Matrix: Aqueous |
| Date Sampled: 03/10/2022 0910 | |
| Date Received: 03/12/2022 | |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits | Q | Run 3 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|---|---------------------|----------------------|---|---------------------|----------------------|
| 13C6_PFDA | | 93 | 50-150 | | 103 | 50-150 | N | 47 | 50-150 |
| 13C7_PFUdA | | 87 | 50-150 | | 99 | 50-150 | N | 22 | 50-150 |
| 13C8_PFOA | | 94 | 50-150 | | 96 | 50-150 | | 64 | 50-150 |
| 13C8_PFOS | | 83 | 50-150 | | 103 | 50-150 | N | 43 | 50-150 |
| 13C9_PFNA | | 86 | 50-150 | | 95 | 50-150 | | 53 | 50-150 |
| d-EtFOSA | | 58 | 50-150 | | 66 | 50-150 | N | 0.30 | 50-150 |
| d5-EtFOSAA | | 91 | 50-150 | | 98 | 50-150 | N | 30 | 50-150 |
| d3-MeFOSAA | | 96 | 50-150 | | 96 | 50-150 | N | 48 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XC12009-004 |
| Description: STP1-SW0012-000.5-20220310 | Matrix: Aqueous |
| Date Sampled: 03/10/2022 1035 | |
| Date Received: 03/12/2022 | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/26/2022 1826 | ASD | 03/24/2022 1128 | 35925 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.9 | U | 7.7 | 3.9 | 1.9 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.9 | U | 7.7 | 3.9 | 1.9 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.9 | U | 7.7 | 3.9 | 1.9 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.9 | U | 7.7 | 3.9 | 1.9 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.9 | UQ | 7.7 | 3.9 | 1.9 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.9 | U | 7.7 | 3.9 | 1.9 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.9 | U | 7.7 | 3.9 | 1.9 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.9 | U | 7.7 | 3.9 | 1.9 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.9 | U | 7.7 | 3.9 | 1.9 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.9 | U | 7.7 | 3.9 | 1.9 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 4.1 | | 3.8 | 1.9 | 0.96 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 8.2 | | 3.8 | 1.9 | 0.96 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.0 | I | 3.8 | 1.9 | 0.96 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.96 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 1.0 | I | 3.8 | 1.9 | 0.96 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 15 | | 3.8 | 1.9 | 0.96 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 33 | | 3.8 | 1.9 | 0.96 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 3.7 | I | 3.8 | 1.9 | 0.96 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.96 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 25 | | 3.8 | 1.9 | 0.96 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 33 | | 3.8 | 1.9 | 0.96 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 11 | | 3.8 | 1.9 | 0.96 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 37 | | 3.8 | 1.9 | 0.96 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 41 | | 3.8 | 1.9 | 0.96 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.96 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.96 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.96 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 91 | | 3.8 | 1.9 | 0.96 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 201 | 50-150 |
| 13C2_6:2FTS | | 135 | 50-150 |
| 13C2_8:2FTS | | 95 | 50-150 |
| 13C2_PFDa | | 83 | 50-150 |
| 13C2_PFTeDA | | 68 | 50-150 |
| 13C3_PFBs | | 79 | 50-150 |
| 13C3_PFHxS | | 93 | 50-150 |
| 13C3-HFPO-DA | | 84 | 50-150 |
| 13C4_PFBa | | 52 | 50-150 |
| 13C4_PFHpA | | 99 | 50-150 |
| 13C5_PFHxA | | 97 | 50-150 |
| 13C5_PFPeA | | 79 | 50-150 |
| 13C6_PFDa | | 91 | 50-150 |
| 13C7_PFUdA | | 83 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XC12009-004 |
| Description: STP1-SW0012-000.5-20220310 | Matrix: Aqueous |
| Date Sampled: 03/10/2022 1035 | |
| Date Received: 03/12/2022 | |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 94 | 50-150 |
| 13C8_PFOS | | 93 | 50-150 |
| 13C9_PFNA | | 91 | 50-150 |
| d-EtFOSA | | 74 | 50-150 |
| d5-EtFOSAA | | 90 | 50-150 |
| d3-MeFOSAA | | 87 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XC12009-005 |
| Description: STP1-SW0013-000.5-20220310 | Matrix: Aqueous |
| Date Sampled: 03/10/2022 1110 | |
| Date Received: 03/12/2022 | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/26/2022 1837 | ASD | 03/24/2022 1128 | 35925 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|---|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.8 | U | 7.6 | 3.8 | 1.9 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.8 | U | 7.6 | 3.8 | 1.9 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.8 | U | 7.6 | 3.8 | 1.9 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.8 | U | 7.6 | 3.8 | 1.9 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.8 | U | 7.6 | 3.8 | 1.9 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.8 | U | 7.6 | 3.8 | 1.9 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.8 | U | 7.6 | 3.8 | 1.9 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.8 | U | 7.6 | 3.8 | 1.9 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.8 | U | 7.6 | 3.8 | 1.9 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.8 | U | 7.6 | 3.8 | 1.9 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 1.9 | I | 3.8 | 1.9 | 0.95 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.95 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.95 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.95 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 0.96 | I | 3.8 | 1.9 | 0.95 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 4.5 | | 3.8 | 1.9 | 0.95 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 27 | | 3.8 | 1.9 | 0.95 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.95 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.95 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 8.5 | | 3.8 | 1.9 | 0.95 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 9.9 | | 3.8 | 1.9 | 0.95 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.95 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 5.8 | | 3.8 | 1.9 | 0.95 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 6.6 | | 3.8 | 1.9 | 0.95 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.95 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.95 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.95 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 5.8 | | 3.8 | 1.9 | 0.95 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 148 | 50-150 |
| 13C2_6:2FTS | | 136 | 50-150 |
| 13C2_8:2FTS | | 76 | 50-150 |
| 13C2_PFDa | | 66 | 50-150 |
| 13C2_PFTeDA | | 55 | 50-150 |
| 13C3_PFBs | | 84 | 50-150 |
| 13C3_PFHxS | | 90 | 50-150 |
| 13C3-HFPO-DA | | 90 | 50-150 |
| 13C4_PFBa | | 67 | 50-150 |
| 13C4_PFHpA | | 98 | 50-150 |
| 13C5_PFHxA | | 103 | 50-150 |
| 13C5_PFPeA | | 90 | 50-150 |
| 13C6_PFDa | | 80 | 50-150 |
| 13C7_PFUdA | | 67 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XC12009-005 |
| Description: STP1-SW0013-000.5-20220310 | Matrix: Aqueous |
| Date Sampled: 03/10/2022 1110 | |
| Date Received: 03/12/2022 | |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 97 | 50-150 |
| 13C8_PFOS | | 85 | 50-150 |
| 13C9_PFNA | | 91 | 50-150 |
| d-EtFOSA | | 71 | 50-150 |
| d5-EtFOSAA | | 82 | 50-150 |
| d3-MeFOSAA | | 77 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XC12009-006 |
| Description: STP1-SW0014-000.5-20220310 | Matrix: Aqueous |
| Date Sampled: 03/10/2022 1120 | |
| Date Received: 03/12/2022 | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/26/2022 1848 | ASD | 03/24/2022 1128 | 35925 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|-----|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 16 | UQ | 31 | 16 | 7.7 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 16 | UQ | 31 | 16 | 7.7 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 16 | UQ | 31 | 16 | 7.7 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 16 | UQ | 31 | 16 | 7.7 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 16 | UQ | 31 | 16 | 7.7 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 16 | UQ | 31 | 16 | 7.7 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 16 | UQ | 31 | 16 | 7.7 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 16 | UQ | 31 | 16 | 7.7 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 16 | UQ | 31 | 16 | 7.7 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 16 | UQ | 31 | 16 | 7.7 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 8.4 | IQ | 15 | 7.5 | 3.8 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 7.5 | UQ | 15 | 7.5 | 3.8 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 7.5 | UQ | 15 | 7.5 | 3.8 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 7.5 | UQ | 15 | 7.5 | 3.8 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 7.5 | UQ | 15 | 7.5 | 3.8 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 6.6 | IQ | 15 | 7.5 | 3.8 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 95 | Q | 15 | 7.5 | 3.8 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 7.5 | UQ | 15 | 7.5 | 3.8 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 7.5 | UQ | 15 | 7.5 | 3.8 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 17 | Q | 15 | 7.5 | 3.8 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 37 | Q | 15 | 7.5 | 3.8 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 7.5 | UQ | 15 | 7.5 | 3.8 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 21 | Q | 15 | 7.5 | 3.8 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 25 | Q | 15 | 7.5 | 3.8 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 7.5 | UQ | 15 | 7.5 | 3.8 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 7.5 | UQ | 15 | 7.5 | 3.8 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 7.5 | UQ | 15 | 7.5 | 3.8 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 11 | IQ | 15 | 7.5 | 3.8 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 31 | 50-150 |
| 13C2_6:2FTS | N | 34 | 50-150 |
| 13C2_8:2FTS | N | 30 | 50-150 |
| 13C2_PFDaA | N | 31 | 50-150 |
| 13C2_PFTeDA | N | 24 | 50-150 |
| 13C3_PFBs | N | 24 | 50-150 |
| 13C3_PFHxS | N | 26 | 50-150 |
| 13C3-HFPO-DA | N | 25 | 50-150 |
| 13C4_PFBa | N | 26 | 50-150 |
| 13C4_PFHpA | N | 26 | 50-150 |
| 13C5_PFHxA | N | 25 | 50-150 |
| 13C5_PFPeA | N | 26 | 50-150 |
| 13C6_PFDa | N | 29 | 50-150 |
| 13C7_PFUdA | N | 28 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XC12009-006 |
| Description: STP1-SW0014-000.5-20220310 | Matrix: Aqueous |
| Date Sampled: 03/10/2022 1120 | |
| Date Received: 03/12/2022 | |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | N | 28 | 50-150 |
| 13C8_PFOS | N | 27 | 50-150 |
| 13C9_PFNA | N | 26 | 50-150 |
| d-EtFOSA | N | 25 | 50-150 |
| d5-EtFOSAA | N | 32 | 50-150 |
| d3-MeFOSAA | N | 30 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XC12009-007 |
| Description: STP1-SW0015-000.5-20220310 | Matrix: Aqueous |
| Date Sampled: 03/10/2022 1145 | |
| Date Received: 03/12/2022 | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/26/2022 1859 | ASD | 03/24/2022 1128 | 35925 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.6 | UQ | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 1.0 | I | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 2.3 | I | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 19 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 3.6 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 8.3 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 9.1 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 6.5 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 9.5 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 165 | 50-150 |
| 13C2_6:2FTS | | 126 | 50-150 |
| 13C2_8:2FTS | | 97 | 50-150 |
| 13C2_PFDa | | 79 | 50-150 |
| 13C2_PFTeDA | | 61 | 50-150 |
| 13C3_PFBS | | 86 | 50-150 |
| 13C3_PFHxS | | 99 | 50-150 |
| 13C3-HFPO-DA | | 90 | 50-150 |
| 13C4_PFBA | | 63 | 50-150 |
| 13C4_PFHpA | | 97 | 50-150 |
| 13C5_PFHxA | | 101 | 50-150 |
| 13C5_PFPeA | | 88 | 50-150 |
| 13C6_PFDA | | 90 | 50-150 |
| 13C7_PFUdA | | 86 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---|----------------------------|
| Client: Tetra Tech | Laboratory ID: XC12009-007 |
| Description: STP1-SW0015-000.5-20220310 | Matrix: Aqueous |
| Date Sampled: 03/10/2022 1145 | |
| Date Received: 03/12/2022 | |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 97 | 50-150 |
| 13C8_PFOS | | 100 | 50-150 |
| 13C9_PFNA | | 97 | 50-150 |
| d-EtFOSA | | 81 | 50-150 |
| d5-EtFOSAA | | 95 | 50-150 |
| d3-MeFOSAA | | 93 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|----------------------------------|----------------------------|
| Client: Tetra Tech | Laboratory ID: XC12009-008 |
| Description: STP1-EB-20220310-01 | Matrix: Aqueous |
| Date Sampled: 03/10/2022 1200 | |
| Date Received: 03/12/2022 | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/26/2022 1910 | ASD | 03/24/2022 1128 | 35925 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|---|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 99 | 50-150 |
| 13C2_6:2FTS | | 121 | 50-150 |
| 13C2_8:2FTS | | 96 | 50-150 |
| 13C2_PFDaA | | 92 | 50-150 |
| 13C2_PFTeDA | | 90 | 50-150 |
| 13C3_PFBs | | 85 | 50-150 |
| 13C3_PFHxS | | 90 | 50-150 |
| 13C3-HFPO-DA | | 90 | 50-150 |
| 13C4_PFBa | | 93 | 50-150 |
| 13C4_PFHpA | | 94 | 50-150 |
| 13C5_PFHxA | | 99 | 50-150 |
| 13C5_PFPeA | | 98 | 50-150 |
| 13C6_PFDa | | 93 | 50-150 |
| 13C7_PFUdA | | 87 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|----------------------------------|----------------------------|
| Client: Tetra Tech | Laboratory ID: XC12009-008 |
| Description: STP1-EB-20220310-01 | Matrix: Aqueous |
| Date Sampled: 03/10/2022 1200 | |
| Date Received: 03/12/2022 | |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 98 | 50-150 |
| 13C8_PFOS | | 97 | 50-150 |
| 13C9_PFNA | | 92 | 50-150 |
| d-EtFOSA | | 80 | 50-150 |
| d5-EtFOSAA | | 90 | 50-150 |
| d3-MeFOSAA | | 89 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|----------------------------------|----------------------------|
| Client: Tetra Tech | Laboratory ID: XC12009-009 |
| Description: STP1-FB-20220310-01 | Matrix: Aqueous |
| Date Sampled: 03/10/2022 1210 | |
| Date Received: 03/12/2022 | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/26/2022 1921 | ASD | 03/24/2022 1128 | 35925 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|---|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 97 | 50-150 |
| 13C2_6:2FTS | | 126 | 50-150 |
| 13C2_8:2FTS | | 99 | 50-150 |
| 13C2_PFDa | | 93 | 50-150 |
| 13C2_PFTeDA | | 88 | 50-150 |
| 13C3_PFBs | | 92 | 50-150 |
| 13C3_PFHxS | | 92 | 50-150 |
| 13C3-HFPO-DA | | 94 | 50-150 |
| 13C4_PFBa | | 101 | 50-150 |
| 13C4_PFHpA | | 95 | 50-150 |
| 13C5_PFHxA | | 98 | 50-150 |
| 13C5_PFPeA | | 96 | 50-150 |
| 13C6_PFDa | | 93 | 50-150 |
| 13C7_PFUdA | | 89 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|----------------------------------|----------------------------|
| Client: Tetra Tech | Laboratory ID: XC12009-009 |
| Description: STP1-FB-20220310-01 | Matrix: Aqueous |
| Date Sampled: 03/10/2022 1210 | |
| Date Received: 03/12/2022 | |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 102 | 50-150 |
| 13C8_PFOS | | 95 | 50-150 |
| 13C9_PFNA | | 96 | 50-150 |
| d-EtFOSA | | 63 | 50-150 |
| d5-EtFOSAA | | 88 | 50-150 |
| d3-MeFOSAA | | 94 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|----------------------------------|----------------------------|
| Client: Tetra Tech | Laboratory ID: XC12009-010 |
| Description: STP1-FD-20220310-01 | Matrix: Aqueous |
| Date Sampled: 03/10/2022 | |
| Date Received: 03/12/2022 | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/26/2022 1932 | ASD | 03/24/2022 1128 | 35925 |
| 2 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 03/30/2022 2318 | MMM | 03/29/2022 1803 | 36434 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.4 | U | 6.8 | 3.4 | 1.7 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.4 | U | 6.8 | 3.4 | 1.7 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.4 | U | 6.8 | 3.4 | 1.7 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.4 | UQ | 6.8 | 3.4 | 1.7 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.4 | UQ | 6.8 | 3.4 | 1.7 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.4 | U | 6.8 | 3.4 | 1.7 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.4 | U | 6.8 | 3.4 | 1.7 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.4 | U | 6.8 | 3.4 | 1.7 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.4 | U | 6.8 | 3.4 | 1.7 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.4 | U | 6.8 | 3.4 | 1.7 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 1.7 | I | 3.4 | 1.7 | 0.85 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.7 | U | 3.4 | 1.7 | 0.85 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.7 | U | 3.4 | 1.7 | 0.85 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.7 | U | 3.4 | 1.7 | 0.85 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 1.1 | I | 3.4 | 1.7 | 0.85 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 13 | | 3.4 | 1.7 | 0.85 | ng/L | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 6.4 | | 3.5 | 1.8 | 0.88 | ng/L | 2 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.7 | U | 3.4 | 1.7 | 0.85 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.7 | U | 3.4 | 1.7 | 0.85 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 2.3 | I | 3.4 | 1.7 | 0.85 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 4.4 | | 3.4 | 1.7 | 0.85 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.7 | U | 3.4 | 1.7 | 0.85 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 4.2 | | 3.4 | 1.7 | 0.85 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 4.0 | | 3.4 | 1.7 | 0.85 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.7 | U | 3.4 | 1.7 | 0.85 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.7 | U | 3.4 | 1.7 | 0.85 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.7 | U | 3.4 | 1.7 | 0.85 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 8.7 | | 3.4 | 1.7 | 0.85 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 190 | 50-150 | N | 181 | 50-150 |
| 13C2_6:2FTS | N | 167 | 50-150 | N | 241 | 50-150 |
| 13C2_8:2FTS | | 126 | 50-150 | | 125 | 50-150 |
| 13C2_PFDaA | | 93 | 50-150 | | 83 | 50-150 |
| 13C2_PFTeDA | | 79 | 50-150 | | 67 | 50-150 |
| 13C3_PFBs | | 78 | 50-150 | | 91 | 50-150 |
| 13C3_PFHxS | | 94 | 50-150 | | 100 | 50-150 |
| 13C3-HFPO-DA | | 79 | 50-150 | | 81 | 50-150 |
| 13C4_PFBa | N | 41 | 50-150 | | 52 | 50-150 |
| 13C4_PFHpA | | 96 | 50-150 | | 93 | 50-150 |
| 13C5_PFHxA | | 88 | 50-150 | | 91 | 50-150 |
| 13C5_PFPeA | | 71 | 50-150 | | 87 | 50-150 |
| 13C6_PFDa | | 93 | 50-150 | | 100 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|----------------------------------|----------------------------|
| Client: Tetra Tech | Laboratory ID: XC12009-010 |
| Description: STP1-FD-20220310-01 | Matrix: Aqueous |
| Date Sampled: 03/10/2022 | |
| Date Received: 03/12/2022 | |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits | Q | Run 2 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|---|---------------------|----------------------|
| 13C7_PFUdA | | 90 | 50-150 | | 92 | 50-150 |
| 13C8_PFOA | | 93 | 50-150 | | 101 | 50-150 |
| 13C8_PFOS | | 98 | 50-150 | | 97 | 50-150 |
| 13C9_PFNA | | 99 | 50-150 | | 101 | 50-150 |
| d-EtFOSA | | 69 | 50-150 | | 64 | 50-150 |
| d5-EtFOSAA | | 97 | 50-150 | | 94 | 50-150 |
| d3-MeFOSAA | | 98 | 50-150 | | 109 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection S = MS/MSD failure

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

QC Summary

PFAS by LC/MS/MS - MB

Sample ID: XQ35925-001

Matrix: Aqueous

Batch: 35925

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/24/2022 1128

| Parameter | Result | Q | Dil | LOQ | LOD | DL | Units | Analysis Date |
|--------------|--------|-------|------------------|-----|-----|-----|-------|-----------------|
| 9CI-PF3ONS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/26/2022 1710 |
| 11CI-PF3OUdS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/26/2022 1710 |
| 8:2 FTS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/26/2022 1710 |
| 6:2 FTS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/26/2022 1710 |
| 4:2 FTS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/26/2022 1710 |
| GenX | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/26/2022 1710 |
| ADONA | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/26/2022 1710 |
| EtFOSA | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/26/2022 1710 |
| EtFOSAA | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/26/2022 1710 |
| MeFOSAA | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/26/2022 1710 |
| PFBS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/26/2022 1710 |
| PFDS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/26/2022 1710 |
| PFHpS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/26/2022 1710 |
| PFNS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/26/2022 1710 |
| PFPeS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/26/2022 1710 |
| PFHxS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/26/2022 1710 |
| PFBA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/26/2022 1710 |
| PFDA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/26/2022 1710 |
| PFDoA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/26/2022 1710 |
| PFHpA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/26/2022 1710 |
| PFHxA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/26/2022 1710 |
| PFNA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/26/2022 1710 |
| PFOA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/26/2022 1710 |
| PFPeA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/26/2022 1710 |
| PFTeDA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/26/2022 1710 |
| PFTTrDA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/26/2022 1710 |
| PFUdA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/26/2022 1710 |
| PFOS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/26/2022 1710 |
| Surrogate | Q | % Rec | Acceptance Limit | | | | | |
| 13C2_4:2FTS | | 100 | 50-150 | | | | | |
| 13C2_6:2FTS | | 135 | 50-150 | | | | | |
| 13C2_8:2FTS | | 104 | 50-150 | | | | | |
| 13C2_PFDoA | | 98 | 50-150 | | | | | |
| 13C2_PFTeDA | | 97 | 50-150 | | | | | |
| 13C3_PFBs | | 97 | 50-150 | | | | | |
| 13C3_PFHxS | | 96 | 50-150 | | | | | |
| 13C3-HFPO-DA | | 98 | 50-150 | | | | | |
| 13C4_PFBA | | 103 | 50-150 | | | | | |
| 13C4_PFHpA | | 102 | 50-150 | | | | | |
| 13C5_PFHxA | | 101 | 50-150 | | | | | |
| 13C5_PFPeA | | 102 | 50-150 | | | | | |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MB

Sample ID: XQ35925-001

Matrix: Aqueous

Batch: 35925

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/24/2022 1128

| Surrogate | Q | % Rec | Acceptance Limit |
|------------|---|-------|------------------|
| 13C6_PFDA | | 96 | 50-150 |
| 13C7_PFUdA | | 94 | 50-150 |
| 13C8_PFOA | | 105 | 50-150 |
| 13C8_PFOS | | 99 | 50-150 |
| 13C9_PFNA | | 99 | 50-150 |
| d-EtFOSA | | 88 | 50-150 |
| d5-EtFOSAA | | 95 | 50-150 |
| d3-MeFOSAA | | 95 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - LCS

Sample ID: XQ35925-002

Matrix: Aqueous

Batch: 35925

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/24/2022 1128

| Parameter | Spike Amount (ng/L) | Result (ng/L) | Q | Dil | % Rec | %Rec Limit | Analysis Date |
|--------------|---------------------|---------------|------------------|-----|-------|------------|-----------------|
| 9CI-PF3ONS | 15 | 15 | | 1 | 99 | 70-150 | 03/26/2022 1721 |
| 11CI-PF3OUdS | 15 | 14 | | 1 | 94 | 70-150 | 03/26/2022 1721 |
| 8:2 FTS | 15 | 16 | | 1 | 102 | 67-138 | 03/26/2022 1721 |
| 6:2 FTS | 15 | 15 | | 1 | 97 | 64-140 | 03/26/2022 1721 |
| 4:2 FTS | 15 | 16 | | 1 | 105 | 63-143 | 03/26/2022 1721 |
| GenX | 32 | 31 | | 1 | 98 | 70-150 | 03/26/2022 1721 |
| ADONA | 15 | 16 | | 1 | 107 | 70-150 | 03/26/2022 1721 |
| EtFOSA | 16 | 17 | | 1 | 103 | 70-150 | 03/26/2022 1721 |
| EtFOSAA | 16 | 16 | | 1 | 97 | 61-135 | 03/26/2022 1721 |
| MeFOSAA | 16 | 17 | | 1 | 107 | 65-136 | 03/26/2022 1721 |
| PFBS | 14 | 14 | | 1 | 101 | 72-130 | 03/26/2022 1721 |
| PFDS | 15 | 15 | | 1 | 96 | 53-142 | 03/26/2022 1721 |
| PFHpS | 15 | 16 | | 1 | 107 | 69-134 | 03/26/2022 1721 |
| PFNS | 15 | 16 | | 1 | 103 | 69-127 | 03/26/2022 1721 |
| PFPeS | 15 | 15 | | 1 | 101 | 71-127 | 03/26/2022 1721 |
| PFHxS | 15 | 15 | | 1 | 100 | 68-131 | 03/26/2022 1721 |
| PFBA | 16 | 17 | | 1 | 105 | 73-129 | 03/26/2022 1721 |
| PFDA | 16 | 16 | | 1 | 102 | 71-129 | 03/26/2022 1721 |
| PFDoA | 16 | 17 | | 1 | 107 | 72-134 | 03/26/2022 1721 |
| PFHpA | 16 | 17 | | 1 | 105 | 72-130 | 03/26/2022 1721 |
| PFHxA | 16 | 17 | | 1 | 107 | 72-129 | 03/26/2022 1721 |
| PFNA | 16 | 17 | | 1 | 103 | 69-130 | 03/26/2022 1721 |
| PFOA | 16 | 17 | | 1 | 108 | 71-133 | 03/26/2022 1721 |
| PFPeA | 16 | 17 | | 1 | 105 | 72-129 | 03/26/2022 1721 |
| PFTeDA | 16 | 17 | | 1 | 105 | 71-132 | 03/26/2022 1721 |
| PFTTrDA | 16 | 16 | | 1 | 98 | 65-144 | 03/26/2022 1721 |
| PFUdA | 16 | 16 | | 1 | 101 | 69-133 | 03/26/2022 1721 |
| PFOS | 15 | 16 | | 1 | 106 | 65-140 | 03/26/2022 1721 |
| Surrogate | Q | % Rec | Acceptance Limit | | | | |
| 13C2_4:2FTS | | 88 | 50-150 | | | | |
| 13C2_6:2FTS | | 109 | 50-150 | | | | |
| 13C2_8:2FTS | | 93 | 50-150 | | | | |
| 13C2_PFDoA | | 94 | 50-150 | | | | |
| 13C2_PFTeDA | | 87 | 50-150 | | | | |
| 13C3_PFBS | | 91 | 50-150 | | | | |
| 13C3_PFHxS | | 90 | 50-150 | | | | |
| 13C3-HFPO-DA | | 93 | 50-150 | | | | |
| 13C4_PFBA | | 96 | 50-150 | | | | |
| 13C4_PFHpA | | 95 | 50-150 | | | | |
| 13C5_PFHxA | | 96 | 50-150 | | | | |
| 13C5_PFPeA | | 95 | 50-150 | | | | |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - LCS

Sample ID: XQ35925-002

Matrix: Aqueous

Batch: 35925

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/24/2022 1128

| Surrogate | Q | % Rec | Acceptance Limit |
|------------|---|-------|------------------|
| 13C6_PFDA | | 94 | 50-150 |
| 13C7_PFUdA | | 89 | 50-150 |
| 13C8_PFOA | | 94 | 50-150 |
| 13C8_PFOS | | 96 | 50-150 |
| 13C9_PFNA | | 97 | 50-150 |
| d-EtFOSA | | 63 | 50-150 |
| d5-EtFOSAA | | 86 | 50-150 |
| d3-MeFOSAA | | 90 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MS

Sample ID: XC12009-001MS

Matrix: Aqueous

Batch: 35925

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/24/2022 1128

| Parameter | Sample Amount (ng/L) | Spike Amount (ng/L) | Result (ng/L) | Q | Dil | % Rec | %Rec Limit | Analysis Date |
|--------------|----------------------|---------------------|------------------|---|-----|-------|------------|-----------------|
| 9CI-PF3ONS | ND | 13 | 14 | | 1 | 105 | 70-150 | 03/26/2022 1743 |
| 11CI-PF3OUdS | ND | 13 | 13 | | 1 | 95 | 70-150 | 03/26/2022 1743 |
| 8:2 FTS | ND | 13 | 14 | | 1 | 106 | 67-138 | 03/26/2022 1743 |
| 6:2 FTS | ND | 13 | 14 | | 1 | 106 | 64-140 | 03/26/2022 1743 |
| 4:2 FTS | ND | 13 | 14 | | 1 | 109 | 63-143 | 03/26/2022 1743 |
| GenX | ND | 28 | 29 | | 1 | 105 | 70-150 | 03/26/2022 1743 |
| ADONA | ND | 13 | 14 | | 1 | 105 | 70-150 | 03/26/2022 1743 |
| EtFOSA | ND | 14 | 15 | | 1 | 110 | 70-150 | 03/26/2022 1743 |
| EtFOSAA | ND | 14 | 14 | | 1 | 99 | 61-135 | 03/26/2022 1743 |
| MeFOSAA | ND | 14 | 15 | | 1 | 109 | 65-136 | 03/26/2022 1743 |
| PFBS | 2.0 | 12 | 15 | | 1 | 103 | 72-130 | 03/26/2022 1743 |
| PFDS | ND | 13 | 13 | | 1 | 94 | 53-142 | 03/26/2022 1743 |
| PFHpS | ND | 13 | 14 | | 1 | 106 | 69-134 | 03/26/2022 1743 |
| PFNS | ND | 13 | 14 | | 1 | 101 | 69-127 | 03/26/2022 1743 |
| PFPeS | 1.2 | 13 | 17 | | 1 | 119 | 71-127 | 03/26/2022 1743 |
| PFHxS | 12 | 13 | 26 | | 1 | 109 | 68-131 | 03/26/2022 1743 |
| PFBA | 6.7 | 14 | 22 | | 1 | 106 | 73-129 | 03/26/2022 1743 |
| PFDA | ND | 14 | 15 | | 1 | 105 | 71-129 | 03/26/2022 1743 |
| PFDoA | ND | 14 | 15 | | 1 | 106 | 72-134 | 03/26/2022 1743 |
| PFHpA | 2.2 | 14 | 16 | | 1 | 101 | 72-130 | 03/26/2022 1743 |
| PFHxA | 3.7 | 14 | 18 | | 1 | 106 | 72-129 | 03/26/2022 1743 |
| PFNA | ND | 14 | 15 | | 1 | 110 | 69-130 | 03/26/2022 1743 |
| PFOA | 4.6 | 14 | 20 | | 1 | 111 | 71-133 | 03/26/2022 1743 |
| PFPeA | 3.7 | 14 | 18 | | 1 | 101 | 72-129 | 03/26/2022 1743 |
| PFTeDA | ND | 14 | 15 | | 1 | 107 | 71-132 | 03/26/2022 1743 |
| PFTrDA | ND | 14 | 14 | | 1 | 101 | 65-144 | 03/26/2022 1743 |
| PFUdA | ND | 14 | 16 | | 1 | 112 | 69-133 | 03/26/2022 1743 |
| PFOS | 9.4 | 13 | 22 | | 1 | 95 | 65-140 | 03/26/2022 1743 |
| Surrogate | Q | % Rec | Acceptance Limit | | | | | |
| 13C2_4:2FTS | N | 197 | 50-150 | | | | | |
| 13C2_6:2FTS | N | 168 | 50-150 | | | | | |
| 13C2_8:2FTS | | 120 | 50-150 | | | | | |
| 13C2_PFDoA | | 90 | 50-150 | | | | | |
| 13C2_PFTeDA | | 79 | 50-150 | | | | | |
| 13C3_PFBS | | 75 | 50-150 | | | | | |
| 13C3_PFHxS | | 89 | 50-150 | | | | | |
| 13C3-HFPO-DA | | 78 | 50-150 | | | | | |
| 13C4_PFBA | N | 40 | 50-150 | | | | | |
| 13C4_PFHpA | | 96 | 50-150 | | | | | |
| 13C5_PFHxA | | 89 | 50-150 | | | | | |
| 13C5_PFPeA | | 72 | 50-150 | | | | | |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MS

Sample ID: XC12009-001MS

Matrix: Aqueous

Batch: 35925

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/24/2022 1128

| Surrogate | Q | % Rec | Acceptance Limit |
|------------|---|-------|------------------|
| 13C6_PFDA | | 95 | 50-150 |
| 13C7_PFUdA | | 86 | 50-150 |
| 13C8_PFOA | | 93 | 50-150 |
| 13C8_PFOS | | 96 | 50-150 |
| 13C9_PFNA | | 95 | 50-150 |
| d-EtFOSA | | 70 | 50-150 |
| d5-EtFOSAA | | 96 | 50-150 |
| d3-MeFOSAA | | 99 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MSD

Sample ID: XC12009-001MD

Matrix: Aqueous

Batch: 35925

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/24/2022 1128

| Parameter | Sample Amount (ng/L) | Spike Amount (ng/L) | Result (ng/L) | Q | Dil | % Rec | % RPD | %Rec Limit | % RPD Limit | Analysis Date |
|--------------|----------------------|---------------------|------------------|---|-----|-------|-------|------------|-------------|-----------------|
| 9CI-PF3ONS | ND | 13 | 13 | 1 | | 103 | 0.69 | 70-150 | 30 | 03/26/2022 1754 |
| 11CI-PF3OUdS | ND | 13 | 13 | 1 | | 100 | 5.5 | 70-150 | 30 | 03/26/2022 1754 |
| 8:2 FTS | ND | 13 | 14 | 1 | | 107 | 2.5 | 67-138 | 30 | 03/26/2022 1754 |
| 6:2 FTS | ND | 13 | 14 | 1 | | 104 | 0.88 | 64-140 | 30 | 03/26/2022 1754 |
| 4:2 FTS | ND | 13 | 14 | 1 | | 109 | 1.1 | 63-143 | 30 | 03/26/2022 1754 |
| GenX | ND | 28 | 32 | 1 | | 113 | 8.1 | 70-150 | 30 | 03/26/2022 1754 |
| ADONA | ND | 13 | 14 | 1 | | 109 | 4.1 | 70-150 | 30 | 03/26/2022 1754 |
| EtFOSA | ND | 14 | 15 | 1 | | 106 | 2.9 | 70-150 | 30 | 03/26/2022 1754 |
| EtFOSAA | ND | 14 | 14 | 1 | | 101 | 2.9 | 61-135 | 30 | 03/26/2022 1754 |
| MeFOSAA | ND | 14 | 16 | 1 | | 110 | 1.8 | 65-136 | 30 | 03/26/2022 1754 |
| PFBS | 2.0 | 12 | 15 | 1 | | 103 | 1.3 | 72-130 | 30 | 03/26/2022 1754 |
| PFDS | ND | 14 | 14 | 1 | | 101 | 7.7 | 53-142 | 30 | 03/26/2022 1754 |
| PFHpS | ND | 13 | 14 | 1 | | 102 | 2.9 | 69-134 | 30 | 03/26/2022 1754 |
| PFNS | ND | 14 | 14 | 1 | | 103 | 3.3 | 69-127 | 30 | 03/26/2022 1754 |
| PFPeS | 1.2 | 13 | 17 | 1 | | 120 | 1.9 | 71-127 | 30 | 03/26/2022 1754 |
| PFHxS | 12 | 13 | 27 | 1 | | 117 | 4.3 | 68-131 | 30 | 03/26/2022 1754 |
| PFBA | 6.7 | 14 | 23 | 1 | | 113 | 5.2 | 73-129 | 30 | 03/26/2022 1754 |
| PFDA | ND | 14 | 15 | 1 | | 109 | 4.1 | 71-129 | 30 | 03/26/2022 1754 |
| PFDoA | ND | 14 | 15 | 1 | | 106 | 0.69 | 72-134 | 30 | 03/26/2022 1754 |
| PFHpA | 2.2 | 14 | 16 | 1 | | 101 | 1.0 | 72-130 | 30 | 03/26/2022 1754 |
| PFHxA | 3.7 | 14 | 19 | 1 | | 107 | 1.6 | 72-129 | 30 | 03/26/2022 1754 |
| PFNA | ND | 14 | 16 | 1 | | 115 | 5.6 | 69-130 | 30 | 03/26/2022 1754 |
| PFOA | 4.6 | 14 | 21 | 1 | | 114 | 2.9 | 71-133 | 30 | 03/26/2022 1754 |
| PFPeA | 3.7 | 14 | 19 | 1 | | 107 | 5.7 | 72-129 | 30 | 03/26/2022 1754 |
| PFTeDA | ND | 14 | 16 | 1 | | 111 | 5.1 | 71-132 | 30 | 03/26/2022 1754 |
| PFTTrDA | ND | 14 | 14 | 1 | | 98 | 2.0 | 65-144 | 30 | 03/26/2022 1754 |
| PFUdA | ND | 14 | 16 | 1 | | 115 | 3.9 | 69-133 | 30 | 03/26/2022 1754 |
| PFOS | 9.4 | 13 | 24 | 1 | | 110 | 9.3 | 65-140 | 30 | 03/26/2022 1754 |
| Surrogate | Q | % Rec | Acceptance Limit | | | | | | | |
| 13C2_4:2FTS | N | 198 | 50-150 | | | | | | | |
| 13C2_6:2FTS | N | 169 | 50-150 | | | | | | | |
| 13C2_8:2FTS | | 125 | 50-150 | | | | | | | |
| 13C2_PFDoA | | 95 | 50-150 | | | | | | | |
| 13C2_PFTeDA | | 80 | 50-150 | | | | | | | |
| 13C3_PFBS | | 79 | 50-150 | | | | | | | |
| 13C3_PFHxS | | 94 | 50-150 | | | | | | | |
| 13C3-HFPO-DA | | 76 | 50-150 | | | | | | | |
| 13C4_PFBA | N | 40 | 50-150 | | | | | | | |
| 13C4_PFHpA | | 102 | 50-150 | | | | | | | |
| 13C5_PFHxA | | 90 | 50-150 | | | | | | | |
| 13C5_PFPeA | | 72 | 50-150 | | | | | | | |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MSD

Sample ID: XC12009-001MD

Matrix: Aqueous

Batch: 35925

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/24/2022 1128

| Surrogate | Q | % Rec | Acceptance Limit |
|------------|---|-------|------------------|
| 13C6_PFDA | | 98 | 50-150 |
| 13C7_PFUdA | | 89 | 50-150 |
| 13C8_PFOA | | 91 | 50-150 |
| 13C8_PFOS | | 98 | 50-150 |
| 13C9_PFNA | | 96 | 50-150 |
| d-EtFOSA | | 73 | 50-150 |
| d5-EtFOSAA | | 98 | 50-150 |
| d3-MeFOSAA | | 102 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MB

Sample ID: XQ36434-001

Matrix: Aqueous

Batch: 36434

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/29/2022 1803

| Parameter | Result | Q | Dil | LOQ | LOD | DL | Units | Analysis Date |
|--------------|--------|-------|------------------|-----|-----|-----|-------|-----------------|
| 6:2 FTS | 41 | | 1 | 8.0 | 4.0 | 2.0 | ng/L | 03/31/2022 2123 |
| PFBA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 03/31/2022 2123 |
| Surrogate | Q | % Rec | Acceptance Limit | | | | | |
| 13C2_4:2FTS | | 106 | 50-150 | | | | | |
| 13C2_6:2FTS | N | 225 | 50-150 | | | | | |
| 13C2_8:2FTS | | 93 | 50-150 | | | | | |
| 13C2_PFDaA | | 88 | 50-150 | | | | | |
| 13C2_PFTeDA | | 88 | 50-150 | | | | | |
| 13C3_PFBs | | 99 | 50-150 | | | | | |
| 13C3_PFHxS | | 96 | 50-150 | | | | | |
| 13C3-HFPO-DA | | 98 | 50-150 | | | | | |
| 13C4_PFBa | | 95 | 50-150 | | | | | |
| 13C4_PFHpA | | 92 | 50-150 | | | | | |
| 13C5_PFHxA | | 103 | 50-150 | | | | | |
| 13C5_PFPeA | | 99 | 50-150 | | | | | |
| 13C6_PFDa | | 98 | 50-150 | | | | | |
| 13C7_PFUdA | | 93 | 50-150 | | | | | |
| 13C8_PFOA | | 106 | 50-150 | | | | | |
| 13C8_PFOS | | 98 | 50-150 | | | | | |
| 13C9_PFNa | | 94 | 50-150 | | | | | |
| d-EtFOSA | | 80 | 50-150 | | | | | |
| d5-EtFOSAA | | 99 | 50-150 | | | | | |
| d3-MeFOSAA | | 85 | 50-150 | | | | | |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - LCS

Sample ID: XQ36434-002

Matrix: Aqueous

Batch: 36434

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 03/29/2022 1803

| Parameter | Spike Amount (ng/L) | Result (ng/L) | Q | Dil | % Rec | %Rec Limit | Analysis Date |
|--------------|---------------------|---------------|------------------|-----|-------|------------|-----------------|
| 6:2 FTS | 15 | 15 | | 1 | 102 | 64-140 | 03/30/2022 2142 |
| PFBA | 16 | 16 | | 1 | 102 | 73-129 | 03/30/2022 2142 |
| Surrogate | Q | % Rec | Acceptance Limit | | | | |
| 13C2_4:2FTS | | 87 | 50-150 | | | | |
| 13C2_6:2FTS | N | 227 | 50-150 | | | | |
| 13C2_8:2FTS | | 95 | 50-150 | | | | |
| 13C2_PFDaA | | 94 | 50-150 | | | | |
| 13C2_PFTeDA | | 88 | 50-150 | | | | |
| 13C3_PFBs | | 97 | 50-150 | | | | |
| 13C3_PFHxS | | 98 | 50-150 | | | | |
| 13C3-HFPO-DA | | 93 | 50-150 | | | | |
| 13C4_PFBa | | 98 | 50-150 | | | | |
| 13C4_PFHpA | | 97 | 50-150 | | | | |
| 13C5_PFHxA | | 89 | 50-150 | | | | |
| 13C5_PFPeA | | 97 | 50-150 | | | | |
| 13C6_PFDa | | 95 | 50-150 | | | | |
| 13C7_PFUdA | | 94 | 50-150 | | | | |
| 13C8_PFOA | | 110 | 50-150 | | | | |
| 13C8_PFOS | | 90 | 50-150 | | | | |
| 13C9_PFNAA | | 97 | 50-150 | | | | |
| d-EtFOSA | | 75 | 50-150 | | | | |
| d5-EtFOSAA | | 90 | 50-150 | | | | |
| d3-MeFOSAA | | 109 | 50-150 | | | | |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

Chain of Custody
and
Miscellaneous Documents

PACE ANALYTICAL SERVICES, LLC



Samples Receipt Checklist (SRC) (ME0018C-15)
Issuing Authority: Pace ENV - WCOL

Revised: 9/29/2020
Page 1 of 1

Sample Receipt Checklist (SRC)

Client: TETRA TECH

Cooler Inspected by/date: MEH / 3/12/2022

Lot #: XC12009

| | | |
|--|--|---|
| Means of receipt: <input type="checkbox"/> Pace <input type="checkbox"/> Client <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Other: | | |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | 1. Were custody seals present on the cooler? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA | | 2. If custody seals were present, were they intact and unbroken? |
| pH Strip ID: <u>NA</u> Chlorine Strip ID: <u>NA</u> Tested by: <u>NA</u> | | |
| Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: <u>NA</u> 1.6 / 1.6 °C NA / NA °C NA / NA °C NA / NA °C | | |
| Method: <input checked="" type="checkbox"/> Temperature Blank <input type="checkbox"/> Against Bottles IR Gun ID: <u>5</u> IR Gun Correction Factor: <u>0</u> °C | | |
| Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Ice Packs <input type="checkbox"/> Dry Ice <input type="checkbox"/> None | | |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA | | 3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: <u>phone / email / face-to-face</u> (circle one). |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA | | 4. Is the commercial courier's packing slip attached to this form? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | 5. Were proper custody procedures (relinquished/received) followed? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | 6. Were sample IDs listed on the COC? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | 7. Were sample IDs listed on all sample containers? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | 8. Was collection date & time listed on the COC? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | 9. Was collection date & time listed on all sample containers? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | 10. Did all container label information (ID, date, time) agree with the COC? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | 11. Were tests to be performed listed on the COC? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | 12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | 13. Was adequate sample volume available? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | 14. Were all samples received within 1/2 the holding time or 48 hours, whichever comes first? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | 15. Were any samples containers missing/excess (circle one) samples Not listed on COC? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA | | 16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (1/4" or 6mm in diameter) in any of the VOA vials? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA | | 17. Were all DRO/metals/nutrient samples received at a pH of < 2? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA | | 18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA | | 19. Were all applicable NH ₃ /TKN/cyanide/phenol/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA | | 20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | 21. Was the quote number listed on the container label? If yes, Quote # |
| Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.) | | |
| Sample(s) <u>NA</u> were received incorrectly preserved and were adjusted accordingly in sample receiving with <u>NA</u> mL of circle one: H ₂ SO ₄ , HNO ₃ , HCl, NaOH using SR # <u>NA</u> | | |
| Time of preservation <u>NA</u> . If more than one preservative is needed, please note in the comments below. | | |
| Sample(s) <u>NA</u> were received with bubbles >6 mm in diameter. | | |
| Samples(s) <u>NA</u> were received with TRC > 0.5 mg/L (if #19 is <u>no</u>) and were adjusted accordingly in sample receiving with sodium thiosulfate (Na ₂ S ₂ O ₃) with Shealy ID: <u>NA</u> | | |
| SR barcode labels applied by: <u>MEH</u> Date: <u>3/12/2022</u> | | |

Comments:



Report of Analysis

Tetra Tech
Foster Plaza 7
661 Anderson Drive
Pittsburgh, PA 15220
Attention: Alex Murphy

Project Name: CHP
Project Number: 112G09581
Lot Number: **WJ30024**
Date Completed: 11/18/2021

Kathy Smith

11/18/2021 9:39 AM
Approved and released by:
Project Manager II: **Kathy E. Smith**



The electronic signature above is the equivalent of a handwritten signature.
This report shall not be reproduced, except in its entirety, without the written approval of Pace Analytical Services, LLC.

PACE ANALYTICAL SERVICES, LLC

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative Tetra Tech Lot Number: WJ30024

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

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

Sample receipt, sample analysis, and data review have been performed in accordance with the Pace Quality Assurance Management Plan (QAMP), applicable Shealy standard operating procedures (SOPs), the 2003 NELAC standard, and Shealy policies. Additionally, the DoD QSM version 5.3 has been followed for these samples, and specifically Table B-15 was followed for all PFAS samples. Any exceptions to the QAMP, SOPs, NELAC standards, the DoD QSM, or policies are qualified on the results page or discussed below.

All QC associated with these samples was in compliance with DOD QSM 5.3 table B-15 and our PFAS SOP.

Correction factors (CF) are used to calculate the original sample concentration. The CF is the inverse of the concentration factor (sample volume / extract final volume) times the dilution factor (DF). For undiluted analysis. For undiluted analysis, the extract is prepared for injection by adding 182 uL of sample extract + 8 uL of reagent water + 10 uL of internal standard solution to a polypropylene autosampler vial. An extra correction factor of 0.91 (182 uL / 200 uL = 0.91) applies. The CF is calculated as follows:

$$CF = DF * FV / V_0$$

FV is volume of extract (mL)

V₀ is initial sample volume (mL)

DF is dilution factor. For undiluted analysis, DF = 1/0.91.

Sample concentration for aqueous samples:

Concentration (ng/L) = C_s*CF,

$$C_s = \frac{\left(\frac{A_s \times C_{is}}{A_{is}} \right) - B}{M1}$$

Where

C_s is on column concentration of target analyte in the sample (ng/L)

C_{is} is concentration of internal standard in the sample (ng/L)

A_s is peak response of target analyte in the sample

A_{is} is peak response of internal standard in the sample

M1 is the average RF from ICAL or the slope from linear regression ICAL

B is the y-intercept from the ICAL

PACE ANALYTICAL SERVICES, LLC

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Pace is a TNI accredited laboratory; however, the following analyses are currently not listed on our TNI scope of accreditation:

Biological Tissue: All, Non-Potable Water: SGT-HEM EPA 1664B, Silica EPA 200.7, Boron, Calcium, Silicon, Strontium EPA 200.8, Bicarbonate, Carbonate, and Hydroxide Alkalinity SM 2320 B-2011, Fecal Coliform SM 9221 C E-2006 & SM 9222D-2006, Strontium SW-846 6010D, VOC SM 6200 B-2011, Drinking Water: VOC (excluding BTEX, MTBE, Naphthalene, & 1,2-dichloroethane) EPA 524.2, Solid Chemical Material: TOC Walkley-Black.

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

Surrogate recovery for the following sample was outside control limits: WJ30024-002. Sample was prepped as the batch MS with concurring results. The data has been reported.

Surrogate recovery for the following samples was outside the upper control limit: WJ30024-001, WJ30024-003, WJ30024-004. This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

PACE ANALYTICAL SERVICES, LLC

Sample Summary

Tetra Tech

Lot Number: WJ30024

Project Name: CHP

Project Number: 112G09581

| Sample Number | Sample ID | Matrix | Date Sampled | Date Received |
|---------------|--------------------------|---------|-----------------|---------------|
| 001 | CHPMW0035-008.5-10282021 | Aqueous | 10/28/2021 0945 | 10/29/2021 |
| 002 | CHPMW0033-035.5-10282021 | Aqueous | 10/28/2021 1030 | 10/29/2021 |
| 003 | CHPMW0034-024.4-10282021 | Aqueous | 10/28/2021 1115 | 10/29/2021 |
| 004 | CHDMW0033-044.5-10282021 | Aqueous | 10/28/2021 1350 | 10/29/2021 |

(4 samples)

PACE ANALYTICAL SERVICES, LLC

Detection Summary

Tetra Tech

Lot Number: WJ30024

Project Name: CHP

Project Number: 112G09581

| Sample | Sample ID | Matrix | Parameter | Method | Result | Q | Units | Page |
|--------|--------------------------|---------|-----------|------------|--------|---|-------|------|
| 001 | CHPMW0035-008.5-10282021 | Aqueous | 6:2 FTS | PFAS by ID | 7.7 | | ng/L | 5 |
| 001 | CHPMW0035-008.5-10282021 | Aqueous | PFBS | PFAS by ID | 4.1 | | ng/L | 5 |
| 001 | CHPMW0035-008.5-10282021 | Aqueous | PFPeS | PFAS by ID | 2.8 | I | ng/L | 5 |
| 001 | CHPMW0035-008.5-10282021 | Aqueous | PFHxS | PFAS by ID | 22 | | ng/L | 5 |
| 001 | CHPMW0035-008.5-10282021 | Aqueous | PFBA | PFAS by ID | 6.9 | | ng/L | 5 |
| 001 | CHPMW0035-008.5-10282021 | Aqueous | PFHpA | PFAS by ID | 1.8 | I | ng/L | 5 |
| 001 | CHPMW0035-008.5-10282021 | Aqueous | PFHxA | PFAS by ID | 46 | | ng/L | 5 |
| 001 | CHPMW0035-008.5-10282021 | Aqueous | PFOA | PFAS by ID | 2.3 | I | ng/L | 5 |
| 001 | CHPMW0035-008.5-10282021 | Aqueous | PFPeA | PFAS by ID | 4.3 | | ng/L | 5 |
| 001 | CHPMW0035-008.5-10282021 | Aqueous | PFOS | PFAS by ID | 6.5 | | ng/L | 5 |
| 002 | CHPMW0033-035.5-10282021 | Aqueous | PFBS | PFAS by ID | 2.7 | I | ng/L | 7 |
| 002 | CHPMW0033-035.5-10282021 | Aqueous | PFPeS | PFAS by ID | 2.6 | I | ng/L | 7 |
| 002 | CHPMW0033-035.5-10282021 | Aqueous | PFHxS | PFAS by ID | 20 | | ng/L | 7 |
| 002 | CHPMW0033-035.5-10282021 | Aqueous | PFBA | PFAS by ID | 4.4 | Q | ng/L | 7 |
| 002 | CHPMW0033-035.5-10282021 | Aqueous | PFHpA | PFAS by ID | 1.8 | I | ng/L | 7 |
| 002 | CHPMW0033-035.5-10282021 | Aqueous | PFOA | PFAS by ID | 5.0 | | ng/L | 7 |
| 002 | CHPMW0033-035.5-10282021 | Aqueous | PFPeA | PFAS by ID | 4.2 | | ng/L | 7 |
| 002 | CHPMW0033-035.5-10282021 | Aqueous | PFOS | PFAS by ID | 4.7 | | ng/L | 7 |
| 003 | CHPMW0034-024.4-10282021 | Aqueous | PFBS | PFAS by ID | 2.7 | I | ng/L | 9 |
| 003 | CHPMW0034-024.4-10282021 | Aqueous | PFPeS | PFAS by ID | 1.9 | I | ng/L | 9 |
| 003 | CHPMW0034-024.4-10282021 | Aqueous | PFHxS | PFAS by ID | 16 | | ng/L | 9 |
| 003 | CHPMW0034-024.4-10282021 | Aqueous | PFBA | PFAS by ID | 3.7 | | ng/L | 9 |
| 003 | CHPMW0034-024.4-10282021 | Aqueous | PFHpA | PFAS by ID | 1.5 | I | ng/L | 9 |
| 003 | CHPMW0034-024.4-10282021 | Aqueous | PFHxA | PFAS by ID | 2.9 | I | ng/L | 9 |
| 003 | CHPMW0034-024.4-10282021 | Aqueous | PFOA | PFAS by ID | 3.9 | | ng/L | 9 |
| 003 | CHPMW0034-024.4-10282021 | Aqueous | PFPeA | PFAS by ID | 3.8 | | ng/L | 9 |
| 003 | CHPMW0034-024.4-10282021 | Aqueous | PFOS | PFAS by ID | 3.6 | | ng/L | 9 |
| 004 | CHDMW0033-044.5-10282021 | Aqueous | PFBS | PFAS by ID | 3.5 | | ng/L | 11 |
| 004 | CHDMW0033-044.5-10282021 | Aqueous | PFPeS | PFAS by ID | 2.3 | I | ng/L | 11 |
| 004 | CHDMW0033-044.5-10282021 | Aqueous | PFHxS | PFAS by ID | 22 | | ng/L | 11 |
| 004 | CHDMW0033-044.5-10282021 | Aqueous | PFBA | PFAS by ID | 4.8 | | ng/L | 11 |
| 004 | CHDMW0033-044.5-10282021 | Aqueous | PFHpA | PFAS by ID | 2.2 | I | ng/L | 11 |
| 004 | CHDMW0033-044.5-10282021 | Aqueous | PFHxA | PFAS by ID | 3.2 | I | ng/L | 11 |
| 004 | CHDMW0033-044.5-10282021 | Aqueous | PFOA | PFAS by ID | 4.6 | | ng/L | 11 |
| 004 | CHDMW0033-044.5-10282021 | Aqueous | PFPeA | PFAS by ID | 4.0 | | ng/L | 11 |
| 004 | CHDMW0033-044.5-10282021 | Aqueous | PFOS | PFAS by ID | 4.8 | | ng/L | 11 |

(36 detections)

PFAS by LC/MS/MS

| | |
|---------------------------------------|----------------------------|
| Client: Tetra Tech | Laboratory ID: WJ30024-001 |
| Description: CHPMW0035-008.5-10282021 | Matrix: Aqueous |
| Date Sampled: 10/28/2021 0945 | Project Name: CHP |
| Date Received: 10/29/2021 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 11/08/2021 1749 | JJG | 11/03/2021 1145 | 21098 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.5 | UQ | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 7.7 | | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.5 | UQ | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 4.1 | | 3.4 | 1.7 | 0.86 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.7 | U | 3.4 | 1.7 | 0.86 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.7 | U | 3.4 | 1.7 | 0.86 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.7 | U | 3.4 | 1.7 | 0.86 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 2.8 | I | 3.4 | 1.7 | 0.86 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 22 | | 3.4 | 1.7 | 0.86 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 6.9 | | 3.4 | 1.7 | 0.86 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.7 | U | 3.4 | 1.7 | 0.86 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.7 | U | 3.4 | 1.7 | 0.86 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 1.8 | I | 3.4 | 1.7 | 0.86 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 46 | | 3.4 | 1.7 | 0.86 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.7 | U | 3.4 | 1.7 | 0.86 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 2.3 | I | 3.4 | 1.7 | 0.86 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 4.3 | | 3.4 | 1.7 | 0.86 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.7 | U | 3.4 | 1.7 | 0.86 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.7 | U | 3.4 | 1.7 | 0.86 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.7 | U | 3.4 | 1.7 | 0.86 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 6.5 | | 3.4 | 1.7 | 0.86 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 175 | 50-150 |
| 13C2_6:2FTS | | 131 | 50-150 |
| 13C2_8:2FTS | N | 403 | 50-150 |
| 13C2_PFDa | | 96 | 50-150 |
| 13C2_PFTeDA | | 92 | 50-150 |
| 13C3_PFBs | | 97 | 50-150 |
| 13C3_PFHxS | | 110 | 50-150 |
| 13C3-HFPO-DA | | 108 | 50-150 |
| 13C4_PFBa | | 73 | 50-150 |
| 13C4_PFHpA | | 106 | 50-150 |
| 13C5_PFHxA | | 102 | 50-150 |
| 13C5_PFPeA | | 98 | 50-150 |
| 13C6_PFDa | | 128 | 50-150 |
| 13C7_PFUdA | | 110 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---------------------------------------|----------------------------|
| Client: Tetra Tech | Laboratory ID: WJ30024-001 |
| Description: CHPMW0035-008.5-10282021 | Matrix: Aqueous |
| Date Sampled: 10/28/2021 0945 | Project Name: CHP |
| Date Received: 10/29/2021 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 107 | 50-150 |
| 13C8_PFOS | | 102 | 50-150 |
| 13C9_PFNA | | 113 | 50-150 |
| d-EtFOSA | | 79 | 50-150 |
| d5-EtFOSAA | | 102 | 50-150 |
| d3-MeFOSAA | | 106 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---------------------------------------|----------------------------|
| Client: Tetra Tech | Laboratory ID: WJ30024-002 |
| Description: CHPMW0033-035.5-10282021 | Matrix: Aqueous |
| Date Sampled: 10/28/2021 1030 | Project Name: CHP |
| Date Received: 10/29/2021 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 11/04/2021 2107 | JJG | 11/03/2021 1145 | 21098 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.8 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.8 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.5 | UQ | 7.0 | 3.5 | 1.8 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.8 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.8 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.5 | U | 7.0 | 3.5 | 1.8 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 2.7 | I | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 2.6 | I | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 20 | | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 4.4 | Q | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 1.8 | I | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 5.0 | | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 4.2 | | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.88 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 4.7 | | 3.5 | 1.8 | 0.88 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 201 | 50-150 |
| 13C2_6:2FTS | | 123 | 50-150 |
| 13C2_8:2FTS | | 114 | 50-150 |
| 13C2_PFDa | | 88 | 50-150 |
| 13C2_PFTeDA | | 82 | 50-150 |
| 13C3_PFBs | | 91 | 50-150 |
| 13C3_PFHxS | | 100 | 50-150 |
| 13C3-HFPO-DA | | 99 | 50-150 |
| 13C4_PFBa | N | 49 | 50-150 |
| 13C4_PFHpA | | 103 | 50-150 |
| 13C5_PFHxA | | 94 | 50-150 |
| 13C5_PFPeA | | 77 | 50-150 |
| 13C6_PFDa | | 96 | 50-150 |
| 13C7_PFUdA | | 95 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---------------------------------------|----------------------------|
| Client: Tetra Tech | Laboratory ID: WJ30024-002 |
| Description: CHPMW0033-035.5-10282021 | Matrix: Aqueous |
| Date Sampled: 10/28/2021 1030 | Project Name: CHP |
| Date Received: 10/29/2021 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 93 | 50-150 |
| 13C8_PFOS | | 93 | 50-150 |
| 13C9_PFNA | | 99 | 50-150 |
| d-EtFOSA | | 74 | 50-150 |
| d5-EtFOSAA | | 116 | 50-150 |
| d3-MeFOSAA | | 110 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---------------------------------------|----------------------------|
| Client: Tetra Tech | Laboratory ID: WJ30024-003 |
| Description: CHPMW0034-024.4-10282021 | Matrix: Aqueous |
| Date Sampled: 10/28/2021 1115 | Project Name: CHP |
| Date Received: 10/29/2021 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 11/04/2021 2128 | JJG | 11/03/2021 1145 | 21098 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.6 | UQ | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 2.7 | I | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 1.9 | I | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 16 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 3.7 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 1.5 | I | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 2.9 | I | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 3.9 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 3.8 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 3.6 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 186 | 50-150 |
| 13C2_6:2FTS | | 112 | 50-150 |
| 13C2_8:2FTS | | 107 | 50-150 |
| 13C2_PFDa | | 84 | 50-150 |
| 13C2_PFTeDA | | 85 | 50-150 |
| 13C3_PFBS | | 87 | 50-150 |
| 13C3_PFHxS | | 92 | 50-150 |
| 13C3-HFPO-DA | | 100 | 50-150 |
| 13C4_PFBA | | 54 | 50-150 |
| 13C4_PFHpA | | 94 | 50-150 |
| 13C5_PFHxA | | 95 | 50-150 |
| 13C5_PFPeA | | 79 | 50-150 |
| 13C6_PFDA | | 89 | 50-150 |
| 13C7_PFUdA | | 92 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---------------------------------------|----------------------------|
| Client: Tetra Tech | Laboratory ID: WJ30024-003 |
| Description: CHPMW0034-024.4-10282021 | Matrix: Aqueous |
| Date Sampled: 10/28/2021 1115 | Project Name: CHP |
| Date Received: 10/29/2021 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 89 | 50-150 |
| 13C8_PFOS | | 88 | 50-150 |
| 13C9_PFNA | | 95 | 50-150 |
| d-EtFOSA | | 81 | 50-150 |
| d5-EtFOSAA | | 102 | 50-150 |
| d3-MeFOSAA | | 100 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---------------------------------------|----------------------------|
| Client: Tetra Tech | Laboratory ID: WJ30024-004 |
| Description: CHDMW0033-044.5-10282021 | Matrix: Aqueous |
| Date Sampled: 10/28/2021 1350 | Project Name: CHP |
| Date Received: 10/29/2021 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 11/11/2021 1610 | JJG | 11/03/2021 1145 | 21098 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.5 | UQ | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 3.5 | | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 2.3 | I | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 22 | | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 4.8 | | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 2.2 | I | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 3.2 | I | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 4.6 | | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 4.0 | | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 4.8 | | 3.5 | 1.8 | 0.87 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 203 | 50-150 |
| 13C2_6:2FTS | | 115 | 50-150 |
| 13C2_8:2FTS | | 91 | 50-150 |
| 13C2_PFDa | | 84 | 50-150 |
| 13C2_PFTeDA | | 88 | 50-150 |
| 13C3_PFBs | | 95 | 50-150 |
| 13C3_PFHxS | | 117 | 50-150 |
| 13C3-HFPO-DA | | 104 | 50-150 |
| 13C4_PFBa | | 56 | 50-150 |
| 13C4_PFHpA | | 109 | 50-150 |
| 13C5_PFHxA | | 118 | 50-150 |
| 13C5_PFPeA | | 88 | 50-150 |
| 13C6_PFDa | | 94 | 50-150 |
| 13C7_PFUdA | | 83 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---------------------------------------|----------------------------|
| Client: Tetra Tech | Laboratory ID: WJ30024-004 |
| Description: CHDMW0033-044.5-10282021 | Matrix: Aqueous |
| Date Sampled: 10/28/2021 1350 | Project Name: CHP |
| Date Received: 10/29/2021 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 105 | 50-150 |
| 13C8_PFOS | | 109 | 50-150 |
| 13C9_PFNA | | 107 | 50-150 |
| d-EtFOSA | | 94 | 50-150 |
| d5-EtFOSAA | | 93 | 50-150 |
| d3-MeFOSAA | | 101 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

QC Summary

PFAS by LC/MS/MS - MB

Sample ID: WQ21098-001

Matrix: Aqueous

Batch: 21098

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 11/03/2021 1145

| Parameter | Result | Q | Dil | LOQ | LOD | DL | Units | Analysis Date |
|--------------|--------|-------|------------------|-----|-----|-----|-------|-----------------|
| 9CI-PF3ONS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 11/04/2021 1922 |
| 11CI-PF3OUdS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 11/04/2021 1922 |
| 8:2 FTS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 11/04/2021 1922 |
| 6:2 FTS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 11/04/2021 1922 |
| 4:2 FTS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 11/04/2021 1922 |
| GenX | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 11/04/2021 1922 |
| ADONA | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 11/04/2021 1922 |
| EtFOSA | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 11/04/2021 1922 |
| EtFOSAA | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 11/04/2021 1922 |
| MeFOSAA | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 11/04/2021 1922 |
| PFBS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 11/04/2021 1922 |
| PFDS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 11/04/2021 1922 |
| PFHpS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 11/04/2021 1922 |
| PFNS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 11/04/2021 1922 |
| PFPeS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 11/04/2021 1922 |
| PFHxS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 11/04/2021 1922 |
| PFBA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 11/04/2021 1922 |
| PFDA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 11/04/2021 1922 |
| PFDaA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 11/04/2021 1922 |
| PFHpA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 11/04/2021 1922 |
| PFHxA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 11/04/2021 1922 |
| PFNA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 11/04/2021 1922 |
| PFOA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 11/04/2021 1922 |
| PFPeA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 11/04/2021 1922 |
| PFTeDA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 11/04/2021 1922 |
| PFTTrDA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 11/04/2021 1922 |
| PFUdA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 11/04/2021 1922 |
| PFOS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 11/04/2021 1922 |
| Surrogate | Q | % Rec | Acceptance Limit | | | | | |
| 13C2_4:2FTS | | 114 | 50-150 | | | | | |
| 13C2_6:2FTS | | 102 | 50-150 | | | | | |
| 13C2_8:2FTS | | 90 | 50-150 | | | | | |
| 13C2_PFDaA | | 84 | 50-150 | | | | | |
| 13C2_PFTeDA | | 80 | 50-150 | | | | | |
| 13C3_PFBs | | 86 | 50-150 | | | | | |
| 13C3_PFHxS | | 89 | 50-150 | | | | | |
| 13C3-HFPO-DA | | 94 | 50-150 | | | | | |
| 13C4_PFBa | | 89 | 50-150 | | | | | |
| 13C4_PFHpA | | 88 | 50-150 | | | | | |
| 13C5_PFHxA | | 81 | 50-150 | | | | | |
| 13C5_PFPeA | | 85 | 50-150 | | | | | |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MB

Sample ID: WQ21098-001

Matrix: Aqueous

Batch: 21098

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 11/03/2021 1145

| Surrogate | Q | % Rec | Acceptance Limit |
|------------|---|-------|------------------|
| 13C6_PFDA | | 85 | 50-150 |
| 13C7_PFUdA | | 92 | 50-150 |
| 13C8_PFOA | | 81 | 50-150 |
| 13C8_PFOS | | 85 | 50-150 |
| 13C9_PFNA | | 87 | 50-150 |
| d-EtFOSA | | 74 | 50-150 |
| d5-EtFOSAA | | 99 | 50-150 |
| d3-MeFOSAA | | 97 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - LCS

Sample ID: WQ21098-002

Matrix: Aqueous

Batch: 21098

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 11/03/2021 1145

| Parameter | Spike Amount (ng/L) | Result (ng/L) | Q | Dil | % Rec | %Rec Limit | Analysis Date |
|--------------|---------------------|---------------|------------------|-----|-------|------------|-----------------|
| 9CI-PF3ONS | 15 | 14 | | 1 | 93 | 70-150 | 11/04/2021 1933 |
| 11CI-PF3OUdS | 15 | 13 | | 1 | 87 | 70-150 | 11/04/2021 1933 |
| 8:2 FTS | 15 | 14 | | 1 | 90 | 67-138 | 11/04/2021 1933 |
| 6:2 FTS | 15 | 16 | | 1 | 104 | 64-140 | 11/04/2021 1933 |
| 4:2 FTS | 15 | 13 | | 1 | 86 | 63-143 | 11/04/2021 1933 |
| GenX | 32 | 31 | | 1 | 97 | 70-150 | 11/04/2021 1933 |
| ADONA | 15 | 16 | | 1 | 106 | 70-150 | 11/04/2021 1933 |
| EtFOSA | 16 | 16 | | 1 | 103 | 70-150 | 11/04/2021 1933 |
| EtFOSAA | 16 | 14 | | 1 | 87 | 61-135 | 11/04/2021 1933 |
| MeFOSAA | 16 | 17 | | 1 | 106 | 65-136 | 11/04/2021 1933 |
| PFBS | 14 | 14 | | 1 | 100 | 72-130 | 11/04/2021 1933 |
| PFDS | 15 | 14 | | 1 | 91 | 53-142 | 11/04/2021 1933 |
| PFHpS | 15 | 16 | | 1 | 106 | 69-134 | 11/04/2021 1933 |
| PFNS | 15 | 15 | | 1 | 100 | 69-127 | 11/04/2021 1933 |
| PFPeS | 15 | 15 | | 1 | 98 | 71-127 | 11/04/2021 1933 |
| PFHxS | 15 | 16 | | 1 | 111 | 68-131 | 11/04/2021 1933 |
| PFBA | 16 | 17 | | 1 | 104 | 73-129 | 11/04/2021 1933 |
| PFDA | 16 | 16 | | 1 | 102 | 71-129 | 11/04/2021 1933 |
| PFDaA | 16 | 16 | | 1 | 100 | 72-134 | 11/04/2021 1933 |
| PFHpA | 16 | 17 | | 1 | 106 | 72-130 | 11/04/2021 1933 |
| PFHxA | 16 | 17 | | 1 | 109 | 72-129 | 11/04/2021 1933 |
| PFNA | 16 | 18 | | 1 | 110 | 69-130 | 11/04/2021 1933 |
| PFOA | 16 | 16 | | 1 | 97 | 71-133 | 11/04/2021 1933 |
| PFPeA | 16 | 16 | | 1 | 101 | 72-129 | 11/04/2021 1933 |
| PFTeDA | 16 | 16 | | 1 | 101 | 71-132 | 11/04/2021 1933 |
| PFTTrDA | 16 | 17 | | 1 | 108 | 65-144 | 11/04/2021 1933 |
| PFUdA | 16 | 15 | | 1 | 95 | 69-133 | 11/04/2021 1933 |
| PFOS | 15 | 15 | | 1 | 104 | 65-140 | 11/04/2021 1933 |
| Surrogate | Q | % Rec | Acceptance Limit | | | | |
| 13C2_4:2FTS | | 112 | 50-150 | | | | |
| 13C2_6:2FTS | | 93 | 50-150 | | | | |
| 13C2_8:2FTS | | 95 | 50-150 | | | | |
| 13C2_PFDaA | | 83 | 50-150 | | | | |
| 13C2_PFTeDA | | 86 | 50-150 | | | | |
| 13C3_PFBS | | 88 | 50-150 | | | | |
| 13C3_PFHxS | | 84 | 50-150 | | | | |
| 13C3-HFPO-DA | | 97 | 50-150 | | | | |
| 13C4_PFBA | | 90 | 50-150 | | | | |
| 13C4_PFHpA | | 82 | 50-150 | | | | |
| 13C5_PFHxA | | 84 | 50-150 | | | | |
| 13C5_PFPeA | | 86 | 50-150 | | | | |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - LCS

Sample ID: WQ21098-002

Matrix: Aqueous

Batch: 21098

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 11/03/2021 1145

| Surrogate | Q | % Rec | Acceptance Limit |
|------------|---|-------|------------------|
| 13C6_PFDA | | 84 | 50-150 |
| 13C7_PFUdA | | 91 | 50-150 |
| 13C8_PFOA | | 88 | 50-150 |
| 13C8_PFOS | | 89 | 50-150 |
| 13C9_PFNA | | 83 | 50-150 |
| d-EtFOSA | | 76 | 50-150 |
| d5-EtFOSAA | | 101 | 50-150 |
| d3-MeFOSAA | | 100 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MS

Sample ID: WJ30024-002MS

Matrix: Aqueous

Batch: 21098

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 11/03/2021 1145

| Parameter | Sample Amount (ng/L) | Spike Amount (ng/L) | Result (ng/L) | Q | Dil | % Rec | %Rec Limit | Analysis Date |
|--------------|----------------------|---------------------|------------------|---|-----|-------|------------|-----------------|
| 9CI-PF3ONS | ND | 13 | 11 | | 1 | 88 | 70-150 | 11/04/2021 2118 |
| 11CI-PF3OUdS | ND | 13 | 11 | | 1 | 81 | 70-150 | 11/04/2021 2118 |
| 8:2 FTS | ND | 13 | 14 | | 1 | 102 | 67-138 | 11/04/2021 2118 |
| 6:2 FTS | ND | 13 | 14 | | 1 | 106 | 64-140 | 11/04/2021 2118 |
| 4:2 FTS | ND | 13 | 12 | | 1 | 89 | 63-143 | 11/04/2021 2118 |
| GenX | ND | 28 | 29 | | 1 | 103 | 70-150 | 11/04/2021 2118 |
| ADONA | ND | 13 | 14 | | 1 | 104 | 70-150 | 11/04/2021 2118 |
| EtFOSA | ND | 14 | 13 | | 1 | 97 | 70-150 | 11/04/2021 2118 |
| EtFOSAA | ND | 14 | 13 | | 1 | 97 | 61-135 | 11/04/2021 2118 |
| MeFOSAA | ND | 14 | 13 | | 1 | 96 | 65-136 | 11/04/2021 2118 |
| PFBS | 2.7 | 12 | 15 | | 1 | 100 | 72-130 | 11/04/2021 2118 |
| PFDS | ND | 13 | 9.8 | | 1 | 74 | 53-142 | 11/04/2021 2118 |
| PFHpS | ND | 13 | 13 | | 1 | 100 | 69-134 | 11/04/2021 2118 |
| PFNS | ND | 13 | 12 | | 1 | 86 | 69-127 | 11/04/2021 2118 |
| PFPeS | 2.6 | 13 | 17 | | 1 | 109 | 71-127 | 11/04/2021 2118 |
| PFHxS | 20 | 13 | 36 | | 1 | 122 | 68-131 | 11/04/2021 2118 |
| PFBA | 4.4 | 14 | 18 | | 1 | 100 | 73-129 | 11/04/2021 2118 |
| PFDA | ND | 14 | 14 | | 1 | 102 | 71-129 | 11/04/2021 2118 |
| PFDoA | ND | 14 | 15 | | 1 | 105 | 72-134 | 11/04/2021 2118 |
| PFHpA | 1.8 | 14 | 16 | | 1 | 102 | 72-130 | 11/04/2021 2118 |
| PFHxA | ND | 14 | 17 | | 1 | 122 | 72-129 | 11/04/2021 2118 |
| PFNA | ND | 14 | 15 | | 1 | 108 | 69-130 | 11/04/2021 2118 |
| PFOA | 5.0 | 14 | 19 | | 1 | 99 | 71-133 | 11/04/2021 2118 |
| PFPeA | 4.2 | 14 | 19 | | 1 | 107 | 72-129 | 11/04/2021 2118 |
| PFTeDA | ND | 14 | 14 | | 1 | 104 | 71-132 | 11/04/2021 2118 |
| PFTTrDA | ND | 14 | 15 | | 1 | 105 | 65-144 | 11/04/2021 2118 |
| PFUdA | ND | 14 | 14 | | 1 | 101 | 69-133 | 11/04/2021 2118 |
| PFOS | 4.7 | 13 | 15 | | 1 | 80 | 65-140 | 11/04/2021 2118 |
| Surrogate | Q | % Rec | Acceptance Limit | | | | | |
| 13C2_4:2FTS | N | 202 | 50-150 | | | | | |
| 13C2_6:2FTS | | 127 | 50-150 | | | | | |
| 13C2_8:2FTS | | 96 | 50-150 | | | | | |
| 13C2_PFDoA | | 78 | 50-150 | | | | | |
| 13C2_PFTeDA | | 79 | 50-150 | | | | | |
| 13C3_PFBS | | 85 | 50-150 | | | | | |
| 13C3_PFHxS | | 90 | 50-150 | | | | | |
| 13C3-HFPO-DA | | 92 | 50-150 | | | | | |
| 13C4_PFBA | N | 47 | 50-150 | | | | | |
| 13C4_PFHpA | | 90 | 50-150 | | | | | |
| 13C5_PFHxA | | 84 | 50-150 | | | | | |
| 13C5_PFPeA | | 77 | 50-150 | | | | | |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MS

Sample ID: WJ30024-002MS

Matrix: Aqueous

Batch: 21098

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 11/03/2021 1145

| Surrogate | Q | % Rec | Acceptance Limit |
|------------|---|-------|------------------|
| 13C6_PFDA | | 86 | 50-150 |
| 13C7_PFUdA | | 87 | 50-150 |
| 13C8_PFOA | | 88 | 50-150 |
| 13C8_PFOS | | 90 | 50-150 |
| 13C9_PFNA | | 86 | 50-150 |
| d-EtFOSA | | 79 | 50-150 |
| d5-EtFOSAA | | 99 | 50-150 |
| d3-MeFOSAA | | 101 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - Duplicate

Sample ID: WJ30024-003DU

Matrix: Aqueous

Batch: 21098

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 11/03/2021 1145

| Parameter | Sample Amount (ng/L) | Result (ng/L) | Q | Dil | % RPD | %RPD Limit | Analysis Date |
|--------------|----------------------|---------------|------------------|-----|-------|------------|-----------------|
| 9CI-PF3ONS | ND | | U | 1 | 0.00 | 20 | 11/04/2021 2139 |
| 11CI-PF3OUdS | ND | | U | 1 | 0.00 | 20 | 11/04/2021 2139 |
| 8:2 FTS | ND | | U | 1 | 0.00 | 20 | 11/04/2021 2139 |
| 6:2 FTS | ND | | U | 1 | 0.00 | 20 | 11/04/2021 2139 |
| 4:2 FTS | ND | | U | 1 | 0.00 | 20 | 11/04/2021 2139 |
| GenX | ND | | U | 1 | 0.00 | 20 | 11/04/2021 2139 |
| ADONA | ND | | U | 1 | 0.00 | 20 | 11/04/2021 2139 |
| EtFOSA | ND | | U | 1 | 0.00 | 20 | 11/04/2021 2139 |
| EtFOSAA | ND | | U | 1 | 0.00 | 20 | 11/04/2021 2139 |
| MeFOSAA | ND | | U | 1 | 0.00 | 20 | 11/04/2021 2139 |
| PFBS | 2.7 | 2.1 | + | 1 | 26 | 20 | 11/04/2021 2139 |
| PFDS | ND | | U | 1 | 0.00 | 20 | 11/04/2021 2139 |
| PFHpS | ND | | U | 1 | 0.00 | 20 | 11/04/2021 2139 |
| PFNS | ND | | U | 1 | 0.00 | 20 | 11/04/2021 2139 |
| PFPeS | 1.9 | 2.0 | I | 1 | 7.0 | 20 | 11/04/2021 2139 |
| PFHxS | 16 | 15 | | 1 | 5.9 | 20 | 11/04/2021 2139 |
| PFBA | 3.7 | 3.4 | I | 1 | 7.7 | 20 | 11/04/2021 2139 |
| PFDA | ND | | U | 1 | 0.00 | 20 | 11/04/2021 2139 |
| PFDaA | ND | | U | 1 | 0.00 | 20 | 11/04/2021 2139 |
| PFHpA | 1.5 | 1.5 | I | 1 | 2.5 | 20 | 11/04/2021 2139 |
| PFHxA | 2.9 | 3.0 | I | 1 | 1.6 | 20 | 11/04/2021 2139 |
| PFNA | ND | | U | 1 | 0.00 | 20 | 11/04/2021 2139 |
| PFOA | 3.9 | 4.1 | | 1 | 5.2 | 20 | 11/04/2021 2139 |
| PFPeA | 3.8 | 4.2 | | 1 | 10 | 20 | 11/04/2021 2139 |
| PFTeDA | ND | | U | 1 | 0.00 | 20 | 11/04/2021 2139 |
| PFTTrDA | ND | | U | 1 | 0.00 | 20 | 11/04/2021 2139 |
| PFUdA | ND | | U | 1 | 0.00 | 20 | 11/04/2021 2139 |
| PFOS | 3.6 | 3.0 | I | 1 | 15 | 20 | 11/04/2021 2139 |
| Surrogate | Q | % Rec | Acceptance Limit | | | | |
| 13C2_4:2FTS | N | 176 | 50-150 | | | | |
| 13C2_6:2FTS | | 111 | 50-150 | | | | |
| 13C2_8:2FTS | | 97 | 50-150 | | | | |
| 13C2_PFDaA | | 86 | 50-150 | | | | |
| 13C2_PFTeDA | | 87 | 50-150 | | | | |
| 13C3_PFBs | | 88 | 50-150 | | | | |
| 13C3_PFHxS | | 91 | 50-150 | | | | |
| 13C3-HFPO-DA | | 98 | 50-150 | | | | |
| 13C4_PFBa | | 54 | 50-150 | | | | |
| 13C4_PFHpA | | 95 | 50-150 | | | | |
| 13C5_PFHxA | | 93 | 50-150 | | | | |
| 13C5_PFPeA | | 82 | 50-150 | | | | |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - Duplicate

Sample ID: WJ30024-003DU

Matrix: Aqueous

Batch: 21098

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 11/03/2021 1145

| Surrogate | Q | % Rec | Acceptance Limit |
|------------|---|-------|------------------|
| 13C6_PFDA | | 87 | 50-150 |
| 13C7_PFUdA | | 90 | 50-150 |
| 13C8_PFOA | | 88 | 50-150 |
| 13C8_PFOS | | 91 | 50-150 |
| 13C9_PFNA | | 91 | 50-150 |
| d-EtFOSA | | 72 | 50-150 |
| d5-EtFOSAA | | 101 | 50-150 |
| d3-MeFOSAA | | 106 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

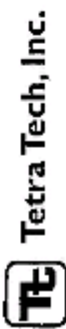
+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

Chain of Custody
and
Miscellaneous Documents



CHAIN OF CUSTODY NUMBER No. 3238 | NUMBER 1 | PAGE 1 OF 1

PROJECT NO: 112904020
 FACILITY: CHP
 SAMPLERS (SIGNATURE): Robert Singel
 PROJECT MANAGER: Alex Murphy
 FIELD OPERATIONS LEADER: Robert Singel
 LABORATORY NAME AND CONTACT: Kathy Smith
 PHONE NUMBER: 321 292 0842
 ADDRESS: 106 Vantage Point Dr
 CITY, STATE: W Columbia SC

| DATE | TIME | SAMPLE ID | LOCATION ID | TOP DEPTH (FT) | BOTTOM DEPTH (FT) | MATRIX (GW, SO, SW, SD, OC, ETC.) | COLLECTION METHOD | GRAB (G) | COMP (C) | NO. OF CONTAINERS | CONTAINER TYPE PLASTIC (P) or GLASS (G) | PRESERVATIVE USED | COMMENTS |
|--|------|-----------------------|-------------|----------------|-------------------|-----------------------------------|-------------------|----------|----------|-------------------|--|-------------------|----------|
| 10/28 | 0945 | CHP MW0025-008.5 1026 | 35 | 2.35 | 12.35 | GW | GW | 6 | | 2 | | | |
| 10/28 | 1030 | CHP MW0023-008.0 1026 | 33 | 32.50 | 37.50 | GW | GW | 6 | | 2 | | | |
| 10/28 | 1115 | CHP MW0024-024.4 1026 | 34 | 21.90 | 26.90 | GW | GW | 6 | | 2 | | | |
| 10/28 | 1350 | CHP MW0033-044.5 1026 | 33 | 42.1 | 47.1 | GW | GW | 6 | | 2 | | | |
| PREP ANALYSIS 10/28/2011 WJ30024 WJ30024 WJ30024 | | | | | | | | | | | | | |

STANDARD TAT 24 hr. 48 hr. 72 hr. 7 day 14 day

1. RELINQUISHED BY: Robert Singel DATE: 10/28/21 TIME: 1530

2. RELINQUISHED BY: Ta Fin Toads DATE: DATE TIME

3. RELINQUISHED BY: Foley DATE: 10/29/21 TIME: 1835

1. RECEIVED BY: DATE TIME

2. RECEIVED BY: DATE TIME

3. RECEIVED BY: [Signature] DATE: 10/29/21 TIME: 1835

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY) 402R FORM NO. 110US-001



Samples Receipt Checklist (SRC) (ME0018C-15)
 Issuing Authority: Pace ENV - WCOL

Revised: 9/29/2020
 Page 1 of 1

Sample Receipt Checklist (SRC)

Client: Tetra Tech Cooler Inspected by/date: KSC / 10/30/2021 Lot #: WJ30024

| | |
|--|---|
| Means of receipt: <input type="checkbox"/> Pace <input type="checkbox"/> Client <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Other: | |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 1. Were custody seals present on the cooler? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA | 2. If custody seals were present, were they intact and unbroken? |
| pH Strip ID: NA Chlorine Strip ID: NA Tested by: JRG2 | |
| Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA | |
| 1.9 / 1.9 °C NA / NA °C NA / NA °C NA / NA °C | |
| Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C | |
| Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Ice Packs <input type="checkbox"/> Dry Ice <input type="checkbox"/> None | |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA | 3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one). |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA | 4. Is the commercial courier's packing slip attached to this form? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 5. Were proper custody procedures (relinquished/received) followed? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 6. Were sample IDs listed on the COC? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 7. Were sample IDs listed on all sample containers? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 8. Was collection date & time listed on the COC? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 9. Was collection date & time listed on all sample containers? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 10. Did all container label information (ID, date, time) agree with the COC? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 11. Were tests to be performed listed on the COC? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 13. Was adequate sample volume available? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 14. Were all samples received within 1/2 the holding time or 48 hours, whichever comes first? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 15. Were any samples containers missing/excess (circle one) samples Not listed on COC? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA | 16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (3/4" or 6mm in diameter) in any of the VOA vials? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA | 17. Were all DRO/metals/nutrient samples received at a pH of < 2? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA | 18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA | 19. Were all applicable NH ₃ /TKN/cyanide/phenol/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA | 20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 21. Was the quote number listed on the container label? If yes, Quote # |
| Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.) | |
| Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA | |
| Time of preservation NA. If more than one preservative is needed, please note in the comments below. | |
| Sample(s) NA were received with bubbles >6 mm in diameter. | |
| Samples(s) NA were received with TRC > 0.5 mg/L (if #19 is no) and were adjusted accordingly in sample receiving with sodium thiosulfate (Na ₂ S ₂ O ₃) with Shcaly ID: NA | |
| SR barcode labels applied by: JRG2 Date: 10/30/2021 | |

Comments:



Report of Analysis

Tetra Tech
Foster Plaza 7
661 Anderson Drive
Pittsburgh, PA 15220
Attention: Mark Jonnet

Project Name: KSC-CHP
Project Number: 112G09581
Lot Number: **WK02089**
Date Completed: 11/30/2021

Kathy Smith

12/01/2021 9:18 AM
Approved and released by:
Project Manager II: **Kathy E. Smith**



The electronic signature above is the equivalent of a handwritten signature.
This report shall not be reproduced, except in its entirety, without the written approval of Pace Analytical Services, LLC.

PACE ANALYTICAL SERVICES, LLC

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative Tetra Tech Lot Number: WK02089

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

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

Sample receipt, sample analysis, and data review have been performed in accordance with the Pace Quality Assurance Management Plan (QAMP), applicable Shealy standard operating procedures (SOPs), the 2003 NELAC standard, and Shealy policies. Additionally, the DoD QSM version 5.3 has been followed for these samples, and specifically Table B-15 was followed for all PFAS samples. Any exceptions to the QAMP, SOPs, NELAC standards, the DoD QSM, or policies are qualified on the results page or discussed below.

All QC associated with these samples was in compliance with DOD QSM 5.3 table B-15 and our PFAS SOP.

Correction factors (CF) are used to calculate the original sample concentration. The CF is the inverse of the concentration factor (sample volume / extract final volume) times the dilution factor (DF). For undiluted analysis. For undiluted analysis, the extract is prepared for injection by adding 182 uL of sample extract + 8 uL of reagent water + 10 uL of internal standard solution to a polypropylene autosampler vial. An extra correction factor of 0.91 (182 uL / 200 uL = 0.91) applies. The CF is calculated as follows:

$$CF = DF * FV / V_0$$

FV is volume of extract (mL)

V₀ is initial sample volume (mL)

DF is dilution factor. For undiluted analysis, DF = 1/0.91.

Sample concentration for aqueous samples:

Concentration (ng/L) = C_s*CF,

$$C_s = \frac{\left(\frac{A_s \times C_{is}}{A_{is}} \right) - B}{M1}$$

Where

C_s is on column concentration of target analyte in the sample (ng/L)

C_{is} is concentration of internal standard in the sample (ng/L)

A_s is peak response of target analyte in the sample

A_{is} is peak response of internal standard in the sample

M1 is the average RF from ICAL or the slope from linear regression ICAL

B is the y-intercept from the ICAL

PACE ANALYTICAL SERVICES, LLC

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Pace is a TNI accredited laboratory; however, the following analyses are currently not listed on our TNI scope of accreditation:

Biological Tissue: All, Non-Potable Water: SGT-HEM EPA 1664B, Silica EPA 200.7, Boron, Calcium, Silicon, Strontium EPA 200.8, Bicarbonate, Carbonate, and Hydroxide Alkalinity SM 2320 B-2011, Fecal Coliform SM 9221 C E-2006 & SM 9222D-2006, Strontium SW-846 6010D, VOC SM 6200 B-2011, Drinking Water: VOC (excluding BTEX, MTBE, Naphthalene, & 1,2-dichloroethane) EPA 524.2, Solid Chemical Material: TOC Walkley-Black.

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

Surrogate recovery for the following samples was outside the upper control limit: WK02089-001, WK02089-003, WK02089-004, WK02089-005. This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

PACE ANALYTICAL SERVICES, LLC

Sample Summary

Tetra Tech

Lot Number: WK02089

Project Name: KSC-CHP

Project Number: 112G09581

| Sample Number | Sample ID | Matrix | Date Sampled | Date Received |
|---------------|---------------------------|---------|-----------------|---------------|
| 001 | CHP-MW0028-042.5-20211029 | Aqueous | 10/29/2021 1110 | 10/30/2021 |
| 002 | CHP-MW0012-007.5-20211029 | Aqueous | 10/29/2021 1255 | 10/30/2021 |
| 003 | CHP-MW0029-042.5-20211029 | Aqueous | 10/29/2021 1340 | 10/30/2021 |
| 004 | CHP-MW0063-045.0-20211029 | Aqueous | 10/29/2021 1445 | 10/30/2021 |
| 005 | CHP-EB-20211029-01 | Aqueous | 10/29/2021 1500 | 10/30/2021 |

(5 samples)

PACE ANALYTICAL SERVICES, LLC

Detection Summary

Tetra Tech

Lot Number: WK02089

Project Name: KSC-CHP

Project Number: 112G09581

| Sample | Sample ID | Matrix | Parameter | Method | Result | Q | Units | Page |
|--------|---------------------------|---------|-----------|------------|--------|---|-------|------|
| 001 | CHP-MW0028-042.5-20211029 | Aqueous | 6:2 FTS | PFAS by ID | 2.5 | I | ng/L | 5 |
| 001 | CHP-MW0028-042.5-20211029 | Aqueous | PFBS | PFAS by ID | 6.1 | | ng/L | 5 |
| 001 | CHP-MW0028-042.5-20211029 | Aqueous | PFPeS | PFAS by ID | 5.1 | | ng/L | 5 |
| 001 | CHP-MW0028-042.5-20211029 | Aqueous | PFHxS | PFAS by ID | 31 | | ng/L | 5 |
| 001 | CHP-MW0028-042.5-20211029 | Aqueous | PFBA | PFAS by ID | 14 | | ng/L | 5 |
| 001 | CHP-MW0028-042.5-20211029 | Aqueous | PFHpA | PFAS by ID | 5.4 | | ng/L | 5 |
| 001 | CHP-MW0028-042.5-20211029 | Aqueous | PFHxA | PFAS by ID | 14 | | ng/L | 5 |
| 001 | CHP-MW0028-042.5-20211029 | Aqueous | PFOA | PFAS by ID | 9.2 | | ng/L | 5 |
| 001 | CHP-MW0028-042.5-20211029 | Aqueous | PFPeA | PFAS by ID | 13 | | ng/L | 5 |
| 001 | CHP-MW0028-042.5-20211029 | Aqueous | PFOS | PFAS by ID | 6.9 | | ng/L | 5 |
| 002 | CHP-MW0012-007.5-20211029 | Aqueous | PFHxS | PFAS by ID | 1.3 | I | ng/L | 7 |
| 002 | CHP-MW0012-007.5-20211029 | Aqueous | PFBA | PFAS by ID | 1.9 | I | ng/L | 7 |
| 002 | CHP-MW0012-007.5-20211029 | Aqueous | PFPeA | PFAS by ID | 1.1 | I | ng/L | 7 |
| 002 | CHP-MW0012-007.5-20211029 | Aqueous | PFOS | PFAS by ID | 19 | | ng/L | 7 |
| 003 | CHP-MW0029-042.5-20211029 | Aqueous | 6:2 FTS | PFAS by ID | 6.0 | I | ng/L | 9 |
| 003 | CHP-MW0029-042.5-20211029 | Aqueous | PFBS | PFAS by ID | 4.9 | | ng/L | 9 |
| 003 | CHP-MW0029-042.5-20211029 | Aqueous | PFPeS | PFAS by ID | 5.1 | | ng/L | 9 |
| 003 | CHP-MW0029-042.5-20211029 | Aqueous | PFHxS | PFAS by ID | 29 | | ng/L | 9 |
| 003 | CHP-MW0029-042.5-20211029 | Aqueous | PFBA | PFAS by ID | 11 | | ng/L | 9 |
| 003 | CHP-MW0029-042.5-20211029 | Aqueous | PFHpA | PFAS by ID | 5.0 | | ng/L | 9 |
| 003 | CHP-MW0029-042.5-20211029 | Aqueous | PFHxA | PFAS by ID | 11 | | ng/L | 9 |
| 003 | CHP-MW0029-042.5-20211029 | Aqueous | PFOA | PFAS by ID | 7.8 | | ng/L | 9 |
| 003 | CHP-MW0029-042.5-20211029 | Aqueous | PFPeA | PFAS by ID | 12 | | ng/L | 9 |
| 003 | CHP-MW0029-042.5-20211029 | Aqueous | PFOS | PFAS by ID | 8.7 | | ng/L | 9 |
| 004 | CHP-MW0063-045.0-20211029 | Aqueous | PFBS | PFAS by ID | 8.6 | | ng/L | 11 |
| 004 | CHP-MW0063-045.0-20211029 | Aqueous | PFHpS | PFAS by ID | 5.5 | | ng/L | 11 |
| 004 | CHP-MW0063-045.0-20211029 | Aqueous | PFPeS | PFAS by ID | 9.3 | | ng/L | 11 |
| 004 | CHP-MW0063-045.0-20211029 | Aqueous | PFHxS | PFAS by ID | 90 | | ng/L | 11 |
| 004 | CHP-MW0063-045.0-20211029 | Aqueous | PFBA | PFAS by ID | 4.7 | | ng/L | 11 |
| 004 | CHP-MW0063-045.0-20211029 | Aqueous | PFHpA | PFAS by ID | 4.7 | | ng/L | 11 |
| 004 | CHP-MW0063-045.0-20211029 | Aqueous | PFHxA | PFAS by ID | 11 | | ng/L | 11 |
| 004 | CHP-MW0063-045.0-20211029 | Aqueous | PFNA | PFAS by ID | 1.4 | I | ng/L | 11 |
| 004 | CHP-MW0063-045.0-20211029 | Aqueous | PFOA | PFAS by ID | 16 | | ng/L | 11 |
| 004 | CHP-MW0063-045.0-20211029 | Aqueous | PFPeA | PFAS by ID | 5.0 | | ng/L | 11 |
| 004 | CHP-MW0063-045.0-20211029 | Aqueous | PFOS | PFAS by ID | 180 | | ng/L | 11 |

(35 detections)

PFAS by LC/MS/MS

| | |
|--|----------------------------|
| Client: Tetra Tech | Laboratory ID: WK02089-001 |
| Description: CHP-MW0028-042.5-20211029 | Matrix: Aqueous |
| Date Sampled: 10/29/2021 1110 | Project Name: KSC-CHP |
| Date Received: 10/30/2021 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 11/12/2021 1658 | JJG | 11/11/2021 1232 | 22105 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 2.5 | I | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.6 | UQ | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.6 | U | 7.2 | 3.6 | 1.8 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 6.1 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 5.1 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 31 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 14 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 5.4 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 14 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 9.2 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 13 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.8 | U | 3.6 | 1.8 | 0.90 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 6.9 | | 3.6 | 1.8 | 0.90 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 215 | 50-150 |
| 13C2_6:2FTS | | 140 | 50-150 |
| 13C2_8:2FTS | | 133 | 50-150 |
| 13C2_PFDaA | | 102 | 50-150 |
| 13C2_PFTeDA | | 100 | 50-150 |
| 13C3_PFBS | | 96 | 50-150 |
| 13C3_PFHxS | | 110 | 50-150 |
| 13C3-HFPO-DA | | 99 | 50-150 |
| 13C4_PFBA | | 62 | 50-150 |
| 13C4_PFHpA | | 111 | 50-150 |
| 13C5_PFHxA | | 108 | 50-150 |
| 13C5_PFPeA | | 94 | 50-150 |
| 13C6_PFDA | | 106 | 50-150 |
| 13C7_PFUdA | | 101 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|--|----------------------------|
| Client: Tetra Tech | Laboratory ID: WK02089-001 |
| Description: CHP-MW0028-042.5-20211029 | Matrix: Aqueous |
| Date Sampled: 10/29/2021 1110 | Project Name: KSC-CHP |
| Date Received: 10/30/2021 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 114 | 50-150 |
| 13C8_PFOS | | 112 | 50-150 |
| 13C9_PFNA | | 112 | 50-150 |
| d-EtFOSA | | 96 | 50-150 |
| d5-EtFOSAA | | 107 | 50-150 |
| d3-MeFOSAA | | 110 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|--|----------------------------|
| Client: Tetra Tech | Laboratory ID: WK02089-002 |
| Description: CHP-MW0012-007.5-20211029 | Matrix: Aqueous |
| Date Sampled: 10/29/2021 1255 | Project Name: KSC-CHP |
| Date Received: 10/30/2021 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 11/12/2021 1740 | JJG | 11/11/2021 1232 | 22105 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|---|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 1.3 | I | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 1.9 | I | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 1.1 | I | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 19 | | 3.8 | 1.9 | 0.94 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 132 | 50-150 |
| 13C2_6:2FTS | | 112 | 50-150 |
| 13C2_8:2FTS | | 121 | 50-150 |
| 13C2_PFDaA | | 107 | 50-150 |
| 13C2_PFTeDA | | 106 | 50-150 |
| 13C3_PFBs | | 109 | 50-150 |
| 13C3_PFHxS | | 114 | 50-150 |
| 13C3-HFPO-DA | | 115 | 50-150 |
| 13C4_PFBa | | 110 | 50-150 |
| 13C4_PFHpA | | 113 | 50-150 |
| 13C5_PFHxA | | 117 | 50-150 |
| 13C5_PFPeA | | 116 | 50-150 |
| 13C6_PFDa | | 107 | 50-150 |
| 13C7_PFUdA | | 106 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|--|----------------------------|
| Client: Tetra Tech | Laboratory ID: WK02089-002 |
| Description: CHP-MW0012-007.5-20211029 | Matrix: Aqueous |
| Date Sampled: 10/29/2021 1255 | Project Name: KSC-CHP |
| Date Received: 10/30/2021 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 115 | 50-150 |
| 13C8_PFOS | | 114 | 50-150 |
| 13C9_PFNA | | 118 | 50-150 |
| d-EtFOSA | | 92 | 50-150 |
| d5-EtFOSAA | | 110 | 50-150 |
| d3-MeFOSAA | | 123 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|--|----------------------------|
| Client: Tetra Tech | Laboratory ID: WK02089-003 |
| Description: CHP-MW0029-042.5-20211029 | Matrix: Aqueous |
| Date Sampled: 10/29/2021 1340 | Project Name: KSC-CHP |
| Date Received: 10/30/2021 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 11/12/2021 1802 | JJG | 11/11/2021 1232 | 22105 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.9 | U | 7.8 | 3.9 | 2.0 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.9 | U | 7.8 | 3.9 | 2.0 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.9 | U | 7.8 | 3.9 | 2.0 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 6.0 | I | 7.8 | 3.9 | 2.0 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.9 | UQ | 7.8 | 3.9 | 2.0 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.9 | U | 7.8 | 3.9 | 2.0 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.9 | U | 7.8 | 3.9 | 2.0 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.9 | U | 7.8 | 3.9 | 2.0 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.9 | U | 7.8 | 3.9 | 2.0 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.9 | U | 7.8 | 3.9 | 2.0 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 4.9 | | 3.9 | 2.0 | 0.98 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.98 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.98 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.98 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 5.1 | | 3.9 | 2.0 | 0.98 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 29 | | 3.9 | 2.0 | 0.98 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 11 | | 3.9 | 2.0 | 0.98 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.98 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.98 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 5.0 | | 3.9 | 2.0 | 0.98 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 11 | | 3.9 | 2.0 | 0.98 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.98 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 7.8 | | 3.9 | 2.0 | 0.98 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 12 | | 3.9 | 2.0 | 0.98 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.98 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.98 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 2.0 | U | 3.9 | 2.0 | 0.98 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 8.7 | | 3.9 | 2.0 | 0.98 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 229 | 50-150 |
| 13C2_6:2FTS | | 137 | 50-150 |
| 13C2_8:2FTS | | 120 | 50-150 |
| 13C2_PFDa | | 103 | 50-150 |
| 13C2_PFTeDA | | 96 | 50-150 |
| 13C3_PFBS | | 94 | 50-150 |
| 13C3_PFHxS | | 114 | 50-150 |
| 13C3-HFPO-DA | | 99 | 50-150 |
| 13C4_PFBA | | 54 | 50-150 |
| 13C4_PFHpA | | 108 | 50-150 |
| 13C5_PFHxA | | 108 | 50-150 |
| 13C5_PFPeA | | 90 | 50-150 |
| 13C6_PFDA | | 101 | 50-150 |
| 13C7_PFUdA | | 104 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|--|----------------------------|
| Client: Tetra Tech | Laboratory ID: WK02089-003 |
| Description: CHP-MW0029-042.5-20211029 | Matrix: Aqueous |
| Date Sampled: 10/29/2021 1340 | Project Name: KSC-CHP |
| Date Received: 10/30/2021 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 111 | 50-150 |
| 13C8_PFOS | | 117 | 50-150 |
| 13C9_PFNA | | 115 | 50-150 |
| d-EtFOSA | | 117 | 50-150 |
| d5-EtFOSAA | | 118 | 50-150 |
| d3-MeFOSAA | | 123 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|--|----------------------------|
| Client: Tetra Tech | Laboratory ID: WK02089-004 |
| Description: CHP-MW0063-045.0-20211029 | Matrix: Aqueous |
| Date Sampled: 10/29/2021 1445 | Project Name: KSC-CHP |
| Date Received: 10/30/2021 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 11/12/2021 1812 | JJG | 11/11/2021 1232 | 22105 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.8 | UQ | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.8 | U | 7.5 | 3.8 | 1.9 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 8.6 | | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 5.5 | | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 9.3 | | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 90 | | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-butyric acid (PFBA) | 375-22-4 | PFAS by ID SOP | 4.7 | | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 4.7 | | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 11 | | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.4 | I | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 16 | | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 5.0 | | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.9 | U | 3.8 | 1.9 | 0.94 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 180 | | 3.8 | 1.9 | 0.94 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | N | 242 | 50-150 |
| 13C2_6:2FTS | | 149 | 50-150 |
| 13C2_8:2FTS | | 129 | 50-150 |
| 13C2_PFDa | | 102 | 50-150 |
| 13C2_PFTeDA | | 97 | 50-150 |
| 13C3_PFBs | | 96 | 50-150 |
| 13C3_PFHxS | | 119 | 50-150 |
| 13C3-HFPO-DA | | 103 | 50-150 |
| 13C4_PFBa | | 57 | 50-150 |
| 13C4_PFHpA | | 109 | 50-150 |
| 13C5_PFHxA | | 110 | 50-150 |
| 13C5_PFPeA | | 94 | 50-150 |
| 13C6_PFDa | | 110 | 50-150 |
| 13C7_PFUdA | | 103 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|--|----------------------------|
| Client: Tetra Tech | Laboratory ID: WK02089-004 |
| Description: CHP-MW0063-045.0-20211029 | Matrix: Aqueous |
| Date Sampled: 10/29/2021 1445 | Project Name: KSC-CHP |
| Date Received: 10/30/2021 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 111 | 50-150 |
| 13C8_PFOS | | 118 | 50-150 |
| 13C9_PFNA | | 117 | 50-150 |
| d-EtFOSA | | 101 | 50-150 |
| d5-EtFOSAA | | 112 | 50-150 |
| d3-MeFOSAA | | 126 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

PFAS by LC/MS/MS

| | |
|---------------------------------|----------------------------|
| Client: Tetra Tech | Laboratory ID: WK02089-005 |
| Description: CHP-EB-20211029-01 | Matrix: Aqueous |
| Date Sampled: 10/29/2021 1500 | Project Name: KSC-CHP |
| Date Received: 10/30/2021 | Project Number: 112G09581 |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------------|----------|-----------------|---------|-----------------|-------|
| 1 | SOP SPE | PFAS by ID SOP QSM B-15 | 1 | 11/12/2021 1823 | JJG | 11/11/2021 1232 | 22105 |

| Parameter | CAS Number | Analytical Method | Result | Q | LOQ | LOD | DL | Units | Run |
|---|-------------|-------------------|--------|----|-----|-----|------|-------|-----|
| 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | 756426-58-1 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...) | 763051-92-9 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS) | 39108-34-4 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| 1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) | 27619-97-2 | PFAS by ID SOP | 3.5 | UQ | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| 1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS) | 757124-72-4 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| Hexafluoropropylene oxide dimer acid (GenX) | 13252-13-6 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| 4,8-dioxa-3H-perfluorononanoic acid (ADONA) | 919005-14-4 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamide (EtFOSA) | 4151-50-2 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | PFAS by ID SOP | 3.5 | U | 6.9 | 3.5 | 1.7 | ng/L | 1 |
| Perfluoro-1-butanefluoronic acid (PFBS) | 375-73-5 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-1-decanesulfonic acid (PFDS) | 335-77-3 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 375-92-8 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 68259-12-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-1-pentanesulfonic acid (PFPeS) | 2706-91-4 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluorohexanesulfonic acid (PFHxS) | 355-46-4 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-butanoic acid (PFBA) | 375-22-4 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-decanoic acid (PFDA) | 335-76-2 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-dodecanoic acid (PFDoA) | 307-55-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-heptanoic acid (PFHpA) | 375-85-9 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-nonanoic acid (PFNA) | 375-95-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-octanoic acid (PFOA) | 335-67-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-pentanoic acid (PFPeA) | 2706-90-3 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-tetradecanoic acid (PFTeDA) | 376-06-7 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-tridecanoic acid (PFTrDA) | 72629-94-8 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluoro-n-undecanoic acid (PFUdA) | 2058-94-8 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |
| Perfluorooctanesulfonic acid (PFOS) | 1763-23-1 | PFAS by ID SOP | 1.8 | U | 3.5 | 1.8 | 0.87 | ng/L | 1 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|--------------|---|------------------|-------------------|
| 13C2_4:2FTS | | 107 | 50-150 |
| 13C2_6:2FTS | N | 169 | 50-150 |
| 13C2_8:2FTS | | 119 | 50-150 |
| 13C2_PFDa | | 99 | 50-150 |
| 13C2_PFTeDA | | 100 | 50-150 |
| 13C3_PFBS | | 107 | 50-150 |
| 13C3_PFHxS | | 111 | 50-150 |
| 13C3-HFPO-DA | | 108 | 50-150 |
| 13C4_PFBA | | 107 | 50-150 |
| 13C4_PFHpA | | 108 | 50-150 |
| 13C5_PFHxA | | 108 | 50-150 |
| 13C5_PFPeA | | 107 | 50-150 |
| 13C6_PFDA | | 97 | 50-150 |
| 13C7_PFUdA | | 100 | 50-150 |

LOQ = Limit of Quantitation V = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% I = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 Q = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection D = Dilution > 1 S = MS/MSD failure

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

PFAS by LC/MS/MS

| | |
|---------------------------------|----------------------------|
| Client: Tetra Tech | Laboratory ID: WK02089-005 |
| Description: CHP-EB-20211029-01 | Matrix: Aqueous |
| Date Sampled: 10/29/2021 1500 | Project Name: KSC-CHP |
| Date Received: 10/30/2021 | Project Number: 112G09581 |

| Surrogate | Q | Run 1 % Recovery | Acceptance Limits |
|------------|---|---------------------|----------------------|
| 13C8_PFOA | | 109 | 50-150 |
| 13C8_PFOS | | 110 | 50-150 |
| 13C9_PFNA | | 114 | 50-150 |
| d-EtFOSA | | 89 | 50-150 |
| d5-EtFOSAA | | 104 | 50-150 |
| d3-MeFOSAA | | 114 | 50-150 |

| | | | | |
|--------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| LOQ = Limit of Quantitation | V = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | DL = Detection Limit | Q = Surrogate failure |
| U = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40% | I = Estimated result < LOQ and ≥ DL | L = LCS/LCSD failure |
| Q = Out of holding time | W = Reported on wet weight basis | LOD = Limit of Detection | D = Dilution > 1 | S = MS/MSD failure |

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

QC Summary

PFAS by LC/MS/MS - MB

Sample ID: WQ22105-001

Matrix: Aqueous

Batch: 22105

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 11/11/2021 1232

| Parameter | Result | Q | Dil | LOQ | LOD | DL | Units | Analysis Date |
|--------------|--------|-------|------------------|-----|-----|-----|-------|-----------------|
| 9CI-PF3ONS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 11/15/2021 1346 |
| 11CI-PF3OUdS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 11/15/2021 1346 |
| 8:2 FTS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 11/15/2021 1346 |
| 6:2 FTS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 11/15/2021 1346 |
| 4:2 FTS | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 11/15/2021 1346 |
| GenX | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 11/15/2021 1346 |
| ADONA | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 11/15/2021 1346 |
| EtFOSA | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 11/15/2021 1346 |
| EtFOSAA | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 11/15/2021 1346 |
| MeFOSAA | 4.0 | U | 1 | 8.0 | 4.0 | 2.0 | ng/L | 11/15/2021 1346 |
| PFBS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 11/15/2021 1346 |
| PFDS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 11/15/2021 1346 |
| PFHpS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 11/15/2021 1346 |
| PFNS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 11/15/2021 1346 |
| PFPeS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 11/15/2021 1346 |
| PFHxS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 11/15/2021 1346 |
| PFBA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 11/15/2021 1346 |
| PFDA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 11/15/2021 1346 |
| PFDoA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 11/15/2021 1346 |
| PFHpA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 11/15/2021 1346 |
| PFHxA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 11/15/2021 1346 |
| PFNA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 11/15/2021 1346 |
| PFOA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 11/15/2021 1346 |
| PFPeA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 11/15/2021 1346 |
| PFTeDA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 11/15/2021 1346 |
| PFTTrDA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 11/15/2021 1346 |
| PFUdA | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 11/15/2021 1346 |
| PFOS | 2.0 | U | 1 | 4.0 | 2.0 | 1.0 | ng/L | 11/15/2021 1346 |
| Surrogate | Q | % Rec | Acceptance Limit | | | | | |
| 13C2_4:2FTS | | 103 | 50-150 | | | | | |
| 13C2_6:2FTS | | 110 | 50-150 | | | | | |
| 13C2_8:2FTS | | 100 | 50-150 | | | | | |
| 13C2_PFDoA | | 92 | 50-150 | | | | | |
| 13C2_PFTeDA | | 91 | 50-150 | | | | | |
| 13C3_PFBS | | 108 | 50-150 | | | | | |
| 13C3_PFHxS | | 114 | 50-150 | | | | | |
| 13C3-HFPO-DA | | 101 | 50-150 | | | | | |
| 13C4_PFBA | | 106 | 50-150 | | | | | |
| 13C4_PFHpA | | 107 | 50-150 | | | | | |
| 13C5_PFHxA | | 105 | 50-150 | | | | | |
| 13C5_PFPeA | | 108 | 50-150 | | | | | |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MB

Sample ID: WQ22105-001

Matrix: Aqueous

Batch: 22105

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 11/11/2021 1232

| Surrogate | Q | % Rec | Acceptance Limit |
|------------|---|-------|------------------|
| 13C6_PFDA | | 99 | 50-150 |
| 13C7_PFUdA | | 102 | 50-150 |
| 13C8_PFOA | | 104 | 50-150 |
| 13C8_PFOS | | 99 | 50-150 |
| 13C9_PFNA | | 104 | 50-150 |
| d-EtFOSA | | 100 | 50-150 |
| d5-EtFOSAA | | 105 | 50-150 |
| d3-MeFOSAA | | 105 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - LCS

Sample ID: WQ22105-002

Matrix: Aqueous

Batch: 22105

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 11/11/2021 1232

| Parameter | Spike Amount (ng/L) | Result (ng/L) | Q | Dil | % Rec | %Rec Limit | Analysis Date |
|--------------|---------------------|---------------|------------------|-----|-------|------------|-----------------|
| 9CI-PF3ONS | 15 | 16 | | 1 | 109 | 70-150 | 11/12/2021 1524 |
| 11CI-PF3OUdS | 15 | 17 | | 1 | 110 | 70-150 | 11/12/2021 1524 |
| 8:2 FTS | 15 | 17 | | 1 | 111 | 67-138 | 11/12/2021 1524 |
| 6:2 FTS | 15 | 16 | | 1 | 107 | 64-140 | 11/12/2021 1524 |
| 4:2 FTS | 15 | 17 | | 1 | 114 | 63-143 | 11/12/2021 1524 |
| GenX | 32 | 37 | | 1 | 115 | 70-150 | 11/12/2021 1524 |
| ADONA | 15 | 17 | | 1 | 114 | 70-150 | 11/12/2021 1524 |
| EtFOSA | 16 | 18 | | 1 | 112 | 70-150 | 11/12/2021 1524 |
| EtFOSAA | 16 | 16 | | 1 | 99 | 61-135 | 11/12/2021 1524 |
| MeFOSAA | 16 | 15 | | 1 | 96 | 65-136 | 11/12/2021 1524 |
| PFBS | 14 | 15 | | 1 | 103 | 72-130 | 11/12/2021 1524 |
| PFDS | 15 | 18 | | 1 | 114 | 53-142 | 11/12/2021 1524 |
| PFHpS | 15 | 16 | | 1 | 105 | 69-134 | 11/12/2021 1524 |
| PFNS | 15 | 15 | | 1 | 97 | 69-127 | 11/12/2021 1524 |
| PFPeS | 15 | 16 | | 1 | 105 | 71-127 | 11/12/2021 1524 |
| PFHxS | 15 | 15 | | 1 | 104 | 68-131 | 11/12/2021 1524 |
| PFBA | 16 | 17 | | 1 | 107 | 73-129 | 11/12/2021 1524 |
| PFDA | 16 | 18 | | 1 | 110 | 71-129 | 11/12/2021 1524 |
| PFDaA | 16 | 18 | | 1 | 110 | 72-134 | 11/12/2021 1524 |
| PFHpA | 16 | 17 | | 1 | 108 | 72-130 | 11/12/2021 1524 |
| PFHxA | 16 | 17 | | 1 | 107 | 72-129 | 11/12/2021 1524 |
| PFNA | 16 | 17 | | 1 | 106 | 69-130 | 11/12/2021 1524 |
| PFOA | 16 | 17 | | 1 | 106 | 71-133 | 11/12/2021 1524 |
| PFPeA | 16 | 17 | | 1 | 109 | 72-129 | 11/12/2021 1524 |
| PFTeDA | 16 | 17 | | 1 | 108 | 71-132 | 11/12/2021 1524 |
| PFTTrDA | 16 | 17 | | 1 | 105 | 65-144 | 11/12/2021 1524 |
| PFUdA | 16 | 18 | | 1 | 113 | 69-133 | 11/12/2021 1524 |
| PFOS | 15 | 15 | | 1 | 102 | 65-140 | 11/12/2021 1524 |
| Surrogate | Q | % Rec | Acceptance Limit | | | | |
| 13C2_4:2FTS | | 104 | 50-150 | | | | |
| 13C2_6:2FTS | | 119 | 50-150 | | | | |
| 13C2_8:2FTS | | 117 | 50-150 | | | | |
| 13C2_PFDaA | | 109 | 50-150 | | | | |
| 13C2_PFTeDA | | 103 | 50-150 | | | | |
| 13C3_PFBS | | 111 | 50-150 | | | | |
| 13C3_PFHxS | | 112 | 50-150 | | | | |
| 13C3-HFPO-DA | | 117 | 50-150 | | | | |
| 13C4_PFBA | | 111 | 50-150 | | | | |
| 13C4_PFHpA | | 112 | 50-150 | | | | |
| 13C5_PFHxA | | 113 | 50-150 | | | | |
| 13C5_PFPeA | | 107 | 50-150 | | | | |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - LCS

Sample ID: WQ22105-002

Matrix: Aqueous

Batch: 22105

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 11/11/2021 1232

| Surrogate | Q | % Rec | Acceptance Limit |
|------------|---|-------|------------------|
| 13C6_PFDA | | 106 | 50-150 |
| 13C7_PFUdA | | 109 | 50-150 |
| 13C8_PFOA | | 111 | 50-150 |
| 13C8_PFOS | | 115 | 50-150 |
| 13C9_PFNA | | 117 | 50-150 |
| d-EtFOSA | | 101 | 50-150 |
| d5-EtFOSAA | | 112 | 50-150 |
| d3-MeFOSAA | | 116 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - Duplicate

Sample ID: WK02089-001DU

Matrix: Aqueous

Batch: 22105

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 11/11/2021 1232

| Parameter | Sample Amount (ng/L) | Result (ng/L) | Q | Dil | % RPD | %RPD Limit | Analysis Date |
|--------------|----------------------|---------------|------------------|-----|-------|------------|-----------------|
| 9CI-PF3ONS | ND | | U | 1 | 0.00 | 20 | 11/12/2021 1709 |
| 11CI-PF3OUdS | ND | | U | 1 | 0.00 | 20 | 11/12/2021 1709 |
| 8:2 FTS | ND | | U | 1 | 0.00 | 20 | 11/12/2021 1709 |
| 6:2 FTS | 2.5 | | U | 1 | 0.00 | 20 | 11/12/2021 1709 |
| 4:2 FTS | ND | | U | 1 | 0.00 | 20 | 11/12/2021 1709 |
| GenX | ND | | U | 1 | 0.00 | 20 | 11/12/2021 1709 |
| ADONA | ND | | U | 1 | 0.00 | 20 | 11/12/2021 1709 |
| EtFOSA | ND | | U | 1 | 0.00 | 20 | 11/12/2021 1709 |
| EtFOSAA | ND | | U | 1 | 0.00 | 20 | 11/12/2021 1709 |
| MeFOSAA | ND | | U | 1 | 0.00 | 20 | 11/12/2021 1709 |
| PFBS | 6.1 | 6.0 | | 1 | 3.0 | 20 | 11/12/2021 1709 |
| PFDS | ND | | U | 1 | 0.00 | 20 | 11/12/2021 1709 |
| PFHpS | ND | | U | 1 | 0.00 | 20 | 11/12/2021 1709 |
| PFNS | ND | | U | 1 | 0.00 | 20 | 11/12/2021 1709 |
| PFPeS | 5.1 | 4.9 | | 1 | 2.3 | 20 | 11/12/2021 1709 |
| PFHxS | 31 | 30 | | 1 | 2.8 | 20 | 11/12/2021 1709 |
| PFBA | 14 | 14 | | 1 | 0.94 | 20 | 11/12/2021 1709 |
| PFDA | ND | | U | 1 | 0.00 | 20 | 11/12/2021 1709 |
| PFDoA | ND | | U | 1 | 0.00 | 20 | 11/12/2021 1709 |
| PFHpA | 5.4 | 5.2 | | 1 | 3.8 | 20 | 11/12/2021 1709 |
| PFHxA | 14 | 13 | | 1 | 11 | 20 | 11/12/2021 1709 |
| PFNA | ND | | U | 1 | 0.00 | 20 | 11/12/2021 1709 |
| PFOA | 9.2 | 9.2 | | 1 | 0.080 | 20 | 11/12/2021 1709 |
| PFPeA | 13 | 13 | | 1 | 0.24 | 20 | 11/12/2021 1709 |
| PFTeDA | ND | | U | 1 | 0.00 | 20 | 11/12/2021 1709 |
| PFTTrDA | ND | | U | 1 | 0.00 | 20 | 11/12/2021 1709 |
| PFUdA | ND | | U | 1 | 0.00 | 20 | 11/12/2021 1709 |
| PFOS | 6.9 | 6.9 | | 1 | 0.040 | 20 | 11/12/2021 1709 |
| Surrogate | Q | % Rec | Acceptance Limit | | | | |
| 13C2_4:2FTS | N | 224 | 50-150 | | | | |
| 13C2_6:2FTS | N | 163 | 50-150 | | | | |
| 13C2_8:2FTS | | 116 | 50-150 | | | | |
| 13C2_PFDoA | | 111 | 50-150 | | | | |
| 13C2_PFTeDA | | 110 | 50-150 | | | | |
| 13C3_PFBs | | 102 | 50-150 | | | | |
| 13C3_PFHxS | | 123 | 50-150 | | | | |
| 13C3-HFPO-DA | | 106 | 50-150 | | | | |
| 13C4_PFBa | | 62 | 50-150 | | | | |
| 13C4_PFHpA | | 124 | 50-150 | | | | |
| 13C5_PFHxA | | 117 | 50-150 | | | | |
| 13C5_PFPeA | | 95 | 50-150 | | | | |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - Duplicate

Sample ID: WK02089-001DU

Matrix: Aqueous

Batch: 22105

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 11/11/2021 1232

| Surrogate | Q | % Rec | Acceptance Limit |
|------------|---|-------|------------------|
| 13C6_PFDA | | 111 | 50-150 |
| 13C7_PFUdA | | 113 | 50-150 |
| 13C8_PFOA | | 125 | 50-150 |
| 13C8_PFOS | | 122 | 50-150 |
| 13C9_PFNA | | 128 | 50-150 |
| d-EtFOSA | | 97 | 50-150 |
| d5-EtFOSAA | | 118 | 50-150 |
| d3-MeFOSAA | | 127 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MS

Sample ID: WK02089-002MS

Matrix: Aqueous

Batch: 22105

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 11/11/2021 1232

| Parameter | Sample Amount (ng/L) | Spike Amount (ng/L) | Result (ng/L) | Q | Dil | % Rec | %Rec Limit | Analysis Date |
|--------------|----------------------|---------------------|------------------|---|-----|-------|------------|-----------------|
| 9CI-PF3ONS | ND | 14 | 15 | | 1 | 108 | 70-150 | 11/12/2021 1751 |
| 11CI-PF3OUdS | ND | 14 | 13 | | 1 | 92 | 70-150 | 11/12/2021 1751 |
| 8:2 FTS | ND | 14 | 14 | | 1 | 98 | 67-138 | 11/12/2021 1751 |
| 6:2 FTS | ND | 14 | 13 | | 1 | 92 | 64-140 | 11/12/2021 1751 |
| 4:2 FTS | ND | 14 | 15 | | 1 | 111 | 63-143 | 11/12/2021 1751 |
| GenX | ND | 30 | 33 | | 1 | 112 | 70-150 | 11/12/2021 1751 |
| ADONA | ND | 14 | 16 | | 1 | 112 | 70-150 | 11/12/2021 1751 |
| EtFOSA | ND | 15 | 17 | | 1 | 116 | 70-150 | 11/12/2021 1751 |
| EtFOSAA | ND | 15 | 16 | | 1 | 105 | 61-135 | 11/12/2021 1751 |
| MeFOSAA | ND | 15 | 14 | | 1 | 98 | 65-136 | 11/12/2021 1751 |
| PFBS | ND | 13 | 14 | | 1 | 104 | 72-130 | 11/12/2021 1751 |
| PFDS | ND | 14 | 13 | | 1 | 88 | 53-142 | 11/12/2021 1751 |
| PFHpS | ND | 14 | 14 | | 1 | 101 | 69-134 | 11/12/2021 1751 |
| PFNS | ND | 14 | 13 | | 1 | 93 | 69-127 | 11/12/2021 1751 |
| PFPeS | ND | 14 | 13 | | 1 | 97 | 71-127 | 11/12/2021 1751 |
| PFHxS | 1.3 | 13 | 15 | | 1 | 102 | 68-131 | 11/12/2021 1751 |
| PFBA | 1.9 | 15 | 17 | | 1 | 101 | 73-129 | 11/12/2021 1751 |
| PFDA | ND | 15 | 15 | | 1 | 100 | 71-129 | 11/12/2021 1751 |
| PFDoA | ND | 15 | 16 | | 1 | 107 | 72-134 | 11/12/2021 1751 |
| PFHpA | ND | 15 | 16 | | 1 | 108 | 72-130 | 11/12/2021 1751 |
| PFHxA | ND | 15 | 16 | | 1 | 110 | 72-129 | 11/12/2021 1751 |
| PFNA | ND | 15 | 17 | | 1 | 113 | 69-130 | 11/12/2021 1751 |
| PFOA | ND | 15 | 16 | | 1 | 107 | 71-133 | 11/12/2021 1751 |
| PFPeA | 1.1 | 15 | 17 | | 1 | 105 | 72-129 | 11/12/2021 1751 |
| PFTeDA | ND | 15 | 16 | | 1 | 107 | 71-132 | 11/12/2021 1751 |
| PFTTrDA | ND | 15 | 15 | | 1 | 99 | 65-144 | 11/12/2021 1751 |
| PFUdA | ND | 15 | 16 | | 1 | 108 | 69-133 | 11/12/2021 1751 |
| PFOS | 19 | 14 | 32 | | 1 | 99 | 65-140 | 11/12/2021 1751 |
| Surrogate | Q | % Rec | Acceptance Limit | | | | | |
| 13C2_4:2FTS | | 122 | 50-150 | | | | | |
| 13C2_6:2FTS | | 142 | 50-150 | | | | | |
| 13C2_8:2FTS | | 115 | 50-150 | | | | | |
| 13C2_PFDoA | | 98 | 50-150 | | | | | |
| 13C2_PFTeDA | | 98 | 50-150 | | | | | |
| 13C3_PFBS | | 111 | 50-150 | | | | | |
| 13C3_PFHxS | | 116 | 50-150 | | | | | |
| 13C3-HFPO-DA | | 117 | 50-150 | | | | | |
| 13C4_PFBA | | 111 | 50-150 | | | | | |
| 13C4_PFHpA | | 113 | 50-150 | | | | | |
| 13C5_PFHxA | | 115 | 50-150 | | | | | |
| 13C5_PFPeA | | 113 | 50-150 | | | | | |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

PFAS by LC/MS/MS - MS

Sample ID: WK02089-002MS

Matrix: Aqueous

Batch: 22105

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP QSM B-15

Prep Date: 11/11/2021 1232

| Surrogate | Q | % Rec | Acceptance Limit |
|------------|---|-------|------------------|
| 13C6_PFDA | | 108 | 50-150 |
| 13C7_PFUdA | | 102 | 50-150 |
| 13C8_PFOA | | 116 | 50-150 |
| 13C8_PFOS | | 120 | 50-150 |
| 13C9_PFNA | | 118 | 50-150 |
| d-EtFOSA | | 94 | 50-150 |
| d5-EtFOSAA | | 111 | 50-150 |
| d3-MeFOSAA | | 116 | 50-150 |

LOQ = Limit of Quantitation

U = Not detected at or above the LOQ

N = Recovery is out of criteria

DL = Detection Limit

I = Estimated result < LOQ and \geq DL

P = The RPD between two GC columns exceeds 40%

LOD = Limit of Detection

* = RSD is out of criteria

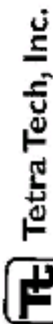
+ = RPD is out of criteria

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

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)

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

Chain of Custody
and
Miscellaneous Documents



Tetra Tech, Inc.

CHAIN OF CUSTODY

NUMBER No. 3240

PAGE 1 OF 1

PROJECT NO: 112607020
 FACILITY: KSC-LHP
 SAMPLERS (SIGNATURE): *Chuck Sorden*
 LABORATORY NAME AND CONTACT: Pace Analytical - (Victor Smith)
 ADDRESS: 106 Vantage Point Dr.
 CITY, STATE: West Columbia, SC

PROJECT MANAGER: Mike Sorden
 FIELD OPERATIONS LEADER: Chuck Sorden
 CARRIER/WAYBILL NUMBER: [Blank]

PHONE NUMBER: (412) 931-8122
 PHONE NUMBER: (321) 541-7580

CONTAINER TYPE: PLASTIC (P) or GLASS (G)
 PRESERVATIVE USED: [Blank]

NO. OF CONTAINERS: 2

COLLECTION METHOD: GRAB (G)
 MATRIX (GW, SO, SW, SD, QC, ETC.): [Blank]

TOP DEPTH (FT): 40
 BOTTOM DEPTH (FT): 45

DATE: 10/24/21
 TIME: 1600

DATE: 10/30/21
 TIME: 0920

DATE: 10/30/21
 TIME: 1450

COMMENTS: 3 DAY TAT

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE)

DISTRIBUTION: YELLOW (FIELD COPY)

DISTRIBUTION: PINK (FILE COPY)

FORM NO. TINUS-001

| DATE | TIME | SAMPLE ID | LOCATION ID | TOP DEPTH (FT) | BOTTOM DEPTH (FT) | MATRIX (GW, SO, SW, SD, QC, ETC.) | COLLECTION METHOD | GRAB (G) | COMP (C) | NO. OF CONTAINERS | COMMENTS |
|-------|------|-------------------------|-------------|----------------|-------------------|-----------------------------------|-------------------|----------|----------|-------------------|----------|
| 10/24 | 1110 | CHP-MW0029-092520211029 | | 40 | 45 | SW | G | G | | 2 | |
| 10/24 | 1255 | CHP-MW0029-007520211029 | | 2.5 | 12.5 | | | | | 1 | |
| 10/24 | 1340 | CHP-MW0029-092520211029 | | 40 | 45 | | | | | 1 | |
| 10/24 | 1445 | CHP-MW0029-092520211029 | | 40 | 50 | SW | | | | 1 | |
| 10/24 | 1500 | CHP-EB-20211029-01 | | - | - | AC | G | | | 2 | |



TYPE OF ANALYSIS: PCEAS QSM-T, HPLC, B-TS

1-2.32

STANDARD TAT: 24 hr. 48 hr. 72 hr. 7 day 14 day

RUSH TAT:

DATE: 10/24/21

TIME: 1600

DATE: 10/30/21

TIME: 0920

DATE: 10/30/21

TIME: 1450

COMMENTS: 3 DAY TAT

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE)

DISTRIBUTION: YELLOW (FIELD COPY)

DISTRIBUTION: PINK (FILE COPY)

FORM NO. TINUS-001

PACE ANALYTICAL SERVICES, LLC



Samples Receipt Checklist (SRC) (ME0018C-15)

Issuing Authority: Pace ENV - WCOL

Revised: 9/29/2020

Page 1 of 1

Sample Receipt Checklist (SRC)

Client: tetra Tech

Cooler Inspected by/date: KDRW / 11/02/2021

Lot #: WK02089

| | |
|--|---|
| Means of receipt: <input type="checkbox"/> Pace <input type="checkbox"/> Client <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Other: _____ | |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 1. Were custody seals present on the cooler? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA | 2. If custody seals were present, were they intact and unbroken? |
| pH Strip ID: <u>NA</u> Chlorine Strip ID: <u>NA</u> Tested by: <u>NA</u> | |
| Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: <u>NA</u> <u>2.3 / 2.3</u> °C <u>NA / NA</u> °C <u>NA / NA</u> °C <u>NA / NA</u> °C | |
| Method: <input checked="" type="checkbox"/> Temperature Blank <input type="checkbox"/> Against Bottles IR Gun ID: <u>5</u> IR Gun Correction Factor: <u>0</u> °C | |
| Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Ice Packs <input type="checkbox"/> Dry Ice <input type="checkbox"/> None | |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA | 3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one). |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA | 4. Is the commercial courier's packing slip attached to this form? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 5. Were proper custody procedures (relinquished/received) followed? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 6. Were sample IDs listed on the COC? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 7. Were sample IDs listed on all sample containers? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 8. Was collection date & time listed on the COC? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 9. Was collection date & time listed on all sample containers? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 10. Did all container label information (ID, date, time) agree with the COC? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 11. Were tests to be performed listed on the COC? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 13. Was adequate sample volume available? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 14. Were all samples received within ½ the holding time or 48 hours, whichever comes first? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 15. Were any samples containers missing/excess (circle one) samples Not listed on COC? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA | 16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼" or 6mm in diameter) in any of the VOA vials? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA | 17. Were all DRO/metals/nutrient samples received at a pH of < 2? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA | 18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA | 19. Were all applicable NH ₃ /TKN/cyanide/phenol/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA | 20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 21. Was the quote number listed on the container label? If yes, Quote # _____ |
| Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.) | |
| Sample(s) <u>NA</u> were received incorrectly preserved and were adjusted accordingly in sample receiving with <u>NA</u> mL of circle one: H ₂ SO ₄ , HNO ₃ , HCl, NaOH using SR # <u>NA</u> | |
| Time of preservation <u>NA</u> . If more than one preservative is needed, please note in the comments below. | |
| Sample(s) <u>NA</u> were received with bubbles >6 mm in diameter. | |
| Samples(s) <u>NA</u> were received with TRC > 0.5 mg/L (If #19 is <i>no</i>) and were adjusted accordingly in sample receiving with sodium thiosulfate (Na ₂ S ₂ O ₃) with Shealy ID: <u>NA</u> | |
| SR barcode labels applied by: <u>KDRW</u> Date: <u>11/02/2021</u> | |

Comments:

Note: Sample ID change for Laboratory Report WK02089

Sample CHP-MW0012-007.5-20211029 collected at 12:55 on 10/29-2021 should be CGO-MW0012-007.5-20211029

APPENDIX D
PHOTOGRAPHIC LOG

Photographic Log
Fire Station #1 – LOC 19
NASA PFAS Assessments
Kennedy Space Center, Florida

PHOTO 1

DATE:
12/09/2021

DIRECTION:
South

TAKEN BY:
S. Damphousse

DESCRIPTION:
View of building exterior facing south toward ambulance bays



PHOTO 2

DATE:
12/09/2021

DIRECTION:
West

TAKEN BY:
S. Damphousse

DESCRIPTION:
View of building facing west toward fire engine bays



Photographic Log
Fire Station #1 – LOC 19
NASA PFAS Assessments
Kennedy Space Center, Florida

PHOTO 3

DATE:
12/09/2021

DIRECTION:
Northwest

TAKEN BY:
S. Damphousse

DESCRIPTION:
View of building exterior facing northwest



PHOTO 4

DATE:
12/09/2021

DIRECTION:
Southeast

TAKEN BY:
S. Damphousse

DESCRIPTION:
View of exterior of building facing southeast



Photographic Log
Fire Station #1 – LOC 19
NASA PFAS Assessments
Kennedy Space Center, Florida

PHOTO 5

DATE:
12/09/2021

DIRECTION:
East

TAKEN BY:
S. Damphousse

DESCRIPTION:
View of storage area
along south side of
building



PHOTO 6

DATE:
12/09/2021

DIRECTION:
Northwest

TAKEN BY:
S. Damphousse

DESCRIPTION:
View of storage cage
along south side of
building



Photographic Log
Fire Station #1 – LOC 19
NASA PFAS Assessments
Kennedy Space Center, Florida

PHOTO 7

DATE:
12/09/2021

DIRECTION:
Northwest

TAKEN BY:
S. Damphousse

DESCRIPTION:
View of south side of building taken from southeast property corner



PHOTO 8

DATE:
12/09/2021

DIRECTION:
West

TAKEN BY:
S. Damphousse

DESCRIPTION:
Building trench drain outfall to ditch in southeast property corner, with overgrowth in the pipes



Photographic Log
Fire Station #1 – LOC 19
NASA PFAS Assessments
Kennedy Space Center, Florida

PHOTO 9

DATE:
12/09/2021

DIRECTION:
North

TAKEN BY:
S. Damphousse

DESCRIPTION:
View east side of building with flags marking proposed lithologic boring location



PHOTO 10

DATE:
12/09/2021

DIRECTION:
Southeast

TAKEN BY:
S. Damphousse

DESCRIPTION:
View of southeast corner of the property where fire trucks were historically parked



Photographic Log
Fire Station #1 – LOC 19
NASA PFAS Assessments
Kennedy Space Center, Florida

PHOTO 11

DATE:
12/09/2021

DIRECTION:
North

TAKEN BY:
S. Damphousse

DESCRIPTION:
View within interior of ambulance bay with trench drain in floor



PHOTO 12

DATE:
12/09/2021

DIRECTION:
Northeast

TAKEN BY:
S. Damphousse

DESCRIPTION:
View within interior of fire engine bay with trench drain in floor.

Engine 1 is a Pierce Pumper fire truck with a 30 gallon top mounted foam tank.



Photographic Log
Fire Station #1 – LOC 19
NASA PFAS Assessments
Kennedy Space Center, Florida

PHOTO 13

DATE:
12/09/2021

DIRECTION:
N/A

TAKEN BY:
S. Damphousse

DESCRIPTION:
View of control panel
on side of Engine 1



PHOTO 14

DATE:
12/09/2021

DIRECTION:
N/A

TAKEN BY:
S. Damphousse

DESCRIPTION:
View within interior
of ambulance bay
showing water
sprinkler system



APPENDIX E

KSCRT MEETING MINUTES AND ACTION ITEM – OCTOBER 2022

Revision 0 Meeting Minutes for October 5th and 6th, 2022

Attendees:

- | | |
|----------------------------|-------------------------------|
| 1. Bruce Moore/FDEP | 11. Alex Murphy/Tetra Tech |
| 2. Mike Deliz/NASA | 12. Chris Pike/ Tetra Tech |
| 3. Ryan O’Meara/NASA | 13. Mark Speranza/Tetra Tech |
| 4. Deda Johansen/NASA | 14. Andrew Walters/Tetra Tech |
| 5. Anne Chrest/NASA | 15. Jennifer Gootee/AECOM |
| 6. Natasha Darre/NASA | 16. Linnea King Clark/AECOM |
| 7. Chris Adkison/NASA | 17. Richard Smith/HGL |
| 8. Tim Appleman/NASA | 18. Howard Fowler/HGL |
| 9. Michelle Moore/NEMCON | 19. James (Jim) Montague/HGL |
| 10. Mark Jonnet/Tetra Tech | |

2210-M01 Bruce Moore/FDEP

Program Update

Discussion: The #1 issue at the Florida Department of Environmental Protection (FDEP) is the staffing situation. There are fourteen positions in the federal facilities program currently available. Some hires are imminent. Environmental Administrator Laura Barrett resigned. The goal is to fill the Environmental Administrator position by the end of October. Billy Hessman joined in May as a professional geologist (PG) II position. A variety of positions are open and need to be filled. If there is an urgent matter, please call Bruce directly and he can talk in the moment about it. The routine review process may take a while.

NASA inquired if funding was the issue or just not enough people were applying. FDEP stated it has been hard to attract and retain staff. FDEP is still using the three contractors for outside review and will lean heavily on them in the short term.

samples will be collected from drainage ditches. Additional DPT groundwater samples will be collected, and more monitoring wells installed and sampled.

NASA is preparing to notify nearby residents of potential off-site migration. Information sessions are being planned for early 2023. discussed the process for getting authorization for possible sampling on neighboring property. FDEP asked whether NASA has reached out to the Department of Health yet? NASA has not. FDEP will initiate contact at the State level.

2210-M08 Mark Jonnet/ Tetra Tech

Fire Station #1 (SWMU #116), Sewage Treatment Plant #1 and Sludge Disposal Area (SWMU #117) PFAS Sites Assessment Update

Objective:

Present results to date for per- and polyfluorinated alkyl substances (PFAS) soil evaluation, soil cores, PFAS sediment evaluation, PFAS groundwater evaluation, PFAS surface water evaluation and path forward.

Discussion:

Fire Station #1(FS1) was constructed in 1964, housed crews and served as a maintenance and storage location for spent or expired fire extinguishers. It was formerly known as Fire Station #4. The Sewage Treatment Plant #1 (STP1) encompasses approximately 40 acres and includes STP1, Former Polishing Pond, Former Sludge Disposal Area, Former Spray Field, and the Paint and Oil Locker (POL) SWMU 067.

Tetra Tech presented the PFAS sampling results to date of the Fire Station #1, STP #1 and Sludge Disposal Area sites. Data for the Base Support Building (SWMU #014) was included since the PFAS plumes appear to be commingled.

Data generated by Site Assessment activities to date and prior results were screened against EPA's May 2022 tap water Regional Screening Levels (RSLs) for groundwater, resident RSL for soil, and

against the State of Florida human health Surface Water Screening Levels for surface water. There are currently no screening criteria for sediment. RSLs are available for 6 PFAS compounds: perfluorooctanoic acid (PFOA), perfluorooctane sulfonic acid (PFOS), perfluoronanoic acid (PFNA), perfluorobutanesulfonic acid (PFBS), perfluorohexane sulfonic acid (PFHxS) and hexafluoropropylene oxide dimer acid (HFPO-DA; trade name GenX).

Data summaries include all samples collected to date in the area of FS1 and STP1. Samples collected prior to 12/2021 were collected by others. Field activities were performed in accordance with FDEP Standard Operating Procedures, PFAS sampling guidelines (Michigan Department of Environmental Quality) and the KSC Sampling and Analysis Plan. Global Positioning System coordinates were collected for each sample location. Quality assurance/quality control samples were collected due to the ubiquitous nature of PFAS. Pace Analytical Services analyzed PFAS samples and reported 28 PFAS compounds.

Shallow soil samples (0-0.5 and 0.5-2 feet below land surface [ft. bls]) were collected at five locations at FS1 and nine STP1/Sludge Disposal locations. Results exceeded the residential PFOS RSL in 6 of the 28 samples. Deeper soil samples were collected from one soil boring each at FS1 and STP1. Two intervals at FS1 had PFOS detections exceeding the residential RSL. Results from the STP1 boring were less than the residential RSL. There are no soil results with a PFAS result greater than the commercial RSL. The lithologic descriptions from the soil cores were used in selection of depth intervals for direct push technology (DPT) groundwater sampling.

Sediment samples were collected from nine locations at STP1/Sludge Disposal Area and one location in the Region 1 (Industrial Area) Stormwater Pond (also called the Gator Pond). There were detections of PFOS in seven of the ten samples, and one detection of PFHxS. There are currently no State or Federal screening criteria for sediment.

For FS1, of the 126 groundwater samples from varying depths, 44 detected results were greater than the PFOA RSL, 60 detected results exceeded the PFOS RSL, 17 detected results exceeded the PFNA RSL, 13 detected results exceeded the PFBS RSL, and 38 detected

results exceeded the PFHxS RSL. Seventy-six samples were analyzed for HFPO-DA and there were no detections.

For STP1/Sludge Disposal Area, of the 218 groundwater samples from varying depths, 115 detected results exceeded the PFOA RSL, 122 detected results exceeded the PFOS RSL, 41 detected results exceeded the PFNA RSL, 2 detected results exceeded the PFBS RSL, and 86 detected results exceeded the PFHxS RSL. One hundred seventy-six samples were analyzed for HFPO-DA and there were no detections.

Twenty-four surface water samples were collected from stormwater ditches around FS1, STP1 and the Sludge Disposal Area. A sample was collected at the northwest corner of the Gator Pond in both August 2021 and March 2022. PFOA, PFOS and PFHxS were detected in all 26 samples, PFBS was detected in 24 samples, and PFNA in 18 samples. HFPO-DA was analyzed in 19 samples and detected in none. The State of Florida has surface water screening levels (SWSLs) for PFOA and PFOS. One PFOA sample result exceeded its SWSL (500 ng/L) and 24 PFOS results exceeded its SWSL (10 ng/L). The two results for the Gator Pond did not indicate a significant seasonal difference.

The Site Assessment for FS1 and STP1 will continue in phases. The upcoming phase emphasizes understanding groundwater and surface water interaction, as well as the extent of PFAS-affected groundwater. Potential human health risk by exposure to PFAS-affected soil is being managed by interim Land Use Control Implementation Plans (LUCIPs).

To show the correlation between proposed groundwater and surface water sampling locations, the image on Slide 34 displays PFOS groundwater sample locations less than 10 ft bls compared to PFOS RSL and surface water PFOS results compared to PFOS SWSL. The Team will continue plume delineation using DPT groundwater sampling based on RSLs. Monitoring wells will be installed adjacent to surface water locations with staff gauges. The co-located wells and surface water points will be sampled periodically. Groundwater level measurements and staff gauges will be read, and data evaluated to determine discharge from groundwater to surface water or from surface water to groundwater.

The image on Slide 35 displays surface water PFOS results. Future sampling will be focused on the flow path for Region 1 stormwater to discharge to the Banana River Lagoon and nearby points in the lagoon. Sample locations will include influent into the Gator Pond, effluent from the Gator Pond, associated borrow pits that are part of the stormwater management system, tributaries into Buck Creek, locations within Buck Creek, junction of Buck Creek and Banana River Lagoon with offsets north and south, isolated borrow pits northeast of Gator Pond to determine impacts, and four locations along Banana River Lagoon that will correspond to DPT locations on the shore.

Tetra Tech will email FDEP the drawing showing the proposed monitoring well locations (2210-A06).

Results: Action Item 2210-A06

DAY 2

2210-M09 Michelle Moore/NEMCON

Meeting Minutes and Miscellaneous Items

Team consensus was reached that Revision 1 of the meeting minutes and action/decision items for the September 2022 Team meeting will become final. Team members acknowledged and did not object to the fact that these meeting minutes may become public as part of a final report at a later date (2210-D12).

Open action items were reviewed and closed at the October 2022 KSCRT meeting:

Launch Complex 39B (LC39B) (SWMU 009) - Revisit Team consensus (Decision 1810-D13) on weir installation based on permits date expiration and Year 2 performance monitoring results. Team consensus had been reached to suspend the weir installation since chlorinated volatile organic compound (CVOC) concentrations adjacent to the pond were below their respective groundwater cleanup target levels (GCTLs) and to re-evaluate the need for the weir prior to expiration of permits from the St. Johns River Water Management District (SJRWMD) and U.S. Army Corps of Engineers (USACE) on 11 July 2023.

KSCRT Status of Open Action Items

| Action Item No. | Minutes Reference | Responsible Team Member | Action item | Status |
|-----------------|-------------------|-------------------------|--|--------|
| 2210-A06 | 2210-M08 | NASA | <p><u>Fire Station #1 (SWMU #116), Sewage Treatment Plant #1 and Sludge Disposal Area (SWMU #117) PFAS Sites Assessment Update:</u> The image on Slide 35 displays surface water PFOS results. Future sampling will be focused on influent into the Gator Pond, effluent from the gator pond, associated borrow pits that are part of the stormwater management system, tributaries into Buck Creek, locations within Buck Creek, junction of Buck Creek and Banana River with offsets north and south, isolated borrow pits northeast of gator pond to determine impacts, and four locations along Banana River that will correspond to DPT locations. Tetra Tech will email FDEP the locations of the proposed monitoring well locations.</p> | Open |