

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

*e-Hardcopy 2.0*  
*Automated Report*

## Technical Report for

**AECOM, INC.**

**N6274223F0104 RH Fire Suppression System**

**60697810**

**SGS Job Number: FC3464**

**Sampling Date: 03/14/23**



### Report to:

**AECOM, Inc**  
**7595 Technology Way**  
**Denver, CO 80237**  
**katie.abbott@aecom.com; mark.kromis@aecom.com;**  
**watson.tanji@aecom.com; kristin.rutherford@aecom.com**  
**ATTN: Katie Abbott**

**Total number of pages in report: 34**



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

**Norm Farmer**  
**Technical Director**

**Client Service contact: Elvin Kumar 407-425-6700**

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

This report shall not be reproduced, except in its entirety, without the written approval of SGS.  
Test results relate only to samples analyzed.

# Table of Contents

-1-

<b>Section 1: Sample Summary</b> .....	<b>3</b>
<b>Section 2: Case Narrative/Conformance Summary</b> .....	<b>4</b>
<b>Section 3: Summary of Hits</b> .....	<b>5</b>
<b>Section 4: Sample Results</b> .....	<b>6</b>
<b>4.1:</b> FC3464-1: AF-RHMW10-WGN01LF-2303W2 .....	7
<b>4.2:</b> FC3464-2: AF-HDMW225303-WGN01LF-2303W2 .....	10
<b>Section 5: Misc. Forms</b> .....	<b>13</b>
<b>5.1:</b> Chain of Custody .....	14
<b>5.2:</b> QC Evaluation: DOD QSM5.x Limits .....	17
<b>Section 6: MS Semi-volatiles - QC Data Summaries</b> .....	<b>18</b>
<b>6.1:</b> Method Blank Summary .....	19
<b>6.2:</b> Blank Spike Summary .....	27
<b>6.3:</b> Matrix Spike Summary .....	31
<b>6.4:</b> Duplicate Summary .....	33

1

2

3

4

5

6



## Sample Summary

AECOM, INC.

Job No: FC3464

N6274223F0104 RH Fire Suppression System  
Project No: 60697810

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
FC3464-1	03/14/23	12:55 OS	03/15/23	AQ	Ground Water	AF-RHMW10-WGN01LF-2303W2
FC3464-2	03/14/23	10:40 OS	03/15/23	AQ	Ground Water	AF-HDMW225303-WGN01LF-2303W2

# SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** AECOM, INC.

**Job No:** FC3464

**Site:** N6274223F0104 RH Fire Suppression System

**Report Date:** 3/21/2023 4:46:46 PM

On 03/15/2023, 2 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc - Orlando. at a maximum corrected temperature of 4.2 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. - Orlando Job Number of FC3464 was assigned to the project.

Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section. Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

## MS Semi-volatiles By Method EPA DRAFT 1633

**Matrix:** AQ

**Batch ID:** OP95927

Sample(s) FC3427-2MS, FC3427-3DUP were used as the QC samples indicated.

SGS North America Inc. - Orlando certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted. Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria. SGS North America Inc.- Orlando is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety.

Narrative prepared by:

\_\_\_\_\_  
Kim Benham, Client Services (*Signature on File*)

## Summary of Hits

**Job Number:** FC3464  
**Account:** AECOM, INC.  
**Project:** N6274223F0104 RH Fire Suppression System  
**Collected:** 03/14/23



Lab Sample ID	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
---------------	------------------	-----------------	-----	-----	-------	--------

FC3464-1      AF-RHMW10-WGN01LF-2303W2

No hits reported in this sample.

FC3464-2      AF-HDMW225303-WGN01LF-2303W2

No hits reported in this sample.

**Sample Results**

---

**Report of Analysis**

---

# Report of Analysis

Client Sample ID:	AF-RHMW10-WGN01LF-2303W2		
Lab Sample ID:	FC3464-1	Date Sampled:	03/14/23
Matrix:	AQ - Ground Water	Date Received:	03/15/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	Percent Solids:	n/a
Project:	N6274223F0104 RH Fire Suppression System		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6Q15078.D	1	03/21/23 07:34	MV	03/16/23 10:00	OP95927	S6Q228
Run #2							

Run #	Initial Volume	Final Volume
Run #1	570 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
---------	----------	--------	-----	-----	----	-------	---

**PERFLUOROALKYL CARBOXYLIC ACIDS**

375-22-4	Perfluorobutanoic acid	3.5 U	18	3.5	1.7	ng/l	
2706-90-3	Perfluoropentanoic acid	1.8 U	8.8	1.8	0.82	ng/l	
307-24-4	Perfluorohexanoic acid	0.88 U	4.4	0.88	0.44	ng/l	
375-85-9	Perfluoroheptanoic acid	0.88 U	4.4	0.88	0.44	ng/l	
335-67-1	Perfluorooctanoic acid	0.88 U	4.4	0.88	0.44	ng/l	
375-95-1	Perfluorononanoic acid	1.8 U	4.4	1.8	0.54	ng/l	
335-76-2	Perfluorodecanoic acid	0.88 U	4.4	0.88	0.44	ng/l	
2058-94-8	Perfluoroundecanoic acid	1.8 U	4.4	1.8	0.53	ng/l	
307-55-1	Perfluorododecanoic acid	1.8 U	4.4	1.8	0.53	ng/l	
72629-94-8	Perfluorotridecanoic acid	1.8 U	4.4	1.8	0.74	ng/l	
376-06-7	Perfluorotetradecanoic acid	0.88 U	4.4	0.88	0.44	ng/l	

**PERFLUOROALKYL SULFONIC ACIDS**

375-73-5	Perfluorobutanesulfonic acid	0.88 U	4.4	0.88	0.44	ng/l	
2706-91-4	Perfluoropentanesulfonic acid	3.5 U	4.4	3.5	0.98	ng/l	
355-46-4	Perfluorohexanesulfonic acid	1.8 U	4.4	1.8	0.61	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	0.88 U	4.4	0.88	0.44	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	1.8 U	4.4	1.8	0.47	ng/l	
68259-12-1	Perfluorononanesulfonic acid	1.8 U	4.4	1.8	0.50	ng/l	
335-77-3	Perfluorodecanesulfonic acid	1.8 U	4.4	1.8	0.56	ng/l	
79780-39-5	Perfluorododecanesulfonic aci	3.5 U	4.4	3.5	1.0	ng/l	

**FLUOROTELOMER SULFONIC ACIDS**

757124-72-4	4:2 Fluorotelomer sulfonate	7.0 U	18	7.0	2.8	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	7.0 U	18	7.0	3.0	ng/l	
39108-34-4	8:2 Fluorotelomer sulfonate	7.0 U	18	7.0	3.6	ng/l	

**PERFLUOROOCCTANE SULFONAMIDES**

754-91-6	PFOSA	1.8 U	4.4	1.8	0.59	ng/l	
31506-32-8	MeFOSA	1.8 U	4.4	1.8	0.88	ng/l	
4151-50-2	EtFOSA	1.8 U	4.4	1.8	0.88	ng/l	

U = Not detected      LOD = Limit of Detection      J = Indicates an estimated value  
 LOQ = Limit of Quantitation      DL = Detection Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.1  
4

# Report of Analysis

Client Sample ID:	AF-RHMW10-WGN01LF-2303W2	
Lab Sample ID:	FC3464-1	Date Sampled: 03/14/23
Matrix:	AQ - Ground Water	Date Received: 03/15/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	Percent Solids: n/a
Project:	N6274223F0104 RH Fire Suppression System	

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
---------	----------	--------	-----	-----	----	-------	---

**PERFLUOROOCCTANE SULFONAMIDOACETIC ACIDS**

2355-31-9	MeFOSAA	3.5 U	4.4	3.5	0.88	ng/l	
2991-50-6	EtFOSAA	3.5 U	4.4	3.5	1.2	ng/l	

**PERFLUOROOCCTANE SULFONAMIDO ETHANOLS**

24448-09-7	MeFOSE	8.8 U	44	8.8	3.8	ng/l	
1691-99-2	EtFOSE	18 U	44	18	6.5	ng/l	

**PER and POLYFLUOROETHER CARBOXYLIC ACIDS**

13252-13-6	HFPO-DA (GenX)	3.5 U	18	3.5	0.88	ng/l	
919005-14-4	ADONA	3.5 U	18	3.5	1.6	ng/l	
377-73-1	PFMPA	1.8 U	8.8	1.8	0.88	ng/l	
863090-89-5	PFMBA	3.5 U	8.8	3.5	1.0	ng/l	
151772-58-6	NFDHA	3.5 U	8.8	3.5	1.1	ng/l	

**PER and POLYFLUOROETHER SULFONIC ACIDS**

756426-58-1	9Cl-PF3ONS (F-53B Major)	3.5 U	18	3.5	1.2	ng/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	3.5 U	18	3.5	1.5	ng/l	
113507-82-7	PFEESA	1.8 U	8.8	1.8	0.68	ng/l	

**FLUOROTELOMER CARBOXYLIC ACIDS**

356-02-5	3:3 Fluorotelomer carboxylate	8.8 U	22	8.8	4.0	ng/l	
914637-49-3	5:3 Fluorotelomer carboxylate	18 U	110	18	7.7	ng/l	
812-70-4	7:3 Fluorotelomer carboxylate	18 U	110	18	6.9	ng/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
---------	------------------------	--------	--------	--------

	13C4-PFBA	104%		20-150%
	13C5-PFPeA	101%		20-150%
	13C5-PFHxA	100%		20-150%
	13C4-PFHpA	101%		20-150%
	13C8-PFOA	101%		20-150%
	13C9-PFNA	97%		20-150%
	13C6-PFDA	98%		20-150%
	13C7-PFUnDA	96%		20-150%
	13C2-PFDoDA	98%		20-150%
	13C2-PFTeDA	90%		20-150%
	13C3-PFBS	101%		20-150%
	13C3-PFHxS	111%		20-150%

U = Not detected      LOD = Limit of Detection      J = Indicates an estimated value  
 LOQ = Limit of Quantitation      DL = Detection Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	AF-RHMW10-WGN01LF-2303W2	
<b>Lab Sample ID:</b>	FC3464-1	<b>Date Sampled:</b> 03/14/23
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b> 03/15/23
<b>Method:</b>	EPA DRAFT 1633 EPA 1633 DRAFT	<b>Percent Solids:</b> n/a
<b>Project:</b>	N6274223F0104 RH Fire Suppression System	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	94%		20-150%
	13C8-FOSA	95%		20-150%
	d3-MeFOSA	84%		20-150%
	d5-EtFOSA	81%		20-150%
	d3-MeFOSAA	99%		20-150%
	d5-EtFOSAA	92%		20-150%
	d7-MeFOSE	95%		20-150%
	d9-EtFOSE	93%		20-150%
	13C2-4:2FTS	116%		20-150%
	13C2-6:2FTS	121%		20-150%
	13C2-8:2FTS	98%		20-150%
	13C3-HFPO-DA	99%		20-150%

U = Not detected      LOD = Limit of Detection      J = Indicates an estimated value  
 LOQ = Limit of Quantitation      DL = Detection Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

# Report of Analysis

Client Sample ID:	AF-HDMW225303-WGN01LF-2303W2		
Lab Sample ID:	FC3464-2	Date Sampled:	03/14/23
Matrix:	AQ - Ground Water	Date Received:	03/15/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	Percent Solids:	n/a
Project:	N6274223F0104 RH Fire Suppression System		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6Q15079.D	1	03/21/23 07:48	MV	03/16/23 10:00	OP95927	S6Q228
Run #2							

Run #	Initial Volume	Final Volume
Run #1	570 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
---------	----------	--------	-----	-----	----	-------	---

**PERFLUOROALKYL CARBOXYLIC ACIDS**

375-22-4	Perfluorobutanoic acid	3.5 U	18	3.5	1.7	ng/l	
2706-90-3	Perfluoropentanoic acid	1.8 U	8.8	1.8	0.82	ng/l	
307-24-4	Perfluorohexanoic acid	0.88 U	4.4	0.88	0.44	ng/l	
375-85-9	Perfluoroheptanoic acid	0.88 U	4.4	0.88	0.44	ng/l	
335-67-1	Perfluorooctanoic acid	0.88 U	4.4	0.88	0.44	ng/l	
375-95-1	Perfluorononanoic acid	1.8 U	4.4	1.8	0.54	ng/l	
335-76-2	Perfluorodecanoic acid	0.88 U	4.4	0.88	0.44	ng/l	
2058-94-8	Perfluoroundecanoic acid	1.8 U	4.4	1.8	0.53	ng/l	
307-55-1	Perfluorododecanoic acid	1.8 U	4.4	1.8	0.53	ng/l	
72629-94-8	Perfluorotridecanoic acid	1.8 U	4.4	1.8	0.74	ng/l	
376-06-7	Perfluorotetradecanoic acid	0.88 U	4.4	0.88	0.44	ng/l	

**PERFLUOROALKYL SULFONIC ACIDS**

375-73-5	Perfluorobutanesulfonic acid	0.88 U	4.4	0.88	0.44	ng/l	
2706-91-4	Perfluoropentanesulfonic acid	3.5 U	4.4	3.5	0.98	ng/l	
355-46-4	Perfluorohexanesulfonic acid	1.8 U	4.4	1.8	0.61	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	0.88 U	4.4	0.88	0.44	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	1.8 U	4.4	1.8	0.47	ng/l	
68259-12-1	Perfluorononanesulfonic acid	1.8 U	4.4	1.8	0.50	ng/l	
335-77-3	Perfluorodecanesulfonic acid	1.8 U	4.4	1.8	0.56	ng/l	
79780-39-5	Perfluorododecanesulfonic aci	3.5 U	4.4	3.5	1.0	ng/l	

**FLUOROTELOMER SULFONIC ACIDS**

757124-72-4	4:2 Fluorotelomer sulfonate	7.0 U	18	7.0	2.8	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	7.0 U	18	7.0	3.0	ng/l	
39108-34-4	8:2 Fluorotelomer sulfonate	7.0 U	18	7.0	3.6	ng/l	

**PERFLUOROOCCTANE SULFONAMIDES**

754-91-6	PFOSA	1.8 U	4.4	1.8	0.59	ng/l	
31506-32-8	MeFOSA	1.8 U	4.4	1.8	0.88	ng/l	
4151-50-2	EtFOSA	1.8 U	4.4	1.8	0.88	ng/l	

U = Not detected      LOD = Limit of Detection      J = Indicates an estimated value  
 LOQ = Limit of Quantitation      DL = Detection Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

# Report of Analysis

Client Sample ID:	AF-HDMW225303-WGN01LF-2303W2		Date Sampled:	03/14/23
Lab Sample ID:	FC3464-2		Date Received:	03/15/23
Matrix:	AQ - Ground Water		Percent Solids:	n/a
Method:	EPA DRAFT 1633 EPA 1633 DRAFT			
Project:	N6274223F0104 RH Fire Suppression System			

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
---------	----------	--------	-----	-----	----	-------	---

**PERFLUOROOCCTANE SULFONAMIDOACETIC ACIDS**

2355-31-9	MeFOSAA	3.5 U	4.4	3.5	0.88	ng/l	
2991-50-6	EtFOSAA	3.5 U	4.4	3.5	1.2	ng/l	

**PERFLUOROOCCTANE SULFONAMIDO ETHANOLS**

24448-09-7	MeFOSE	8.8 U	44	8.8	3.8	ng/l	
1691-99-2	EtFOSE	18 U	44	18	6.5	ng/l	

**PER and POLYFLUOROETHER CARBOXYLIC ACIDS**

13252-13-6	HFPO-DA (GenX)	3.5 U	18	3.5	0.88	ng/l	
919005-14-4	ADONA	3.5 U	18	3.5	1.6	ng/l	
377-73-1	PFMPA	1.8 U	8.8	1.8	0.88	ng/l	
863090-89-5	PFMBA	3.5 U	8.8	3.5	1.0	ng/l	
151772-58-6	NFDHA	3.5 U	8.8	3.5	1.1	ng/l	

**PER and POLYFLUOROETHER SULFONIC ACIDS**

756426-58-1	9Cl-PF3ONS (F-53B Major)	3.5 U	18	3.5	1.2	ng/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	3.5 U	18	3.5	1.5	ng/l	
113507-82-7	PFEESA	1.8 U	8.8	1.8	0.68	ng/l	

**FLUOROTELOMER CARBOXYLIC ACIDS**

356-02-5	3:3 Fluorotelomer carboxylate	8.8 U	22	8.8	4.0	ng/l	
914637-49-3	5:3 Fluorotelomer carboxylate	18 U	110	18	7.7	ng/l	
812-70-4	7:3 Fluorotelomer carboxylate	18 U	110	18	6.9	ng/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
---------	------------------------	--------	--------	--------

	13C4-PFBA	108%		20-150%
	13C5-PFPeA	104%		20-150%
	13C5-PFHxA	100%		20-150%
	13C4-PFHpA	105%		20-150%
	13C8-PFOA	103%		20-150%
	13C9-PFNA	112%		20-150%
	13C6-PFDA	104%		20-150%
	13C7-PFUnDA	109%		20-150%
	13C2-PFDoDA	97%		20-150%
	13C2-PFTeDA	89%		20-150%
	13C3-PFBS	110%		20-150%
	13C3-PFHxS	113%		20-150%

U = Not detected      LOD = Limit of Detection      J = Indicates an estimated value  
 LOQ = Limit of Quantitation      DL = Detection Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	AF-HDMW225303-WGN01LF-2303W2	
<b>Lab Sample ID:</b>	FC3464-2	<b>Date Sampled:</b> 03/14/23
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b> 03/15/23
<b>Method:</b>	EPA DRAFT 1633 EPA 1633 DRAFT	<b>Percent Solids:</b> n/a
<b>Project:</b>	N6274223F0104 RH Fire Suppression System	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	119%		20-150%
	13C8-FOSA	103%		20-150%
	d3-MeFOSA	87%		20-150%
	d5-EtFOSA	90%		20-150%
	d3-MeFOSAA	101%		20-150%
	d5-EtFOSAA	104%		20-150%
	d7-MeFOSE	111%		20-150%
	d9-EtFOSE	105%		20-150%
	13C2-4:2FTS	115%		20-150%
	13C2-6:2FTS	123%		20-150%
	13C2-8:2FTS	111%		20-150%
	13C3-HFPO-DA	101%		20-150%

U = Not detected      LOD = Limit of Detection      J = Indicates an estimated value  
 LOQ = Limit of Quantitation      DL = Detection Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

**Misc. Forms**

**Custody Documents and Other Forms**

---

**Includes the following where applicable:**

- Chain of Custody
- QC Evaluation: DOD QSM5.x Limits



SGS North America Inc - Orlando  
Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, FL 32811  
TEL: 407-425-6700 FAX: 407-425-0707  
www.sgs.com

**FC3464**  
SGS - ORLANDO JOB # :

COC #: 2303W2AFSG03  
PAGE 1 OF 1

Client / Reporting Information		Project Information		SGS - ORLANDO Quote #		SKIFF #											
Company Name: AECOM		Project Name: N6274223F0104 RH Fire Suppression System															
Address: 1001 Bishop St. ste 1600		Street															
City: Honolulu	State: HI	Zip: 96813	City: Honolulu	State: Hawaii													
Project Contact: Katie Abbott Email: katie.abbott@aecom.com		Project # 60697810															
Project Manager: Watson Tanji Email: watson.tanji@aecom.com		Fax #															
Phone #: 303-796-4624 / 808-954-4512		Client Purchase Order #															
Sampler(s) Name(s) (Printed) Sampler 1: <i>Olivia Shively</i>																	
Sampler 2: <i>Miranda Nagano</i>																	
SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION			CONTAINER INFORMATION							PFAS EPA Draft: 1633	LAB USE ONLY				
		DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NH3	PHOS			PHOS4	NH4H-ZNAC	DI WATER	MEDIA
1	AF-RHMW10-WGN01LF-2303W2	3/14/23	12:55	OS.MO	GW	3		X									
<p>INITIAL ASSESSMENT: <i>[Signature]</i></p> <p>LABEL VERIFICATION: <i>[Signature]</i> 3/14/23</p>																	
Turnaround Time ( Business days)				Data Deliverable Information				Comments / Remarks									
10 Day (Business)		Approved By: / Date:		<input type="checkbox"/> COMMERCIAL "A" (RESULTS ONLY) <input type="checkbox"/> COMMERCIAL "B" (RESULTS PLUS QC) <input type="checkbox"/> REDT1 (EPA LEVEL 3) <input checked="" type="checkbox"/> FULLT1 (EPA LEVEL 4) <input checked="" type="checkbox"/> EDD'S				EDMS upload database: JBPHE EDMS Coverage: AFFF Assessment Sampling GW United AWB 016-27497923									
7 Day																	
5 Day																	
3 Day RUSH																	
2 Day RUSH																	
1 Day RUSH																	
Other																	
Rush T/A Data Available VIA Email or Lablink																	
Sample Custody must be documented below each time samples change possession, including courier delivery.																	
Relinquished by Sampler/Affiliation		Date Time:		Received By/Affiliation		Date Time:		Relinquished By/Affiliation		Date Time:		Received By/Affiliation		Date Time:		Received By/Affiliation	
1 <i>Olivia Shively/AECOM</i>		3/14/23		2 <i>[Signature] AECOM</i>		3/14/23		3 <i>[Signature] AECOM</i>		3/14/23		4 <i>[Signature] AECOM</i>		3/14/23		5 <i>[Signature] AECOM</i>	
5		3/15/23		6				7				8					
Lab Use Only: Cooler Temperature (s) Celsius (corrected): 4.0 <i>IRI</i>																	
<a href="http://www.sgs.com/en/terms-and-conditions">http://www.sgs.com/en/terms-and-conditions</a>																	

PFAS\_COCs\_ALL.xls Rev 031318

FC3464: Chain of Custody

Page 1 of 3





SGS North America Inc - Orlando  
Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, FL 32811  
TEL: 407-425-6700 FAX: 407-425-0707  
www.sgs.com

FC3464  
SGS - ORLANDO JOB #:

COC #: 2303W2AFSG04  
PAGE 1 OF 1

Client / Reporting Information		Project Information		Analytical Information												Matrix Codes	
Company Name: AECOM		Project Name: N6274223F0104 RH Fire Suppression System		<div style="text-align: center;"> </div>												DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge OL - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe	
Address: 1001 Bishop St. ste 1600		Street															
City: Honolulu State: HI Zip: 96813		City: Honolulu State: Hawaii															
Project Contact: Katie Abbott Email: katie.abbott@aecom.com		Project # 60697810															
Project Manager: Watson Tanji Email: watson.tanji@aecom.com		Fax #															
Phone #: 303-796-4624 / 808-954-4512		Client Purchase Order #		PFAS EPA Draft 1633												LAB USE ONLY	
Sampler(s) Name(s) (Printed) Sampler 1: Olivia Shirey Sampler 2: Miranda Dequino																	
SGS Orlando Sample #	Field ID / Point of Collection	DATE	TIME	SAMPLED BY	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH-ZnAc	DI WATER	MESH		
2	AF-HDMW225303-WGN01LF-2303W2	3/14/23	1040	OS.MD	GW	3			X								
Turnaround Time (Business days)		Data Deliverable Information				Comments / Remarks											
10 Day (Business) Approved By: / Date: 7 Day <input checked="" type="checkbox"/> 5 Day 3 Day RUSH 2 Day RUSH 1 Day RUSH Other		<input type="checkbox"/> COMMERCIAL "A" (RESULTS ONLY) <input type="checkbox"/> COMMERCIAL "B" (RESULTS PLUS QC) <input type="checkbox"/> REDT1 (EPA LEVEL 3) <input checked="" type="checkbox"/> FULLT1 (EPA LEVEL 4) <input checked="" type="checkbox"/> EDD'S				EDMS upload database: JBPHE EDMS Coverage: AFFF Assessment Sampling GW United AWR-016-27497923											
Rush T/A Data Available VIA Email or Lablink																	
Sample Custody must be documented below each time samples change possession, including courier delivery.																	
Relinquished by Sampler/Affiliation		Date Time:		Received By/Affiliation		Relinquished By/Affiliation		Date Time:		Received By/Affiliation		Relinquished By/Affiliation		Date Time:		Received By/Affiliation	
1 Olivia Shirey/AECOM		3/14/23 1508		2 I Can You AECOM		3 I Can You AECOM		3/14/23 1410		4 [Signature]		5 [Signature]		6 [Signature]		7 [Signature]	
5		3/15/23		6		7		8		9		10		11		12	
Lab Use Only: Cooler Temperature (s) Celsius (corrected):																	
<a href="http://www.sgs.com/en/terms-and-conditions">http://www.sgs.com/en/terms-and-conditions</a>																	

PFAS\_COCs\_ALL.xls Rev 031318

FC3464: Chain of Custody

Page 2 of 3



## SGS Sample Receipt Summary

Job Number: FC3464

Client: AECOM

Project: N6274223F0104 RH Fire Suppression System

Date / Time Received: 3/15/2023 3:00:00 PM

Delivery Method: United Cargo/Airspace

Airbill #'s: United Cargo AWB #: 016-27497923

Therm ID: IR 1;

Therm CF: 0.2;

# of Coolers: 1

Cooler Temps (Raw Measured) °C: Cooler 1: (4.0);

Cooler Temps (Corrected) °C: Cooler 1: (4.2);

**Cooler Information**

Y or N

- 1. Custody Seals Present
- 2. Custody Seals Intact
- 3. Temp criteria achieved
- 4. Cooler temp verification IR Gun
- 5. Cooler media Ice (Bag)

**Trip Blank Information**

Y or N N/A

- 1. Trip Blank present / cooler
  - 2. Trip Blank listed on COC
- W or S N/A
- 3. Type Of TB Received

**Sample Information**

Y or N N/A

- 1. Sample labels present on bottles
- 2. Samples preserved properly
- 3. Sufficient volume/containers recvd for analysis:
- 4. Condition of sample Intact
- 5. Sample recvd within HT
- 6. Dates/Times/IDs on COC match Sample Label
- 7. VOCs have headspace
- 8. Bottles received for unspecified tests
- 9. Compositing instructions clear
- 10. Voa Soil Kits/Jars received past 48hrs?
- 11. % Solids Jar received?
- 12. Residual Chlorine Present?

**Misc. Information**

Number of Encores: 25-Gram \_\_\_\_\_ 5-Gram \_\_\_\_\_  
 Test Strip Lot #s: pH 0-3 230315  
 Residual Chlorine Test Strip Lot #: \_\_\_\_\_

Number of 5035 Field Kits: \_\_\_\_\_  
 pH 10-12 219813A

Number of Lab Filtered Metals: \_\_\_\_\_  
 Other: (Specify) \_\_\_\_\_

Comments

SM001  
Rev. Date 05/24/17

Technician: CARLOSD

Date: 3/15/2023 3:00:00 PM

Reviewer: CD

Date: 3/18/2023

FC3464: Chain of Custody

Page 3 of 3



# QC Evaluation: DOD QSM5.x Limits

**Job Number:** FC3464  
**Account:** AECOM, INC.  
**Project:** N6274223F0104 RH Fire Suppression System  
**Collected:** 03/14/23

QC Sample ID	CAS#	Analyte	Sample Result Type	Result Type	Units	Limits
--------------	------	---------	--------------------	-------------	-------	--------

No DOD QSM5.x Limits found for methods in this job.

---

\* Sample used for QC is not from job FC3464

5.2  
5

## MS Semi-volatiles

### QC Data Summaries

---

**Includes the following where applicable:**

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

# Instrument Blank

Job Number: FC3464  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q228-IBLK	6Q15016.D	1	03/20/23	MV	n/a	n/a	S6Q228

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3464-1, FC3464-2

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.020	0.0019	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.010	0.00094	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0050	0.00050	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0050	0.00050	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0050	0.00050	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0050	0.00061	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0050	0.00050	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0050	0.00060	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0050	0.00060	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0050	0.00084	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0050	0.00050	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0050	0.00050	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0050	0.0011	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0050	0.00070	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0050	0.00050	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0050	0.00054	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0050	0.00057	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0050	0.00064	ug/l	
79780-39-5	Perfluorododecanesulfonic aci	ND	0.0050	0.0011	ug/l	
757124-72-44:2	Fluorotelomer sulfonate	ND	0.020	0.0032	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.020	0.0035	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.020	0.0041	ug/l	
754-91-6	PFOSA	ND	0.0050	0.00067	ug/l	
31506-32-8	MeFOSA	ND	0.0050	0.0010	ug/l	
4151-50-2	EtFOSA	ND	0.0050	0.0010	ug/l	
2355-31-9	MeFOSAA	ND	0.0050	0.0010	ug/l	
2991-50-6	EtFOSAA	ND	0.0050	0.0013	ug/l	
24448-09-7	MeFOSE	ND	0.050	0.0044	ug/l	
1691-99-2	EtFOSE	ND	0.050	0.0074	ug/l	
13252-13-6	HFPO-DA (GenX)	ND	0.020	0.0010	ug/l	
919005-14-4	ADONA	ND	0.020	0.0019	ug/l	
377-73-1	PFMPA	ND	0.010	0.0010	ug/l	
863090-89-5	PFMBA	ND	0.010	0.0011	ug/l	
151772-58-6	NFDHA	ND	0.010	0.0012	ug/l	
756426-58-19	Cl-PF3ONS (F-53B Major)	ND	0.020	0.0014	ug/l	
763051-92-91	Cl-PF3OUdS (F-53B Minor)	ND	0.020	0.0018	ug/l	

# Instrument Blank

Job Number: FC3464  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q228-IBLK	6Q15016.D	1	03/20/23	MV	n/a	n/a	S6Q228

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3464-1, FC3464-2

CAS No.	Compound	Result	RL	MDL	Units	Q
113507-82-7	PFEESA	ND	0.010	0.00078	ug/l	
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.025	0.0045	ug/l	
914637-49-35:3	Fluorotelomer carboxylate	ND	0.13	0.0087	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.13	0.0079	ug/l	

CAS No.	ID Standard Recoveries	Limits
	13C4-PFBA	100%
	13C5-PFPeA	97%
	13C5-PFHxA	95%
	13C4-PFHpA	96%
	13C8-PFOA	99%
	13C9-PFNA	104%
	13C6-PFDA	117%
	13C7-PFUnDA	119%
	13C2-PFDoDA	112%
	13C2-PFTeDA	118%
	13C3-PFBS	104%
	13C3-PFHxS	102%
	13C8-PFOS	98%
	13C8-FOSA	111%
	d3-MeFOSA	106%
	d5-EtFOSA	114%
	d3-MeFOSAA	91%
	d5-EtFOSAA	95%
	d7-MeFOSE	118%
	d9-EtFOSE	120%
	13C2-4:2FTS	103%
	13C2-6:2FTS	97%
	13C2-8:2FTS	96%
	13C3-HFPO-DA	92%

6.1.1  
6

# Continuing Calibration Blank

Job Number: FC3464  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q228-ICCB	6Q15077.D	1	03/21/23	MV	n/a	n/a	S6Q228

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3464-1, FC3464-2

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.020	0.0019	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.010	0.00094	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0050	0.00050	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0050	0.00050	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0050	0.00050	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0050	0.00061	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0050	0.00050	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0050	0.00060	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0050	0.00060	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0050	0.00084	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0050	0.00050	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0050	0.00050	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0050	0.0011	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0050	0.00070	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0050	0.00050	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0050	0.00054	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0050	0.00057	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0050	0.00064	ug/l	
79780-39-5	Perfluorododecanesulfonic aci	ND	0.0050	0.0011	ug/l	
757124-72-44:2	Fluorotelomer sulfonate	ND	0.020	0.0032	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.020	0.0035	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.020	0.0041	ug/l	
754-91-6	PFOSA	ND	0.0050	0.00067	ug/l	
31506-32-8	MeFOSA	ND	0.0050	0.0010	ug/l	
4151-50-2	EtFOSA	ND	0.0050	0.0010	ug/l	
2355-31-9	MeFOSAA	ND	0.0050	0.0010	ug/l	
2991-50-6	EtFOSAA	ND	0.0050	0.0013	ug/l	
24448-09-7	MeFOSE	ND	0.050	0.0044	ug/l	
1691-99-2	EtFOSE	ND	0.050	0.0074	ug/l	
13252-13-6	HFPO-DA (GenX)	ND	0.020	0.0010	ug/l	
919005-14-4	ADONA	ND	0.020	0.0019	ug/l	
377-73-1	PFMPA	ND	0.010	0.0010	ug/l	
863090-89-5	PFMBA	ND	0.010	0.0011	ug/l	
151772-58-6	NFDHA	ND	0.010	0.0012	ug/l	
756426-58-19	Cl-PF3ONS (F-53B Major)	ND	0.020	0.0014	ug/l	
763051-92-91	Cl-PF3OUdS (F-53B Minor)	ND	0.020	0.0018	ug/l	

# Continuing Calibration Blank

Job Number: FC3464  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q228-ICCB	6Q15077.D	1	03/21/23	MV	n/a	n/a	S6Q228

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3464-1, FC3464-2

CAS No.	Compound	Result	RL	MDL	Units	Q
113507-82-7	PFEESA	ND	0.010	0.00078	ug/l	
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.025	0.0045	ug/l	
914637-49-35:3	Fluorotelomer carboxylate	ND	0.13	0.0087	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.13	0.0079	ug/l	

CAS No.	ID Standard Recoveries	Limits
	13C4-PFBA	100% 20-150%
	13C5-PFPeA	103% 20-150%
	13C5-PFHxA	105% 20-150%
	13C4-PFHpA	103% 20-150%
	13C8-PFOA	101% 20-150%
	13C9-PFNA	92% 20-150%
	13C6-PFDA	101% 20-150%
	13C7-PFUnDA	102% 20-150%
	13C2-PFDoDA	109% 20-150%
	13C2-PFTeDA	104% 20-150%
	13C3-PFBS	101% 20-150%
	13C3-PFHxS	104% 20-150%
	13C8-PFOS	106% 20-150%
	13C8-FOSA	105% 20-150%
	d3-MeFOSA	102% 20-150%
	d5-EtFOSA	99% 20-150%
	d3-MeFOSAA	99% 20-150%
	d5-EtFOSAA	102% 20-150%
	d7-MeFOSE	108% 20-150%
	d9-EtFOSE	105% 20-150%
	13C2-4:2FTS	115% 20-150%
	13C2-6:2FTS	111% 20-150%
	13C2-8:2FTS	103% 20-150%
	13C3-HFPO-DA	100% 20-150%

# Method Blank Summary

Job Number: FC3464  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP95927-MB	6Q15068.D	1	03/21/23	MV	03/16/23	OP95927	S6Q228

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3464-1, FC3464-2

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.020	0.0019	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.010	0.00094	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0050	0.00050	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0050	0.00050	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0050	0.00050	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0050	0.00061	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0050	0.00050	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0050	0.00060	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0050	0.00060	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0050	0.00084	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0050	0.00050	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0050	0.00050	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0050	0.0011	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0050	0.00070	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0050	0.00050	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0050	0.00054	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0050	0.00057	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0050	0.00064	ug/l	
79780-39-5	Perfluorododecanesulfonic aci	ND	0.0050	0.0011	ug/l	
757124-72-44:2	Fluorotelomer sulfonate	ND	0.020	0.0032	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.020	0.0035	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.020	0.0041	ug/l	
754-91-6	PFOSA	ND	0.0050	0.00067	ug/l	
31506-32-8	MeFOSA	ND	0.0050	0.0010	ug/l	
4151-50-2	EtFOSA	ND	0.0050	0.0010	ug/l	
2355-31-9	MeFOSAA	ND	0.0050	0.0010	ug/l	
2991-50-6	EtFOSAA	ND	0.0050	0.0013	ug/l	
24448-09-7	MeFOSE	ND	0.050	0.0044	ug/l	
1691-99-2	EtFOSE	ND	0.050	0.0074	ug/l	
13252-13-6	HFPO-DA (GenX)	ND	0.020	0.0010	ug/l	
919005-14-4	ADONA	ND	0.020	0.0019	ug/l	
377-73-1	PFMPA	ND	0.010	0.0010	ug/l	
863090-89-5	PFMBA	ND	0.010	0.0011	ug/l	
151772-58-6	NFDHA	ND	0.010	0.0012	ug/l	
756426-58-19	Cl-PF3ONS (F-53B Major)	ND	0.020	0.0014	ug/l	
763051-92-91	Cl-PF3OUdS (F-53B Minor)	ND	0.020	0.0018	ug/l	

# Method Blank Summary

Job Number: FC3464  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP95927-MB	6Q15068.D	1	03/21/23	MV	03/16/23	OP95927	S6Q228

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3464-1, FC3464-2

CAS No.	Compound	Result	RL	MDL	Units	Q
113507-82-7	PFEESA	ND	0.010	0.00078	ug/l	
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.025	0.0045	ug/l	
914637-49-35:3	Fluorotelomer carboxylate	ND	0.13	0.0087	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.13	0.0079	ug/l	

CAS No.	ID Standard Recoveries	Limits
	13C4-PFBA	109% 20-150%
	13C5-PFPeA	108% 20-150%
	13C5-PFHxA	105% 20-150%
	13C4-PFHpA	107% 20-150%
	13C8-PFOA	106% 20-150%
	13C9-PFNA	105% 20-150%
	13C6-PFDA	96% 20-150%
	13C7-PFUnDA	88% 20-150%
	13C2-PFDoDA	73% 20-150%
	13C2-PFTeDA	77% 20-150%
	13C3-PFBS	110% 20-150%
	13C3-PFHxS	108% 20-150%
	13C8-PFOS	93% 20-150%
	13C8-FOSA	93% 20-150%
	d3-MeFOSA	74% 20-150%
	d5-EtFOSA	73% 20-150%
	d3-MeFOSAA	85% 20-150%
	d5-EtFOSAA	78% 20-150%
	d7-MeFOSE	87% 20-150%
	d9-EtFOSE	89% 20-150%
	13C2-4:2FTS	121% 20-150%
	13C2-6:2FTS	125% 20-150%
	13C2-8:2FTS	106% 20-150%
	13C3-HFPO-DA	104% 20-150%



# Continuing Calibration Blank

Job Number: FC3464  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q228-ICCB	6Q15065.D	1	03/21/23	MV	n/a	n/a	S6Q228

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

OP95927-BS, OP95927-LLBS, OP95927-DUP, OP95927-MB, OP95927-MS

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.020	0.0019	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.010	0.00094	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0050	0.00050	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0050	0.00050	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0050	0.00050	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0050	0.00061	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0050	0.00050	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0050	0.00060	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0050	0.00060	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0050	0.00084	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0050	0.00050	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0050	0.00050	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0050	0.0011	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0050	0.00070	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0050	0.00050	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0050	0.00054	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0050	0.00057	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0050	0.00064	ug/l	
79780-39-5	Perfluorododecanesulfonic aci	ND	0.0050	0.0011	ug/l	
757124-72-44:2	Fluorotelomer sulfonate	ND	0.020	0.0032	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.020	0.0035	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.020	0.0041	ug/l	
754-91-6	PFOSA	ND	0.0050	0.00067	ug/l	
31506-32-8	MeFOSA	ND	0.0050	0.0010	ug/l	
4151-50-2	EtFOSA	ND	0.0050	0.0010	ug/l	
2355-31-9	MeFOSAA	ND	0.0050	0.0010	ug/l	
2991-50-6	EtFOSAA	ND	0.0050	0.0013	ug/l	
24448-09-7	MeFOSE	ND	0.050	0.0044	ug/l	
1691-99-2	EtFOSE	ND	0.050	0.0074	ug/l	
13252-13-6	HFPO-DA (GenX)	ND	0.020	0.0010	ug/l	
919005-14-4	ADONA	ND	0.020	0.0019	ug/l	
377-73-1	PFMPA	ND	0.010	0.0010	ug/l	
863090-89-5	PFMBA	ND	0.010	0.0011	ug/l	
151772-58-6	NFDHA	ND	0.010	0.0012	ug/l	
756426-58-19	Cl-PF3ONS (F-53B Major)	ND	0.020	0.0014	ug/l	
763051-92-91	Cl-PF3OUdS (F-53B Minor)	ND	0.020	0.0018	ug/l	

# Continuing Calibration Blank

Job Number: FC3464  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q228-ICCB	6Q15065.D	1	03/21/23	MV	n/a	n/a	S6Q228

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

OP95927-BS, OP95927-LLBS, OP95927-DUP, OP95927-MB, OP95927-MS

CAS No.	Compound	Result	RL	MDL	Units	Q
113507-82-7	PFEESA	ND	0.010	0.00078	ug/l	
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.025	0.0045	ug/l	
914637-49-35:3	Fluorotelomer carboxylate	ND	0.13	0.0087	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.13	0.0079	ug/l	

CAS No.	ID Standard Recoveries	Limits	
	13C4-PFBA	100%	20-150%
	13C5-PFPeA	98%	20-150%
	13C5-PFHxA	97%	20-150%
	13C4-PFHpA	99%	20-150%
	13C8-PFOA	100%	20-150%
	13C9-PFNA	92%	20-150%
	13C6-PFDA	102%	20-150%
	13C7-PFUnDA	108%	20-150%
	13C2-PFDoDA	109%	20-150%
	13C2-PFTeDA	108%	20-150%
	13C3-PFBS	101%	20-150%
	13C3-PFHxS	93%	20-150%
	13C8-PFOS	96%	20-150%
	13C8-FOSA	100%	20-150%
	d3-MeFOSA	97%	20-150%
	d5-EtFOSA	97%	20-150%
	d3-MeFOSAA	100%	20-150%
	d5-EtFOSAA	98%	20-150%
	d7-MeFOSE	105%	20-150%
	d9-EtFOSE	105%	20-150%
	13C2-4:2FTS	109%	20-150%
	13C2-6:2FTS	111%	20-150%
	13C2-8:2FTS	101%	20-150%
	13C3-HFPO-DA	95%	20-150%

# Blank Spike Summary

Job Number: FC3464  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP95927-LLBS	6Q15067.D	1	03/21/23	MV	03/16/23	OP95927	S6Q228

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3464-1, FC3464-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
375-22-4	Perfluorobutanoic acid	0.04	0.0336	84	40-150
2706-90-3	Perfluoropentanoic acid	0.02	0.0168	84	40-150
307-24-4	Perfluorohexanoic acid	0.01	0.0089	89	40-150
375-85-9	Perfluoroheptanoic acid	0.01	0.0089	89	40-150
335-67-1	Perfluorooctanoic acid	0.01	0.0087	87	40-150
375-95-1	Perfluorononanoic acid	0.01	0.0088	88	40-150
335-76-2	Perfluorodecanoic acid	0.01	0.0095	95	40-150
2058-94-8	Perfluoroundecanoic acid	0.01	0.0076	76	40-150
307-55-1	Perfluorododecanoic acid	0.01	0.0079	79	40-150
72629-94-8	Perfluorotridecanoic acid	0.01	0.0078	78	40-150
376-06-7	Perfluorotetradecanoic acid	0.01	0.0087	87	40-150
375-73-5	Perfluorobutanesulfonic acid	0.00887	0.0073	82	40-150
2706-91-4	Perfluoropentanesulfonic acid	0.00941	0.0080	85	40-150
355-46-4	Perfluorohexanesulfonic acid	0.00914	0.0079	86	40-150
375-92-8	Perfluoroheptanesulfonic acid	0.00953	0.0085	89	40-150
1763-23-1	Perfluorooctanesulfonic acid	0.00928	0.0081	87	40-150
68259-12-1	Perfluorononanesulfonic acid	0.00962	0.0084	87	40-150
335-77-3	Perfluorodecanesulfonic acid	0.00965	0.0082	85	40-150
79780-39-5	Perfluorododecanesulfonic aci	0.0097	0.0075	77	40-150
757124-72-44:2	Fluorotelomer sulfonate	0.0375	0.0321	86	40-150
27619-97-2	6:2 Fluorotelomer sulfonate	0.038	0.0323	85	40-150
39108-34-4	8:2 Fluorotelomer sulfonate	0.0384	0.0426	111	40-150
754-91-6	PFOSA	0.01	0.0091	91	40-150
31506-32-8	MeFOSA	0.01	0.0082	82	40-150
4151-50-2	EtFOSA	0.01	0.0085	85	40-150
2355-31-9	MeFOSAA	0.01	0.0092	92	40-150
2991-50-6	EtFOSAA	0.01	0.0086	86	40-150
24448-09-7	MeFOSE	0.1	0.0842	84	40-150
1691-99-2	EtFOSE	0.1	0.0848	85	40-150
13252-13-6	HFPO-DA (GenX)	0.04	0.0343	86	40-150
919005-14-4	ADONA	0.0378	0.0337	89	40-150
377-73-1	PFMPA	0.02	0.0176	88	40-150
863090-89-5	PFMBA	0.02	0.0173	87	40-150
151772-58-6	NFDHA	0.02	0.0166	83	40-150
756426-58-19	Cl-PF3ONS (F-53B Major)	0.0374	0.0312	83	40-150
763051-92-91	Cl-PF3OUdS (F-53B Minor)	0.0378	0.0316	84	40-150

\* = Outside of Control Limits.

# Blank Spike Summary

Job Number: FC3464  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP95927-LLBS	6Q15067.D	1	03/21/23	MV	03/16/23	OP95927	S6Q228

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3464-1, FC3464-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
113507-82-7	PFEESA	0.0178	0.0144	81	40-150
356-02-5	3:3 Fluorotelomer carboxylate	0.05	0.0391	78	40-150
914637-49-35:3	Fluorotelomer carboxylate	0.25	0.224	90	40-150
812-70-4	7:3 Fluorotelomer carboxylate	0.25	0.226	90	40-150

CAS No.	ID Standard Recoveries	BSP	Limits
	13C4-PFBA	113%	20-150%
	13C5-PFPeA	114%	20-150%
	13C5-PFHxA	113%	20-150%
	13C4-PFHpA	111%	20-150%
	13C8-PFOA	109%	20-150%
	13C9-PFNA	105%	20-150%
	13C6-PFDA	104%	20-150%
	13C7-PFUnDA	117%	20-150%
	13C2-PFDoDA	109%	20-150%
	13C2-PFTeDA	93%	20-150%
	13C3-PFBS	120%	20-150%
	13C3-PFHxS	115%	20-150%
	13C8-PFOS	109%	20-150%
	13C8-FOSA	109%	20-150%
	d3-MeFOSA	87%	20-150%
	d5-EtFOSA	84%	20-150%
	d3-MeFOSAA	106%	20-150%
	d5-EtFOSAA	105%	20-150%
	d7-MeFOSE	98%	20-150%
	d9-EtFOSE	97%	20-150%
	13C2-4:2FTS	128%	20-150%
	13C2-6:2FTS	128%	20-150%
	13C2-8:2FTS	116%	20-150%
	13C3-HFPO-DA	108%	20-150%

\* = Outside of Control Limits.

# Blank Spike Summary

Job Number: FC3464  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP95927-BS	6Q15066.D	1	03/21/23	MV	03/16/23	OP95927	S6Q228

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3464-1, FC3464-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
375-22-4	Perfluorobutanoic acid	0.1	0.0789	79	40-150
2706-90-3	Perfluoropentanoic acid	0.05	0.0387	77	40-150
307-24-4	Perfluorohexanoic acid	0.025	0.0200	80	40-150
375-85-9	Perfluoroheptanoic acid	0.025	0.0201	80	40-150
335-67-1	Perfluorooctanoic acid	0.025	0.0193	77	40-150
375-95-1	Perfluorononanoic acid	0.025	0.0190	76	40-150
335-76-2	Perfluorodecanoic acid	0.025	0.0212	85	40-150
2058-94-8	Perfluoroundecanoic acid	0.025	0.0199	80	40-150
307-55-1	Perfluorododecanoic acid	0.025	0.0189	76	40-150
72629-94-8	Perfluorotridecanoic acid	0.025	0.0188	75	40-150
376-06-7	Perfluorotetradecanoic acid	0.025	0.0218	87	40-150
375-73-5	Perfluorobutanesulfonic acid	0.0222	0.0171	77	40-150
2706-91-4	Perfluoropentanesulfonic acid	0.0235	0.0192	82	40-150
355-46-4	Perfluorohexanesulfonic acid	0.0229	0.0182	80	40-150
375-92-8	Perfluoroheptanesulfonic acid	0.0238	0.0186	78	40-150
1763-23-1	Perfluorooctanesulfonic acid	0.0232	0.0186	80	40-150
68259-12-1	Perfluorononanesulfonic acid	0.0241	0.0195	81	40-150
335-77-3	Perfluorodecanesulfonic acid	0.0241	0.0194	80	40-150
79780-39-5	Perfluorododecanesulfonic aci	0.0243	0.0178	73	40-150
757124-72-44:2	Fluorotelomer sulfonate	0.0938	0.0756	81	40-150
27619-97-2	6:2 Fluorotelomer sulfonate	0.095	0.0820	86	40-150
39108-34-4	8:2 Fluorotelomer sulfonate	0.096	0.0946	99	40-150
754-91-6	PFOSA	0.025	0.0222	89	40-150
31506-32-8	MeFOSA	0.025	0.0223	89	40-150
4151-50-2	EtFOSA	0.025	0.0201	80	40-150
2355-31-9	MeFOSAA	0.025	0.0187	75	40-150
2991-50-6	EtFOSAA	0.025	0.0182	73	40-150
24448-09-7	MeFOSE	0.25	0.194	78	40-150
1691-99-2	EtFOSE	0.25	0.205	82	40-150
13252-13-6	HFPO-DA (GenX)	0.1	0.0789	79	40-150
919005-14-4	ADONA	0.0945	0.0821	87	40-150
377-73-1	PFMPA	0.05	0.0409	82	40-150
863090-89-5	PFMBA	0.05	0.0408	82	40-150
151772-58-6	NFDHA	0.05	0.0400	80	40-150
756426-58-19	Cl-PF3ONS (F-53B Major)	0.0935	0.0731	78	40-150
763051-92-91	Cl-PF3OUdS (F-53B Minor)	0.0945	0.0728	77	40-150

\* = Outside of Control Limits.

# Blank Spike Summary

Job Number: FC3464  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP95927-BS	6Q15066.D	1	03/21/23	MV	03/16/23	OP95927	S6Q228

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3464-1, FC3464-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
113507-82-7	PFEESA	0.0445	0.0363	82	40-150
356-02-5	3:3 Fluorotelomer carboxylate	0.125	0.0890	71	40-150
914637-49-35:3	Fluorotelomer carboxylate	0.625	0.529	85	40-150
812-70-4	7:3 Fluorotelomer carboxylate	0.625	0.555	89	40-150

CAS No.	ID Standard Recoveries	BSP	Limits
	13C4-PFBA	85%	20-150%
	13C5-PFPeA	123%	20-150%
	13C5-PFHxA	120%	20-150%
	13C4-PFHpA	123%	20-150%
	13C8-PFOA	123%	20-150%
	13C9-PFNA	122%	20-150%
	13C6-PFDA	119%	20-150%
	13C7-PFUnDA	133%	20-150%
	13C2-PFDoDA	129%	20-150%
	13C2-PFTeDA	109%	20-150%
	13C3-PFBS	124%	20-150%
	13C3-PFHxS	118%	20-150%
	13C8-PFOS	126%	20-150%
	13C8-FOSA	121%	20-150%
	d3-MeFOSA	102%	20-150%
	d5-EtFOSA	104%	20-150%
	d3-MeFOSAA	116%	20-150%
	d5-EtFOSAA	115%	20-150%
	d7-MeFOSE	117%	20-150%
	d9-EtFOSE	117%	20-150%
	13C2-4:2FTS	131%	20-150%
	13C2-6:2FTS	129%	20-150%
	13C2-8:2FTS	123%	20-150%
	13C3-HFPO-DA	117%	20-150%

\* = Outside of Control Limits.

# Matrix Spike Summary

Job Number: FC3464  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP95927-MS	6Q15071.D	1.6	03/21/23	MV	03/16/23	OP95927	S6Q228
FC3427-2	6Q15070.D	1	03/21/23	MV	03/16/23	OP95927	S6Q228

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3464-1, FC3464-2

CAS No.	Compound	FC3427-2 ug/l	Spike Q	MS ug/l	MS %	Limits	
375-22-4	Perfluorobutanoic acid	0.019 U		0.0909	0.0848	93	40-150
2706-90-3	Perfluoropentanoic acid	0.0038 J		0.0455	0.0459	93	40-150
307-24-4	Perfluorohexanoic acid	0.0011 J		0.0227	0.0233	98	40-150
375-85-9	Perfluoroheptanoic acid	0.0046 U		0.0227	0.0229	101	40-150
335-67-1	Perfluorooctanoic acid	0.0046 U		0.0227	0.0215	95	40-150
375-95-1	Perfluorononanoic acid	0.0046 U		0.0227	0.0193	85	40-150
335-76-2	Perfluorodecanoic acid	0.0046 U		0.0227	0.0211	93	40-150
2058-94-8	Perfluoroundecanoic acid	0.0046 U		0.0227	0.0243	107	40-150
307-55-1	Perfluorododecanoic acid	0.0046 U		0.0227	0.0207	91	40-150
72629-94-8	Perfluorotridecanoic acid	0.0046 U		0.0227	0.0200	88	40-150
376-06-7	Perfluorotetradecanoic acid	0.0046 U		0.0227	0.0223	98	40-150
375-73-5	Perfluorobutanesulfonic acid	0.0046 U		0.0202	0.0182	90	40-150
2706-91-4	Perfluoropentanesulfonic acid	0.0046 U		0.0214	0.0197	92	40-150
355-46-4	Perfluorohexanesulfonic acid	0.0046 U		0.0208	0.0185	89	40-150
375-92-8	Perfluoroheptanesulfonic acid	0.0046 U		0.0217	0.0217	100	40-150
1763-23-1	Perfluorooctanesulfonic acid	0.0046 U		0.0211	0.0187	89	40-150
68259-12-1	Perfluorononanesulfonic acid	0.0046 U		0.0219	0.0174	80	40-150
335-77-3	Perfluorodecanesulfonic acid	0.0046 U		0.0219	0.0174	79	40-150
79780-39-5	Perfluorododecanesulfonic aci	0.0046 U		0.022	0.0174	79	40-150
757124-72-44:2	Fluorotelomer sulfonate	0.019 U		0.0852	0.0789	93	40-150
27619-97-2	6:2 Fluorotelomer sulfonate	0.019 U		0.0864	0.0833	96	40-150
39108-34-4	8:2 Fluorotelomer sulfonate	0.019 U		0.0873	0.0891	102	40-150
754-91-6	PFOSA	0.0046 U		0.0227	0.0223	98	40-150
31506-32-8	MeFOSA	0.0046 U		0.0227	0.0233	103	40-150
4151-50-2	EtFOSA	0.0046 U		0.0227	0.0215	95	40-150
2355-31-9	MeFOSAA	0.0046 U		0.0227	0.0219	96	40-150
2991-50-6	EtFOSAA	0.0046 U		0.0227	0.0214	94	40-150
24448-09-7	MeFOSE	0.046 U		0.227	0.211	93	40-150
1691-99-2	EtFOSE	0.046 U		0.227	0.207	91	40-150
13252-13-6	HFPO-DA (GenX)	0.019 U		0.0909	0.0838	92	40-150
919005-14-4	ADONA	0.019 U		0.0859	0.0880	102	40-150
377-73-1	PFMPA	0.0093 U		0.0455	0.0436	96	40-150
863090-89-5	PFMBA	0.0093 U		0.0455	0.0433	95	40-150
151772-58-6	NFDHA	0.0093 U		0.0455	0.0434	95	40-150
756426-58-19	Cl-PF3ONS (F-53B Major)	0.019 U		0.085	0.0743	87	40-150
763051-92-91	Cl-PF3OUdS (F-53B Minor)	0.019 U		0.0859	0.0643	75	40-150

\* = Outside of Control Limits.

# Matrix Spike Summary

Job Number: FC3464  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP95927-MS	6Q15071.D	1.6	03/21/23	MV	03/16/23	OP95927	S6Q228
FC3427-2	6Q15070.D	1	03/21/23	MV	03/16/23	OP95927	S6Q228

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3464-1, FC3464-2

CAS No.	Compound	FC3427-2 ug/l	Spike Q	MS ug/l	MS %	Limits
113507-82-7	PFEESA	0.0093 U	0.0405	0.0368	91	40-150
356-02-5	3:3 Fluorotelomer carboxylate	0.023 U	0.114	0.113	99	40-150
914637-49-35:3	Fluorotelomer carboxylate	0.12 U	0.568	0.561	99	40-150
812-70-4	7:3 Fluorotelomer carboxylate	0.12 U	0.568	0.579	102	40-150

CAS No.	ID Standard Recoveries	MS	FC3427-2	Limits
	13C4-PFBA	96%	90%	20-150%
	13C5-PFPeA	104%	107%	20-150%
	13C5-PFHxA	101%	105%	20-150%
	13C4-PFHpA	100%	107%	20-150%
	13C8-PFOA	106%	106%	20-150%
	13C9-PFNA	96%	100%	20-150%
	13C6-PFDA	97%	95%	20-150%
	13C7-PFUnDA	85%	88%	20-150%
	13C2-PFDoDA	80%	72%	20-150%
	13C2-PFTeDA	76%	62%	20-150%
	13C3-PFBS	103%	110%	20-150%
	13C3-PFHxS	100%	104%	20-150%
	13C8-PFOS	98%	86%	20-150%
	13C8-FOSA	99%	92%	20-150%
	d3-MeFOSA	73%	61%	20-150%
	d5-EtFOSA	67%	57%	20-150%
	d3-MeFOSAA	91%	81%	20-150%
	d5-EtFOSAA	82%	81%	20-150%
	d7-MeFOSE	74%	62%	20-150%
	d9-EtFOSE	72%	60%	20-150%
	13C2-4:2FTS	109%	116%	20-150%
	13C2-6:2FTS	113%	117%	20-150%
	13C2-8:2FTS	104%	98%	20-150%
	13C3-HFPO-DA	95%	101%	20-150%

\* = Outside of Control Limits.



# Duplicate Summary

Job Number: FC3464  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP95927-DUP	6Q15073.D	1	03/21/23	MV	03/16/23	OP95927	S6Q228
FC3427-3	6Q15072.D	1.2	03/21/23	MV	03/16/23	OP95927	S6Q228

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3464-1, FC3464-2

CAS No.	Compound	FC3427-3 ug/l	DUP Q	ug/l	Q	RPD	Limits
375-22-4	Perfluorobutanoic acid	0.022 U		ND		nc	30
2706-90-3	Perfluoropentanoic acid	0.0037 J		0.0039 J		5	30
307-24-4	Perfluorohexanoic acid	0.0012 J		0.0012 J		0	30
375-85-9	Perfluoroheptanoic acid	0.0055 U		ND		nc	30
335-67-1	Perfluorooctanoic acid	0.0055 U		ND		nc	30
375-95-1	Perfluorononanoic acid	0.0055 U		ND		nc	30
335-76-2	Perfluorodecanoic acid	0.0055 U		ND		nc	30
2058-94-8	Perfluoroundecanoic acid	0.0055 U		ND		nc	30
307-55-1	Perfluorododecanoic acid	0.0055 U		ND		nc	30
72629-94-8	Perfluorotridecanoic acid	0.0055 U		ND		nc	30
376-06-7	Perfluorotetradecanoic acid	0.0055 U		ND		nc	30
375-73-5	Perfluorobutanesulfonic acid	0.0055 U		ND		nc	30
2706-91-4	Perfluoropentanesulfonic acid	0.0055 U		ND		nc	30
355-46-4	Perfluorohexanesulfonic acid	0.0055 U		ND		nc	30
375-92-8	Perfluoroheptanesulfonic acid	0.0055 U		ND		nc	30
1763-23-1	Perfluorooctanesulfonic acid	0.0055 U		ND		nc	30
68259-12-1	Perfluorononanesulfonic acid	0.0055 U		ND		nc	30
335-77-3	Perfluorodecanesulfonic acid	0.0055 U		ND		nc	30
79780-39-5	Perfluorododecanesulfonic aci	0.0055 U		ND		nc	30
757124-72-44:2	Fluorotelomer sulfonate	0.022 U		ND		nc	30
27619-97-2	6:2 Fluorotelomer sulfonate	0.022 U		ND		nc	30
39108-34-4	8:2 Fluorotelomer sulfonate	0.022 U		ND		nc	30
754-91-6	PFOSA	0.0055 U		ND		nc	30
31506-32-8	MeFOSA	0.0055 U		ND		nc	30
4151-50-2	EtFOSA	0.0055 U		ND		nc	30
2355-31-9	MeFOSAA	0.0055 U		ND		nc	30
2991-50-6	EtFOSAA	0.0055 U		ND		nc	30
24448-09-7	MeFOSE	0.055 U		ND		nc	30
1691-99-2	EtFOSE	0.055 U		ND		nc	30
13252-13-6	HFPO-DA (GenX)	0.022 U		ND		nc	30
919005-14-4	ADONA	0.022 U		ND		nc	30
377-73-1	PFMPA	0.011 U		ND		nc	30
863090-89-5	PFMBA	0.011 U		ND		nc	30
151772-58-6	NFDHA	0.011 U		ND		nc	30
756426-58-19	Cl-PF3ONS (F-53B Major)	0.022 U		ND		nc	30
763051-92-91	Cl-PF3OUdS (F-53B Minor)	0.022 U		ND		nc	30

\* = Outside of Control Limits.

# Duplicate Summary

Job Number: FC3464  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP95927-DUP	6Q15073.D	1	03/21/23	MV	03/16/23	OP95927	S6Q228
FC3427-3	6Q15072.D	1.2	03/21/23	MV	03/16/23	OP95927	S6Q228

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3464-1, FC3464-2

CAS No.	Compound	FC3427-3 ug/l	DUP Q ug/l	Q RPD	Limits
113507-82-7	PFEESA	0.011 U	ND	nc	30
356-02-5	3:3 Fluorotelomer carboxylate	0.027 U	ND	nc	30
914637-49-35:3	Fluorotelomer carboxylate	0.14 U	ND	nc	30
812-70-4	7:3 Fluorotelomer carboxylate	0.14 U	ND	nc	30

CAS No.	ID Standard Recoveries	DUP	FC3427-3	Limits
	13C4-PFBA	83%	85%	20-150%
	13C5-PFPeA	99%	86%	20-150%
	13C5-PFHxA	99%	85%	20-150%
	13C4-PFHpA	100%	88%	20-150%
	13C8-PFOA	103%	92%	20-150%
	13C9-PFNA	96%	84%	20-150%
	13C6-PFDA	89%	78%	20-150%
	13C7-PFUnDA	80%	69%	20-150%
	13C2-PFDoDA	71%	55%	20-150%
	13C2-PFTeDA	66%	56%	20-150%
	13C3-PFBS	101%	82%	20-150%
	13C3-PFHxS	101%	81%	20-150%
	13C8-PFOS	83%	75%	20-150%
	13C8-FOSA	92%	82%	20-150%
	d3-MeFOSA	64%	62%	20-150%
	d5-EtFOSA	58%	56%	20-150%
	d3-MeFOSAA	87%	70%	20-150%
	d5-EtFOSAA	76%	61%	20-150%
	d7-MeFOSE	63%	60%	20-150%
	d9-EtFOSE	66%	57%	20-150%
	13C2-4:2FTS	112%	86%	20-150%
	13C2-6:2FTS	112%	92%	20-150%
	13C2-8:2FTS	105%	81%	20-150%
	13C3-HFPO-DA	91%	85%	20-150%

\* = Outside of Control Limits.