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## Technical Report for

**AECOM, INC.**

**N6274223F0104 RH Fire Suppression System**

**60697810**

**SGS Job Number: FC6066**

**Sampling Date: 05/12/23**



### Report to:

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**Total number of pages in report: 42**



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**

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Test results relate only to samples analyzed.

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### Sample Summary

AECOM, INC.

Job No: FC6066

N6274223F0104 RH Fire Suppression System  
Project No: 60697810

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
FC6066-1	05/12/23	10:25 AYJV	05/13/23	AQ	Ground Water	AF-RHMW17S-WGN01LF-2305W2
FC6066-2	05/12/23	11:10 AYJV	05/13/23	AQ	Equipment Blank	AF-RHMW17S-WQEB01-2305W2
FC6066-3	05/12/23	12:25 AYJV	05/13/23	AQ	Ground Water	AF-RHMW17D-WGN01LF-2305W2
FC6066-4	05/12/23	11:30 AYJV	05/13/23	AQ	Field Blank Water	AF-RHMW17D-WQFB01-2305W2
FC6066-5	05/12/23	13:35 AYJV	05/13/23	AQ	Ground Water	AF-RHMW17-WGN01LF-2305W2

## SAMPLE DELIVERY GROUP CASE NARRATIVE

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**Client:** AECOM, INC.

**Job No:** FC6066

**Site:** N6274223F0104 RH Fire Suppression System

**Report Date:** 5/19/2023 2:54:51 PM

On 05/13/2023, 4 Sample(s), 0 Trip Blank(s) and 1 Field Blank(s) were received at SGS North America Inc - Orlando. at a maximum corrected temperature of 0.7 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. - Orlando Job Number of FC6066 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:** OP96892

Sample(s) FC6066-3MS, FC6066-5DUP, FC6066-3MS were used as the QC samples indicated.

Blank Spike Recovery(s) for 3:3 Fluorotelomer carboxylate are outside control limits.

Matrix Spike Recovery(s) for 3:3 Fluorotelomer carboxylate, PFMBA, PFMPA are outside control limits. Probable cause is due to matrix interference.

Sample(s) FC6066-3 have surrogates outside control limits.

FC6066-3 for Perfluorobutanoic acid: Associated ID Standard outside control limits, Confirmed by batch QC.

FC6066-3 for 13C4-PFBA: Outside control limits.

FC6066-1 for 3:3 Fluorotelomer carboxylate: Associated BS recovery outside control limits.

FC6066-3 for 3:3 Fluorotelomer carboxylate: Associated BS recovery outside control limits.

FC6066-2 for 3:3 Fluorotelomer carboxylate: Associated BS recovery outside control limits.

FC6066-4 for 3:3 Fluorotelomer carboxylate: Associated BS recovery outside control limits.

FC6066-5 for 3:3 Fluorotelomer carboxylate: Associated BS recovery outside control limits.

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:

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

## Summary of Hits

**Job Number:** FC6066  
**Account:** AECOM, INC.  
**Project:** N6274223F0104 RH Fire Suppression System  
**Collected:** 05/12/23



Lab Sample ID	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
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**FC6066-1 AF-RHMW17S-WGN01LF-2305W2**

Perfluoropentanoic acid	1.6 J	7.3	1.8	ng/l	EPA DRAFT 1633
Perfluorohexanoic acid	1.8 J	3.6	1.8	ng/l	EPA DRAFT 1633
Perfluoroheptanoic acid	1.1 J	3.6	1.8	ng/l	EPA DRAFT 1633
Perfluorooctanoic acid	0.89 J	3.6	0.91	ng/l	EPA DRAFT 1633
Perfluorobutanesulfonic acid	0.69 J	3.6	1.8	ng/l	EPA DRAFT 1633
Perfluoroheptanesulfonic acid	0.75 J	3.6	1.8	ng/l	EPA DRAFT 1633
Perfluorooctanesulfonic acid	1.4 J	3.6	1.8	ng/l	EPA DRAFT 1633
6:2 Fluorotelomer sulfonate	5.3 J	18	7.3	ng/l	EPA DRAFT 1633

**FC6066-2 AF-RHMW17S-WQEB01-2305W2**

No hits reported in this sample.

**FC6066-3 AF-RHMW17D-WGN01LF-2305W2**

Perfluoroheptanesulfonic acid	7.1	3.8	1.9	ng/l	EPA DRAFT 1633
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**FC6066-4 AF-RHMW17D-WQFB01-2305W2**

No hits reported in this sample.

**FC6066-5 AF-RHMW17-WGN01LF-2305W2**

Perfluoropentanoic acid	3.7 J	7.3	1.8	ng/l	EPA DRAFT 1633
Perfluorohexanoic acid	2.4 J	3.6	1.8	ng/l	EPA DRAFT 1633
Perfluoroheptanoic acid	0.92 J	3.6	1.8	ng/l	EPA DRAFT 1633
6:2 Fluorotelomer sulfonate	16.5 J	18	7.3	ng/l	EPA DRAFT 1633

**Sample Results**

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**Report of Analysis**

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# Report of Analysis

Client Sample ID:	AF-RHMW17S-WGN01LF-2305W2		
Lab Sample ID:	FC6066-1	Date Sampled:	05/12/23
Matrix:	AQ - Ground Water	Date Received:	05/13/23
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	6Q17951.D	1	05/17/23 15:35	MV	05/16/23 11:00	OP96892	S6Q271
Run #2							

Run #	Initial Volume	Final Volume
Run #1	550 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
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**PERFLUOROALKYL CARBOXYLIC ACIDS**

375-22-4	Perfluorobutanoic acid	3.6 U	15	3.6	1.7	ng/l	
2706-90-3	Perfluoropentanoic acid	1.6	7.3	1.8	0.85	ng/l	J
307-24-4	Perfluorohexanoic acid	1.8	3.6	1.8	0.45	ng/l	J
375-85-9	Perfluoroheptanoic acid	1.1	3.6	1.8	0.45	ng/l	J
335-67-1	Perfluorooctanoic acid	0.89	3.6	0.91	0.45	ng/l	J
375-95-1	Perfluorononanoic acid	1.8 U	3.6	1.8	0.55	ng/l	
335-76-2	Perfluorodecanoic acid	1.8 U	3.6	1.8	0.45	ng/l	
2058-94-8	Perfluoroundecanoic acid	1.8 U	3.6	1.8	0.55	ng/l	
307-55-1	Perfluorododecanoic acid	1.8 U	3.6	1.8	0.55	ng/l	
72629-94-8	Perfluorotridecanoic acid	1.8 U	3.6	1.8	0.76	ng/l	
376-06-7	Perfluorotetradecanoic acid	1.8 U	3.6	1.8	0.45	ng/l	

**PERFLUOROALKYL SULFONIC ACIDS**

375-73-5	Perfluorobutanesulfonic acid	0.69	3.6	1.8	0.45	ng/l	J
2706-91-4	Perfluoropentanesulfonic acid	3.6 U	4.5	3.6	1.0	ng/l	
355-46-4	Perfluorohexanesulfonic acid	1.8 U	3.6	1.8	0.64	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	0.75	3.6	1.8	0.45	ng/l	J
1763-23-1	Perfluorooctanesulfonic acid	1.4	3.6	1.8	0.49	ng/l	J
68259-12-1	Perfluorononanesulfonic acid	1.8 U	3.6	1.8	0.52	ng/l	
335-77-3	Perfluorodecanesulfonic acid	1.8 U	3.6	1.8	0.58	ng/l	
79780-39-5	Perfluorododecanesulfonic aci	3.6 U	4.5	3.6	1.0	ng/l	

**FLUOROTELOMER SULFONIC ACIDS**

757124-72-4	4:2 Fluorotelomer sulfonate	7.3 U	18	7.3	2.9	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	5.3	18	7.3	3.2	ng/l	J
39108-34-4	8:2 Fluorotelomer sulfonate	7.3 U	18	7.3	3.7	ng/l	

**PERFLUOROOCCTANE SULFONAMIDES**

754-91-6	PFOSA	1.8 U	3.6	1.8	0.61	ng/l	
31506-32-8	MeFOSA	3.6 U	7.3	3.6	0.91	ng/l	
4151-50-2	EtFOSA	3.6 U	7.3	3.6	0.91	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

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# Report of Analysis

Client Sample ID:	AF-RHMW17S-WGN01LF-2305W2		
Lab Sample ID:	FC6066-1	Date Sampled:	05/12/23
Matrix:	AQ - Ground Water	Date Received:	05/13/23
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
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**PERFLUOROOCCTANE SULFONAMIDOACETIC ACIDS**

2355-31-9	MeFOSAA	3.6 U	4.5	3.6	0.91	ng/l	
2991-50-6	EtFOSAA	3.6 U	4.5	3.6	1.2	ng/l	

**PERFLUOROOCCTANE SULFONAMIDO ETHANOLS**

24448-09-7	MeFOSE	18 U	36	18	4.0	ng/l	
1691-99-2	EtFOSE	18 U	36	18	6.7	ng/l	

**PER and POLYFLUOROETHER CARBOXYLIC ACIDS**

13252-13-6	HFPO-DA (GenX)	1.8 U	3.6	1.8	0.91	ng/l	
919005-14-4	ADONA	3.6 U	7.3	3.6	1.7	ng/l	
377-73-1	PFMPA	1.8 U	7.3	1.8	0.91	ng/l	
863090-89-5	PFMBA	3.6 U	7.3	3.6	1.0	ng/l	
151772-58-6	NFDHA	3.6 U	7.3	3.6	1.1	ng/l	

**PER and POLYFLUOROETHER SULFONIC ACIDS**

756426-58-1	9Cl-PF3ONS (F-53B Major)	3.6 U	7.3	3.6	1.3	ng/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	3.6 U	7.3	3.6	1.6	ng/l	
113507-82-7	PFEESA	1.8 U	7.3	1.8	0.71	ng/l	

**FLUOROTELOMER CARBOXYLIC ACIDS**

356-02-5	3:3 Fluorotelomer carboxylat <sup>a</sup>	9.1 U	18	9.1	4.1	ng/l	
914637-49-3	5:3 Fluorotelomer carboxylate	18 U	91	18	7.9	ng/l	
812-70-4	7:3 Fluorotelomer carboxylate	18 U	91	18	7.1	ng/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	32%		20-150%
	13C5-PFPeA	95%		20-150%
	13C5-PFHxA	116%		20-150%
	13C4-PFHpA	113%		20-150%
	13C8-PFOA	112%		20-150%
	13C9-PFNA	110%		20-150%
	13C6-PFDA	103%		20-150%
	13C7-PFUnDA	101%		20-150%
	13C2-PFDoDA	85%		20-150%
	13C2-PFTeDA	69%		20-150%
	13C3-PFBS	106%		20-150%
	13C3-PFHxS	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

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## Report of Analysis

<b>Client Sample ID:</b>	AF-RHMW17S-WGN01LF-2305W2		
<b>Lab Sample ID:</b>	FC6066-1	<b>Date Sampled:</b>	05/12/23
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	05/13/23
<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	96%		20-150%
	13C8-FOSA	84%		20-150%
	d3-MeFOSA	73%		20-150%
	d5-EtFOSA	76%		20-150%
	d3-MeFOSAA	95%		20-150%
	d5-EtFOSAA	91%		20-150%
	d7-MeFOSE	71%		20-150%
	d9-EtFOSE	79%		20-150%
	13C2-4:2FTS	137%		20-180%
	13C2-6:2FTS	110%		20-180%
	13C2-8:2FTS	100%		20-180%
	13C3-HFPO-DA	100%		20-150%

(a) Associated BS recovery outside control limits.

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-RHMW17S-WQEB01-2305W2		
Lab Sample ID:	FC6066-2	Date Sampled:	05/12/23
Matrix:	AQ - Equipment Blank	Date Received:	05/13/23
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	6Q17956.D	1	05/17/23 16:48	MV	05/16/23 11:00	OP96892	S6Q271
Run #2							

Run #	Initial Volume	Final Volume
Run #1	520 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
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**PERFLUOROALKYL CARBOXYLIC ACIDS**

375-22-4	Perfluorobutanoic acid	3.8 U	15	3.8	1.8	ng/l	
2706-90-3	Perfluoropentanoic acid	1.9 U	7.7	1.9	0.90	ng/l	
307-24-4	Perfluorohexanoic acid	1.9 U	3.8	1.9	0.48	ng/l	
375-85-9	Perfluoroheptanoic acid	1.9 U	3.8	1.9	0.48	ng/l	
335-67-1	Perfluorooctanoic acid	0.96 U	3.8	0.96	0.48	ng/l	
375-95-1	Perfluorononanoic acid	1.9 U	3.8	1.9	0.59	ng/l	
335-76-2	Perfluorodecanoic acid	1.9 U	3.8	1.9	0.48	ng/l	
2058-94-8	Perfluoroundecanoic acid	1.9 U	3.8	1.9	0.58	ng/l	
307-55-1	Perfluorododecanoic acid	1.9 U	3.8	1.9	0.58	ng/l	
72629-94-8	Perfluorotridecanoic acid	1.9 U	3.8	1.9	0.81	ng/l	
376-06-7	Perfluorotetradecanoic acid	1.9 U	3.8	1.9	0.48	ng/l	

**PERFLUOROALKYL SULFONIC ACIDS**

375-73-5	Perfluorobutanesulfonic acid	1.9 U	3.8	1.9	0.48	ng/l	
2706-91-4	Perfluoropentanesulfonic acid	3.8 U	4.8	3.8	1.1	ng/l	
355-46-4	Perfluorohexanesulfonic acid	1.9 U	3.8	1.9	0.67	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	1.9 U	3.8	1.9	0.48	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	1.9 U	3.8	1.9	0.52	ng/l	
68259-12-1	Perfluorononanesulfonic acid	1.9 U	3.8	1.9	0.55	ng/l	
335-77-3	Perfluorodecanesulfonic acid	1.9 U	3.8	1.9	0.62	ng/l	
79780-39-5	Perfluorododecanesulfonic aci	3.8 U	4.8	3.8	1.1	ng/l	

**FLUOROTELOMER SULFONIC ACIDS**

757124-72-4	4:2 Fluorotelomer sulfonate	7.7 U	19	7.7	3.1	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	7.7 U	19	7.7	3.3	ng/l	
39108-34-4	8:2 Fluorotelomer sulfonate	7.7 U	19	7.7	4.0	ng/l	

**PERFLUOROOCCTANE SULFONAMIDES**

754-91-6	PFOSA	1.9 U	3.8	1.9	0.64	ng/l	
31506-32-8	MeFOSA	3.8 U	7.7	3.8	0.96	ng/l	
4151-50-2	EtFOSA	3.8 U	7.7	3.8	0.96	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

4.2  
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# Report of Analysis

Client Sample ID:	AF-RHMW17S-WQEB01-2305W2		
Lab Sample ID:	FC6066-2	Date Sampled:	05/12/23
Matrix:	AQ - Equipment Blank	Date Received:	05/13/23
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
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**PERFLUOROOCCTANE SULFONAMIDOACETIC ACIDS**

2355-31-9	MeFOSAA	3.8 U	4.8	3.8	0.96	ng/l	
2991-50-6	EtFOSAA	3.8 U	4.8	3.8	1.3	ng/l	

**PERFLUOROOCCTANE SULFONAMIDO ETHANOLS**

24448-09-7	MeFOSE	19 U	38	19	4.2	ng/l	
1691-99-2	EtFOSE	19 U	38	19	7.1	ng/l	

**PER and POLYFLUOROETHER CARBOXYLIC ACIDS**

13252-13-6	HFPO-DA (GenX)	1.9 U	3.8	1.9	0.96	ng/l	
919005-14-4	ADONA	3.8 U	7.7	3.8	1.8	ng/l	
377-73-1	PFMPA	1.9 U	7.7	1.9	0.96	ng/l	
863090-89-5	PFMBA	3.8 U	7.7	3.8	1.1	ng/l	
151772-58-6	NFDHA	3.8 U	7.7	3.8	1.2	ng/l	

**PER and POLYFLUOROETHER SULFONIC ACIDS**

756426-58-1	9Cl-PF3ONS (F-53B Major)	3.8 U	7.7	3.8	1.3	ng/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	3.8 U	7.7	3.8	1.7	ng/l	
113507-82-7	PFEESA	1.9 U	7.7	1.9	0.75	ng/l	

**FLUOROTELOMER CARBOXYLIC ACIDS**

356-02-5	3:3 Fluorotelomer carboxylat <sup>a</sup>	9.6 U	19	9.6	4.3	ng/l	
914637-49-3	5:3 Fluorotelomer carboxylate	19 U	96	19	8.4	ng/l	
812-70-4	7:3 Fluorotelomer carboxylate	19 U	96	19	7.5	ng/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	114%		20-150%
	13C5-PFPeA	110%		20-150%
	13C5-PFHxA	112%		20-150%
	13C4-PFHpA	117%		20-150%
	13C8-PFOA	111%		20-150%
	13C9-PFNA	110%		20-150%
	13C6-PFDA	101%		20-150%
	13C7-PFUnDA	94%		20-150%
	13C2-PFDoDA	94%		20-150%
	13C2-PFTeDA	88%		20-150%
	13C3-PFBS	107%		20-150%
	13C3-PFHxS	103%		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

4.2  
4

## Report of Analysis

Client Sample ID:	AF-RHMW17S-WQEB01-2305W2		Date Sampled:	05/12/23
Lab Sample ID:	FC6066-2		Date Received:	05/13/23
Matrix:	AQ - Equipment Blank		Percent Solids:	n/a
Method:	EPA DRAFT 1633 EPA 1633 DRAFT			
Project:	N6274223F0104 RH Fire Suppression System			

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	112%		20-150%
	13C8-FOSA	78%		20-150%
	d3-MeFOSA	77%		20-150%
	d5-EtFOSA	79%		20-150%
	d3-MeFOSAA	103%		20-150%
	d5-EtFOSAA	109%		20-150%
	d7-MeFOSE	68%		20-150%
	d9-EtFOSE	83%		20-150%
	13C2-4:2FTS	113%		20-180%
	13C2-6:2FTS	110%		20-180%
	13C2-8:2FTS	105%		20-180%
	13C3-HFPO-DA	112%		20-150%

(a) Associated BS recovery outside control limits.

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-RHMW17D-WGN01LF-2305W2		
Lab Sample ID:	FC6066-3	Date Sampled:	05/12/23
Matrix:	AQ - Ground Water	Date Received:	05/13/23
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	6Q17952.D	1	05/17/23 15:50	MV	05/16/23 11:00	OP96892	S6Q271
Run #2							

Run #	Initial Volume	Final Volume
Run #1	520 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
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**PERFLUOROALKYL CARBOXYLIC ACIDS**

375-22-4	Perfluorobutanoic acid <sup>a</sup>	3.8 U	15	3.8	1.8	ng/l	
2706-90-3	Perfluoropentanoic acid	1.9 U	7.7	1.9	0.90	ng/l	
307-24-4	Perfluorohexanoic acid	1.9 U	3.8	1.9	0.48	ng/l	
375-85-9	Perfluoroheptanoic acid	1.9 U	3.8	1.9	0.48	ng/l	
335-67-1	Perfluorooctanoic acid	0.96 U	3.8	0.96	0.48	ng/l	
375-95-1	Perfluorononanoic acid	1.9 U	3.8	1.9	0.59	ng/l	
335-76-2	Perfluorodecanoic acid	1.9 U	3.8	1.9	0.48	ng/l	
2058-94-8	Perfluoroundecanoic acid	1.9 U	3.8	1.9	0.58	ng/l	
307-55-1	Perfluorododecanoic acid	1.9 U	3.8	1.9	0.58	ng/l	
72629-94-8	Perfluorotridecanoic acid	1.9 U	3.8	1.9	0.81	ng/l	
376-06-7	Perfluorotetradecanoic acid	1.9 U	3.8	1.9	0.48	ng/l	

**PERFLUOROALKYL SULFONIC ACIDS**

375-73-5	Perfluorobutanesulfonic acid	1.9 U	3.8	1.9	0.48	ng/l	
2706-91-4	Perfluoropentanesulfonic acid	3.8 U	4.8	3.8	1.1	ng/l	
355-46-4	Perfluorohexanesulfonic acid	1.9 U	3.8	1.9	0.67	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	7.1	3.8	1.9	0.48	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	1.9 U	3.8	1.9	0.52	ng/l	
68259-12-1	Perfluorononanesulfonic acid	1.9 U	3.8	1.9	0.55	ng/l	
335-77-3	Perfluorodecanesulfonic acid	1.9 U	3.8	1.9	0.62	ng/l	
79780-39-5	Perfluorododecanesulfonic aci	3.8 U	4.8	3.8	1.1	ng/l	

**FLUOROTELOMER SULFONIC ACIDS**

757124-72-4	4:2 Fluorotelomer sulfonate	7.7 U	19	7.7	3.1	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	7.7 U	19	7.7	3.3	ng/l	
39108-34-4	8:2 Fluorotelomer sulfonate	7.7 U	19	7.7	4.0	ng/l	

**PERFLUOROOCCTANE SULFONAMIDES**

754-91-6	PFOSA	1.9 U	3.8	1.9	0.64	ng/l	
31506-32-8	MeFOSA	3.8 U	7.7	3.8	0.96	ng/l	
4151-50-2	EtFOSA	3.8 U	7.7	3.8	0.96	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-RHMW17D-WGN01LF-2305W2		
Lab Sample ID:	FC6066-3	Date Sampled:	05/12/23
Matrix:	AQ - Ground Water	Date Received:	05/13/23
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
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**PERFLUOROOCCTANE SULFONAMIDOACETIC ACIDS**

2355-31-9	MeFOSAA	3.8 U	4.8	3.8	0.96	ng/l	
2991-50-6	EtFOSAA	3.8 U	4.8	3.8	1.3	ng/l	

**PERFLUOROOCCTANE SULFONAMIDO ETHANOLS**

24448-09-7	MeFOSE	19 U	38	19	4.2	ng/l	
1691-99-2	EtFOSE	19 U	38	19	7.1	ng/l	

**PER and POLYFLUOROETHER CARBOXYLIC ACIDS**

13252-13-6	HFPO-DA (GenX)	1.9 U	3.8	1.9	0.96	ng/l	
919005-14-4	ADONA	3.8 U	7.7	3.8	1.8	ng/l	
377-73-1	PFMPA	1.9 U	7.7	1.9	0.96	ng/l	
863090-89-5	PFMBA	3.8 U	7.7	3.8	1.1	ng/l	
151772-58-6	NFDHA	3.8 U	7.7	3.8	1.2	ng/l	

**PER and POLYFLUOROETHER SULFONIC ACIDS**

756426-58-1	9Cl-PF3ONS (F-53B Major)	3.8 U	7.7	3.8	1.3	ng/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	3.8 U	7.7	3.8	1.7	ng/l	
113507-82-7	PFEESA	1.9 U	7.7	1.9	0.75	ng/l	

**FLUOROTELOMER CARBOXYLIC ACIDS**

356-02-5	3:3 Fluorotelomer carboxylat <sup>b</sup>	9.6 U	19	9.6	4.3	ng/l	
914637-49-3	5:3 Fluorotelomer carboxylate	19 U	96	19	8.4	ng/l	
812-70-4	7:3 Fluorotelomer carboxylate	19 U	96	19	7.5	ng/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
13C4-PFBA		5% <sup>c</sup>		20-150%
13C5-PFPeA		33%		20-150%
13C5-PFHxA		103%		20-150%
13C4-PFHpA		110%		20-150%
13C8-PFOA		117%		20-150%
13C9-PFNA		104%		20-150%
13C6-PFDA		109%		20-150%
13C7-PFUnDA		90%		20-150%
13C2-PFDoDA		87%		20-150%
13C2-PFTeDA		64%		20-150%
13C3-PFBS		110%		20-150%
13C3-PFHxS		114%		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-RHMW17D-WGN01LF-2305W2		
Lab Sample ID:	FC6066-3	Date Sampled:	05/12/23
Matrix:	AQ - Ground Water	Date Received:	05/13/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	Percent Solids:	n/a
Project:	N6274223F0104 RH Fire Suppression System		

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	110%		20-150%
	13C8-FOSA	90%		20-150%
	d3-MeFOSA	93%		20-150%
	d5-EtFOSA	99%		20-150%
	d3-MeFOSAA	146%		20-150%
	d5-EtFOSAA	148%		20-150%
	d7-MeFOSE	69%		20-150%
	d9-EtFOSE	82%		20-150%
	13C2-4:2FTS	107%		20-180%
	13C2-6:2FTS	120%		20-180%
	13C2-8:2FTS	131%		20-180%
	13C3-HFPO-DA	92%		20-150%

- (a) Associated ID Standard outside control limits, Confirmed by batch QC.
- (b) Associated BS recovery outside control limits.
- (c) Outside control limits.

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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-RHMW17D-WQFB01-2305W2		
Lab Sample ID:	FC6066-4	Date Sampled:	05/12/23
Matrix:	AQ - Field Blank Water	Date Received:	05/13/23
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	6Q17957.D	1	05/17/23 17:02	MV	05/16/23 11:00	OP96892	S6Q271
Run #2							

Run #	Initial Volume	Final Volume
Run #1	530 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
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**PERFLUOROALKYL CARBOXYLIC ACIDS**

375-22-4	Perfluorobutanoic acid	3.8 U	15	3.8	1.8	ng/l	
2706-90-3	Perfluoropentanoic acid	1.9 U	7.5	1.9	0.89	ng/l	
307-24-4	Perfluorohexanoic acid	1.9 U	3.8	1.9	0.47	ng/l	
375-85-9	Perfluoroheptanoic acid	1.9 U	3.8	1.9	0.47	ng/l	
335-67-1	Perfluorooctanoic acid	0.94 U	3.8	0.94	0.47	ng/l	
375-95-1	Perfluorononanoic acid	1.9 U	3.8	1.9	0.58	ng/l	
335-76-2	Perfluorodecanoic acid	1.9 U	3.8	1.9	0.47	ng/l	
2058-94-8	Perfluoroundecanoic acid	1.9 U	3.8	1.9	0.57	ng/l	
307-55-1	Perfluorododecanoic acid	1.9 U	3.8	1.9	0.57	ng/l	
72629-94-8	Perfluorotridecanoic acid	1.9 U	3.8	1.9	0.79	ng/l	
376-06-7	Perfluorotetradecanoic acid	1.9 U	3.8	1.9	0.47	ng/l	

**PERFLUOROALKYL SULFONIC ACIDS**

375-73-5	Perfluorobutanesulfonic acid	1.9 U	3.8	1.9	0.47	ng/l	
2706-91-4	Perfluoropentanesulfonic acid	3.8 U	4.7	3.8	1.1	ng/l	
355-46-4	Perfluorohexanesulfonic acid	1.9 U	3.8	1.9	0.66	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	1.9 U	3.8	1.9	0.47	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	1.9 U	3.8	1.9	0.51	ng/l	
68259-12-1	Perfluorononanesulfonic acid	1.9 U	3.8	1.9	0.54	ng/l	
335-77-3	Perfluorodecanesulfonic acid	1.9 U	3.8	1.9	0.60	ng/l	
79780-39-5	Perfluorododecanesulfonic aci	3.8 U	4.7	3.8	1.1	ng/l	

**FLUOROTELOMER SULFONIC ACIDS**

757124-72-4	4:2 Fluorotelomer sulfonate	7.5 U	19	7.5	3.0	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	7.5 U	19	7.5	3.3	ng/l	
39108-34-4	8:2 Fluorotelomer sulfonate	7.5 U	19	7.5	3.9	ng/l	

**PERFLUOROOCCTANE SULFONAMIDES**

754-91-6	PFOSA	1.9 U	3.8	1.9	0.63	ng/l	
31506-32-8	MeFOSA	3.8 U	7.5	3.8	0.94	ng/l	
4151-50-2	EtFOSA	3.8 U	7.5	3.8	0.94	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

4.4  
4



# Report of Analysis

Client Sample ID:	AF-RHMW17D-WQFB01-2305W2	
Lab Sample ID:	FC6066-4	Date Sampled: 05/12/23
Matrix:	AQ - Field Blank Water	Date Received: 05/13/23
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	3.8 U	4.7	3.8	0.94	ng/l
2991-50-6	EtFOSAA	3.8 U	4.7	3.8	1.3	ng/l

**PERFLUOROOCCTANE SULFONAMIDO ETHANOLS**

24448-09-7	MeFOSE	19 U	38	19	4.1	ng/l
1691-99-2	EtFOSE	19 U	38	19	7.0	ng/l

**PER and POLYFLUOROETHER CARBOXYLIC ACIDS**

13252-13-6	HFPO-DA (GenX)	1.9 U	3.8	1.9	0.94	ng/l
919005-14-4	ADONA	3.8 U	7.5	3.8	1.8	ng/l
377-73-1	PFMPA	1.9 U	7.5	1.9	0.94	ng/l
863090-89-5	PFMBA	3.8 U	7.5	3.8	1.1	ng/l
151772-58-6	NFDHA	3.8 U	7.5	3.8	1.1	ng/l

**PER and POLYFLUOROETHER SULFONIC ACIDS**

756426-58-1	9Cl-PF3ONS (F-53B Major)	3.8 U	7.5	3.8	1.3	ng/l
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	3.8 U	7.5	3.8	1.7	ng/l
113507-82-7	PFEESA	1.9 U	7.5	1.9	0.74	ng/l

**FLUOROTELOMER CARBOXYLIC ACIDS**

356-02-5	3:3 Fluorotelomer carboxylat <sup>a</sup>	9.4 U	19	9.4	4.3	ng/l
914637-49-3	5:3 Fluorotelomer carboxylate	19 U	94	19	8.2	ng/l
812-70-4	7:3 Fluorotelomer carboxylate	19 U	94	19	7.4	ng/l

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

13C4-PFBA	112%	20-150%
13C5-PFPeA	113%	20-150%
13C5-PFHxA	117%	20-150%
13C4-PFHpA	112%	20-150%
13C8-PFOA	113%	20-150%
13C9-PFNA	113%	20-150%
13C6-PFDA	103%	20-150%
13C7-PFUnDA	99%	20-150%
13C2-PFDoDA	93%	20-150%
13C2-PFTeDA	91%	20-150%
13C3-PFBS	116%	20-150%
13C3-PFHxS	109%	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

4.4  
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## Report of Analysis

Client Sample ID: AF-RHMW17D-WQFB01-2305W2		Date Sampled: 05/12/23
Lab Sample ID: FC6066-4		Date Received: 05/13/23
Matrix: AQ - Field Blank Water		Percent Solids: n/a
Method: EPA DRAFT 1633 EPA 1633 DRAFT		
Project: N6274223F0104 RH Fire Suppression System		

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	98%		20-150%
	13C8-FOSA	63%		20-150%
	d3-MeFOSA	70%		20-150%
	d5-EtFOSA	69%		20-150%
	d3-MeFOSAA	98%		20-150%
	d5-EtFOSAA	105%		20-150%
	d7-MeFOSE	61%		20-150%
	d9-EtFOSE	71%		20-150%
	13C2-4:2FTS	115%		20-180%
	13C2-6:2FTS	108%		20-180%
	13C2-8:2FTS	110%		20-180%
	13C3-HFPO-DA	115%		20-150%

(a) Associated BS recovery outside control limits.

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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-RHMW17-WGN01LF-2305W2		
Lab Sample ID:	FC6066-5	Date Sampled:	05/12/23
Matrix:	AQ - Ground Water	Date Received:	05/13/23
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	6Q17958.D	1	05/17/23 17:17	MV	05/16/23 11:00	OP96892	S6Q271
Run #2							

Run #	Initial Volume	Final Volume
Run #1	550 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
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**PERFLUOROALKYL CARBOXYLIC ACIDS**

375-22-4	Perfluorobutanoic acid	3.6 U	15	3.6	1.7	ng/l	
2706-90-3	Perfluoropentanoic acid	3.7	7.3	1.8	0.85	ng/l	J
307-24-4	Perfluorohexanoic acid	2.4	3.6	1.8	0.45	ng/l	J
375-85-9	Perfluoroheptanoic acid	0.92	3.6	1.8	0.45	ng/l	J
335-67-1	Perfluorooctanoic acid	0.91 U	3.6	0.91	0.45	ng/l	
375-95-1	Perfluorononanoic acid	1.8 U	3.6	1.8	0.55	ng/l	
335-76-2	Perfluorodecanoic acid	1.8 U	3.6	1.8	0.45	ng/l	
2058-94-8	Perfluoroundecanoic acid	1.8 U	3.6	1.8	0.55	ng/l	
307-55-1	Perfluorododecanoic acid	1.8 U	3.6	1.8	0.55	ng/l	
72629-94-8	Perfluorotridecanoic acid	1.8 U	3.6	1.8	0.76	ng/l	
376-06-7	Perfluorotetradecanoic acid	1.8 U	3.6	1.8	0.45	ng/l	

**PERFLUOROALKYL SULFONIC ACIDS**

375-73-5	Perfluorobutanesulfonic acid	1.8 U	3.6	1.8	0.45	ng/l	
2706-91-4	Perfluoropentanesulfonic acid	3.6 U	4.5	3.6	1.0	ng/l	
355-46-4	Perfluorohexanesulfonic acid	1.8 U	3.6	1.8	0.64	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	1.8 U	3.6	1.8	0.45	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	1.8 U	3.6	1.8	0.49	ng/l	
68259-12-1	Perfluorononanesulfonic acid	1.8 U	3.6	1.8	0.52	ng/l	
335-77-3	Perfluorodecanesulfonic acid	1.8 U	3.6	1.8	0.58	ng/l	
79780-39-5	Perfluorododecanesulfonic aci	3.6 U	4.5	3.6	1.0	ng/l	

**FLUOROTELOMER SULFONIC ACIDS**

757124-72-4	4:2 Fluorotelomer sulfonate	7.3 U	18	7.3	2.9	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	16.5	18	7.3	3.2	ng/l	J
39108-34-4	8:2 Fluorotelomer sulfonate	7.3 U	18	7.3	3.7	ng/l	

**PERFLUOROOCCTANE SULFONAMIDES**

754-91-6	PFOSA	1.8 U	3.6	1.8	0.61	ng/l	
31506-32-8	MeFOSA	3.6 U	7.3	3.6	0.91	ng/l	
4151-50-2	EtFOSA	3.6 U	7.3	3.6	0.91	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

4.5  
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# Report of Analysis

Client Sample ID:	AF-RHMW17-WGN01LF-2305W2	
Lab Sample ID:	FC6066-5	Date Sampled: 05/12/23
Matrix:	AQ - Ground Water	Date Received: 05/13/23
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
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**PERFLUOROOCCTANE SULFONAMIDOACETIC ACIDS**

2355-31-9	MeFOSAA	3.6 U	4.5	3.6	0.91	ng/l	
2991-50-6	EtFOSAA	3.6 U	4.5	3.6	1.2	ng/l	

**PERFLUOROOCCTANE SULFONAMIDO ETHANOLS**

24448-09-7	MeFOSE	18 U	36	18	4.0	ng/l	
1691-99-2	EtFOSE	18 U	36	18	6.7	ng/l	

**PER and POLYFLUOROETHER CARBOXYLIC ACIDS**

13252-13-6	HFPO-DA (GenX)	1.8 U	3.6	1.8	0.91	ng/l	
919005-14-4	ADONA	3.6 U	7.3	3.6	1.7	ng/l	
377-73-1	PFMPA	1.8 U	7.3	1.8	0.91	ng/l	
863090-89-5	PFMBA	3.6 U	7.3	3.6	1.0	ng/l	
151772-58-6	NFDHA	3.6 U	7.3	3.6	1.1	ng/l	

**PER and POLYFLUOROETHER SULFONIC ACIDS**

756426-58-1	9Cl-PF3ONS (F-53B Major)	3.6 U	7.3	3.6	1.3	ng/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	3.6 U	7.3	3.6	1.6	ng/l	
113507-82-7	PFEESA	1.8 U	7.3	1.8	0.71	ng/l	

**FLUOROTELOMER CARBOXYLIC ACIDS**

356-02-5	3:3 Fluorotelomer carboxylat <sup>a</sup>	9.1 U	18	9.1	4.1	ng/l	
914637-49-3	5:3 Fluorotelomer carboxylate	18 U	91	18	7.9	ng/l	
812-70-4	7:3 Fluorotelomer carboxylate	18 U	91	18	7.1	ng/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	98%		20-150%
	13C5-PFPeA	109%		20-150%
	13C5-PFHxA	114%		20-150%
	13C4-PFHpA	107%		20-150%
	13C8-PFOA	109%		20-150%
	13C9-PFNA	115%		20-150%
	13C6-PFDA	110%		20-150%
	13C7-PFUnDA	85%		20-150%
	13C2-PFDoDA	63%		20-150%
	13C2-PFTeDA	46%		20-150%
	13C3-PFBS	108%		20-150%
	13C3-PFHxS	105%		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

4.5  
4

## Report of Analysis

Client Sample ID:	AF-RHMW17-WGN01LF-2305W2	
Lab Sample ID:	FC6066-5	Date Sampled: 05/12/23
Matrix:	AQ - Ground Water	Date Received: 05/13/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	Percent Solids: n/a
Project:	N6274223F0104 RH Fire Suppression System	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	106%		20-150%
	13C8-FOSA	90%		20-150%
	d3-MeFOSA	79%		20-150%
	d5-EtFOSA	86%		20-150%
	d3-MeFOSAA	113%		20-150%
	d5-EtFOSAA	117%		20-150%
	d7-MeFOSE	80%		20-150%
	d9-EtFOSE	95%		20-150%
	13C2-4:2FTS	111%		20-180%
	13C2-6:2FTS	117%		20-180%
	13C2-8:2FTS	88%		20-180%
	13C3-HFPO-DA	105%		20-150%

(a) Associated BS recovery outside control limits.

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**

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**Includes the following where applicable:**

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



SGS North America Inc - Orlando

FC6066

COC #: 2305W2AFSG12

PAGE 1 OF 1

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

SGS - ORLANDO Quote #

SKIFF #

Client / Reporting Information		Project Information				Analytical Information										Matrix Codes	
Company Name: AECOM		Project Name: N6274223F0104 RH Fire Suppression System				<div style="text-align: center; font-size: 2em; font-weight: bold;">           0.874            5/12/23         </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 X X											
Sampler(s) Name(s) (Printed) Sampler 1: Andy Young Sampler 2: Jorge Villalobos		LAB USE ONLY															
SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION			CONTAINER INFORMATION												
		DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NOVE	ICI	NaOH	NaOH	PHOS	PERCA	NaOH-ZnAc	DI WATER	MECH	
1	AF-RHWW17S-WGN01LF-2305W2	5/12/23	1625	AY, JV	GW	3		X									X
2	AF-RHWW17S-WQEB01-2305W2	5/12/23	1110	AY, JV	GW	3		X									X
<div style="font-size: 2em; font-weight: bold;">           0.874            5/12/23         </div>																	
INITIAL ASSESSMENT																	
LABEL VERIFICATION																	
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 AwB 016-97082974									
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:			
1 Andy Young / AECOM		5/12/23		2 Alex Edmundo / AECOM		5/12/23		3 Alex Edmundo		5/12/23		4 Alex Edmundo		5/12/23			
5				6				7				8		15:00			
Lab Use Only: Cooler Temperature (e) Celsius (corrected): 0.874																	
<a href="http://www.sgs.com/en/terms-and-conditions">http://www.sgs.com/en/terms-and-conditions</a>																	

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FC6066: Chain of Custody

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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

**FC6066**  
SGS - ORLANDO JOB # :

COC #: 2305W2AFSG11  
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 OI - 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 X X										LAB USE ONLY				
Sampler(s) Name(s) (Printed) Sampler 1: Andy Young Sampler 2: Jorge Villalobos																		
SGS Orlando Sample #	Field ID / Point of Collection	DATE	TIME	SAMPLED BY	MATRIX	TOTAL # OF BOTTLES	OTHER	ROVE	PCB	NO3	NO2	PHOS	AMON	ZINC	DI WATER	MICH	PFAS EPA Draft 1633	LAB USE ONLY
3	AF-RHMMW17D-WGN01LF-2305W2	5/12/23	1225	AYJV	GW	3		X									X	
4	AF-RHMMW17D-WQFB01-2305W2	5/12/23	1130	AYJV	GW	3		X									X	
Turnaround Time (Business days)		Approved By: / Date:		Data Deliverable Information										Comments / Remarks				
10 Day (Business) 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 AWB 016-97082974				
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 Andy Young/AECOM		5/12/23		2 ARX Edmonds/AECo		5/12/23		3 ARX Edmonds/AECo		5/12/23		4 [unclear]/[unclear]		5/12/23		5 [unclear]/[unclear]		
5		6		7		8		9		10		11		12		13		
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>																		

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FC6066: Chain of Custody

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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

FC6066

SGS - ORLANDO JOB # :

COC #: 2305W2AFSG10  
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="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small; margin-right: 5px;">PFAS EPA Draft: 1633</div> <div style="border: 1px solid black; padding: 5px; font-size: 2em; font-family: cursive;"> <i>[Signature]</i> 5/12/23         </div> </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 Manager: Watson Tanji Email: watson.tanji@aecom.com Phone #: 303-796-4624 / 808-954-4512		Project # 60697810 Fax #																
Sampler(s) Name(s) (Printed) Sampler 1: <i>Andy Young</i> Sampler 2: <i>Jorge Villalobos</i>		Client Purchase Order #																
SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION		CONTAINER INFORMATION										LAB USE ONLY				
		DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	PCD	NEOH	INCS	PERCH	NOH-ZNAC		DI WATER	MECH		
S	AF-RHMW17-WGN01LF-2305W2	5/12/23	1335	<i>AY, JV</i>	GW	3		X										
Turnaround Time ( Business days)		Data Deliverable Information		Comments / Remarks														
10 Day (Business) _____ 7 Day _____ <input checked="" type="checkbox"/> 5 Day _____ 3 Day RUSH _____ 2 Day RUSH _____ 1 Day RUSH _____ Other _____		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  <i>United AWR 016-97082974</i>														
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 1 <i>Andy Young / AECOM</i>		Date Time: <i>5/12/23 1445</i>		Received By/Affiliation 2 <i>Alex Edmunds</i>		Date Time: _____		Relinquished By/Affiliation 3 <i>Alex Edmunds</i>		Date Time: <i>5/12/23</i>		Received By/Affiliation 4 <i>[Signature]</i>		Date Time: <i>5/12/23</i>				
Relinquished by/Affiliation 5 _____		Date Time: _____		Received By/Affiliation 6 _____		Date Time: _____		Relinquished By/Affiliation 7 _____		Date Time: _____		Received By/Affiliation 8 _____		Date Time: _____				
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>					

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FC6066: Chain of Custody

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## SGS Sample Receipt Summary

Job Number: FC6066

Client: AECOM

Project: N6274223F0104 RH Fire Suppression System

Date / Time Received: 5/13/2023 3:00:00 PM

Delivery Method: United Cargo/Airspace

Airbill #s: United Cargo AWB #: 016-97082974

Therm ID: IR 1;

Therm CF: -0.1;

# of Coolers: 1

Cooler Temps (Raw Measured) °C: Cooler 1: (0.8);

Cooler Temps (Corrected) °C: Cooler 1: (0.7);

**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 \_\_\_\_\_

Number of 5035 Field Kits: \_\_\_\_\_

Number of Lab Filtered Metals: \_\_\_\_\_

Test Strip Lot #s: pH 0-3 230320

pH 10-12 25BDH07

Other: (Specify) pH 1.0 - 12.0 222221

Residual Chlorine Test Strip Lot #: \_\_\_\_\_

Comments

SM001  
Rev. Date 05/24/17

Technician: NATHANS

Date: 5/13/2023 3:00:00 PM

Reviewer: CD

Date: 5/15/2023

**FC6066: Chain of Custody**

**Page 4 of 4**

# QC Evaluation: DOD QSM5.x Limits

**Job Number:** FC6066  
**Account:** AECOM, INC.  
**Project:** N6274223F0104 RH Fire Suppression System  
**Collected:** 05/12/23

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 FC6066

5.2  
5

## MS Semi-volatiles

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### QC Data Summaries

---

#### Includes the following where applicable:

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

# Instrument Blank

Job Number: FC6066  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q271-IBLK	6Q17941.D	1	05/17/23	MV	n/a	n/a	S6Q271

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC6066-1, FC6066-2, FC6066-3, FC6066-4, FC6066-5

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.016	0.0019	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0080	0.00094	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0040	0.00050	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0040	0.00050	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0040	0.00050	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0040	0.00061	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0040	0.00050	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0040	0.00060	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0040	0.00060	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0040	0.00084	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0040	0.00050	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0040	0.00050	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0050	0.0011	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0040	0.00070	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0040	0.00050	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0040	0.00054	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0040	0.00057	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0040	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	0.0040	0.00067	ug/l	
31506-32-8	MeFOSA	ND	0.0080	0.0010	ug/l	
4151-50-2	EtFOSA	ND	0.0080	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	0.040	0.0044	ug/l	
1691-99-2	EtFOSE	ND	0.040	0.0074	ug/l	
13252-13-6	HFPO-DA (GenX)	ND	0.0040	0.0010	ug/l	
919005-14-4	ADONA	ND	0.0080	0.0019	ug/l	
377-73-1	PFMPA	ND	0.0080	0.0010	ug/l	
863090-89-5	PFMBA	ND	0.0080	0.0011	ug/l	
151772-58-6	NFDHA	ND	0.0080	0.0012	ug/l	
756426-58-19	Cl-PF3ONS (F-53B Major)	ND	0.0080	0.0014	ug/l	
763051-92-91	Cl-PF3OUdS (F-53B Minor)	ND	0.0080	0.0018	ug/l	

# Instrument Blank

Job Number: FC6066  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q271-IBLK	6Q17941.D	1	05/17/23	MV	n/a	n/a	S6Q271

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC6066-1, FC6066-2, FC6066-3, FC6066-4, FC6066-5

CAS No.	Compound	Result	RL	MDL	Units	Q
113507-82-7	PFEESA	ND	0.0080	0.00078	ug/l	
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.020	0.0045	ug/l	
914637-49-35:3	Fluorotelomer carboxylate	ND	0.10	0.0087	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.10	0.0079	ug/l	

CAS No.	ID Standard Recoveries	Limits
	13C4-PFBA	101% 20-150%
	13C5-PFPeA	100% 20-150%
	13C5-PFHxA	98% 20-150%
	13C4-PFHpA	99% 20-150%
	13C8-PFOA	98% 20-150%
	13C9-PFNA	97% 20-150%
	13C6-PFDA	99% 20-150%
	13C7-PFUnDA	106% 20-150%
	13C2-PFDoDA	101% 20-150%
	13C2-PFTeDA	101% 20-150%
	13C3-PFBS	101% 20-150%
	13C3-PFHxS	96% 20-150%
	13C8-PFOS	101% 20-150%
	13C8-FOSA	111% 20-150%
	d3-MeFOSA	105% 20-150%
	d5-EtFOSA	103% 20-150%
	d3-MeFOSAA	99% 20-150%
	d5-EtFOSAA	111% 20-150%
	d7-MeFOSE	115% 20-150%
	d9-EtFOSE	111% 20-150%
	13C2-4:2FTS	104% 20-180%
	13C2-6:2FTS	101% 20-180%
	13C2-8:2FTS	102% 20-180%
	13C3-HFPO-DA	99% 20-150%

6.1.1  
6

# Continuing Calibration Blank

Job Number: FC6066  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q271-ICCB	6Q17955.D	1	05/17/23	MV	n/a	n/a	S6Q271

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC6066-2, FC6066-4, FC6066-5

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.016	0.0019	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0080	0.00094	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0040	0.00050	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0040	0.00050	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0040	0.00050	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0040	0.00061	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0040	0.00050	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0040	0.00060	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0040	0.00060	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0040	0.00084	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0040	0.00050	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0040	0.00050	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0050	0.0011	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0040	0.00070	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0040	0.00050	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0040	0.00054	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0040	0.00057	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0040	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	0.0040	0.00067	ug/l	
31506-32-8	MeFOSA	ND	0.0080	0.0010	ug/l	
4151-50-2	EtFOSA	ND	0.0080	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	0.040	0.0044	ug/l	
1691-99-2	EtFOSE	ND	0.040	0.0074	ug/l	
13252-13-6	HFPO-DA (GenX)	ND	0.0040	0.0010	ug/l	
919005-14-4	ADONA	ND	0.0080	0.0019	ug/l	
377-73-1	PFMPA	ND	0.0080	0.0010	ug/l	
863090-89-5	PFMBA	ND	0.0080	0.0011	ug/l	
151772-58-6	NFDHA	ND	0.0080	0.0012	ug/l	
756426-58-19	Cl-PF3ONS (F-53B Major)	ND	0.0080	0.0014	ug/l	
763051-92-91	Cl-PF3OUdS (F-53B Minor)	ND	0.0080	0.0018	ug/l	

# Continuing Calibration Blank

Job Number: FC6066  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q271-ICCB	6Q17955.D	1	05/17/23	MV	n/a	n/a	S6Q271

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC6066-2, FC6066-4, FC6066-5

CAS No.	Compound	Result	RL	MDL	Units	Q
113507-82-7	PFEESA	ND	0.0080	0.00078	ug/l	
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.020	0.0045	ug/l	
914637-49-35:3	Fluorotelomer carboxylate	ND	0.10	0.0087	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.10	0.0079	ug/l	

CAS No.	ID Standard Recoveries	Limits
	13C4-PFBA	102% 20-150%
	13C5-PFPeA	103% 20-150%
	13C5-PFHxA	107% 20-150%
	13C4-PFHpA	104% 20-150%
	13C8-PFOA	102% 20-150%
	13C9-PFNA	95% 20-150%
	13C6-PFDA	92% 20-150%
	13C7-PFUnDA	101% 20-150%
	13C2-PFDoDA	99% 20-150%
	13C2-PFTeDA	99% 20-150%
	13C3-PFBS	105% 20-150%
	13C3-PFHxS	97% 20-150%
	13C8-PFOS	92% 20-150%
	13C8-FOSA	98% 20-150%
	d3-MeFOSA	89% 20-150%
	d5-EtFOSA	91% 20-150%
	d3-MeFOSAA	82% 20-150%
	d5-EtFOSAA	94% 20-150%
	d7-MeFOSE	104% 20-150%
	d9-EtFOSE	101% 20-150%
	13C2-4:2FTS	97% 20-180%
	13C2-6:2FTS	96% 20-180%
	13C2-8:2FTS	92% 20-180%
	13C3-HFPO-DA	102% 20-150%



# Method Blank Summary

Job Number: FC6066  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96892-MB	6Q17947.D	1	05/17/23	MV	05/16/23	OP96892	S6Q271

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC6066-1, FC6066-2, FC6066-3, FC6066-4, FC6066-5

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.016	0.0019	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0080	0.00094	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0040	0.00050	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0040	0.00050	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0040	0.00050	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0040	0.00061	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0040	0.00050	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0040	0.00060	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0040	0.00060	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0040	0.00084	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0040	0.00050	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0040	0.00050	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0050	0.0011	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0040	0.00070	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0040	0.00050	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0040	0.00054	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0040	0.00057	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0040	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	0.0040	0.00067	ug/l	
31506-32-8	MeFOSA	ND	0.0080	0.0010	ug/l	
4151-50-2	EtFOSA	ND	0.0080	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	0.040	0.0044	ug/l	
1691-99-2	EtFOSE	ND	0.040	0.0074	ug/l	
13252-13-6	HFPO-DA (GenX)	ND	0.0040	0.0010	ug/l	
919005-14-4	ADONA	ND	0.0080	0.0019	ug/l	
377-73-1	PFMPA	ND	0.0080	0.0010	ug/l	
863090-89-5	PFMBA	ND	0.0080	0.0011	ug/l	
151772-58-6	NFDHA	ND	0.0080	0.0012	ug/l	
756426-58-19	Cl-PF3ONS (F-53B Major)	ND	0.0080	0.0014	ug/l	
763051-92-91	Cl-PF3OUdS (F-53B Minor)	ND	0.0080	0.0018	ug/l	

# Method Blank Summary

Job Number: FC6066  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96892-MB	6Q17947.D	1	05/17/23	MV	05/16/23	OP96892	S6Q271

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC6066-1, FC6066-2, FC6066-3, FC6066-4, FC6066-5

CAS No.	Compound	Result	RL	MDL	Units	Q
113507-82-7	PFEESA	ND	0.0080	0.00078	ug/l	
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.020	0.0045	ug/l	
914637-49-35:3	Fluorotelomer carboxylate	ND	0.10	0.0087	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.10	0.0079	ug/l	

CAS No.	ID Standard Recoveries	Limits
	13C4-PFBA	110% 20-150%
	13C5-PFPeA	108% 20-150%
	13C5-PFHxA	114% 20-150%
	13C4-PFHpA	114% 20-150%
	13C8-PFOA	110% 20-150%
	13C9-PFNA	103% 20-150%
	13C6-PFDA	106% 20-150%
	13C7-PFUnDA	103% 20-150%
	13C2-PFDoDA	98% 20-150%
	13C2-PFTeDA	97% 20-150%
	13C3-PFBS	108% 20-150%
	13C3-PFHxS	110% 20-150%
	13C8-PFOS	101% 20-150%
	13C8-FOSA	61% 20-150%
	d3-MeFOSA	62% 20-150%
	d5-EtFOSA	71% 20-150%
	d3-MeFOSAA	103% 20-150%
	d5-EtFOSAA	104% 20-150%
	d7-MeFOSE	60% 20-150%
	d9-EtFOSE	71% 20-150%
	13C2-4:2FTS	111% 20-180%
	13C2-6:2FTS	115% 20-180%
	13C2-8:2FTS	100% 20-180%
	13C3-HFPO-DA	111% 20-150%

# Blank Spike Summary

Job Number: FC6066  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96892-LLBS	6Q17946.D	1	05/17/23	MV	05/16/23	OP96892	S6Q271

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC6066-1, FC6066-2, FC6066-3, FC6066-4, FC6066-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
375-22-4	Perfluorobutanoic acid	0.03	0.0285	95	40-150
2706-90-3	Perfluoropentanoic acid	0.015	0.0144	96	40-150
307-24-4	Perfluorohexanoic acid	0.0075	0.0075	100	40-150
375-85-9	Perfluoroheptanoic acid	0.0075	0.0071	95	40-150
335-67-1	Perfluorooctanoic acid	0.0075	0.0070	93	40-150
375-95-1	Perfluorononanoic acid	0.0075	0.0067	89	40-150
335-76-2	Perfluorodecanoic acid	0.0075	0.0070	93	40-150
2058-94-8	Perfluoroundecanoic acid	0.0075	0.0065	87	40-150
307-55-1	Perfluorododecanoic acid	0.0075	0.0067	89	40-150
72629-94-8	Perfluorotridecanoic acid	0.0075	0.0069	92	40-150
376-06-7	Perfluorotetradecanoic acid	0.0075	0.0067	89	40-150
375-73-5	Perfluorobutanesulfonic acid	0.00665	0.0064	96	40-150
2706-91-4	Perfluoropentanesulfonic acid	0.00706	0.0074	105	40-150
355-46-4	Perfluorohexanesulfonic acid	0.00686	0.0069	101	40-150
375-92-8	Perfluoroheptanesulfonic acid	0.00715	0.0069	97	40-150
1763-23-1	Perfluorooctanesulfonic acid	0.00696	0.0066	95	40-150
68259-12-1	Perfluorononanesulfonic acid	0.00722	0.0064	89	40-150
335-77-3	Perfluorodecanesulfonic acid	0.00724	0.0066	91	40-150
79780-39-5	Perfluorododecanesulfonic aci	0.00728	0.0070	96	40-150
757124-72-44:2	Fluorotelomer sulfonate	0.0281	0.0270	96	40-150
27619-97-2	6:2 Fluorotelomer sulfonate	0.0285	0.0267	94	40-150
39108-34-4	8:2 Fluorotelomer sulfonate	0.0288	0.0323	112	40-150
754-91-6	PFOSA	0.0075	0.0071	95	40-150
31506-32-8	MeFOSA	0.015	0.0147	98	40-150
4151-50-2	EtFOSA	0.015	0.0118	79	40-150
2355-31-9	MeFOSAA	0.0075	0.0063	84	40-150
2991-50-6	EtFOSAA	0.0075	0.0067	89	40-150
24448-09-7	MeFOSE	0.0375	0.0332	89	40-150
1691-99-2	EtFOSE	0.0375	0.0343	91	40-150
13252-13-6	HFPO-DA (GenX)	0.015	0.0137	91	40-150
919005-14-4	ADONA	0.0142	0.0130	92	40-150
377-73-1	PFMPA	0.015	0.0136	91	40-150
863090-89-5	PFMBA	0.015	0.0133	89	40-150
151772-58-6	NFDHA	0.015	0.0124	83	40-150
756426-58-19	Cl-PF3ONS (F-53B Major)	0.014	0.0139	99	40-150
763051-92-91	Cl-PF3OUdS (F-53B Minor)	0.0142	0.0139	98	40-150

\* = Outside of Control Limits.

# Blank Spike Summary

Job Number: FC6066  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96892-LLBS	6Q17946.D	1	05/17/23	MV	05/16/23	OP96892	S6Q271

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC6066-1, FC6066-2, FC6066-3, FC6066-4, FC6066-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
113507-82-7	PFEESA	0.0134	0.0111	83	40-150
356-02-5	3:3 Fluorotelomer carboxylate	0.0375	0.0295	79	40-150
914637-49-35:3	Fluorotelomer carboxylate	0.188	0.171	91	40-150
812-70-4	7:3 Fluorotelomer carboxylate	0.188	0.194	103	40-150

CAS No.	ID Standard Recoveries	BSP	Limits
	13C4-PFBA	107%	20-150%
	13C5-PFPeA	106%	20-150%
	13C5-PFHxA	108%	20-150%
	13C4-PFHpA	107%	20-150%
	13C8-PFOA	108%	20-150%
	13C9-PFNA	114%	20-150%
	13C6-PFDA	104%	20-150%
	13C7-PFUnDA	113%	20-150%
	13C2-PFDoDA	106%	20-150%
	13C2-PFTeDA	103%	20-150%
	13C3-PFBS	108%	20-150%
	13C3-PFHxS	99%	20-150%
	13C8-PFOS	104%	20-150%
	13C8-FOSA	86%	20-150%
	d3-MeFOSA	78%	20-150%
	d5-EtFOSA	84%	20-150%
	d3-MeFOSAA	108%	20-150%
	d5-EtFOSAA	102%	20-150%
	d7-MeFOSE	74%	20-150%
	d9-EtFOSE	84%	20-150%
	13C2-4:2FTS	105%	20-180%
	13C2-6:2FTS	108%	20-180%
	13C2-8:2FTS	101%	20-180%
	13C3-HFPO-DA	106%	20-150%

\* = Outside of Control Limits.

# Blank Spike Summary

Job Number: FC6066  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96892-BS	6Q17945.D	1	05/17/23	MV	05/16/23	OP96892	S6Q271

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC6066-1, FC6066-2, FC6066-3, FC6066-4, FC6066-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
375-22-4	Perfluorobutanoic acid	0.1	0.0944	94	40-150
2706-90-3	Perfluoropentanoic acid	0.05	0.0476	95	40-150
307-24-4	Perfluorohexanoic acid	0.025	0.0237	95	40-150
375-85-9	Perfluoroheptanoic acid	0.025	0.0258	103	40-150
335-67-1	Perfluorooctanoic acid	0.025	0.0234	94	40-150
375-95-1	Perfluorononanoic acid	0.025	0.0241	96	40-150
335-76-2	Perfluorodecanoic acid	0.025	0.0246	98	40-150
2058-94-8	Perfluoroundecanoic acid	0.025	0.0237	95	40-150
307-55-1	Perfluorododecanoic acid	0.025	0.0237	95	40-150
72629-94-8	Perfluorotridecanoic acid	0.025	0.0240	96	40-150
376-06-7	Perfluorotetradecanoic acid	0.025	0.0230	92	40-150
375-73-5	Perfluorobutanesulfonic acid	0.0222	0.0209	94	40-150
2706-91-4	Perfluoropentanesulfonic acid	0.0235	0.0228	97	40-150
355-46-4	Perfluorohexanesulfonic acid	0.0229	0.0211	92	40-150
375-92-8	Perfluoroheptanesulfonic acid	0.0238	0.0231	97	40-150
1763-23-1	Perfluorooctanesulfonic acid	0.0232	0.0233	100	40-150
68259-12-1	Perfluorononanesulfonic acid	0.0241	0.0237	99	40-150
335-77-3	Perfluorodecanesulfonic acid	0.0241	0.0237	98	40-150
79780-39-5	Perfluorododecanesulfonic aci	0.0243	0.0227	94	40-150
757124-72-44:2	Fluorotelomer sulfonate	0.0938	0.0978	104	40-150
27619-97-2	6:2 Fluorotelomer sulfonate	0.095	0.0877	92	40-150
39108-34-4	8:2 Fluorotelomer sulfonate	0.096	0.0939	98	40-150
754-91-6	PFOSA	0.025	0.0241	96	40-150
31506-32-8	MeFOSA	0.05	0.0451	90	40-150
4151-50-2	EtFOSA	0.05	0.0474	95	40-150
2355-31-9	MeFOSAA	0.025	0.0236	94	40-150
2991-50-6	EtFOSAA	0.025	0.0237	95	40-150
24448-09-7	MeFOSE	0.125	0.116	93	40-150
1691-99-2	EtFOSE	0.125	0.110	88	40-150
13252-13-6	HFPO-DA (GenX)	0.05	0.0484	97	40-150
919005-14-4	ADONA	0.0473	0.0438	93	40-150
377-73-1	PFMPA	0.05	0.0212	42	40-150
863090-89-5	PFMBA	0.05	0.0491	98	40-150
151772-58-6	NFDHA	0.05	0.0430	86	40-150
756426-58-19	Cl-PF3ONS (F-53B Major)	0.0468	0.0422	90	40-150
763051-92-91	Cl-PF3OUdS (F-53B Minor)	0.0473	0.0433	92	40-150

\* = Outside of Control Limits.

# Blank Spike Summary

Job Number: FC6066  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96892-BS	6Q17945.D	1	05/17/23	MV	05/16/23	OP96892	S6Q271

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC6066-1, FC6066-2, FC6066-3, FC6066-4, FC6066-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
113507-82-7	PFEESA	0.0445	0.0389	87	40-150
356-02-5	3:3 Fluorotelomer carboxylate	0.125	0.0466	37*	40-150
914637-49-35:3	Fluorotelomer carboxylate	0.625	0.534	85	40-150
812-70-4	7:3 Fluorotelomer carboxylate	0.625	0.600	96	40-150

CAS No.	ID Standard Recoveries	BSP	Limits
	13C4-PFBA	25%	20-150%
	13C5-PFPeA	101%	20-150%
	13C5-PFHxA	115%	20-150%
	13C4-PFHpA	106%	20-150%
	13C8-PFOA	114%	20-150%
	13C9-PFNA	98%	20-150%
	13C6-PFDA	118%	20-150%
	13C7-PFUnDA	109%	20-150%
	13C2-PFDoDA	110%	20-150%
	13C2-PFTeDA	112%	20-150%
	13C3-PFBS	112%	20-150%
	13C3-PFHxS	110%	20-150%
	13C8-PFOS	112%	20-150%
	13C8-FOSA	94%	20-150%
	d3-MeFOSA	91%	20-150%
	d5-EtFOSA	89%	20-150%
	d3-MeFOSAA	108%	20-150%
	d5-EtFOSAA	114%	20-150%
	d7-MeFOSE	73%	20-150%
	d9-EtFOSE	87%	20-150%
	13C2-4:2FTS	101%	20-180%
	13C2-6:2FTS	115%	20-180%
	13C2-8:2FTS	109%	20-180%
	13C3-HFPO-DA	109%	20-150%

\* = Outside of Control Limits.

# Matrix Spike Summary

Job Number: FC6066  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96892-MS	6Q17953.D	1	05/17/23	MV	05/16/23	OP96892	S6Q271
FC6066-3	6Q17952.D	1	05/17/23	MV	05/16/23	OP96892	S6Q271

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC6066-1, FC6066-2, FC6066-3, FC6066-4, FC6066-5

CAS No.	Compound	FC6066-3 ug/l	Spike Q	MS ug/l	MS %	Limits
375-22-4	Perfluorobutanoic acid	0.015 U	0.0943	0.0833	88	40-150
2706-90-3	Perfluoropentanoic acid	0.0077 U	0.0472	0.0487	103	40-150
307-24-4	Perfluorohexanoic acid	0.0038 U	0.0236	0.0223	95	40-150
375-85-9	Perfluoroheptanoic acid	0.0038 U	0.0236	0.0235	100	40-150
335-67-1	Perfluorooctanoic acid	0.0038 U	0.0236	0.0225	95	40-150
375-95-1	Perfluorononanoic acid	0.0038 U	0.0236	0.0246	104	40-150
335-76-2	Perfluorodecanoic acid	0.0038 U	0.0236	0.0237	100	40-150
2058-94-8	Perfluoroundecanoic acid	0.0038 U	0.0236	0.0235	100	40-150
307-55-1	Perfluorododecanoic acid	0.0038 U	0.0236	0.0238	101	40-150
72629-94-8	Perfluorotridecanoic acid	0.0038 U	0.0236	0.0212	90	40-150
376-06-7	Perfluorotetradecanoic acid	0.0038 U	0.0236	0.0241	102	40-150
375-73-5	Perfluorobutanesulfonic acid	0.0038 U	0.0209	0.0206	98	40-150
2706-91-4	Perfluoropentanesulfonic acid	0.0048 U	0.0222	0.0226	102	40-150
355-46-4	Perfluorohexanesulfonic acid	0.0038 U	0.0216	0.0217	101	40-150
375-92-8	Perfluoroheptanesulfonic acid	0.0071	0.0225	0.0314	108	40-150
1763-23-1	Perfluorooctanesulfonic acid	0.0038 U	0.0219	0.0241	110	40-150
68259-12-1	Perfluorononanesulfonic acid	0.0038 U	0.0227	0.0225	99	40-150
335-77-3	Perfluorodecanesulfonic acid	0.0038 U	0.0228	0.0226	99	40-150
79780-39-5	Perfluorododecanesulfonic aci	0.0048 U	0.0229	0.0138	60	40-150
757124-72-44:2	Fluorotelomer sulfonate	0.019 U	0.0884	0.0914	103	40-150
27619-97-2	6:2 Fluorotelomer sulfonate	0.019 U	0.0896	0.0974	109	40-150
39108-34-4	8:2 Fluorotelomer sulfonate	0.019 U	0.0906	0.104	115	40-150
754-91-6	PFOSA	0.0038 U	0.0236	0.0210	89	40-150
31506-32-8	MeFOSA	0.0077 U	0.0472	0.0462	98	40-150
4151-50-2	EtFOSA	0.0077 U	0.0472	0.0437	93	40-150
2355-31-9	MeFOSAA	0.0048 U	0.0236	0.0252	107	40-150
2991-50-6	EtFOSAA	0.0048 U	0.0236	0.0217	92	40-150
24448-09-7	MeFOSE	0.038 U	0.118	0.108	92	40-150
1691-99-2	EtFOSE	0.038 U	0.118	0.117	99	40-150
13252-13-6	HFPO-DA (GenX)	0.0038 U	0.0472	0.0474	100	40-150
919005-14-4	ADONA	0.0077 U	0.0446	0.0486	109	40-150
377-73-1	PFMPA	0.0077 U	0.0472	0.0126	27*	40-150
863090-89-5	PFMBA	0.0077 U	0.0472	0.0725	154*	40-150
151772-58-6	NFDHA	0.0077 U	0.0472	0.0386	82	40-150
756426-58-19	Cl-PF3ONS (F-53B Major)	0.0077 U	0.0441	0.0473	107	40-150
763051-92-91	Cl-PF3OUdS (F-53B Minor)	0.0077 U	0.0446	0.0409	92	40-150

\* = Outside of Control Limits.

# Matrix Spike Summary

Job Number: FC6066  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96892-MS	6Q17953.D	1	05/17/23	MV	05/16/23	OP96892	S6Q271
FC6066-3	6Q17952.D	1	05/17/23	MV	05/16/23	OP96892	S6Q271

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC6066-1, FC6066-2, FC6066-3, FC6066-4, FC6066-5

CAS No.	Compound	FC6066-3 ug/l	Spike Q	MS ug/l	MS %	Limits
113507-82-7	PFEESA	0.0077 U	0.042	0.0419	100	40-150
356-02-5	3:3 Fluorotelomer carboxylate	0.019 U	0.118	0.0374	32*	40-150
914637-49-35:3	Fluorotelomer carboxylate	0.096 U	0.59	0.590	100	40-150
812-70-4	7:3 Fluorotelomer carboxylate	0.096 U	0.59	0.623	106	40-150

CAS No.	ID Standard Recoveries	MS	FC6066-3	Limits
	13C4-PFBA	4%* a	5%* a	20-150%
	13C5-PFPeA	28%	33%	20-150%
	13C5-PFHxA	93%	103%	20-150%
	13C4-PFHpA	102%	110%	20-150%
	13C8-PFOA	105%	117%	20-150%
	13C9-PFNA	98%	104%	20-150%
	13C6-PFDA	101%	109%	20-150%
	13C7-PFUnDA	97%	90%	20-150%
	13C2-PFDoDA	90%	87%	20-150%
	13C2-PFTeDA	67%	64%	20-150%
	13C3-PFBS	106%	110%	20-150%
	13C3-PFHxS	109%	114%	20-150%
	13C8-PFOS	113%	110%	20-150%
	13C8-FOSA	113%	90%	20-150%
	d3-MeFOSA	103%	93%	20-150%
	d5-EtFOSA	104%	99%	20-150%
	d3-MeFOSAA	134%	146%	20-150%
	d5-EtFOSAA	150%	148%	20-150%
	d7-MeFOSE	89%	69%	20-150%
	d9-EtFOSE	95%	82%	20-150%
	13C2-4:2FTS	106%	107%	20-180%
	13C2-6:2FTS	111%	120%	20-180%
	13C2-8:2FTS	107%	131%	20-180%
	13C3-HFPO-DA	87%	92%	20-150%

(a) Outside control limits.

\* = Outside of Control Limits.



# Duplicate Summary

Job Number: FC6066  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96892-DUP	6Q17959.D	1	05/17/23	MV	05/16/23	OP96892	S6Q271
FC6066-5	6Q17958.D	1	05/17/23	MV	05/16/23	OP96892	S6Q271

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC6066-1, FC6066-2, FC6066-3, FC6066-4, FC6066-5

CAS No.	Compound	FC6066-5 ug/l	DUP Q	ug/l	Q	RPD	Limits
375-22-4	Perfluorobutanoic acid	0.015 U		ND		nc	30
2706-90-3	Perfluoropentanoic acid	0.0037 J		0.0038 J		3	30
307-24-4	Perfluorohexanoic acid	0.0024 J		0.0024 J		0	30
375-85-9	Perfluoroheptanoic acid	0.00092 J		0.0010 J		8	30
335-67-1	Perfluorooctanoic acid	0.0036 U		ND		nc	30
375-95-1	Perfluorononanoic acid	0.0036 U		ND		nc	30
335-76-2	Perfluorodecanoic acid	0.0036 U		ND		nc	30
2058-94-8	Perfluoroundecanoic acid	0.0036 U		ND		nc	30
307-55-1	Perfluorododecanoic acid	0.0036 U		ND		nc	30
72629-94-8	Perfluorotridecanoic acid	0.0036 U		ND		nc	30
376-06-7	Perfluorotetradecanoic acid	0.0036 U		ND		nc	30
375-73-5	Perfluorobutanesulfonic acid	0.0036 U		ND		nc	30
2706-91-4	Perfluoropentanesulfonic acid	0.0045 U		ND		nc	30
355-46-4	Perfluorohexanesulfonic acid	0.0036 U		ND		nc	30
375-92-8	Perfluoroheptanesulfonic acid	0.0036 U		ND		nc	30
1763-23-1	Perfluorooctanesulfonic acid	0.0036 U		ND		nc	30
68259-12-1	Perfluorononanesulfonic acid	0.0036 U		ND		nc	30
335-77-3	Perfluorodecanesulfonic acid	0.0036 U		ND		nc	30
79780-39-5	Perfluorododecanesulfonic aci	0.0045 U		ND		nc	30
757124-72-44:2	Fluorotelomer sulfonate	0.018 U		ND		nc	30
27619-97-2	6:2 Fluorotelomer sulfonate	0.0165 J		0.0193		16	30
39108-34-4	8:2 Fluorotelomer sulfonate	0.018 U		ND		nc	30
754-91-6	PFOSA	0.0036 U		ND		nc	30
31506-32-8	MeFOSA	0.0073 U		ND		nc	30
4151-50-2	EtFOSA	0.0073 U		ND		nc	30
2355-31-9	MeFOSAA	0.0045 U		ND		nc	30
2991-50-6	EtFOSAA	0.0045 U		ND		nc	30
24448-09-7	MeFOSE	0.036 U		ND		nc	30
1691-99-2	EtFOSE	0.036 U		ND		nc	30
13252-13-6	HFPO-DA (GenX)	0.0036 U		ND		nc	30
919005-14-4	ADONA	0.0073 U		ND		nc	30
377-73-1	PFMPA	0.0073 U		ND		nc	30
863090-89-5	PFMBA	0.0073 U		ND		nc	30
151772-58-6	NFDHA	0.0073 U		ND		nc	30
756426-58-19	Cl-PF3ONS (F-53B Major)	0.0073 U		ND		nc	30
763051-92-91	Cl-PF3OUdS (F-53B Minor)	0.0073 U		ND		nc	30

\* = Outside of Control Limits.

# Duplicate Summary

Job Number: FC6066  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96892-DUP	6Q17959.D	1	05/17/23	MV	05/16/23	OP96892	S6Q271
FC6066-5	6Q17958.D	1	05/17/23	MV	05/16/23	OP96892	S6Q271

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC6066-1, FC6066-2, FC6066-3, FC6066-4, FC6066-5

CAS No.	Compound	FC6066-5 ug/l	DUP Q	ug/l	Q	RPD	Limits
113507-82-7PFEESA		0.0073 U	ND			nc	30
356-02-5	3:3 Fluorotelomer carboxylate	0.018 U	ND			nc	30
914637-49-35:3	Fluorotelomer carboxylate	0.091 U	ND			nc	30
812-70-4	7:3 Fluorotelomer carboxylate	0.091 U	ND			nc	30

CAS No.	ID Standard Recoveries	DUP	FC6066-5	Limits
	13C4-PFBA	90%	98%	20-150%
	13C5-PFPeA	100%	109%	20-150%
	13C5-PFHxA	108%	114%	20-150%
	13C4-PFHpA	104%	107%	20-150%
	13C8-PFOA	105%	109%	20-150%
	13C9-PFNA	93%	115%	20-150%
	13C6-PFDA	92%	110%	20-150%
	13C7-PFUnDA	67%	85%	20-150%
	13C2-PFDoDA	56%	63%	20-150%
	13C2-PFTeDA	37%	46%	20-150%
	13C3-PFBS	108%	108%	20-150%
	13C3-PFHxS	103%	105%	20-150%
	13C8-PFOS	77%	106%	20-150%
	13C8-FOSA	81%	90%	20-150%
	d3-MeFOSA	59%	79%	20-150%
	d5-EtFOSA	59%	86%	20-150%
	d3-MeFOSAA	75%	113%	20-150%
	d5-EtFOSAA	79%	117%	20-150%
	d7-MeFOSE	61%	80%	20-150%
	d9-EtFOSE	64%	95%	20-150%
	13C2-4:2FTS	112%	111%	20-180%
	13C2-6:2FTS	114%	117%	20-180%
	13C2-8:2FTS	81%	88%	20-180%
	13C3-HFPO-DA	101%	105%	20-150%

\* = Outside of Control Limits.