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## Technical Report for

### City of Cocoa Beach Water Reclamation

#### PFOS/PFOA Testing

SGS Job Number: FA56731

Sampling Date: 08/14/18

#### Report to:

City of Cocoa Beach Water Reclamation  
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Cocoa Beach, FL 32931  
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ATTN: Christopher Krick

Total number of pages in report: 59



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.

A handwritten signature in black ink that reads "Caitlin Brice".

Caitlin Brice, M.S.  
General Manager

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Test results relate only to samples analyzed.

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## Sample Summary

**City of Cocoa Beach Water Reclamation**

**Job No: FA56731**

**PFOS/PFOA Testing**

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
FA56731-1	08/14/18	08:25 EC	08/14/18	AQ	Water	INF COMP (81318)
FA56731-2	08/14/18	08:30 EC	08/14/18	AQ	Water	EFF COMP (81318)
FA56731-3	08/14/18	08:40 EC	08/14/18	AQ	Water	INF GRAB (81418)
FA56731-4	08/14/18	08:45 EC	08/14/18	AQ	Water	EFF GRAP (81418)
FA56731-5	08/14/18	09:10 EC	08/14/18	AQ	Water	LS 3
FA56731-6	08/14/18	09:20 EC	08/14/18	AQ	Water	PAFB
FA56731-7	08/14/18	09:40 EC	08/14/18	AQ	Water	LS 17
FA56731-8	08/14/18	09:55 EC	08/14/18	AQ	Water	RECLAIM SOUTH
FA56731-9	08/14/18	10:05 EC	08/14/18	AQ	Ground Water	PRIVATE WELL
FA56731-10	08/14/18	10:15 EC	08/14/18	AQ	Ground Water	ARTISIAN WELL
FA56731-11	08/14/18	10:25 EC	08/14/18	AQ	Ground Water	DOG PARK
FA56731-12	08/14/18	10:45 EC	08/14/18	AQ	Water	LS 10
FA56731-13	08/14/18	11:00 EC	08/14/18	AQ	Water	LS 5



### Sample Summary (continued)

City of Cocoa Beach Water Reclamation

Job No: FA56731

PFOS/PFOA Testing

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
FA56731-14	08/14/18	11:25	08/14/18	AQ	Water	RECLAIM NORTH
FA56731-15	08/14/18	11:50	08/14/18	AQ	Water	PORT LS
FA56731-16	08/14/18	12:50	08/14/18	AQ	Surface Water	GC OUTFALL
FA56731-17	08/14/18	13:05	08/14/18	AQ	Ground Water	MW 4
FA56731-18	08/14/18	13:40	08/14/18	AQ	Ground Water	MW 3
FA56731-19	08/14/18	14:10	08/14/18	AQ	Ground Water	MW 2

# Summary of Hits

**Job Number:** FA56731  
**Account:** City of Cocoa Beach Water Reclamation  
**Project:** PFOS/PFOA Testing  
**Collected:** 08/14/18

Lab Sample ID	Client Sample ID	Result/ Analyte	QAL	PQL	MDL	Units	Method
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**FA56731-1 INF COMP (81318)**

Perfluorohexanoic acid	0.0218	0.0077	0.0019	ug/l	EPA 537M BY ID
Perfluoroheptanoic acid	0.00991	0.0077	0.0019	ug/l	EPA 537M BY ID
Perfluorooctanoic acid	0.0132	0.0077	0.0019	ug/l	EPA 537M BY ID
Perfluorobutanesulfonic acid	0.0791	0.0077	0.0019	ug/l	EPA 537M BY ID
Perfluorohexanesulfonic acid	0.0627	0.0077	0.0019	ug/l	EPA 537M BY ID
Perfluorooctanesulfonic acid	0.0896	0.0077	0.0029	ug/l	EPA 537M BY ID

**FA56731-2 EFF COMP (81318)**

Perfluorohexanoic acid	0.0424	0.0077	0.0019	ug/l	EPA 537M BY ID
Perfluoroheptanoic acid	0.0180	0.0077	0.0019	ug/l	EPA 537M BY ID
Perfluorooctanoic acid	0.0180	0.0077	0.0019	ug/l	EPA 537M BY ID
Perfluorononanoic acid	0.00212 I	0.0077	0.0019	ug/l	EPA 537M BY ID
Perfluorobutanesulfonic acid	0.0364	0.0077	0.0019	ug/l	EPA 537M BY ID
Perfluorohexanesulfonic acid	0.0292	0.0077	0.0019	ug/l	EPA 537M BY ID
Perfluorooctanesulfonic acid	0.0670	0.0077	0.0029	ug/l	EPA 537M BY ID

**FA56731-3 INF GRAB (81418)**

Perfluorohexanoic acid <sup>a</sup>	0.0269	0.0083	0.0021	ug/l	EPA 537M BY ID
Perfluoroheptanoic acid <sup>a</sup>	0.0123	0.0083	0.0021	ug/l	EPA 537M BY ID
Perfluorooctanoic acid <sup>a</sup>	0.0182	0.0083	0.0021	ug/l	EPA 537M BY ID
Perfluorononanoic acid <sup>a</sup>	0.00258 I	0.0083	0.0021	ug/l	EPA 537M BY ID
Perfluorodecanoic acid <sup>a</sup>	0.00248 I	0.0083	0.0021	ug/l	EPA 537M BY ID
Perfluorobutanesulfonic acid <sup>a</sup>	0.0536	0.0083	0.0021	ug/l	EPA 537M BY ID
Perfluorohexanesulfonic acid <sup>a</sup>	0.0439	0.0083	0.0021	ug/l	EPA 537M BY ID
Perfluorooctanesulfonic acid <sup>a</sup>	0.0936	0.0083	0.0031	ug/l	EPA 537M BY ID

**FA56731-4 EFF GRAP (81418)**

Perfluorohexanoic acid	0.0440	0.0083	0.0021	ug/l	EPA 537M BY ID
Perfluoroheptanoic acid	0.0189	0.0083	0.0021	ug/l	EPA 537M BY ID
Perfluorooctanoic acid	0.0207	0.0083	0.0021	ug/l	EPA 537M BY ID
Perfluorodecanoic acid	0.00232 I	0.0083	0.0021	ug/l	EPA 537M BY ID
Perfluorobutanesulfonic acid	0.0388	0.0083	0.0021	ug/l	EPA 537M BY ID
Perfluorohexanesulfonic acid	0.0325	0.0083	0.0021	ug/l	EPA 537M BY ID
Perfluorooctanesulfonic acid	0.0835	0.0083	0.0031	ug/l	EPA 537M BY ID

**FA56731-5 LS 3**

Perfluorohexanoic acid <sup>a</sup>	0.00777 I	0.0083	0.0021	ug/l	EPA 537M BY ID
Perfluoroheptanoic acid <sup>a</sup>	0.00492 I	0.0083	0.0021	ug/l	EPA 537M BY ID
Perfluorooctanoic acid <sup>a</sup>	0.00931	0.0083	0.0021	ug/l	EPA 537M BY ID

## Summary of Hits

Job Number: FA56731  
 Account: City of Cocoa Beach Water Reclamation  
 Project: PFOS/PFOA Testing  
 Collected: 08/14/18

Lab Sample ID	Client Sample ID	Result/ Qual	PQL	MDL	Units	Method
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Perfluorobutanesulfonic acid <sup>a</sup>		0.0130	0.0083	0.0021	ug/l	EPA 537M BY ID
Perfluorohexanesulfonic acid <sup>a</sup>		0.0993	0.0083	0.0021	ug/l	EPA 537M BY ID
Perfluorooctanesulfonic acid <sup>a</sup>		0.0313	0.0083	0.0031	ug/l	EPA 537M BY ID

### FA56731-6 PAFB

Perfluorohexanoic acid <sup>a</sup>		0.0369	0.0077	0.0019	ug/l	EPA 537M BY ID
Perfluoroheptanoic acid <sup>a</sup>		0.0121	0.0077	0.0019	ug/l	EPA 537M BY ID
Perfluorooctanoic acid <sup>a</sup>		0.0160	0.0077	0.0019	ug/l	EPA 537M BY ID
Perfluorononanoic acid <sup>a</sup>		0.00271 I	0.0077	0.0019	ug/l	EPA 537M BY ID
Perfluorobutanesulfonic acid <sup>a</sup>		0.0470	0.0077	0.0019	ug/l	EPA 537M BY ID
Perfluorohexanesulfonic acid <sup>a</sup>		0.0781	0.0077	0.0019	ug/l	EPA 537M BY ID
Perfluorooctanesulfonic acid <sup>a</sup>		0.278	0.0077	0.0029	ug/l	EPA 537M BY ID

### FA56731-7 LS 17

Perfluorohexanoic acid <sup>a</sup>		0.00417 I	0.0077	0.0019	ug/l	EPA 537M BY ID
Perfluorooctanoic acid <sup>a</sup>		0.00417 I	0.0077	0.0019	ug/l	EPA 537M BY ID
Perfluorohexanesulfonic acid <sup>a</sup>		0.128	0.0077	0.0019	ug/l	EPA 537M BY ID
Perfluorooctanesulfonic acid <sup>a</sup>		0.0192	0.0077	0.0029	ug/l	EPA 537M BY ID

### FA56731-8 RECLAIM SOUTH

Perfluorohexanoic acid		0.0637	0.0083	0.0021	ug/l	EPA 537M BY ID
Perfluoroheptanoic acid		0.0395	0.0083	0.0021	ug/l	EPA 537M BY ID
Perfluorooctanoic acid		0.0228	0.0083	0.0021	ug/l	EPA 537M BY ID
Perfluorononanoic acid		0.00445 I	0.0083	0.0021	ug/l	EPA 537M BY ID
Perfluorodecanoic acid		0.00370 I	0.0083	0.0021	ug/l	EPA 537M BY ID
Perfluoroundecanoic acid		0.00608 I	0.0083	0.0021	ug/l	EPA 537M BY ID
Perfluorododecanoic acid		0.00817 I	0.0083	0.0031	ug/l	EPA 537M BY ID
Perfluorobutanesulfonic acid		0.0334	0.0083	0.0021	ug/l	EPA 537M BY ID
Perfluorohexanesulfonic acid		0.0668	0.0083	0.0021	ug/l	EPA 537M BY ID
Perfluorooctanesulfonic acid		0.0920	0.0083	0.0031	ug/l	EPA 537M BY ID

### FA56731-9 PRIVATE WELL

No hits reported in this sample.

### FA56731-10 ARTISIAN WELL

No hits reported in this sample.

### FA56731-11 DOG PARK

Perfluorohexanoic acid		0.0106	0.0083	0.0021	ug/l	EPA 537M BY ID
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## Summary of Hits

Job Number: FA56731  
 Account: City of Cocoa Beach Water Reclamation  
 Project: PFOS/PFOA Testing  
 Collected: 08/14/18

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Lab Sample ID	Client Sample ID	Result/ Analyte	Qual	PQL	MDL	Units	Method
		Perfluoroheptanoic acid	0.00659 I	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorooctanoic acid	0.0213	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorononanoic acid	0.00227 I	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluoroundecanoic acid	0.00221 I	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorobutanesulfonic acid	0.0205	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorohexanesulfonic acid	0.0204	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorooctanesulfonic acid	0.102	0.0083	0.0031	ug/l	EPA 537M BY ID
FA56731-12		LS 10					
		Perfluorohexanoic acid <sup>a</sup>	0.0120	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluoroheptanoic acid <sup>a</sup>	0.00817 I	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorooctanoic acid <sup>a</sup>	0.00787 I	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorobutanesulfonic acid <sup>a</sup>	0.0177	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorohexanesulfonic acid <sup>a</sup>	0.0865	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorooctanesulfonic acid <sup>a</sup>	0.0290	0.0083	0.0031	ug/l	EPA 537M BY ID
FA56731-13		LS 5					
		Perfluorohexanoic acid <sup>a</sup>	0.0144	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluoroheptanoic acid <sup>a</sup>	0.00801 I	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorooctanoic acid <sup>a</sup>	0.0124	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorobutanesulfonic acid <sup>a</sup>	0.0362	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorohexanesulfonic acid <sup>a</sup>	0.0911	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorooctanesulfonic acid <sup>a</sup>	0.0472	0.0083	0.0031	ug/l	EPA 537M BY ID
FA56731-14		RECLAIM NORTH					
		Perfluorohexanoic acid	0.0499	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluoroheptanoic acid	0.0230	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorooctanoic acid	0.0226	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorononanoic acid	0.00213 I	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorobutanesulfonic acid	0.0416	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorohexanesulfonic acid	0.0341	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorooctanesulfonic acid	0.0957	0.0083	0.0031	ug/l	EPA 537M BY ID
FA56731-15		PORT LS					
		Perfluorooctanoic acid <sup>a</sup>	0.0112	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorodecanoic acid <sup>a</sup>	0.00258 I	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorohexanesulfonic acid <sup>a</sup>	0.0468	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorooctanesulfonic acid <sup>a</sup>	0.00956	0.0083	0.0031	ug/l	EPA 537M BY ID

## Summary of Hits

Job Number: FA56731  
 Account: City of Cocoa Beach Water Reclamation  
 Project: PFOS/PFOA Testing  
 Collected: 08/14/18

Lab Sample ID	Client Sample ID	Result/ Analyte	Qual	PQL	MDL	Units	Method
<b>FA56731-16</b>		<b>GC OUTFALL</b>					
		Perfluorohexanoic acid <sup>a</sup>	0.0448	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluoroheptanoic acid <sup>a</sup>	0.0379	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorooctanoic acid <sup>a</sup>	0.0309	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorononanoic acid <sup>a</sup>	0.00364 I	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorodecanoic acid <sup>a</sup>	0.00235 I	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorobutanesulfonic acid <sup>a</sup>	0.0301	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorohexanesulfonic acid <sup>a</sup>	0.0762	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorooctanesulfonic acid <sup>a</sup>	0.130	0.0083	0.0031	ug/l	EPA 537M BY ID
<b>FA56731-17</b>		<b>MW 4</b>					
		Perfluorohexanoic acid	0.0497	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluoroheptanoic acid	0.0245	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorooctanoic acid	0.0249	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorononanoic acid	0.00245 I	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorobutanesulfonic acid	0.0285	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorohexanesulfonic acid	0.0867	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorooctanesulfonic acid	0.0628	0.0083	0.0031	ug/l	EPA 537M BY ID
<b>FA56731-18</b>		<b>MW 3</b>					
		Perfluorohexanoic acid <sup>a</sup>	0.103	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluoroheptanoic acid <sup>a</sup>	0.0313	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorooctanoic acid <sup>a</sup>	0.0304	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorobutanesulfonic acid <sup>a</sup>	0.0643	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorohexanesulfonic acid <sup>a</sup>	0.208	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorooctanesulfonic acid <sup>a</sup>	0.188	0.0083	0.0031	ug/l	EPA 537M BY ID
<b>FA56731-19</b>		<b>MW 2</b>					
		Perfluorohexanoic acid	0.0530	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluoroheptanoic acid	0.0268	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorooctanoic acid	0.0343	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorodecanoic acid	0.00219 I	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluoroundecanoic acid	0.00644 I	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorododecanoic acid	0.00779 I	0.0083	0.0031	ug/l	EPA 537M BY ID
		Perfluorobutanesulfonic acid	0.0314	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorohexanesulfonic acid	0.174	0.0083	0.0021	ug/l	EPA 537M BY ID
		Perfluorooctanesulfonic acid	0.191	0.0083	0.0031	ug/l	EPA 537M BY ID

(a) Dilution required due to matrix interference (internal standard failure).



## Sample Results

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## Report of Analysis

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# Report of Analysis

<b>Client Sample ID:</b> INF COMP (81318)	
<b>Lab Sample ID:</b> FA56731-1	<b>Date Sampled:</b> 08/14/18
<b>Matrix:</b> AQ - Water	<b>Date Received:</b> 08/14/18
<b>Method:</b> EPA 537M BY ID EPA 537 MOD	<b>Percent Solids:</b> n/a
<b>Project:</b> PFOS/PFOA Testing	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q20135.D	1	09/09/18 12:25	MV	08/24/18 09:00	OP71500	S2Q330
Run #2	2Q20225.D	2	09/11/18 07:23	NG	08/24/18 09:00	OP71500	S2Q331

Run #	Initial Volume	Final Volume
Run #1	130 ml	1.0 ml
Run #2	130 ml	1.0 ml

EPA 537 Method List

CAS No.	Compound	Result	PQL	MDL	Units	Q
<b>PERFLUOROALKYL CARBOXYLIC ACIDS</b>						
307-24-4	Perfluorohexanoic acid	0.0218	0.0077	0.0019	ug/l	
375-85-9	Perfluoroheptanoic acid	0.00991	0.0077	0.0019	ug/l	
335-67-1	Perfluorooctanoic acid	0.0132	0.0077	0.0019	ug/l	
375-95-1	Perfluorononanoic acid	0.0019 U	0.0077	0.0019	ug/l	
335-76-2	Perfluorodecanoic acid	0.0019 U	0.0077	0.0019	ug/l	
2058-94-8	Perfluoroundecanoic acid	0.0019 U	0.0077	0.0019	ug/l	
307-55-1	Perfluorododecanoic acid	0.0029 U	0.0077	0.0029	ug/l	
72629-94-8	Perfluorotridecanoic acid	0.0038 U <sup>a</sup>	0.015	0.0038	ug/l	
376-06-7	Perfluorotetradecanoic acid	0.0038 U <sup>a</sup>	0.015	0.0038	ug/l	

<b>PERFLUOROALKYL SULFONATES</b>						
375-73-5	Perfluorobutanesulfonic acid	0.0791	0.0077	0.0019	ug/l	
355-46-4	Perfluorohexanesulfonic acid	0.0627	0.0077	0.0019	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.0896	0.0077	0.0029	ug/l	

<b>PERFLUORO OCTANESULFONAMIDOACETIC ACIDS</b>						
2355-31-9	MeFOSAA	0.0077 U	0.038	0.0077	ug/l	
2991-50-6	EiFOSAA	0.0077 U	0.038	0.0077	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C5-PFHxA	77%		50-150%
	13C4-PFHpA	86%		50-150%
	13C8-PFOA	91%		50-150%
	13C9-PFNA	90%		50-150%
	13C6-PFDA	88%		50-150%
	13C7-PFUnDA	53%		50-150%
	13C2-PFDoDA		52%	50-150%
	13C2-PFTeDA	49%		40-150%
	13C3-PFBS	79%		50-150%
	13C3-PFHxS	77%		50-150%

U = Not detected      MDL = Method Detection Limit      I = Result >= MDL but < PQL      J = Estimated value  
 PQL = Practical Quantitation Limit      V = Indicates analyte found in associated method blank  
 L = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> INF COMP (81318)	
<b>Lab Sample ID:</b> FA56731-1	<b>Date Sampled:</b> 08/14/18
<b>Matrix:</b> AQ - Water	<b>Date Received:</b> 08/14/18
<b>Method:</b> EPA 537M BY ID EPA 537 MOD	<b>Percent Solids:</b> n/a
<b>Project:</b> PFOS/PFOA Testing	

### EPA 537 Method List

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	70%		50-150%
	d3-MeFOSAA	105%		50-150%

(a) Result is from Run# 2

U = Not detected      MDL = Method Detection Limit  
 PQL = Practical Quantitation Limit  
 L = Indicates value exceeds calibration range

I = Result >= MDL but < PQL    J = Estimated value  
 V = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> EFF COMP (81318)	
<b>Lab Sample ID:</b> FA56731-2	<b>Date Sampled:</b> 08/14/18
<b>Matrix:</b> AQ - Water	<b>Date Received:</b> 08/14/18
<b>Method:</b> EPA 537M BY ID EPA 537 MOD	<b>Percent Solids:</b> n/a
<b>Project:</b> PFOS/PFOA Testing	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q20136.D	1	09/09/18 12:45	MV	08/24/18 09:00	OP71500	S2Q330
Run #2							

Run #	Initial Volume	Final Volume
Run #1	130 ml	1.0 ml
Run #2		

EPA 537 Method List

CAS No.	Compound	Result	PQL	MDL	Units	Q
<b>PERFLUOROALKYL CARBOXYLIC ACIDS</b>						
307-24-4	Perfluorohexanoic acid	0.0424	0.0077	0.0019	ug/l	
375-85-9	Perfluoroheptanoic acid	0.0180	0.0077	0.0019	ug/l	
335-67-1	Perfluorooctanoic acid	0.0180	0.0077	0.0019	ug/l	
375-95-1	Perfluorononanoic acid	0.00212	0.0077	0.0019	ug/l	I
335-76-2	Perfluorodecanoic acid	0.0019 U	0.0077	0.0019	ug/l	
2058-94-8	Perfluoroundecanoic acid	0.0019 U	0.0077	0.0019	ug/l	
307-55-1	Perfluorododecanoic acid	0.0029 U	0.0077	0.0029	ug/l	
72629-94-8	Perfluorotridecanoic acid	0.0019 U	0.0077	0.0019	ug/l	
376-06-7	Perfluorotetradecanoic acid	0.0019 U	0.0077	0.0019	ug/l	

<b>PERFLUOROALKYL SULFONATES</b>						
375-73-5	Perfluorobutanesulfonic acid	0.0364	0.0077	0.0019	ug/l	
355-46-4	Perfluorohexanesulfonic acid	0.0292	0.0077	0.0019	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.0670	0.0077	0.0029	ug/l	

<b>PERFLUORO OCTANESULFONAMIDOACETIC ACIDS</b>						
2355-31-9	MeFOSAA	0.0077 U	0.038	0.0077	ug/l	
2991-50-6	EiFOSAA	0.0077 U	0.038	0.0077	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C5-PFHxA	89%		50-150%
	13C4-PFHpA	95%		50-150%
	13C8-PFOA	100%		50-150%
	13C9-PFNA	99%		50-150%
	13C6-PFDA	110%		50-150%
	13C7-PFUnDA	89%		50-150%
	13C2-PFDoDA	93%		50-150%
	13C2-PFTeDA	71%		40-150%
	13C3-PFBS	86%		50-150%
	13C3-PFHxS	86%		50-150%

U = Not detected      MDL = Method Detection Limit      I = Result >= MDL but < PQL      J = Estimated value  
 PQL = Practical Quantitation Limit      V = Indicates analyte found in associated method blank  
 L = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> EFF COMP (81318)	
<b>Lab Sample ID:</b> FA56731-2	<b>Date Sampled:</b> 08/14/18
<b>Matrix:</b> AQ - Water	<b>Date Received:</b> 08/14/18
<b>Method:</b> EPA 537M BY ID EPA 537 MOD	<b>Percent Solids:</b> n/a
<b>Project:</b> PFOS/PFOA Testing	

### EPA 537 Method List

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	87%		50-150%
	d3-MeFOSAA	106%		50-150%

U = Not detected      MDL = Method Detection Limit  
 PQL = Practical Quantitation Limit  
 L = Indicates value exceeds calibration range

I = Result >= MDL but < PQL    J = Estimated value  
 V = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> INF GRAB (81418)	
<b>Lab Sample ID:</b> FA56731-3	<b>Date Sampled:</b> 08/14/18
<b>Matrix:</b> AQ - Water	<b>Date Received:</b> 08/14/18
<b>Method:</b> EPA 537M BY ID EPA 537 MOD	<b>Percent Solids:</b> n/a
<b>Project:</b> PFOS/PFOA Testing	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	2Q20137.D	1	09/09/18 13:04	MV	08/24/18 09:00	OP71500	S2Q330
Run #2	2Q20264.D	5	09/11/18 20:32	NG	08/24/18 09:00	OP71500	S2Q332

Run #	Initial Volume	Final Volume
Run #1	120 ml	1.0 ml
Run #2	120 ml	1.0 ml

EPA 537 Method List

CAS No.	Compound	Result	PQL	MDL	Units	Q
<b>PERFLUOROALKYL CARBOXYLIC ACIDS</b>						
307-24-4	Perfluorohexanoic acid	0.0269	0.0083	0.0021	ug/l	
375-85-9	Perfluoroheptanoic acid	0.0123	0.0083	0.0021	ug/l	
335-67-1	Perfluorooctanoic acid	0.0182	0.0083	0.0021	ug/l	
375-95-1	Perfluorononanoic acid	0.00258	0.0083	0.0021	ug/l	I
335-76-2	Perfluorodecanoic acid	0.00248	0.0083	0.0021	ug/l	I
2058-94-8	Perfluoroundecanoic acid	0.0021 U	0.0083	0.0021	ug/l	
307-55-1	Perfluorododecanoic acid	0.0031 U	0.0083	0.0031	ug/l	
72629-94-8	Perfluorotridecanoic acid	0.010 U <sup>b</sup>	0.042	0.010	ug/l	
376-06-7	Perfluorotetradecanoic acid	0.010 U <sup>b</sup>	0.042	0.010	ug/l	

<b>PERFLUOROALKYL SULFONATES</b>						
375-73-5	Perfluorobutanesulfonic acid	0.0536	0.0083	0.0021	ug/l	
355-46-4	Perfluorohexanesulfonic acid	0.0439	0.0083	0.0021	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.0936	0.0083	0.0031	ug/l	

<b>PERFLUORO OCTANESULFONAMIDOACETIC ACIDS</b>						
2355-31-9	MeFOSAA	0.0083 U	0.042	0.0083	ug/l	
2991-50-6	EiFOSAA	0.0083 U	0.042	0.0083	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C5-PFHxA	79%		50-150%
	13C4-PFHpA	83%		50-150%
	13C8-PFOA	82%		50-150%
	13C9-PFNA	86%		50-150%
	13C6-PFDA	78%		50-150%
	13C7-PFUnDA	67%		50-150%
	13C2-PFDoDA	54%		50-150%
	13C2-PFTeDA		40%	40-150%
	13C3-PFBS	76%		50-150%
	13C3-PFHxS	75%		50-150%

U = Not detected      MDL = Method Detection Limit      I = Result >= MDL but < PQL      J = Estimated value  
 PQL = Practical Quantitation Limit      V = Indicates analyte found in associated method blank  
 L = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> INF GRAB (81418)	
<b>Lab Sample ID:</b> FA56731-3	<b>Date Sampled:</b> 08/14/18
<b>Matrix:</b> AQ - Water	<b>Date Received:</b> 08/14/18
<b>Method:</b> EPA 537M BY ID EPA 537 MOD	<b>Percent Solids:</b> n/a
<b>Project:</b> PFOS/PFOA Testing	

### EPA 537 Method List

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	66%		50-150%
	d3-MeFOSAA	84%		50-150%

- (a) Dilution required due to matrix interference (internal standard failure).
- (b) Result is from Run# 2

U = Not detected      MDL = Method Detection Limit  
 PQL = Practical Quantitation Limit  
 L = Indicates value exceeds calibration range

I = Result >= MDL but < PQL    J = Estimated value  
 V = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> EFF GRAP (81418)	
<b>Lab Sample ID:</b> FA56731-4	<b>Date Sampled:</b> 08/14/18
<b>Matrix:</b> AQ - Water	<b>Date Received:</b> 08/14/18
<b>Method:</b> EPA 537M BY ID EPA 537 MOD	<b>Percent Solids:</b> n/a
<b>Project:</b> PFOS/PFOA Testing	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q20138.D	1	09/09/18 13:24	MV	08/24/18 09:00	OP71500	S2Q330
Run #2							

Run #	Initial Volume	Final Volume
Run #1	120 ml	1.0 ml
Run #2		

EPA 537 Method List

CAS No.	Compound	Result	PQL	MDL	Units	Q
<b>PERFLUOROALKYL CARBOXYLIC ACIDS</b>						
307-24-4	Perfluorohexanoic acid	0.0440	0.0083	0.0021	ug/l	
375-85-9	Perfluoroheptanoic acid	0.0189	0.0083	0.0021	ug/l	
335-67-1	Perfluorooctanoic acid	0.0207	0.0083	0.0021	ug/l	
375-95-1	Perfluorononanoic acid	0.0021 U	0.0083	0.0021	ug/l	
335-76-2	Perfluorodecanoic acid	0.00232	0.0083	0.0021	ug/l	I
2058-94-8	Perfluoroundecanoic acid	0.0021 U	0.0083	0.0021	ug/l	
307-55-1	Perfluorododecanoic acid	0.0031 U	0.0083	0.0031	ug/l	
72629-94-8	Perfluorotridecanoic acid	0.0021 U	0.0083	0.0021	ug/l	
376-06-7	Perfluorotetradecanoic acid	0.0021 U	0.0083	0.0021	ug/l	

<b>PERFLUOROALKYL SULFONATES</b>						
375-73-5	Perfluorobutanesulfonic acid	0.0388	0.0083	0.0021	ug/l	
355-46-4	Perfluorohexanesulfonic acid	0.0325	0.0083	0.0021	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.0835	0.0083	0.0031	ug/l	

<b>PERFLUORO OCTANESULFONAMIDOACETIC ACIDS</b>						
2355-31-9	MeFOSAA	0.0083 U	0.042	0.0083	ug/l	
2991-50-6	EiFOSAA	0.0083 U	0.042	0.0083	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C5-PFHxA	82%		50-150%
	13C4-PFHpA	89%		50-150%
	13C8-PFOA	88%		50-150%
	13C9-PFNA	87%		50-150%
	13C6-PFDA	83%		50-150%
	13C7-PFUnDA	75%		50-150%
	13C2-PFDoDA	72%		50-150%
	13C2-PFTeDA	66%		40-150%
	13C3-PFBS	79%		50-150%
	13C3-PFHxS	79%		50-150%

U = Not detected      MDL = Method Detection Limit      I = Result >= MDL but < PQL      J = Estimated value  
 PQL = Practical Quantitation Limit      V = Indicates analyte found in associated method blank  
 L = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> EFF GRAP (81418)	
<b>Lab Sample ID:</b> FA56731-4	<b>Date Sampled:</b> 08/14/18
<b>Matrix:</b> AQ - Water	<b>Date Received:</b> 08/14/18
<b>Method:</b> EPA 537M BY ID EPA 537 MOD	<b>Percent Solids:</b> n/a
<b>Project:</b> PFOS/PFOA Testing	

### EPA 537 Method List

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	75%		50-150%
	d3-MeFOSAA	89%		50-150%

U = Not detected      MDL = Method Detection Limit  
 PQL = Practical Quantitation Limit  
 L = Indicates value exceeds calibration range

I = Result >= MDL but < PQL    J = Estimated value  
 V = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> LS 3		
<b>Lab Sample ID:</b> FA56731-5		<b>Date Sampled:</b> 08/14/18
<b>Matrix:</b> AQ - Water		<b>Date Received:</b> 08/14/18
<b>Method:</b> EPA 537M BY ID EPA 537 MOD		<b>Percent Solids:</b> n/a
<b>Project:</b> PFOS/PFOA Testing		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	2Q20140.D	1	09/09/18 14:03	MV	08/24/18 09:00	OP71500	S2Q330
Run #2	2Q20265.D	5	09/11/18 20:53	NG	08/24/18 09:00	OP71500	S2Q332

	Initial Volume	Final Volume
Run #1	120 ml	1.0 ml
Run #2	120 ml	1.0 ml

EPA 537 Method List

CAS No.	Compound	Result	PQL	MDL	Units	Q
<b>PERFLUOROALKYL CARBOXYLIC ACIDS</b>						
307-24-4	Perfluorohexanoic acid	0.00777	0.0083	0.0021	ug/l	I
375-85-9	Perfluoroheptanoic acid	0.00492	0.0083	0.0021	ug/l	I
335-67-1	Perfluorooctanoic acid	0.00931	0.0083	0.0021	ug/l	
375-95-1	Perfluorononanoic acid	0.0021 U	0.0083	0.0021	ug/l	
335-76-2	Perfluorodecanoic acid	0.0021 U	0.0083	0.0021	ug/l	
2058-94-8	Perfluoroundecanoic acid	0.0021 U	0.0083	0.0021	ug/l	
307-55-1	Perfluorododecanoic acid	0.016 U <sup>b</sup>	0.042	0.016	ug/l	
72629-94-8	Perfluorotridecanoic acid	0.0021 U	0.0083	0.0021	ug/l	
376-06-7	Perfluorotetradecanoic acid	0.0021 U	0.0083	0.0021	ug/l	

<b>PERFLUOROALKYL SULFONATES</b>						
375-73-5	Perfluorobutanesulfonic acid	0.0130	0.0083	0.0021	ug/l	
355-46-4	Perfluorohexanesulfonic acid	0.0993	0.0083	0.0021	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.0313	0.0083	0.0031	ug/l	

<b>PERFLUORO OCTANESULFONAMIDOACETIC ACIDS</b>						
2355-31-9	MeFOSAA	0.0083 U	0.042	0.0083	ug/l	
2991-50-6	EiFOSAA	0.0083 U	0.042	0.0083	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C5-PFHxA	78%		50-150%
	13C4-PFHpA	80%		50-150%
	13C8-PFOA	81%		50-150%
	13C9-PFNA	87%		50-150%
	13C6-PFDA	81%		50-150%
	13C7-PFUnDA	55%		50-150%
	13C2-PFDoDA		50%	50-150%
	13C2-PFTeDA	40%		40-150%
	13C3-PFBS	75%		50-150%
	13C3-PFHxS	71%		50-150%

U = Not detected      MDL = Method Detection Limit      I = Result >= MDL but < PQL      J = Estimated value  
 PQL = Practical Quantitation Limit      V = Indicates analyte found in associated method blank  
 L = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> LS 3	
<b>Lab Sample ID:</b> FA56731-5	<b>Date Sampled:</b> 08/14/18
<b>Matrix:</b> AQ - Water	<b>Date Received:</b> 08/14/18
<b>Method:</b> EPA 537M BY ID EPA 537 MOD	<b>Percent Solids:</b> n/a
<b>Project:</b> PFOS/PFOA Testing	

### EPA 537 Method List

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	63%		50-150%
	d3-MeFOSAA	94%		50-150%

- (a) Dilution required due to matrix interference (internal standard failure).
- (b) Result is from Run# 2

U = Not detected      MDL = Method Detection Limit  
 PQL = Practical Quantitation Limit  
 L = Indicates value exceeds calibration range

I = Result >= MDL but < PQL    J = Estimated value  
 V = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> PAFB		
<b>Lab Sample ID:</b> FA56731-6		<b>Date Sampled:</b> 08/14/18
<b>Matrix:</b> AQ - Water		<b>Date Received:</b> 08/14/18
<b>Method:</b> EPA 537M BY ID EPA 537 MOD		<b>Percent Solids:</b> n/a
<b>Project:</b> PFOS/PFOA Testing		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	2Q20143.D	1	09/09/18 15:03	MV	08/24/18 09:00	OP71500	S2Q330
Run #2	2Q20266.D	5	09/11/18 21:13	NG	08/24/18 09:00	OP71500	S2Q332

Run #	Initial Volume	Final Volume
Run #1	130 ml	1.0 ml
Run #2	130 ml	1.0 ml

EPA 537 Method List

CAS No.	Compound	Result	PQL	MDL	Units	Q
<b>PERFLUOROALKYL CARBOXYLIC ACIDS</b>						
307-24-4	Perfluorohexanoic acid	0.0369	0.0077	0.0019	ug/l	
375-85-9	Perfluoroheptanoic acid	0.0121	0.0077	0.0019	ug/l	
335-67-1	Perfluorooctanoic acid	0.0160	0.0077	0.0019	ug/l	
375-95-1	Perfluorononanoic acid	0.00271	0.0077	0.0019	ug/l	I
335-76-2	Perfluorodecanoic acid	0.0019 U	0.0077	0.0019	ug/l	
2058-94-8	Perfluoroundecanoic acid	0.0019 U	0.0077	0.0019	ug/l	
307-55-1	Perfluorododecanoic acid	0.014 U <sup>b</sup>	0.038	0.014	ug/l	
72629-94-8	Perfluorotridecanoic acid	0.0019 U	0.0077	0.0019	ug/l	
376-06-7	Perfluorotetradecanoic acid	0.0019 U	0.0077	0.0019	ug/l	

<b>PERFLUOROALKYL SULFONATES</b>						
375-73-5	Perfluorobutanesulfonic acid	0.0470	0.0077	0.0019	ug/l	
355-46-4	Perfluorohexanesulfonic acid	0.0781	0.0077	0.0019	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.278	0.0077	0.0029	ug/l	

<b>PERFLUORO OCTANESULFONAMIDOACETIC ACIDS</b>						
2355-31-9	MeFOSAA	0.0077 U	0.038	0.0077	ug/l	
2991-50-6	EiFOSAA	0.0077 U	0.038	0.0077	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C5-PFHxA	77%		50-150%
	13C4-PFHpA	79%		50-150%
	13C8-PFOA	81%		50-150%
	13C9-PFNA	87%		50-150%
	13C6-PFDA	81%		50-150%
	13C7-PFUnDA	53%		50-150%
	13C2-PFDoDA		50%	50-150%
	13C2-PFTeDA	42%		40-150%
	13C3-PFBS	73%		50-150%
	13C3-PFHxS	70%		50-150%

U = Not detected      MDL = Method Detection Limit      I = Result >= MDL but < PQL      J = Estimated value  
 PQL = Practical Quantitation Limit      V = Indicates analyte found in associated method blank  
 L = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> PAFB	
<b>Lab Sample ID:</b> FA56731-6	<b>Date Sampled:</b> 08/14/18
<b>Matrix:</b> AQ - Water	<b>Date Received:</b> 08/14/18
<b>Method:</b> EPA 537M BY ID EPA 537 MOD	<b>Percent Solids:</b> n/a
<b>Project:</b> PFOS/PFOA Testing	

### EPA 537 Method List

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	62%		50-150%
	d3-MeFOSAA	87%		50-150%

- (a) Dilution required due to matrix interference (internal standard failure).
- (b) Result is from Run# 2

U = Not detected      MDL = Method Detection Limit  
 PQL = Practical Quantitation Limit  
 L = Indicates value exceeds calibration range

I = Result >= MDL but < PQL    J = Estimated value  
 V = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> LS 17		
<b>Lab Sample ID:</b> FA56731-7		<b>Date Sampled:</b> 08/14/18
<b>Matrix:</b> AQ - Water		<b>Date Received:</b> 08/14/18
<b>Method:</b> EPA 537M BY ID EPA 537 MOD		<b>Percent Solids:</b> n/a
<b>Project:</b> PFOS/PFOA Testing		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	2Q20144.D	1	09/09/18 15:22	MV	08/24/18 09:00	OP71500	S2Q330
Run #2	2Q20311.D	20	09/12/18 16:14	NG	08/24/18 09:00	OP71500	S2Q332

Run #	Initial Volume	Final Volume
Run #1	130 ml	1.0 ml
Run #2	130 ml	1.0 ml

EPA 537 Method List

CAS No.	Compound	Result	PQL	MDL	Units	Q
<b>PERFLUOROALKYL CARBOXYLIC ACIDS</b>						
307-24-4	Perfluorohexanoic acid	0.00417	0.0077	0.0019	ug/l	I
375-85-9	Perfluoroheptanoic acid	0.0019 U	0.0077	0.0019	ug/l	
335-67-1	Perfluorooctanoic acid	0.00417	0.0077	0.0019	ug/l	I
375-95-1	Perfluorononanoic acid	0.0019 U	0.0077	0.0019	ug/l	
335-76-2	Perfluorodecanoic acid	0.038 U <sup>b</sup>	0.15	0.038	ug/l	
2058-94-8	Perfluoroundecanoic acid	0.038 U <sup>b</sup>	0.15	0.038	ug/l	
307-55-1	Perfluorododecanoic acid	0.058 U <sup>b</sup>	0.15	0.058	ug/l	
72629-94-8	Perfluorotridecanoic acid	0.038 U <sup>b</sup>	0.15	0.038	ug/l	
376-06-7	Perfluorotetradecanoic acid	0.038 U <sup>b</sup>	0.15	0.038	ug/l	

<b>PERFLUOROALKYL SULFONATES</b>						
375-73-5	Perfluorobutanesulfonic acid	0.0019 U	0.0077	0.0019	ug/l	
355-46-4	Perfluorohexanesulfonic acid	0.128	0.0077	0.0019	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.0192	0.0077	0.0029	ug/l	

<b>PERFLUORO OCTANESULFONAMIDOACETIC ACIDS</b>						
2355-31-9	MeFOSAA	0.15 U <sup>b</sup>	0.77	0.15	ug/l	
2991-50-6	EiFOSAA	0.0077 U	0.038	0.0077	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C5-PFHxA	81%		50-150%
	13C4-PFHpA	84%		50-150%
	13C8-PFOA	84%		50-150%
	13C9-PFNA	87%		50-150%
	13C6-PFDA		130%	50-150%
	13C7-PFUnDA		112%	50-150%
	13C2-PFDoDA		111%	50-150%
	13C2-PFTeDA		123%	40-150%
	13C3-PFBS	78%		50-150%
	13C3-PFHxS	73%		50-150%

U = Not detected      MDL = Method Detection Limit      I = Result >= MDL but < PQL      J = Estimated value  
 PQL = Practical Quantitation Limit      V = Indicates analyte found in associated method blank  
 L = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> LS 17	
<b>Lab Sample ID:</b> FA56731-7	<b>Date Sampled:</b> 08/14/18
<b>Matrix:</b> AQ - Water	<b>Date Received:</b> 08/14/18
<b>Method:</b> EPA 537M BY ID EPA 537 MOD	<b>Percent Solids:</b> n/a
<b>Project:</b> PFOS/PFOA Testing	

### EPA 537 Method List

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	67%		50-150%
	d3-MeFOSAA		102%	50-150%

- (a) Dilution required due to matrix interference (internal standard failure).
- (b) Result is from Run# 2

U = Not detected      MDL = Method Detection Limit      I = Result >= MDL but < PQL      J = Estimated value  
 PQL = Practical Quantitation Limit      V = Indicates analyte found in associated method blank  
 L = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> RECLAIM SOUTH	
<b>Lab Sample ID:</b> FA56731-8	<b>Date Sampled:</b> 08/14/18
<b>Matrix:</b> AQ - Water	<b>Date Received:</b> 08/14/18
<b>Method:</b> EPA 537M BY ID EPA 537 MOD	<b>Percent Solids:</b> n/a
<b>Project:</b> PFOS/PFOA Testing	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q20146.D	1	09/09/18 16:02	MV	08/24/18 09:00	OP71500	S2Q330
Run #2							

Run #	Initial Volume	Final Volume
Run #1	120 ml	1.0 ml
Run #2		

EPA 537 Method List

CAS No.	Compound	Result	PQL	MDL	Units	Q
<b>PERFLUOROALKYL CARBOXYLIC ACIDS</b>						
307-24-4	Perfluorohexanoic acid	0.0637	0.0083	0.0021	ug/l	
375-85-9	Perfluoroheptanoic acid	0.0395	0.0083	0.0021	ug/l	
335-67-1	Perfluorooctanoic acid	0.0228	0.0083	0.0021	ug/l	
375-95-1	Perfluorononanoic acid	0.00445	0.0083	0.0021	ug/l	I
335-76-2	Perfluorodecanoic acid	0.00370	0.0083	0.0021	ug/l	I
2058-94-8	Perfluoroundecanoic acid	0.00608	0.0083	0.0021	ug/l	I
307-55-1	Perfluorododecanoic acid	0.00817	0.0083	0.0031	ug/l	I
72629-94-8	Perfluorotridecanoic acid	0.0021 U	0.0083	0.0021	ug/l	
376-06-7	Perfluorotetradecanoic acid	0.0021 U	0.0083	0.0021	ug/l	

<b>PERFLUOROALKYL SULFONATES</b>						
375-73-5	Perfluorobutanesulfonic acid	0.0334	0.0083	0.0021	ug/l	
355-46-4	Perfluorohexanesulfonic acid	0.0668	0.0083	0.0021	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.0920	0.0083	0.0031	ug/l	

<b>PERFLUORO OCTANESULFONAMIDOACETIC ACIDS</b>						
2355-31-9	MeFOSAA	0.0083 U	0.042	0.0083	ug/l	
2991-50-6	EiFOSAA	0.0083 U	0.042	0.0083	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C5-PFHxA	81%		50-150%
	13C4-PFHpA	90%		50-150%
	13C8-PFOA	104%		50-150%
	13C9-PFNA	98%		50-150%
	13C6-PFDA	101%		50-150%
	13C7-PFUnDA	106%		50-150%
	13C2-PFDoDA	104%		50-150%
	13C2-PFTeDA	84%		40-150%
	13C3-PFBS	77%		50-150%
	13C3-PFHxS	79%		50-150%

U = Not detected      MDL = Method Detection Limit      I = Result >= MDL but < PQL      J = Estimated value  
 PQL = Practical Quantitation Limit      V = Indicates analyte found in associated method blank  
 L = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> RECLAIM SOUTH	
<b>Lab Sample ID:</b> FA56731-8	<b>Date Sampled:</b> 08/14/18
<b>Matrix:</b> AQ - Water	<b>Date Received:</b> 08/14/18
<b>Method:</b> EPA 537M BY ID EPA 537 MOD	<b>Percent Solids:</b> n/a
<b>Project:</b> PFOS/PFOA Testing	

### EPA 537 Method List

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	82%		50-150%
	d3-MeFOSAA	114%		50-150%

U = Not detected      MDL = Method Detection Limit  
 PQL = Practical Quantitation Limit  
 L = Indicates value exceeds calibration range

I = Result >= MDL but < PQL    J = Estimated value  
 V = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



# Report of Analysis

<b>Client Sample ID:</b> PRIVATE WELL	
<b>Lab Sample ID:</b> FA56731-9	<b>Date Sampled:</b> 08/14/18
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 08/14/18
<b>Method:</b> EPA 537M BY ID EPA 537 MOD	<b>Percent Solids:</b> n/a
<b>Project:</b> PFOS/PFOA Testing	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q20147.D	1	09/09/18 16:22	MV	08/24/18 09:00	OP71500	S2Q330
Run #2							

Run #	Initial Volume	Final Volume
Run #1	120 ml	1.0 ml
Run #2		

### EPA 537 Method List

CAS No.	Compound	Result	PQL	MDL	Units	Q
<b>PERFLUOROALKYL CARBOXYLIC ACIDS</b>						
307-24-4	Perfluorohexanoic acid	0.0021 U	0.0083	0.0021	ug/l	
375-85-9	Perfluoroheptanoic acid	0.0021 U	0.0083	0.0021	ug/l	
335-67-1	Perfluorooctanoic acid	0.0021 U	0.0083	0.0021	ug/l	
375-95-1	Perfluorononanoic acid	0.0021 U	0.0083	0.0021	ug/l	
335-76-2	Perfluorodecanoic acid	0.0021 U	0.0083	0.0021	ug/l	
2058-94-8	Perfluoroundecanoic acid	0.0021 U	0.0083	0.0021	ug/l	
307-55-1	Perfluorododecanoic acid	0.0031 U	0.0083	0.0031	ug/l	
72629-94-8	Perfluorotridecanoic acid	0.0021 U	0.0083	0.0021	ug/l	
376-06-7	Perfluorotetradecanoic acid	0.0021 U	0.0083	0.0021	ug/l	

<b>PERFLUOROALKYL SULFONATES</b>						
375-73-5	Perfluorobutanesulfonic acid	0.0021 U	0.0083	0.0021	ug/l	
355-46-4	Perfluorohexanesulfonic acid	0.0021 U	0.0083	0.0021	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.0031 U	0.0083	0.0031	ug/l	

<b>PERFLUORO OCTANESULFONAMIDOACETIC ACIDS</b>						
2355-31-9	MeFOSAA	0.0083 U	0.042	0.0083	ug/l	
2991-50-6	EiFOSAA	0.0083 U	0.042	0.0083	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C5-PFHxA	81%		50-150%
	13C4-PFHpA	82%		50-150%
	13C8-PFOA	81%		50-150%
	13C9-PFNA	78%		50-150%
	13C6-PFDA	79%		50-150%
	13C7-PFUnDA	71%		50-150%
	13C2-PFDoDA	69%		50-150%
	13C2-PFTeDA	67%		40-150%
	13C3-PFBS	76%		50-150%
	13C3-PFHxS	72%		50-150%

U = Not detected      MDL = Method Detection Limit      I = Result >= MDL but < PQL      J = Estimated value  
 PQL = Practical Quantitation Limit      V = Indicates analyte found in associated method blank  
 L = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> PRIVATE WELL	
<b>Lab Sample ID:</b> FA56731-9	<b>Date Sampled:</b> 08/14/18
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 08/14/18
<b>Method:</b> EPA 537M BY ID EPA 537 MOD	<b>Percent Solids:</b> n/a
<b>Project:</b> PFOS/PFOA Testing	

### EPA 537 Method List

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	68%		50-150%
	d3-MeFOSAA	79%		50-150%

U = Not detected      MDL = Method Detection Limit  
 PQL = Practical Quantitation Limit  
 L = Indicates value exceeds calibration range

I = Result >= MDL but < PQL    J = Estimated value  
 V = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> ARTISIAN WELL	
<b>Lab Sample ID:</b> FA56731-10	<b>Date Sampled:</b> 08/14/18
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 08/14/18
<b>Method:</b> EPA 537M BY ID EPA 537 MOD	<b>Percent Solids:</b> n/a
<b>Project:</b> PFOS/PFOA Testing	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q20148.D	1	09/09/18 16:41	MV	08/24/18 09:00	OP71500	S2Q330
Run #2							

Run #	Initial Volume	Final Volume
Run #1	120 ml	1.0 ml
Run #2		

### EPA 537 Method List

CAS No.	Compound	Result	PQL	MDL	Units	Q
<b>PERFLUOROALKYL CARBOXYLIC ACIDS</b>						
307-24-4	Perfluorohexanoic acid	0.0021 U	0.0083	0.0021	ug/l	
375-85-9	Perfluoroheptanoic acid	0.0021 U	0.0083	0.0021	ug/l	
335-67-1	Perfluorooctanoic acid	0.0021 U	0.0083	0.0021	ug/l	
375-95-1	Perfluorononanoic acid	0.0021 U	0.0083	0.0021	ug/l	
335-76-2	Perfluorodecanoic acid	0.0021 U	0.0083	0.0021	ug/l	
2058-94-8	Perfluoroundecanoic acid	0.0021 U	0.0083	0.0021	ug/l	
307-55-1	Perfluorododecanoic acid	0.0031 U	0.0083	0.0031	ug/l	
72629-94-8	Perfluorotridecanoic acid	0.0021 U	0.0083	0.0021	ug/l	
376-06-7	Perfluorotetradecanoic acid	0.0021 U	0.0083	0.0021	ug/l	

<b>PERFLUOROALKYL SULFONATES</b>						
375-73-5	Perfluorobutanesulfonic acid	0.0021 U	0.0083	0.0021	ug/l	
355-46-4	Perfluorohexanesulfonic acid	0.0021 U	0.0083	0.0021	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.0031 U	0.0083	0.0031	ug/l	

<b>PERFLUORO OCTANESULFONAMIDOACETIC ACIDS</b>						
2355-31-9	MeFOSAA	0.0083 U	0.042	0.0083	ug/l	
2991-50-6	EiFOSAA	0.0083 U	0.042	0.0083	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C5-PFHxA	75%		50-150%
	13C4-PFHpA	79%		50-150%
	13C8-PFOA	77%		50-150%
	13C9-PFNA	71%		50-150%
	13C6-PFDA	75%		50-150%
	13C7-PFUnDA	68%		50-150%
	13C2-PFDoDA	66%		50-150%
	13C2-PFTeDA	62%		40-150%
	13C3-PFBS	70%		50-150%
	13C3-PFHxS	66%		50-150%

U = Not detected      MDL = Method Detection Limit      I = Result >= MDL but < PQL      J = Estimated value  
 PQL = Practical Quantitation Limit      V = Indicates analyte found in associated method blank  
 L = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> ARTISIAN WELL	
<b>Lab Sample ID:</b> FA56731-10	<b>Date Sampled:</b> 08/14/18
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 08/14/18
<b>Method:</b> EPA 537M BY ID EPA 537 MOD	<b>Percent Solids:</b> n/a
<b>Project:</b> PFOS/PFOA Testing	

### EPA 537 Method List

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	65%		50-150%
	d3-MeFOSAA	78%		50-150%

U = Not detected      MDL = Method Detection Limit  
 PQL = Practical Quantitation Limit  
 L = Indicates value exceeds calibration range

I = Result >= MDL but < PQL    J = Estimated value  
 V = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> DOG PARK	
<b>Lab Sample ID:</b> FA56731-11	<b>Date Sampled:</b> 08/14/18
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 08/14/18
<b>Method:</b> EPA 537M BY ID EPA 537 MOD	<b>Percent Solids:</b> n/a
<b>Project:</b> PFOS/PFOA Testing	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q20149.D	1	09/09/18 17:01	MV	08/24/18 09:00	OP71500	S2Q330
Run #2							

Run #	Initial Volume	Final Volume
Run #1	120 ml	1.0 ml
Run #2		

### EPA 537 Method List

CAS No.	Compound	Result	PQL	MDL	Units	Q
<b>PERFLUOROALKYL CARBOXYLIC ACIDS</b>						
307-24-4	Perfluorohexanoic acid	0.0106	0.0083	0.0021	ug/l	
375-85-9	Perfluoroheptanoic acid	0.00659	0.0083	0.0021	ug/l	I
335-67-1	Perfluorooctanoic acid	0.0213	0.0083	0.0021	ug/l	
375-95-1	Perfluorononanoic acid	0.00227	0.0083	0.0021	ug/l	I
335-76-2	Perfluorodecanoic acid	0.0021 U	0.0083	0.0021	ug/l	
2058-94-8	Perfluoroundecanoic acid	0.00221	0.0083	0.0021	ug/l	I
307-55-1	Perfluorododecanoic acid	0.0031 U	0.0083	0.0031	ug/l	
72629-94-8	Perfluorotridecanoic acid	0.0021 U	0.0083	0.0021	ug/l	
376-06-7	Perfluorotetradecanoic acid	0.0021 U	0.0083	0.0021	ug/l	

<b>PERFLUOROALKYL SULFONATES</b>						
375-73-5	Perfluorobutanesulfonic acid	0.0205	0.0083	0.0021	ug/l	
355-46-4	Perfluorohexanesulfonic acid	0.0204	0.0083	0.0021	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.102	0.0083	0.0031	ug/l	

<b>PERFLUORO OCTANESULFONAMIDOACETIC ACIDS</b>						
2355-31-9	MeFOSAA	0.0083 U	0.042	0.0083	ug/l	
2991-50-6	EiFOSAA	0.0083 U	0.042	0.0083	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C5-PFHxA	90%		50-150%
	13C4-PFHpA	92%		50-150%
	13C8-PFOA	96%		50-150%
	13C9-PFNA	93%		50-150%
	13C6-PFDA	95%		50-150%
	13C7-PFUnDA	83%		50-150%
	13C2-PFDoDA	81%		50-150%
	13C2-PFTeDA	78%		40-150%
	13C3-PFBS	84%		50-150%
	13C3-PFHxS	84%		50-150%

U = Not detected      MDL = Method Detection Limit      I = Result >= MDL but < PQL      J = Estimated value  
 PQL = Practical Quantitation Limit      V = Indicates analyte found in associated method blank  
 L = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> DOG PARK	
<b>Lab Sample ID:</b> FA56731-11	<b>Date Sampled:</b> 08/14/18
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 08/14/18
<b>Method:</b> EPA 537M BY ID EPA 537 MOD	<b>Percent Solids:</b> n/a
<b>Project:</b> PFOS/PFOA Testing	

### EPA 537 Method List

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	82%		50-150%
	d3-MeFOSAA	94%		50-150%

U = Not detected      MDL = Method Detection Limit  
 PQL = Practical Quantitation Limit  
 L = Indicates value exceeds calibration range

I = Result >= MDL but < PQL    J = Estimated value  
 V = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> LS 10		
<b>Lab Sample ID:</b> FA56731-12		<b>Date Sampled:</b> 08/14/18
<b>Matrix:</b> AQ - Water		<b>Date Received:</b> 08/14/18
<b>Method:</b> EPA 537M BY ID EPA 537 MOD		<b>Percent Solids:</b> n/a
<b>Project:</b> PFOS/PFOA Testing		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	2Q20150.D	1	09/09/18 17:21	MV	08/24/18 09:00	OP71500	S2Q330
Run #2	2Q20269.D	5	09/11/18 22:14	NG	08/24/18 09:00	OP71500	S2Q332

Run #	Initial Volume	Final Volume
Run #1	120 ml	1.0 ml
Run #2	120 ml	1.0 ml

EPA 537 Method List

CAS No.	Compound	Result	PQL	MDL	Units	Q
<b>PERFLUOROALKYL CARBOXYLIC ACIDS</b>						
307-24-4	Perfluorohexanoic acid	0.0120	0.0083	0.0021	ug/l	
375-85-9	Perfluoroheptanoic acid	0.00817	0.0083	0.0021	ug/l	I
335-67-1	Perfluorooctanoic acid	0.00787	0.0083	0.0021	ug/l	I
375-95-1	Perfluorononanoic acid	0.0021 U	0.0083	0.0021	ug/l	
335-76-2	Perfluorodecanoic acid	0.0021 U	0.0083	0.0021	ug/l	
2058-94-8	Perfluoroundecanoic acid	0.010 U <sup>b</sup>	0.042	0.010	ug/l	
307-55-1	Perfluorododecanoic acid	0.016 U <sup>b</sup>	0.042	0.016	ug/l	
72629-94-8	Perfluorotridecanoic acid	0.010 U <sup>b</sup>	0.042	0.010	ug/l	
376-06-7	Perfluorotetradecanoic acid	0.010 U <sup>b</sup>	0.042	0.010	ug/l	

<b>PERFLUOROALKYL SULFONATES</b>						
375-73-5	Perfluorobutanesulfonic acid	0.0177	0.0083	0.0021	ug/l	
355-46-4	Perfluorohexanesulfonic acid	0.0865	0.0083	0.0021	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.0290	0.0083	0.0031	ug/l	

<b>PERFLUORO OCTANESULFONAMIDOACETIC ACIDS</b>						
2355-31-9	MeFOSAA	0.0083 U	0.042	0.0083	ug/l	
2991-50-6	EiFOSAA	0.0083 U	0.042	0.0083	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C5-PFHxA	79%		50-150%
	13C4-PFHpA	79%		50-150%
	13C8-PFOA	84%		50-150%
	13C9-PFNA	86%		50-150%
	13C6-PFDA	77%		50-150%
	13C7-PFUnDA		95%	50-150%
	13C2-PFDoDA		69%	50-150%
	13C2-PFTeDA		41%	40-150%
	13C3-PFBS	74%		50-150%
	13C3-PFHxS	69%		50-150%

U = Not detected      MDL = Method Detection Limit      I = Result >= MDL but < PQL      J = Estimated value  
 PQL = Practical Quantitation Limit      V = Indicates analyte found in associated method blank  
 L = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> LS 10		
<b>Lab Sample ID:</b> FA56731-12		<b>Date Sampled:</b> 08/14/18
<b>Matrix:</b> AQ - Water		<b>Date Received:</b> 08/14/18
<b>Method:</b> EPA 537M BY ID EPA 537 MOD		<b>Percent Solids:</b> n/a
<b>Project:</b> PFOS/PFOA Testing		

### EPA 537 Method List

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	73%		50-150%
	d3-MeFOSAA	94%		50-150%

- (a) Dilution required due to matrix interference (internal standard failure).
- (b) Result is from Run# 2

U = Not detected      MDL = Method Detection Limit  
 PQL = Practical Quantitation Limit  
 L = Indicates value exceeds calibration range

I = Result >= MDL but < PQL    J = Estimated value  
 V = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> LS 5		
<b>Lab Sample ID:</b> FA56731-13		<b>Date Sampled:</b> 08/14/18
<b>Matrix:</b> AQ - Water		<b>Date Received:</b> 08/14/18
<b>Method:</b> EPA 537M BY ID EPA 537 MOD		<b>Percent Solids:</b> n/a
<b>Project:</b> PFOS/PFOA Testing		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	2Q20151.D	1	09/09/18 17:40	MV	08/24/18 09:00	OP71500	S2Q330
Run #2	2Q20270.D	5	09/11/18 22:34	NG	08/24/18 09:00	OP71500	S2Q332

Run #	Initial Volume	Final Volume
Run #1	120 ml	1.0 ml
Run #2	120 ml	1.0 ml

EPA 537 Method List

CAS No.	Compound	Result	PQL	MDL	Units	Q
<b>PERFLUOROALKYL CARBOXYLIC ACIDS</b>						
307-24-4	Perfluorohexanoic acid	0.0144	0.0083	0.0021	ug/l	
375-85-9	Perfluoroheptanoic acid	0.00801	0.0083	0.0021	ug/l	I
335-67-1	Perfluorooctanoic acid	0.0124	0.0083	0.0021	ug/l	
375-95-1	Perfluorononanoic acid	0.0021 U	0.0083	0.0021	ug/l	
335-76-2	Perfluorodecanoic acid	0.0021 U	0.0083	0.0021	ug/l	
2058-94-8	Perfluoroundecanoic acid	0.010 U <sup>b</sup>	0.042	0.010	ug/l	
307-55-1	Perfluorododecanoic acid	0.016 U <sup>b</sup>	0.042	0.016	ug/l	
72629-94-8	Perfluorotridecanoic acid	0.010 U <sup>b</sup>	0.042	0.010	ug/l	
376-06-7	Perfluorotetradecanoic acid	0.010 U <sup>b</sup>	0.042	0.010	ug/l	

<b>PERFLUOROALKYL SULFONATES</b>						
375-73-5	Perfluorobutanesulfonic acid	0.0362	0.0083	0.0021	ug/l	
355-46-4	Perfluorohexanesulfonic acid	0.0911	0.0083	0.0021	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.0472	0.0083	0.0031	ug/l	

<b>PERFLUORO OCTANESULFONAMIDOACETIC ACIDS</b>						
2355-31-9	MeFOSAA	0.0083 U	0.042	0.0083	ug/l	
2991-50-6	EiFOSAA	0.0083 U	0.042	0.0083	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C5-PFHxA	75%		50-150%
	13C4-PFHpA	77%		50-150%
	13C8-PFOA	82%		50-150%
	13C9-PFNA	84%		50-150%
	13C6-PFDA	69%		50-150%
	13C7-PFUnDA		94%	50-150%
	13C2-PFDoDA		73%	50-150%
	13C2-PFTeDA		48%	40-150%
	13C3-PFBS	72%		50-150%
	13C3-PFHxS	69%		50-150%

U = Not detected      MDL = Method Detection Limit      I = Result >= MDL but < PQL      J = Estimated value  
 PQL = Practical Quantitation Limit      V = Indicates analyte found in associated method blank  
 L = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> LS 5		
<b>Lab Sample ID:</b> FA56731-13		<b>Date Sampled:</b> 08/14/18
<b>Matrix:</b> AQ - Water		<b>Date Received:</b> 08/14/18
<b>Method:</b> EPA 537M BY ID EPA 537 MOD		<b>Percent Solids:</b> n/a
<b>Project:</b> PFOS/PFOA Testing		

### EPA 537 Method List

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	70%		50-150%
	d3-MeFOSAA	80%		50-150%

- (a) Dilution required due to matrix interference (internal standard failure).
- (b) Result is from Run# 2

U = Not detected      MDL = Method Detection Limit  
 PQL = Practical Quantitation Limit  
 L = Indicates value exceeds calibration range

I = Result >= MDL but < PQL    J = Estimated value  
 V = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> RECLAIM NORTH	
<b>Lab Sample ID:</b> FA56731-14	<b>Date Sampled:</b> 08/14/18
<b>Matrix:</b> AQ - Water	<b>Date Received:</b> 08/14/18
<b>Method:</b> EPA 537M BY ID EPA 537 MOD	<b>Percent Solids:</b> n/a
<b>Project:</b> PFOS/PFOA Testing	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q20154.D	1	09/09/18 18:40	MV	08/24/18 09:00	OP71500	S2Q330
Run #2							

Run #	Initial Volume	Final Volume
Run #1	120 ml	1.0 ml
Run #2		

EPA 537 Method List

CAS No.	Compound	Result	PQL	MDL	Units	Q
<b>PERFLUOROALKYL CARBOXYLIC ACIDS</b>						
307-24-4	Perfluorohexanoic acid	0.0499	0.0083	0.0021	ug/l	
375-85-9	Perfluoroheptanoic acid	0.0230	0.0083	0.0021	ug/l	
335-67-1	Perfluorooctanoic acid	0.0226	0.0083	0.0021	ug/l	
375-95-1	Perfluorononanoic acid	0.00213	0.0083	0.0021	ug/l	I
335-76-2	Perfluorodecanoic acid	0.0021 U	0.0083	0.0021	ug/l	
2058-94-8	Perfluoroundecanoic acid	0.0021 U	0.0083	0.0021	ug/l	
307-55-1	Perfluorododecanoic acid	0.0031 U	0.0083	0.0031	ug/l	
72629-94-8	Perfluorotridecanoic acid	0.0021 U	0.0083	0.0021	ug/l	
376-06-7	Perfluorotetradecanoic acid	0.0021 U	0.0083	0.0021	ug/l	

<b>PERFLUOROALKYL SULFONATES</b>						
375-73-5	Perfluorobutanesulfonic acid	0.0416	0.0083	0.0021	ug/l	
355-46-4	Perfluorohexanesulfonic acid	0.0341	0.0083	0.0021	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.0957	0.0083	0.0031	ug/l	

<b>PERFLUORO OCTANESULFONAMIDOACETIC ACIDS</b>						
2355-31-9	MeFOSAA	0.0083 U	0.042	0.0083	ug/l	
2991-50-6	EiFOSAA	0.0083 U	0.042	0.0083	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C5-PFHxA	81%		50-150%
	13C4-PFHpA	85%		50-150%
	13C8-PFOA	89%		50-150%
	13C9-PFNA	81%		50-150%
	13C6-PFDA	81%		50-150%
	13C7-PFUnDA	66%		50-150%
	13C2-PFDoDA	64%		50-150%
	13C2-PFTeDA	66%		40-150%
	13C3-PFBS	77%		50-150%
	13C3-PFHxS	76%		50-150%

U = Not detected      MDL = Method Detection Limit      I = Result >= MDL but < PQL      J = Estimated value  
 PQL = Practical Quantitation Limit      V = Indicates analyte found in associated method blank  
 L = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RECLAIM NORTH	
<b>Lab Sample ID:</b> FA56731-14	<b>Date Sampled:</b> 08/14/18
<b>Matrix:</b> AQ - Water	<b>Date Received:</b> 08/14/18
<b>Method:</b> EPA 537M BY ID EPA 537 MOD	<b>Percent Solids:</b> n/a
<b>Project:</b> PFOS/PFOA Testing	

### EPA 537 Method List

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	68%		50-150%
	d3-MeFOSAA	81%		50-150%

U = Not detected      MDL = Method Detection Limit  
 PQL = Practical Quantitation Limit  
 L = Indicates value exceeds calibration range

I = Result >= MDL but < PQL    J = Estimated value  
 V = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> PORT LS		
<b>Lab Sample ID:</b> FA56731-15		<b>Date Sampled:</b> 08/14/18
<b>Matrix:</b> AQ - Water		<b>Date Received:</b> 08/14/18
<b>Method:</b> EPA 537M BY ID EPA 537 MOD		<b>Percent Solids:</b> n/a
<b>Project:</b> PFOS/PFOA Testing		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	2Q20155.D	1	09/09/18 18:59	MV	08/24/18 09:00	OP71500	S2Q330
Run #2	2Q20271.D	5	09/11/18 22:54	NG	08/24/18 09:00	OP71500	S2Q332

Run #	Initial Volume	Final Volume
Run #1	120 ml	1.0 ml
Run #2	120 ml	1.0 ml

EPA 537 Method List

CAS No.	Compound	Result	PQL	MDL	Units	Q
<b>PERFLUOROALKYL CARBOXYLIC ACIDS</b>						
307-24-4	Perfluorohexanoic acid	0.0021 U	0.0083	0.0021	ug/l	
375-85-9	Perfluoroheptanoic acid	0.0021 U	0.0083	0.0021	ug/l	
335-67-1	Perfluorooctanoic acid	0.0112	0.0083	0.0021	ug/l	
375-95-1	Perfluorononanoic acid	0.0021 U	0.0083	0.0021	ug/l	
335-76-2	Perfluorodecanoic acid	0.00258	0.0083	0.0021	ug/l	I
2058-94-8	Perfluoroundecanoic acid	0.010 U <sup>b</sup>	0.042	0.010	ug/l	
307-55-1	Perfluorododecanoic acid	0.016 U <sup>b</sup>	0.042	0.016	ug/l	
72629-94-8	Perfluorotridecanoic acid	0.010 U <sup>b</sup>	0.042	0.010	ug/l	
376-06-7	Perfluorotetradecanoic acid	0.010 U <sup>b</sup>	0.042	0.010	ug/l	

<b>PERFLUOROALKYL SULFONATES</b>						
375-73-5	Perfluorobutanesulfonic acid	0.0021 U	0.0083	0.0021	ug/l	
355-46-4	Perfluorohexanesulfonic acid	0.0468	0.0083	0.0021	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.00956	0.0083	0.0031	ug/l	

<b>PERFLUORO OCTANESULFONAMIDOACETIC ACIDS</b>						
2355-31-9	MeFOSAA	0.0083 U	0.042	0.0083	ug/l	
2991-50-6	EiFOSAA	0.0083 U	0.042	0.0083	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C5-PFHxA	62%		50-150%
	13C4-PFHpA	68%		50-150%
	13C8-PFOA	76%		50-150%
	13C9-PFNA	61%		50-150%
	13C6-PFDA	61%		50-150%
	13C7-PFUnDA		64%	50-150%
	13C2-PFDoDA		48% <sup>c</sup>	50-150%
	13C2-PFTeDA		27% <sup>c</sup>	40-150%
	13C3-PFBS	68%		50-150%
	13C3-PFHxS	56%		50-150%

U = Not detected      MDL = Method Detection Limit      I = Result >= MDL but < PQL      J = Estimated value  
 PQL = Practical Quantitation Limit      V = Indicates analyte found in associated method blank  
 L = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> PORT LS	
<b>Lab Sample ID:</b> FA56731-15	<b>Date Sampled:</b> 08/14/18
<b>Matrix:</b> AQ - Water	<b>Date Received:</b> 08/14/18
<b>Method:</b> EPA 537M BY ID EPA 537 MOD	<b>Percent Solids:</b> n/a
<b>Project:</b> PFOS/PFOA Testing	

### EPA 537 Method List

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	55%		50-150%
	d3-MeFOSAA	78%		50-150%

- (a) Dilution required due to matrix interference (internal standard failure).
- (b) Result is from Run# 2
- (c) Outside control limits due to matrix interference.

U = Not detected      MDL = Method Detection Limit  
 PQL = Practical Quantitation Limit  
 L = Indicates value exceeds calibration range

I = Result >= MDL but < PQL    J = Estimated value  
 V = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> GC OUTFALL	
<b>Lab Sample ID:</b> FA56731-16	<b>Date Sampled:</b> 08/14/18
<b>Matrix:</b> AQ - Surface Water	<b>Date Received:</b> 08/14/18
<b>Method:</b> EPA 537M BY ID EPA 537 MOD	<b>Percent Solids:</b> n/a
<b>Project:</b> PFOS/PFOA Testing	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	2Q20156.D	1	09/09/18 19:19	MV	08/24/18 09:00	OP71500	S2Q330
Run #2	2Q20272.D	5	09/11/18 23:14	NG	08/24/18 09:00	OP71500	S2Q332

Run #	Initial Volume	Final Volume
Run #1	120 ml	1.0 ml
Run #2	120 ml	1.0 ml

EPA 537 Method List

CAS No.	Compound	Result	PQL	MDL	Units	Q
<b>PERFLUOROALKYL CARBOXYLIC ACIDS</b>						
307-24-4	Perfluorohexanoic acid	0.0448	0.0083	0.0021	ug/l	
375-85-9	Perfluoroheptanoic acid	0.0379	0.0083	0.0021	ug/l	
335-67-1	Perfluorooctanoic acid	0.0309	0.0083	0.0021	ug/l	
375-95-1	Perfluorononanoic acid	0.00364	0.0083	0.0021	ug/l	I
335-76-2	Perfluorodecanoic acid	0.00235	0.0083	0.0021	ug/l	I
2058-94-8	Perfluoroundecanoic acid	0.0021 U	0.0083	0.0021	ug/l	
307-55-1	Perfluorododecanoic acid	0.016 U <sup>b</sup>	0.042	0.016	ug/l	
72629-94-8	Perfluorotridecanoic acid	0.010 U <sup>b</sup>	0.042	0.010	ug/l	
376-06-7	Perfluorotetradecanoic acid	0.010 U <sup>b</sup>	0.042	0.010	ug/l	

<b>PERFLUOROALKYL SULFONATES</b>						
375-73-5	Perfluorobutanesulfonic acid	0.0301	0.0083	0.0021	ug/l	
355-46-4	Perfluorohexanesulfonic acid	0.0762	0.0083	0.0021	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.130	0.0083	0.0031	ug/l	

<b>PERFLUORO OCTANESULFONAMIDOACETIC ACIDS</b>						
2355-31-9	MeFOSAA	0.0083 U	0.042	0.0083	ug/l	
2991-50-6	EiFOSAA	0.0083 U	0.042	0.0083	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C5-PFHxA	67%		50-150%
	13C4-PFHpA	72%		50-150%
	13C8-PFOA	74%		50-150%
	13C9-PFNA	72%		50-150%
	13C6-PFDA	66%		50-150%
	13C7-PFUnDA	50%		50-150%
	13C2-PFDoDA		34% <sup>c</sup>	50-150%
	13C2-PFTeDA		12% <sup>c</sup>	40-150%
	13C3-PFBS	61%		50-150%
	13C3-PFHxS	64%		50-150%

U = Not detected      MDL = Method Detection Limit      I = Result >= MDL but < PQL      J = Estimated value  
 PQL = Practical Quantitation Limit      V = Indicates analyte found in associated method blank  
 L = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> GC OUTFALL	
<b>Lab Sample ID:</b> FA56731-16	<b>Date Sampled:</b> 08/14/18
<b>Matrix:</b> AQ - Surface Water	<b>Date Received:</b> 08/14/18
<b>Method:</b> EPA 537M BY ID EPA 537 MOD	<b>Percent Solids:</b> n/a
<b>Project:</b> PFOS/PFOA Testing	

### EPA 537 Method List

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	50%		50-150%
	d3-MeFOSAA	64%		50-150%

- (a) Dilution required due to matrix interference (internal standard failure).
- (b) Result is from Run# 2
- (c) Outside control limits due to matrix interference.

U = Not detected      MDL = Method Detection Limit  
 PQL = Practical Quantitation Limit  
 L = Indicates value exceeds calibration range

I = Result >= MDL but < PQL    J = Estimated value  
 V = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> MW 4		
<b>Lab Sample ID:</b> FA56731-17		<b>Date Sampled:</b> 08/14/18
<b>Matrix:</b> AQ - Ground Water		<b>Date Received:</b> 08/14/18
<b>Method:</b> EPA 537M BY ID EPA 537 MOD		<b>Percent Solids:</b> n/a
<b>Project:</b> PFOS/PFOA Testing		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q20157.D	1	09/09/18 19:39	MV	08/24/18 09:00	OP71500	S2Q330
Run #2							

Run #	Initial Volume	Final Volume
Run #1	120 ml	1.0 ml
Run #2		

### EPA 537 Method List

CAS No.	Compound	Result	PQL	MDL	Units	Q
<b>PERFLUOROALKYL CARBOXYLIC ACIDS</b>						
307-24-4	Perfluorohexanoic acid	0.0497	0.0083	0.0021	ug/l	
375-85-9	Perfluoroheptanoic acid	0.0245	0.0083	0.0021	ug/l	
335-67-1	Perfluorooctanoic acid	0.0249	0.0083	0.0021	ug/l	
375-95-1	Perfluorononanoic acid	0.00245	0.0083	0.0021	ug/l	I
335-76-2	Perfluorodecanoic acid	0.0021 U	0.0083	0.0021	ug/l	
2058-94-8	Perfluoroundecanoic acid	0.0021 U	0.0083	0.0021	ug/l	
307-55-1	Perfluorododecanoic acid	0.0031 U	0.0083	0.0031	ug/l	
72629-94-8	Perfluorotridecanoic acid	0.0021 U	0.0083	0.0021	ug/l	
376-06-7	Perfluorotetradecanoic acid	0.0021 U	0.0083	0.0021	ug/l	

<b>PERFLUOROALKYL SULFONATES</b>						
375-73-5	Perfluorobutanesulfonic acid	0.0285	0.0083	0.0021	ug/l	
355-46-4	Perfluorohexanesulfonic acid	0.0867	0.0083	0.0021	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.0628	0.0083	0.0031	ug/l	

<b>PERFLUORO OCTANESULFONAMIDOACETIC ACIDS</b>						
2355-31-9	MeFOSAA	0.0083 U	0.042	0.0083	ug/l	
2991-50-6	EiFOSAA	0.0083 U	0.042	0.0083	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C5-PFHxA	77%		50-150%
	13C4-PFHpA	83%		50-150%
	13C8-PFOA	85%		50-150%
	13C9-PFNA	85%		50-150%
	13C6-PFDA	93%		50-150%
	13C7-PFUnDA	82%		50-150%
	13C2-PFDoDA	79%		50-150%
	13C2-PFTeDA	72%		40-150%
	13C3-PFBS	74%		50-150%
	13C3-PFHxS	72%		50-150%

U = Not detected      MDL = Method Detection Limit      I = Result >= MDL but < PQL      J = Estimated value  
 PQL = Practical Quantitation Limit      V = Indicates analyte found in associated method blank  
 L = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> MW 4		<b>Date Sampled:</b> 08/14/18
<b>Lab Sample ID:</b> FA56731-17		<b>Date Received:</b> 08/14/18
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> EPA 537M BY ID EPA 537 MOD		
<b>Project:</b> PFOS/PFOA Testing		

### EPA 537 Method List

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	74%		50-150%
	d3-MeFOSAA	92%		50-150%

U = Not detected      MDL = Method Detection Limit  
 PQL = Practical Quantitation Limit  
 L = Indicates value exceeds calibration range

I = Result >= MDL but < PQL    J = Estimated value  
 V = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> MW 3	
<b>Lab Sample ID:</b> FA56731-18	<b>Date Sampled:</b> 08/14/18
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 08/14/18
<b>Method:</b> EPA 537M BY ID EPA 537 MOD	<b>Percent Solids:</b> n/a
<b>Project:</b> PFOS/PFOA Testing	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	2Q20158.D	1	09/09/18 19:59	MV	08/24/18 09:00	OP71500	S2Q330
Run #2	2Q20273.D	5	09/11/18 23:34	NG	08/24/18 09:00	OP71500	S2Q332

Run #	Initial Volume	Final Volume
Run #1	120 ml	1.0 ml
Run #2	120 ml	1.0 ml

EPA 537 Method List

CAS No.	Compound	Result	PQL	MDL	Units	Q
<b>PERFLUOROALKYL CARBOXYLIC ACIDS</b>						
307-24-4	Perfluorohexanoic acid	0.103	0.0083	0.0021	ug/l	
375-85-9	Perfluoroheptanoic acid	0.0313	0.0083	0.0021	ug/l	
335-67-1	Perfluorooctanoic acid	0.0304	0.0083	0.0021	ug/l	
375-95-1	Perfluorononanoic acid	0.0021 U	0.0083	0.0021	ug/l	
335-76-2	Perfluorodecanoic acid	0.0021 U	0.0083	0.0021	ug/l	
2058-94-8	Perfluoroundecanoic acid	0.0021 U	0.0083	0.0021	ug/l	
307-55-1	Perfluorododecanoic acid	0.0031 U	0.0083	0.0031	ug/l	
72629-94-8	Perfluorotridecanoic acid	0.010 U <sup>b</sup>	0.042	0.010	ug/l	
376-06-7	Perfluorotetradecanoic acid	0.010 U <sup>b</sup>	0.042	0.010	ug/l	
<b>PERFLUOROALKYL SULFONATES</b>						
375-73-5	Perfluorobutanesulfonic acid	0.0643	0.0083	0.0021	ug/l	
355-46-4	Perfluorohexanesulfonic acid	0.208	0.0083	0.0021	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.188	0.0083	0.0031	ug/l	
<b>PERFLUORO OCTANESULFONAMIDOACETIC ACIDS</b>						
2355-31-9	MeFOSAA	0.0083 U	0.042	0.0083	ug/l	
2991-50-6	EiFOSAA	0.0083 U	0.042	0.0083	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C5-PFHxA	74%		50-150%
	13C4-PFHpA	80%		50-150%
	13C8-PFOA	82%		50-150%
	13C9-PFNA	83%		50-150%
	13C6-PFDA	75%		50-150%
	13C7-PFUnDA	61%		50-150%
	13C2-PFDoDA	51%		50-150%
	13C2-PFTeDA		27% <sup>c</sup>	40-150%
	13C3-PFBS	68%		50-150%
	13C3-PFHxS	69%		50-150%

U = Not detected      MDL = Method Detection Limit      I = Result >= MDL but < PQL      J = Estimated value  
 PQL = Practical Quantitation Limit      V = Indicates analyte found in associated method blank  
 L = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> MW 3	
<b>Lab Sample ID:</b> FA56731-18	<b>Date Sampled:</b> 08/14/18
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 08/14/18
<b>Method:</b> EPA 537M BY ID EPA 537 MOD	<b>Percent Solids:</b> n/a
<b>Project:</b> PFOS/PFOA Testing	

### EPA 537 Method List

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	62%		50-150%
	d3-MeFOSAA	76%		50-150%

- (a) Dilution required due to matrix interference (internal standard failure).
- (b) Result is from Run# 2
- (c) Outside control limits due to matrix interference.

U = Not detected      MDL = Method Detection Limit  
 PQL = Practical Quantitation Limit  
 L = Indicates value exceeds calibration range

I = Result >= MDL but < PQL    J = Estimated value  
 V = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> MW 2		
<b>Lab Sample ID:</b> FA56731-19		<b>Date Sampled:</b> 08/14/18
<b>Matrix:</b> AQ - Ground Water		<b>Date Received:</b> 08/14/18
<b>Method:</b> EPA 537M BY ID EPA 537 MOD		<b>Percent Solids:</b> n/a
<b>Project:</b> PFOS/PFOA Testing		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q20159.D	1	09/09/18 20:18	MV	08/24/18 09:00	OP71500	S2Q330
Run #2							

Run #	Initial Volume	Final Volume
Run #1	120 ml	1.0 ml
Run #2		

### EPA 537 Method List

CAS No.	Compound	Result	PQL	MDL	Units	Q
<b>PERFLUOROALKYL CARBOXYLIC ACIDS</b>						
307-24-4	Perfluorohexanoic acid	0.0530	0.0083	0.0021	ug/l	
375-85-9	Perfluoroheptanoic acid	0.0268	0.0083	0.0021	ug/l	
335-67-1	Perfluorooctanoic acid	0.0343	0.0083	0.0021	ug/l	
375-95-1	Perfluorononanoic acid	0.0021 U	0.0083	0.0021	ug/l	
335-76-2	Perfluorodecanoic acid	0.00219	0.0083	0.0021	ug/l	I
2058-94-8	Perfluoroundecanoic acid	0.00644	0.0083	0.0021	ug/l	I
307-55-1	Perfluorododecanoic acid	0.00779	0.0083	0.0031	ug/l	I
72629-94-8	Perfluorotridecanoic acid	0.0021 U	0.0083	0.0021	ug/l	
376-06-7	Perfluorotetradecanoic acid	0.0021 U	0.0083	0.0021	ug/l	

<b>PERFLUOROALKYL SULFONATES</b>						
375-73-5	Perfluorobutanesulfonic acid	0.0314	0.0083	0.0021	ug/l	
355-46-4	Perfluorohexanesulfonic acid	0.174	0.0083	0.0021	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.191	0.0083	0.0031	ug/l	

<b>PERFLUORO OCTANESULFONAMIDOACETIC ACIDS</b>						
2355-31-9	MeFOSAA	0.0083 U	0.042	0.0083	ug/l	
2991-50-6	EiFOSAA	0.0083 U	0.042	0.0083	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C5-PFHxA	80%		50-150%
	13C4-PFHpA	85%		50-150%
	13C8-PFOA	90%		50-150%
	13C9-PFNA	83%		50-150%
	13C6-PFDA	81%		50-150%
	13C7-PFUnDA	72%		50-150%
	13C2-PFDoDA	69%		50-150%
	13C2-PFTeDA	66%		40-150%
	13C3-PFBS	76%		50-150%
	13C3-PFHxS	74%		50-150%

U = Not detected      MDL = Method Detection Limit      I = Result >= MDL but < PQL      J = Estimated value  
 PQL = Practical Quantitation Limit      V = Indicates analyte found in associated method blank  
 L = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> MW 2		
<b>Lab Sample ID:</b> FA56731-19		<b>Date Sampled:</b> 08/14/18
<b>Matrix:</b> AQ - Ground Water		<b>Date Received:</b> 08/14/18
<b>Method:</b> EPA 537M BY ID EPA 537 MOD		<b>Percent Solids:</b> n/a
<b>Project:</b> PFOS/PFOA Testing		

### EPA 537 Method List

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	70%		50-150%
	d3-MeFOSAA	83%		50-150%

U = Not detected      MDL = Method Detection Limit  
 PQL = Practical Quantitation Limit  
 L = Indicates value exceeds calibration range

I = Result >= MDL but < PQL    J = Estimated value  
 V = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

**Misc. Forms**

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**Custody Documents and Other Forms**

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**Includes the following where applicable:**

- Chain of Custody





ACCUTEST

SGS Accutest Chain of Custody

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

FA56731

SGS ACCUTEST JOB #: PAGE 1 OF 2

Client / Reporting Information			Project Information			SGS Accutest Quote #		SKIFF #													
Company Name: C.O. Coca Beach Water Reclamation			Project Name:			Analytical Information		Matrix Codes													
Address: 1600 Maintenance Causeway			Street:					DW - Drinking Water													
City: COCA BEACH State: FL Zip: 32931			City: State:					GW - Ground Water													
Project Contact: CHRIS K. Email:			Project #:					WW - Water													
Phone #: 994-4671			Fax #:					SW - Surface Water													
Sampler(s) Name(s) (Printed)			Client Purchase Order #:					SO - Soil													
Sampler 1:								SL - Sludge													
Sampler 2:								OI - Oil													
								LIQ - Other Liquid													
								AIR - Air													
SGS Accutest Sample #			COLLECTION			CONTAINER INFORMATION			LAB USE ONLY												
Field ID / Point of Collection			DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NOISE	NOI	INCH	INCH	INCH	INCH	INCH	INCH	INCH	INCH	INCH		
1	INF COMP (81518) <sup>Comp Start</sup>	8/18/00	8:25	EC	W	2		X													
2	EFF COMP (81318) <sup>Comp Start</sup>		8:30																		
3	INF grab (81418)		8:40																		
4	EFF grab (81418)		8:45																		
5	LS 3		9:10																		
6	PAFB		9:20																		
7	LS 17		9:40																		
8	Reclaim South		9:55																		
9	Private well		10:05																		
10	Admission well		10:15																		
11	Dog Park		10:25																		
12	LS 10		10:45																		
Turnaround Time (Business days)			Data Deliverable Information			Comments / Remarks															
10 Day (Business) Approved By: / Date:			<input type="checkbox"/> COMMERCIAL "A" (RESULTS ONLY)			Field Time - 7 Hrs															
7 Day			<input type="checkbox"/> COMMERCIAL "B" (RESULTS PLUS QC)																		
5 Day			<input type="checkbox"/> REDT1 (EPA LEVEL 3)																		
3 Day RUSH			<input type="checkbox"/> FULLT1 (EPA LEVEL 4)																		
2 Day RUSH			<input type="checkbox"/> EDD'S																		
1 Day RUSH																					
Other:																					
Rush T/A Data Available VIA Email or Lablink																					
Relinquished by Sampler/Affiliation			Date Time:			Received By/Affiliation			Date Time:			Received By/Affiliation									
1 J 99			8/18/00			8/18/00			1600												
Relinquished by/Affiliation			Date Time:			Relinquished By/Affiliation			Date Time:			Received By/Affiliation									
5						3			4			4									
Relinquished by/Affiliation			Date Time:			Relinquished By/Affiliation			Date Time:			Received By/Affiliation									
5						6			7			8									
Lab Use Only: Cooler Temperature (s) Celsius:			2.8																		

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FA56731: Chain of Custody

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## SGS Sample Receipt Summary

Job Number: FA56731

Client: C.O COCO BEACH

Project: PFOS/PFOA

Date / Time Received: 8/14/2018 4:00:00 PM

Delivery Method: D/O

Airbill #s:

Therm ID: IR 1;

Therm CF: 0.1;

# of Coolers: 1

Cooler Temps (Raw Measured) °C: Cooler 1: (2.7);

Cooler Temps (Corrected) °C: Cooler 1: (2.8);

**Cooler Information**

Y or N

- |                             |                                     |                          |
|-----------------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present    | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact     | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Temp criteria achieved   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4. Cooler temp verification | <u>IR Gun</u>                       |                          |
| 5. Cooler media             | <u>Ice (Bag)</u>                    |                          |

**Trip Blank Information**

Y or N N/A

- |                                |                          |                          |                                     |
|--------------------------------|--------------------------|--------------------------|-------------------------------------|
| 1. Trip Blank present / cooler | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2. Trip Blank listed on COC    | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|                                | <u>W or S</u>            |                          | <u>N/A</u>                          |
| 3. Type Of TB Received         | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**Sample Information**

Y or N N/A

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

**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: PETERH

Date: 8/14/2018 4:00:00 PM

Reviewer: \_\_\_\_\_

Date: \_\_\_\_\_

FA56731: Chain of Custody

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## MS Semi-volatiles

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### QC Data Summaries

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#### Includes the following where applicable:

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

# Instrument Blank

Job Number: FA56731  
 Account: COCBFL City of Cocoa Beach Water Reclamation  
 Project: PFOS/PFOA Testing

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S2Q331-IBLK	2Q20177.D	1	09/10/18	NG	n/a	n/a	S2Q331

The QC reported here applies to the following samples:

Method: EPA 537M BY ID

FA56731-1

CAS No.	Compound	Result	RL	MDL	Units	Q
72629-94-8	Perfluorotridecanoic acid	ND	0.0083	0.0021	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0083	0.0021	ug/l	

CAS No.	ID Standard Recoveries	Limits
	13C5-PFHxA	92% 50-150%
	13C4-PFHpA	90% 50-150%
	13C8-PFOA	93% 50-150%
	13C9-PFNA	94% 50-150%
	13C6-PFDA	92% 50-150%
	13C7-PFUnDA	92% 50-150%
	13C2-PFDoDA	91% 50-150%
	13C2-PFTeDA	87% 40-150%
	13C3-PFBS	92% 50-150%
	13C3-PFHxS	92% 50-150%
	13C8-PFOS	94% 50-150%
	d3-MeFOSAA	93% 50-150%

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# Instrument Blank

Job Number: FA56731  
 Account: COCBFL City of Cocoa Beach Water Reclamation  
 Project: PFOS/PFOA Testing

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S2Q332-IBLK	2Q20261.D	1	09/11/18	NG	n/a	n/a	S2Q332

The QC reported here applies to the following samples:

Method: EPA 537M BY ID

FA56731-3, FA56731-5, FA56731-6, FA56731-7, FA56731-12, FA56731-13, FA56731-15, FA56731-16, FA56731-18

CAS No.	Compound	Result	RL	MDL	Units	Q
335-76-2	Perfluorodecanoic acid	ND	0.0083	0.0021	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0083	0.0021	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0083	0.0031	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0083	0.0021	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0083	0.0021	ug/l	
2355-31-9	MeFOSAA	ND	0.042	0.0083	ug/l	

CAS No.	ID Standard Recoveries	Limits
	13C5-PFHxA	97% 50-150%
	13C4-PFHpA	103% 50-150%
	13C8-PFOA	106% 50-150%
	13C9-PFNA	102% 50-150%
	13C6-PFDA	114% 50-150%
	13C7-PFUnDA	105% 50-150%
	13C2-PFDoDA	101% 50-150%
	13C2-PFTeDA	102% 40-150%
	13C3-PFBS	83% 50-150%
	13C3-PFHxS	83% 50-150%
	13C8-PFOS	82% 50-150%
	d3-MeFOSAA	95% 50-150%

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5

# Method Blank Summary

Job Number: FA56731  
 Account: COCBFL City of Cocoa Beach Water Reclamation  
 Project: PFOS/PFOA Testing

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP71500-MB	2Q20134.D	1	09/09/18	MV	08/24/18	OP71500	S2Q330

The QC reported here applies to the following samples:

Method: EPA 537M BY ID

FA56731-1, FA56731-2, FA56731-3, FA56731-4, FA56731-5, FA56731-6, FA56731-7, FA56731-8, FA56731-9, FA56731-10, FA56731-11, FA56731-12, FA56731-13, FA56731-14, FA56731-15, FA56731-16, FA56731-17, FA56731-18, FA56731-19

CAS No.	Compound	Result	RL	MDL	Units	Q
307-24-4	Perfluorohexanoic acid	ND	0.0077	0.0019	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0077	0.0019	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0077	0.0019	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0077	0.0019	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0077	0.0019	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0077	0.0019	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0077	0.0029	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0077	0.0019	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0077	0.0019	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0077	0.0019	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0077	0.0019	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0077	0.0029	ug/l	
2355-31-9	MeFOSAA	ND	0.038	0.0077	ug/l	
2991-50-6	EtFOSAA	ND	0.038	0.0077	ug/l	

CAS No.	ID Standard Recoveries	Limits
	13C5-PFHxA	83% 50-150%
	13C4-PFHpA	86% 50-150%
	13C8-PFOA	85% 50-150%
	13C9-PFNA	81% 50-150%
	13C6-PFDA	82% 50-150%
	13C7-PFUnDA	74% 50-150%
	13C2-PFDoDA	73% 50-150%
	13C2-PFTeDA	69% 40-150%
	13C3-PFBS	79% 50-150%
	13C3-PFHxS	79% 50-150%
	13C8-PFOS	77% 50-150%
	d3-MeFOSAA	89% 50-150%

# Instrument Blank

Job Number: FA56731  
 Account: COCBFL City of Cocoa Beach Water Reclamation  
 Project: PFOS/PFOA Testing

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S2Q330-IBLK	2Q20128.D	1	09/09/18	MV	n/a	n/a	S2Q330

The QC reported here applies to the following samples:

Method: EPA 537M QSM5.1 B-15

FA56731-1, FA56731-2, FA56731-3, FA56731-4, FA56731-5, FA56731-6, FA56731-7, FA56731-8, FA56731-9, FA56731-10, FA56731-11, FA56731-12, FA56731-13, FA56731-14, FA56731-15, FA56731-16, FA56731-17, FA56731-18, FA56731-19

CAS No.	Compound	Result	RL	MDL	Units	Q
307-24-4	Perfluorohexanoic acid	ND	0.0091	0.0023	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0091	0.0023	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0091	0.0023	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0091	0.0023	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0091	0.0023	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0091	0.0023	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0091	0.0034	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0091	0.0023	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0091	0.0023	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0091	0.0023	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0091	0.0023	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.018	0.0045	ug/l	
2355-31-9	MeFOSAA	ND	0.045	0.0091	ug/l	
2991-50-6	EtFOSAA	ND	0.045	0.0091	ug/l	

CAS No.	ID Standard Recoveries	Limits	
	13C4-PFBA	95%	50-150%
	13C5-PFPeA	98%	50-150%
	13C5-PFHxA	99%	50-150%
	13C4-PFHpA	101%	50-150%
	13C8-PFOA	99%	50-150%
	13C9-PFNA	97%	50-150%
	13C6-PFDA	102%	50-150%
	13C7-PFUnDA	93%	50-150%
	13C2-PFDoDA	93%	50-150%
	13C2-PFTeDA	82%	50-150%
	13C3-PFBS	94%	50-150%
	13C3-PFHxS	92%	50-150%
	13C8-PFOS	94%	50-150%
	13C8-FOSA	116%	50-150%
	d3-MeFOSAA	110%	50-150%
	13C2-4:2FTS	97%	50-150%
	13C2-6:2FTS	98%	50-150%
	13C2-8:2FTS	100%	50-150%

5.1.4  
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# Blank Spike Summary

Job Number: FA56731  
 Account: COCBFL City of Cocoa Beach Water Reclamation  
 Project: PFOS/PFOA Testing

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP71500-BS	2Q20133.D	1	09/09/18	MV	08/24/18	OP71500	S2Q330

The QC reported here applies to the following samples:

Method: EPA 537M BY ID

FA56731-1, FA56731-2, FA56731-3, FA56731-4, FA56731-5, FA56731-6, FA56731-7, FA56731-8, FA56731-9, FA56731-10, FA56731-11, FA56731-12, FA56731-13, FA56731-14, FA56731-15, FA56731-16, FA56731-17, FA56731-18, FA56731-19

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
307-24-4	Perfluorohexanoic acid	0.154	0.148	96	70-130
375-85-9	Perfluoroheptanoic acid	0.154	0.166	108	71-130
335-67-1	Perfluorooctanoic acid	0.154	0.162	105	74-130
375-95-1	Perfluorononanoic acid	0.154	0.148	96	76-130
335-76-2	Perfluorodecanoic acid	0.154	0.128	83	70-130
2058-94-8	Perfluoroundecanoic acid	0.154	0.167	109	70-130
307-55-1	Perfluorododecanoic acid	0.154	0.169	110	70-130
72629-94-8	Perfluorotridecanoic acid	0.154	0.178	116	70-139
376-06-7	Perfluorotetradecanoic acid	0.154	0.149	97	70-130
375-73-5	Perfluorobutanesulfonic acid	0.136	0.130	95	73-130
355-46-4	Perfluorohexanesulfonic acid	0.14	0.139	99	74-130
1763-23-1	Perfluorooctanesulfonic acid	0.142	0.155	109	70-130
2355-31-9	MeFOSAA	0.154	0.161	105	70-130
2991-50-6	EtFOSAA	0.154	0.160	104	70-130

CAS No.	ID Standard Recoveries	BSP	Limits
	13C5-PFHxA	92%	50-150%
	13C4-PFHpA	95%	50-150%
	13C8-PFOA	94%	50-150%
	13C9-PFNA	92%	50-150%
	13C6-PFDA	96%	50-150%
	13C7-PFUnDA	82%	50-150%
	13C2-PFDoDA	80%	50-150%
	13C2-PFTeDA	72%	40-150%
	13C3-PFBS	87%	50-150%
	13C3-PFHxS	87%	50-150%
	13C8-PFOS	88%	50-150%
	d3-MeFOSAA	98%	50-150%

\* = Outside of Control Limits.

5.2.1  
5

# Matrix Spike Summary

Job Number: FA56731  
 Account: COCBFL City of Cocoa Beach Water Reclamation  
 Project: PFOS/PFOA Testing

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP71500-MS	2Q20139.D	1	09/09/18	MV	08/24/18	OP71500	S2Q330
FA56731-4	2Q20138.D	1	09/09/18	MV	08/24/18	OP71500	S2Q330

The QC reported here applies to the following samples:

Method: EPA 537M BY ID

FA56731-1, FA56731-2, FA56731-3, FA56731-4, FA56731-5, FA56731-6, FA56731-7, FA56731-8, FA56731-9, FA56731-10, FA56731-11, FA56731-12, FA56731-13, FA56731-14, FA56731-15, FA56731-16, FA56731-17, FA56731-18, FA56731-19

CAS No.	Compound	FA56731-4 ug/l	Spike Q	MS ug/l	MS %	Limits
307-24-4	Perfluorohexanoic acid	0.0440	0.167	0.210	100	70-130
375-85-9	Perfluoroheptanoic acid	0.0189	0.167	0.209	114	71-130
335-67-1	Perfluorooctanoic acid	0.0207	0.167	0.205	111	74-130
375-95-1	Perfluorononanoic acid	0.0083 U	0.167	0.179	107	76-130
335-76-2	Perfluorodecanoic acid	0.00232 I	0.167	0.167	99	70-130
2058-94-8	Perfluoroundecanoic acid	0.0083 U	0.167	0.194	116	70-130
307-55-1	Perfluorododecanoic acid	0.0083 U	0.167	0.185	111	70-130
72629-94-8	Perfluorotridecanoic acid	0.0083 U	0.167	0.200	120	70-139
376-06-7	Perfluorotetradecanoic acid	0.0083 U	0.167	0.172	103	70-130
375-73-5	Perfluorobutanesulfonic acid	0.0388	0.147	0.180	96	73-130
355-46-4	Perfluorohexanesulfonic acid	0.0325	0.152	0.190	104	74-130
1763-23-1	Perfluorooctanesulfonic acid	0.0835	0.154	0.296	138*	70-130
2355-31-9	MeFOSAA	0.042 U	0.167	0.184	110	70-130
2991-50-6	EtFOSAA	0.042 U	0.167	0.184	110	70-130

CAS No.	ID Standard Recoveries	MS	FA56731-4	Limits
	13C5-PFHxA	75%	82%	50-150%
	13C4-PFHpA	78%	89%	50-150%
	13C8-PFOA	81%	88%	50-150%
	13C9-PFNA	75%	87%	50-150%
	13C6-PFDA	83%	83%	50-150%
	13C7-PFUnDA	71%	75%	50-150%
	13C2-PFDoDA	69%	72%	50-150%
	13C2-PFTeDA	67%	66%	40-150%
	13C3-PFBS	72%	79%	50-150%
	13C3-PFHxS	72%	79%	50-150%
	13C8-PFOS	71%	75%	50-150%
	d3-MeFOSAA	83%	89%	50-150%

\* = Outside of Control Limits.

5.3.1  
5

# Duplicate Summary

Job Number: FA56731  
 Account: COCBFL City of Cocoa Beach Water Reclamation  
 Project: PFOS/PFOA Testing

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP71500-DUP	2Q20312.D	20	09/12/18	NG	08/24/18	OP71500	S2Q332
FA56731-7 <sup>a</sup>	2Q20144.D	1	09/09/18	MV	08/24/18	OP71500	S2Q330
FA56731-7	2Q20311.D	20	09/12/18	NG	08/24/18	OP71500	S2Q332

The QC reported here applies to the following samples:

Method: EPA 537M BY ID

FA56731-1, FA56731-2, FA56731-3, FA56731-4, FA56731-5, FA56731-6, FA56731-7, FA56731-8, FA56731-9, FA56731-10, FA56731-11, FA56731-12, FA56731-13, FA56731-14, FA56731-15, FA56731-16, FA56731-17, FA56731-18, FA56731-19

CAS No.	Compound	FA56731-7 ug/l	DUP Q	ug/l	Q	RPD	Limits
307-24-4	Perfluorohexanoic acid	0.00417	I	ND		200*	30
375-85-9	Perfluoroheptanoic acid	0.0077	U	ND		nc	30
335-67-1	Perfluorooctanoic acid	0.00417	I	ND		200*	30
375-95-1	Perfluorononanoic acid	0.0077	U	ND		nc	30
335-76-2	Perfluorodecanoic acid	0.15	U <sup>b</sup>	ND		nc	30
2058-94-8	Perfluoroundecanoic acid	0.15	U <sup>b</sup>	ND		nc	30
307-55-1	Perfluorododecanoic acid	0.15	U <sup>b</sup>	ND		nc	30
72629-94-8	Perfluorotridecanoic acid	0.15	U <sup>b</sup>	ND		nc	30
376-06-7	Perfluorotetradecanoic acid	0.15	U <sup>b</sup>	ND		nc	30
375-73-5	Perfluorobutanesulfonic acid	0.0077	U	ND		nc	30
355-46-4	Perfluorohexanesulfonic acid	0.128		0.0682	J	61*	30
1763-23-1	Perfluorooctanesulfonic acid	0.0192		ND		200*	30
2355-31-9	MeFOSAA	0.77	U <sup>b</sup>	ND		nc	30
2991-50-6	EtFOSAA	0.038	U	ND		nc	30

CAS No.	ID Standard Recoveries	DUP	FA56731-7	FA56731-7	Limits
	13C5-PFHxA	115%	81%		50-150%
	13C4-PFHpA	121%	84%		50-150%
	13C8-PFOA	127%	84%		50-150%
	13C9-PFNA	128%	87%		50-150%
	13C6-PFDA	159%* <sup>c</sup>		130%	50-150%
	13C7-PFUnDA	129%		112%	50-150%
	13C2-PFDoDA	133%		111%	50-150%
	13C2-PFTeDA	138%		123%	40-150%
	13C3-PFBS	96%	78%		50-150%
	13C3-PFHxS	97%	73%		50-150%
	13C8-PFOS	102%	67%		50-150%
	d3-MeFOSAA	122%		102%	50-150%

- (a) Dilution required due to matrix interference (internal standard failure).
- (b) Result is from Run #2.
- (c) Outside control limits due to dilution.

\* = Outside of Control Limits.