

Report of Analysis

Client Sample ID: 20106	Date Sampled: 05/16/18
Lab Sample ID: FA54384-5	Date Received: 05/22/18
Matrix: DW - Drinking Water	Percent Solids: n/a
Method: EPA 537 EPA 537	
Project: 1182277	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q46894.D	1	05/29/18 13:22	NAF	05/22/18 16:00	OP70170	SQ1145
Run #2							

Run #	Initial Volume	Final Volume
Run #1	250 ml	1.0 ml
Run #2		

Perfluorinated Alkyl Acids

CAS No.	Compound	Result	MCL	RL	MDL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS							
307-24-4	Perfluorohexanoic acid	ND		0.0080	0.0040	ug/l	
375-85-9	Perfluoroheptanoic acid	ND		0.0080	0.0040	ug/l	
335-67-1	Perfluorooctanoic acid	ND		0.0080	0.0020	ug/l	
375-95-1	Perfluorononanoic acid	ND		0.0080	0.0020	ug/l	
335-76-2	Perfluorodecanoic acid	ND		0.0080	0.0040	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND		0.0080	0.0040	ug/l	
307-55-1	Perfluorododecanoic acid	ND		0.0080	0.0040	ug/l	
72629-94-8	Perfluorotridecanoic acid ^a	ND		0.0080	0.0040	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND		0.0080	0.0040	ug/l	
PERFLUOROALKYLSULFONATES							
375-73-5	Perfluorobutanesulfonic acid	ND		0.0080	0.0040	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND		0.0080	0.0040	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND		0.0080	0.0020	ug/l	
PERFLUOROCTANESULFONAMIDOACETIC ACIDS							
2355-31-9	MeFOSAA	ND		0.020	0.0080	ug/l	
2991-50-6	EtFOSAA	ND		0.020	0.0080	ug/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits			
	13C2-PFHxA	102%		70-130%			
	13C2-PFDA	100%		70-130%			
	d5-EtFOSAA	83%		70-130%			

(a) Associated ICV outside control limits high, however sample ND.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 141) 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: 20106-██████	Date Sampled: 05/16/18
Lab Sample ID: FA54384-6	Date Received: 05/22/18
Matrix: DW - Drinking Water	Percent Solids: n/a
Method: EPA 537 EPA 537	
Project: 1182277	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q46895.D	1	05/29/18 13:43	NAF	05/22/18 16:00	OP70170	SQ1145
Run #2							

Run #	Initial Volume	Final Volume
Run #1	250 ml	1.0 ml
Run #2		

Perfluorinated Alkyl Acids

CAS No.	Compound	Result	MCL	RL	MDL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS							
307-24-4	Perfluorohexanoic acid	ND		0.0080	0.0040	ug/l	
375-85-9	Perfluoroheptanoic acid	ND		0.0080	0.0040	ug/l	
335-67-1	Perfluorooctanoic acid	0.0123		0.0080	0.0020	ug/l	
375-95-1	Perfluorononanoic acid	ND		0.0080	0.0020	ug/l	
335-76-2	Perfluorodecanoic acid	ND		0.0080	0.0040	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND		0.0080	0.0040	ug/l	
307-55-1	Perfluorododecanoic acid	ND		0.0080	0.0040	ug/l	
72629-94-8	Perfluorotridecanoic acid ^a	ND		0.0080	0.0040	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND		0.0080	0.0040	ug/l	

PERFLUOROALKYLSULFONATES

375-73-5	Perfluorobutanesulfonic acid	ND		0.0080	0.0040	ug/l	
355-46-4	Perfluorohexanesulfonic acid	0.0137		0.0080	0.0040	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.00356		0.0080	0.0020	ug/l	J

PERFLUOROCTANESULFONAMIDOACETIC ACIDS

2355-31-9	MeFOSAA	ND		0.020	0.0080	ug/l	
2991-50-6	EtFOSAA	ND		0.020	0.0080	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	13C2-PFHxA	101%		70-130%
	13C2-PFDA	105%		70-130%
	d5-EtFOSAA	83%		70-130%

(a) Associated ICV outside control limits high, however sample ND.

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Report of Analysis

Client Sample ID: 20106-████████	Date Sampled: 05/16/18
Lab Sample ID: FA54384-7	Date Received: 05/22/18
Matrix: DW - Drinking Water	Percent Solids: n/a
Method: EPA 537 EPA 537	
Project: 1182277	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q46896.D	1	05/29/18 14:05	NAF	05/22/18 16:00	OP70170	SQ1145
Run #2							

Run #	Initial Volume	Final Volume
Run #1	250 ml	1.0 ml
Run #2		

Perfluorinated Alkyl Acids

CAS No.	Compound	Result	MCL	RL	MDL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS							
307-24-4	Perfluorohexanoic acid	ND		0.0080	0.0040	ug/l	
375-85-9	Perfluoroheptanoic acid	ND		0.0080	0.0040	ug/l	
335-67-1	Perfluorooctanoic acid	0.0121		0.0080	0.0020	ug/l	
375-95-1	Perfluorononanoic acid	ND		0.0080	0.0020	ug/l	
335-76-2	Perfluorodecanoic acid	ND		0.0080	0.0040	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND		0.0080	0.0040	ug/l	
307-55-1	Perfluorododecanoic acid	ND		0.0080	0.0040	ug/l	
72629-94-8	Perfluorotridecanoic acid ^a	ND		0.0080	0.0040	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND		0.0080	0.0040	ug/l	

PERFLUOROALKYLSULFONATES

375-73-5	Perfluorobutanesulfonic acid	ND		0.0080	0.0040	ug/l	
355-46-4	Perfluorohexanesulfonic acid	0.0132		0.0080	0.0040	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.00337		0.0080	0.0020	ug/l	J

PERFLUOROCTANESULFONAMIDOACETIC ACIDS

2355-31-9	MeFOSAA	ND		0.020	0.0080	ug/l	
2991-50-6	EtFOSAA	ND		0.020	0.0080	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	13C2-PFHxA	91%		70-130%
	13C2-PFDA	87%		70-130%
	d5-EtFOSAA	74%		70-130%

(a) Associated ICV outside control limits high, however sample ND.

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Report of Analysis

Client Sample ID: 20106	Date Sampled: 05/16/18
Lab Sample ID: FA54384-8	Date Received: 05/22/18
Matrix: DW - Drinking Water	Percent Solids: n/a
Method: EPA 537 EPA 537	
Project: 1182277	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q46897.D	1	05/29/18 14:26	NAF	05/22/18 16:00	OP70170	SQ1145
Run #2 ^a	Q46816.D	1	05/26/18 09:06	NAF	05/22/18 16:00	OP70170	SQ1143

Run #	Initial Volume	Final Volume
Run #1	250 ml	1.0 ml
Run #2	250 ml	1.0 ml

Perfluorinated Alkyl Acids

CAS No.	Compound	Result	MCL	RL	MDL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS							
307-24-4	Perfluorohexanoic acid	ND		0.0080	0.0040	ug/l	
375-85-9	Perfluoroheptanoic acid	ND		0.0080	0.0040	ug/l	
335-67-1	Perfluorooctanoic acid	ND		0.0080	0.0020	ug/l	
375-95-1	Perfluorononanoic acid	0.00329		0.0080	0.0020	ug/l	J
335-76-2	Perfluorodecanoic acid	ND		0.0080	0.0040	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND		0.0080	0.0040	ug/l	
307-55-1	Perfluorododecanoic acid	ND		0.0080	0.0040	ug/l	
72629-94-8	Perfluorotridecanoic acid ^b	ND		0.0080	0.0040	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND		0.0080	0.0040	ug/l	

PERFLUOROALKYLSULFONATES

375-73-5	Perfluorobutanesulfonic acid	ND		0.0080	0.0040	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND		0.0080	0.0040	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.00350		0.0080	0.0020	ug/l	J

PERFLUOROCTANESULFONAMIDOACETIC ACIDS

2355-31-9	MeFOSAA	ND		0.020	0.0080	ug/l	
2991-50-6	EtFOSAA	ND		0.020	0.0080	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	13C2-PFHxA	86%	93%	70-130%
	13C2-PFDA	63% ^c	55% ^d	70-130%
	d5-EtFOSAA	40% ^c	38% ^d	70-130%

- (a) Confirmation run for surrogate recoveries.
- (b) Associated ICV outside control limits high, however sample ND.
- (c) Outside control limits due to matrix interference. Confirmed by reanalysis. Insufficient sample for re-extraction.
- (d) Outside control limits.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
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E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID: 20106- ██████	Date Sampled: 05/16/18
Lab Sample ID: FA54384-9	Date Received: 05/22/18
Matrix: DW - Drinking Water	Percent Solids: n/a
Method: EPA 537 EPA 537	
Project: 1182277	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q46900.D	1	05/29/18 15:30	NAF	05/22/18 16:00	OP70170	SQ1145
Run #2							

Run #	Initial Volume	Final Volume
Run #1	240 ml	1.0 ml
Run #2		

Perfluorinated Alkyl Acids

CAS No.	Compound	Result	MCL	RL	MDL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS							
307-24-4	Perfluorohexanoic acid	ND		0.0083	0.0042	ug/l	
375-85-9	Perfluoroheptanoic acid	ND		0.0083	0.0042	ug/l	
335-67-1	Perfluorooctanoic acid	ND		0.0083	0.0021	ug/l	
375-95-1	Perfluorononanoic acid	ND		0.0083	0.0021	ug/l	
335-76-2	Perfluorodecanoic acid	ND		0.0083	0.0042	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND		0.0083	0.0042	ug/l	
307-55-1	Perfluorododecanoic acid	ND		0.0083	0.0042	ug/l	
72629-94-8	Perfluorotridecanoic acid ^a	ND		0.0083	0.0042	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND		0.0083	0.0042	ug/l	
PERFLUOROALKYLSULFONATES							
375-73-5	Perfluorobutanesulfonic acid	ND		0.0083	0.0042	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND		0.0083	0.0042	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.00417		0.0083	0.0021	ug/l	J
PERFLUOROCTANESULFONAMIDOACETIC ACIDS							
2355-31-9	MeFOSAA	ND		0.021	0.0083	ug/l	
2991-50-6	EtFOSAA	ND		0.021	0.0083	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	13C2-PFHxA	98%		70-130%
	13C2-PFDA	110%		70-130%
	d5-EtFOSAA	89%		70-130%

(a) Associated ICV outside control limits high, however sample ND.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 141) 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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