

ANALYTICAL REPORT

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TestAmerica Buffalo

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Tel: (716)691-2600

TestAmerica Job ID: 480-132645-1

Client Project/Site: Ontario Sanitary LF - Region 8

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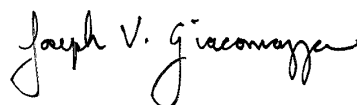
New York State D.E.C.

625 Broadway

Division of Environmental Remediation

Albany, New York 12233-7014

Attn: Mr. Vincent Fay



Authorized for release by:

4/5/2018 8:48:55 AM

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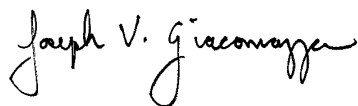
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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Joe Giacomazza
Project Management Assistant II
4/5/2018 8:48:55 AM

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Definitions/Glossary

Client: New York State D.E.C.
Project/Site: Ontario Sanitary LF - Region 8

TestAmerica Job ID: 480-132645-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.

LCMS

Qualifier	Qualifier Description
*	ISTD response or retention time outside acceptable limits
U	Indicates the analyte was analyzed for but not detected.
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
*	Isotope Dilution analyte is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: New York State D.E.C.
Project/Site: Ontario Sanitary LF - Region 8

TestAmerica Job ID: 480-132645-1

Job ID: 480-132645-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-132645-1

Comments

No additional comments.

Receipt

The samples were received on 3/15/2018 9:50 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.2° C.

GC/MS Semi VOA

Method(s) 8270D SIM ID: The 1,4-Dioxane result reported for samples ONTARIO COUNTY STAGE 120180314 (480-132645-1) and ONTARIO COUNTY LAGOON 20180314 (480-132645-3) recovered above the upper calibration range. The results are to be considered estimated and have been qualified with an "E" flag.

Method(s) 8270D SIM ID: The 1,4-Dioxane result reported for sample ONTARIO COUNTY STAGE 1X-B1 20180314 (480-132645-2) have an E flag qualifier indicating the results are over the calibration range on the raw data. The actual amounts are within the calibration range; however, the E flag is generated based upon the bias corrected concentration. The LIMS system calculates a bias correction based on the recovery of the 1,4-Dioxane-d8 isotope.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

LCMS

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

Method(s) 3510C: Due to the matrix, the initial volume(s) used for the following samples deviated from the standard procedure: ONTARIO COUNTY STAGE 120180314 (480-132645-1), ONTARIO COUNTY STAGE 1X-B1 20180314 (480-132645-2) and ONTARIO COUNTY LAGOON 20180314 (480-132645-3). The reporting limits (RLs) have been adjusted proportionately.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Client Sample Results

Client: New York State D.E.C.
Project/Site: Ontario Sanitary LF - Region 8

TestAmerica Job ID: 480-132645-1

Client Sample ID: ONTARIO COUNTY STAGE 120180314

Lab Sample ID: 480-132645-1

Date Collected: 03/14/18 10:04

Matrix: Water

Date Received: 03/15/18 09:50

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	91	E	2.0	1.0	ug/L		03/16/18 14:18	03/21/18 04:39	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	41		15 - 110				03/16/18 14:18	03/21/18 04:39	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	2130	D	39.9	9.77	ng/L		03/27/18 13:19	04/03/18 17:08	20
Perfluorohexanoic acid (PFHxA)	3040	D	39.9	11.6	ng/L		03/27/18 13:19	04/03/18 17:08	20
Perfluoroheptanoic acid (PFHpA)	1140	D	39.9	4.98	ng/L		03/27/18 13:19	04/03/18 17:08	20
Perfluorooctanoic acid (PFOA)	3270	D	39.9	16.9	ng/L		03/27/18 13:19	04/03/18 17:08	20
Perfluorononanoic acid (PFNA)	256	D	39.9	5.38	ng/L		03/27/18 13:19	04/03/18 17:08	20
Perfluorodecanoic acid (PFDA)	586	D	39.9	6.18	ng/L		03/27/18 13:19	04/03/18 17:08	20
Perfluoroundecanoic acid (PFUnA)	21.9	U	39.9	21.9	ng/L		03/27/18 13:19	04/03/18 17:08	20
Perfluorododecanoic acid (PFDoA)	11.0	U	39.9	11.0	ng/L		03/27/18 13:19	04/03/18 17:08	20
Perfluorotridecanoic Acid (PFTriA)	25.9	U	39.9	25.9	ng/L		03/27/18 13:19	04/03/18 17:08	20
Perfluorotetradecanoic acid (PFTeA)	5.78	U	39.9	5.78	ng/L		03/27/18 13:19	04/03/18 17:08	20
Perfluorobutanesulfonic acid (PFBS)	492	D	39.9	3.99	ng/L		03/27/18 13:19	04/03/18 17:08	20
Perfluorohexanesulfonic acid (PFHxS)	342	D B	39.9	3.39	ng/L		03/27/18 13:19	04/03/18 17:08	20
Perfluoroheptanesulfonic Acid (PFHpS)	3.79	U	39.9	3.79	ng/L		03/27/18 13:19	04/03/18 17:08	20
Perfluorooctanesulfonic acid (PFOS)	442	D	39.9	10.8	ng/L		03/27/18 13:19	04/03/18 17:08	20
Perfluorodecanesulfonic acid (PFDS)	6.38	U	39.9	6.38	ng/L		03/27/18 13:19	04/03/18 17:08	20
Perfluorooctane Sulfonamide (FOSA)	17.8	J D	39.9	6.98	ng/L		03/27/18 13:19	04/03/18 17:08	20
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	62.2	J D	399	61.8	ng/L		03/27/18 13:19	04/03/18 17:08	20
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	218	J D	399	37.9	ng/L		03/27/18 13:19	04/03/18 17:08	20
6:2FTS	1830	D	399	39.9	ng/L		03/27/18 13:19	04/03/18 17:08	20
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C5 PFPeA	58	*	25 - 150				03/27/18 13:19	04/03/18 17:08	20
13C2 PFHxA	74	*	25 - 150				03/27/18 13:19	04/03/18 17:08	20
13C4-PFHpA	88	*	25 - 150				03/27/18 13:19	04/03/18 17:08	20
13C4 PFOA	99	*	25 - 150				03/27/18 13:19	04/03/18 17:08	20
13C5 PFNA	116	*	25 - 150				03/27/18 13:19	04/03/18 17:08	20
13C2 PFDA	116	*	25 - 150				03/27/18 13:19	04/03/18 17:08	20
13C2 PFUnA	94	*	25 - 150				03/27/18 13:19	04/03/18 17:08	20
13C2 PFDoA	54	*	25 - 150				03/27/18 13:19	04/03/18 17:08	20
13C2-PFTeDA	11	*	25 - 150				03/27/18 13:19	04/03/18 17:08	20
13C3-PFBS	91	*	25 - 150				03/27/18 13:19	04/03/18 17:08	20
18O2 PFHxS	100	*	25 - 150				03/27/18 13:19	04/03/18 17:08	20
13C4 PFOS	99	*	25 - 150				03/27/18 13:19	04/03/18 17:08	20
13C8 FOSA	103	*	25 - 150				03/27/18 13:19	04/03/18 17:08	20
d3-NMeFOSAA	144	*	25 - 150				03/27/18 13:19	04/03/18 17:08	20
d5-NEtFOSAA	142	*	25 - 150				03/27/18 13:19	04/03/18 17:08	20
M2-6:2FTS	453	*	25 - 150				03/27/18 13:19	04/03/18 17:08	20

TestAmerica Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Ontario Sanitary LF - Region 8

TestAmerica Job ID: 480-132645-1

Method: 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	2310	D	199	34.9	ng/L		03/27/18 13:19	03/30/18 16:03	100
8:2FTS	199	U	1990	199	ng/L		03/27/18 13:19	03/30/18 16:03	100
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	25	*	25 - 150				03/27/18 13:19	03/30/18 16:03	100
M2-8:2FTS	117	*	25 - 150				03/27/18 13:19	03/30/18 16:03	100

Client Sample ID: ONTARIO COUNTY STAGE 1X-B1 20180314

Lab Sample ID: 480-132645-2

Date Collected: 03/14/18 11:10

Matrix: Water

Date Received: 03/15/18 09:50

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	28	E	2.0	1.0	ug/L		03/16/18 14:18	03/21/18 05:03	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	45		15 - 110				03/16/18 14:18	03/21/18 05:03	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	311		2.04	0.50	ng/L		03/27/18 13:47	03/31/18 08:26	1
Perfluoroheptanoic acid (PFHpA)	151		2.04	0.26	ng/L		03/27/18 13:47	03/31/18 08:26	1
Perfluorooctanoic acid (PFOA)	285		2.04	0.87	ng/L		03/27/18 13:47	03/31/18 08:26	1
Perfluorododecanoic acid (PFDoA)	0.56	U	2.04	0.56	ng/L		03/27/18 13:47	03/31/18 08:26	1
Perfluorotridecanoic Acid (PFTriA)	1.33	U	2.04	1.33	ng/L		03/27/18 13:47	03/31/18 08:26	1
Perfluorotetradecanoic acid (PFTeA)	0.30	U	2.04	0.30	ng/L		03/27/18 13:47	03/31/18 08:26	1
Perfluorobutanesulfonic acid (PFBS)	154		2.04	0.20	ng/L		03/27/18 13:47	03/31/18 08:26	1
Perfluorohexanesulfonic acid (PFHxS)	143	B	2.04	0.17	ng/L		03/27/18 13:47	03/31/18 08:26	1
Perfluorooctane Sulfonamide (FOSA)	1.99	J	2.04	0.36	ng/L		03/27/18 13:47	03/31/18 08:26	1
6:2FTS	210		20.4	2.04	ng/L		03/27/18 13:47	03/31/18 08:26	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C5 PFPeA	27		25 - 150				03/27/18 13:47	03/31/18 08:26	1
13C4-PFHpa	80		25 - 150				03/27/18 13:47	03/31/18 08:26	1
13C4 PFOA	97		25 - 150				03/27/18 13:47	03/31/18 08:26	1
13C2 PFDoA	74		25 - 150				03/27/18 13:47	03/31/18 08:26	1
13C2-PFTeDA	28		25 - 150				03/27/18 13:47	03/31/18 08:26	1
13C3-PFBS	103		25 - 150				03/27/18 13:47	03/31/18 08:26	1
18O2 PFHxS	138		25 - 150				03/27/18 13:47	03/31/18 08:26	1
13C8 FOSA	130		25 - 150				03/27/18 13:47	03/31/18 08:26	1

Method: 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	932	D	20.4	3.58	ng/L		03/27/18 13:47	03/31/18 07:00	10
Perfluorohexanoic acid (PFHxA)	843	D	20.4	5.93	ng/L		03/27/18 13:47	03/31/18 07:00	10
Perfluorononanoic acid (PFNA)	15.4	J D	20.4	2.76	ng/L		03/27/18 13:47	03/31/18 07:00	10
Perfluorodecanoic acid (PFDA)	8.46	J D	20.4	3.17	ng/L		03/27/18 13:47	03/31/18 07:00	10
Perfluoroundecanoic acid (PFUnA)	11.2	U	20.4	11.2	ng/L		03/27/18 13:47	03/31/18 07:00	10
Perfluoroheptanesulfonic Acid (PFHpS)	1.94	U	20.4	1.94	ng/L		03/27/18 13:47	03/31/18 07:00	10
Perfluorooctanesulfonic acid (PFOS)	65.8	D	20.4	5.52	ng/L		03/27/18 13:47	03/31/18 07:00	10
Perfluorodecanesulfonic acid (PFDS)	3.27	U	20.4	3.27	ng/L		03/27/18 13:47	03/31/18 07:00	10
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	31.7	U	204	31.7	ng/L		03/27/18 13:47	03/31/18 07:00	10

TestAmerica Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Ontario Sanitary LF - Region 8

TestAmerica Job ID: 480-132645-1

Client Sample ID: ONTARIO COUNTY STAGE 1X-B1 20180314

Lab Sample ID: 480-132645-2

Date Collected: 03/14/18 11:10

Matrix: Water

Date Received: 03/15/18 09:50

Method: 537 (modified) - Fluorinated Alkyl Substances - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethyl perfluorooctane	19.4	U	204	19.4	ng/L		03/27/18 13:47	03/31/18 07:00	10
sulfonamidoacetic acid (NEtFOSAA)									
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	10	*	25 - 150				03/27/18 13:47	03/31/18 07:00	10
13C2 PFHxA	71	*	25 - 150				03/27/18 13:47	03/31/18 07:00	10
13C5 PFNA	110	*	25 - 150				03/27/18 13:47	03/31/18 07:00	10
13C2 PFDA	106	*	25 - 150				03/27/18 13:47	03/31/18 07:00	10
13C2 PFUnA	78	*	25 - 150				03/27/18 13:47	03/31/18 07:00	10
13C4 PFOS	93	*	25 - 150				03/27/18 13:47	03/31/18 07:00	10
d3-NMeFOSAA	121	*	25 - 150				03/27/18 13:47	03/31/18 07:00	10
d5-NEtFOSAA	115	*	25 - 150				03/27/18 13:47	03/31/18 07:00	10
M2-6:2FTS	326	*	25 - 150				03/27/18 13:47	03/31/18 07:00	10

Method: 537 (modified) - Fluorinated Alkyl Substances - DL2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
8:2FTS	204	U	2040	204	ng/L		03/27/18 13:47	03/30/18 16:11	100
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
M2-8:2FTS	119	*	25 - 150				03/27/18 13:47	03/30/18 16:11	100

Client Sample ID: ONTARIO COUNTY LAGOON 20180314

Lab Sample ID: 480-132645-3

Date Collected: 03/14/18 12:00

Matrix: Water

Date Received: 03/15/18 09:50

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	110	E	2.0	1.0	ug/L		03/16/18 14:18	03/21/18 05:27	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	35		15 - 110				03/16/18 14:18	03/21/18 05:27	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	2560		40.6	7.11	ng/L		03/27/18 13:47	03/31/18 07:08	20
Perfluoropentanoic acid (PFPeA)	948		40.6	9.95	ng/L		03/27/18 13:47	03/31/18 07:08	20
Perfluorohexanoic acid (PFHxA)	2510		40.6	11.8	ng/L		03/27/18 13:47	03/31/18 07:08	20
Perfluoroheptanoic acid (PFHpA)	501		40.6	5.08	ng/L		03/27/18 13:47	03/31/18 07:08	20
Perfluorooctanoic acid (PFOA)	1990		40.6	17.3	ng/L		03/27/18 13:47	03/31/18 07:08	20
Perfluorononanoic acid (PFNA)	113		40.6	5.48	ng/L		03/27/18 13:47	03/31/18 07:08	20
Perfluorodecanoic acid (PFDA)	119		40.6	6.30	ng/L		03/27/18 13:47	03/31/18 07:08	20
Perfluoroundecanoic acid (PFUnA)	22.3	U	40.6	22.3	ng/L		03/27/18 13:47	03/31/18 07:08	20
Perfluorododecanoic acid (PFDoA)	11.2	U	40.6	11.2	ng/L		03/27/18 13:47	03/31/18 07:08	20
Perfluorotridecanoic Acid (PFTriA)	26.4	U	40.6	26.4	ng/L		03/27/18 13:47	03/31/18 07:08	20
Perfluorotetradecanoic acid (PFTeA)	5.89	U	40.6	5.89	ng/L		03/27/18 13:47	03/31/18 07:08	20
Perfluorobutanesulfonic acid (PFBS)	2750		40.6	4.06	ng/L		03/27/18 13:47	03/31/18 07:08	20
Perfluorohexanesulfonic acid (PFHxS)	576	B	40.6	3.45	ng/L		03/27/18 13:47	03/31/18 07:08	20
Perfluoroheptanesulfonic Acid (PFHpS)	17.0	J	40.6	3.86	ng/L		03/27/18 13:47	03/31/18 07:08	20
Perfluorooctanesulfonic acid (PFOS)	459		40.6	11.0	ng/L		03/27/18 13:47	03/31/18 07:08	20
Perfluorodecanesulfonic acid (PFDS)	6.50	U	40.6	6.50	ng/L		03/27/18 13:47	03/31/18 07:08	20

TestAmerica Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Ontario Sanitary LF - Region 8

TestAmerica Job ID: 480-132645-1

Client Sample ID: ONTARIO COUNTY LAGOON 20180314

Lab Sample ID: 480-132645-3

Date Collected: 03/14/18 12:00

Matrix: Water

Date Received: 03/15/18 09:50

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctane Sulfonamide (FOSA)	9.05	J	40.6	7.11	ng/L	—	03/27/18 13:47	03/31/18 07:08	20
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	137	J	406	63.0	ng/L	—	03/27/18 13:47	03/31/18 07:08	20
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	84.7	J	406	38.6	ng/L	—	03/27/18 13:47	03/31/18 07:08	20
6:2FTS	457		406	40.6	ng/L	—	03/27/18 13:47	03/31/18 07:08	20
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	6	*	25 - 150				03/27/18 13:47	03/31/18 07:08	20
13C5 PFPeA	38	*	25 - 150				03/27/18 13:47	03/31/18 07:08	20
13C2 PFHxA	65	*	25 - 150				03/27/18 13:47	03/31/18 07:08	20
13C4-PFHpA	90	*	25 - 150				03/27/18 13:47	03/31/18 07:08	20
13C4 PFOA	98	*	25 - 150				03/27/18 13:47	03/31/18 07:08	20
13C5 PFNA	103	*	25 - 150				03/27/18 13:47	03/31/18 07:08	20
13C2 PFDA	107	*	25 - 150				03/27/18 13:47	03/31/18 07:08	20
13C2 PFUnA	85	*	25 - 150				03/27/18 13:47	03/31/18 07:08	20
13C2 PFDoA	48	*	25 - 150				03/27/18 13:47	03/31/18 07:08	20
13C2-PFTeDA	10	*	25 - 150				03/27/18 13:47	03/31/18 07:08	20
13C3-PFBS	126	*	25 - 150				03/27/18 13:47	03/31/18 07:08	20
18O2 PFHxS	99	*	25 - 150				03/27/18 13:47	03/31/18 07:08	20
13C4 PFOS	95	*	25 - 150				03/27/18 13:47	03/31/18 07:08	20
13C8 FOSA	94	*	25 - 150				03/27/18 13:47	03/31/18 07:08	20
d3-NMeFOSAA	133	*	25 - 150				03/27/18 13:47	03/31/18 07:08	20
d5-NEtFOSAA	138	*	25 - 150				03/27/18 13:47	03/31/18 07:08	20
M2-6:2FTS	336	*	25 - 150				03/27/18 13:47	03/31/18 07:08	20

Method: 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
8:2FTS	203	U	2030	203	ng/L	—	03/27/18 13:47	03/30/18 16:19	100
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
M2-8:2FTS	120	*	25 - 150				03/27/18 13:47	03/30/18 16:19	100

Lab Chronicle

Client: New York State D.E.C.
Project/Site: Ontario Sanitary LF - Region 8

TestAmerica Job ID: 480-132645-1

Client Sample ID: ONTARIO COUNTY STAGE 120180314

Lab Sample ID: 480-132645-1

Date Collected: 03/14/18 10:04

Matrix: Water

Date Received: 03/15/18 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			404431	03/16/18 14:18	ATG	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	404841	03/21/18 04:39	DMR	TAL BUF
Total/NA	Prep	3535	DL		215037	03/27/18 13:19	KMK	TAL SAC
Total/NA	Analysis	537 (modified)	DL	100	215689	03/30/18 16:03	JRB	TAL SAC
Total/NA	Prep	3535			215037	03/27/18 13:19	KMK	TAL SAC
Total/NA	Analysis	537 (modified)		20	216146	04/03/18 17:08	CBW	TAL SAC

Client Sample ID: ONTARIO COUNTY STAGE 1X-B1 20180314

Lab Sample ID: 480-132645-2

Date Collected: 03/14/18 11:10

Matrix: Water

Date Received: 03/15/18 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			404431	03/16/18 14:18	ATG	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	404841	03/21/18 05:03	DMR	TAL BUF
Total/NA	Prep	3535	DL2		215037	03/27/18 13:47	KMK	TAL SAC
Total/NA	Analysis	537 (modified)	DL2	100	215689	03/30/18 16:11	JRB	TAL SAC
Total/NA	Prep	3535	DL		215037	03/27/18 13:47	KMK	TAL SAC
Total/NA	Analysis	537 (modified)	DL	10	215792	03/31/18 07:00	JRB	TAL SAC
Total/NA	Prep	3535			215037	03/27/18 13:47	KMK	TAL SAC
Total/NA	Analysis	537 (modified)		1	215792	03/31/18 08:26	JRB	TAL SAC

Client Sample ID: ONTARIO COUNTY LAGOON 20180314

Lab Sample ID: 480-132645-3

Date Collected: 03/14/18 12:00

Matrix: Water

Date Received: 03/15/18 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			404431	03/16/18 14:18	ATG	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	404841	03/21/18 05:27	DMR	TAL BUF
Total/NA	Prep	3535	DL		215037	03/27/18 13:47	KMK	TAL SAC
Total/NA	Analysis	537 (modified)	DL	100	215689	03/30/18 16:19	JRB	TAL SAC
Total/NA	Prep	3535			215037	03/27/18 13:47	KMK	TAL SAC
Total/NA	Analysis	537 (modified)		20	215792	03/31/18 07:08	JRB	TAL SAC

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: New York State D.E.C.
Project/Site: Ontario Sanitary LF - Region 8

TestAmerica Job ID: 480-132645-1

Laboratory: TestAmerica Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-18 *

Laboratory: TestAmerica Sacramento

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	11666	03-31-19

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte	
537 (modified)	3535	Water	6:2FTS	
537 (modified)	3535	Water	8:2FTS	
537 (modified)	3535	Water	N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	
537 (modified)	3535	Water	N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	
537 (modified)	3535	Water	Perfluorobutanesulfonic acid (PFBS)	
537 (modified)	3535	Water	Perfluorobutanoic acid (PFBA)	
537 (modified)	3535	Water	Perfluorodecanesulfonic acid (PFDS)	
537 (modified)	3535	Water	Perfluorodecanoic acid (PFDA)	
537 (modified)	3535	Water	Perfluorododecanoic acid (PFDoA)	
537 (modified)	3535	Water	Perfluoroheptanesulfonic Acid (PFHpS)	
537 (modified)	3535	Water	Perfluoroheptanoic acid (PFHpA)	
537 (modified)	3535	Water	Perfluorohexanesulfonic acid (PFHxS)	
537 (modified)	3535	Water	Perfluorohexanoic acid (PFHxA)	
537 (modified)	3535	Water	Perfluorononanoic acid (PFNA)	
537 (modified)	3535	Water	Perfluorooctane Sulfonamide (FOSA)	
537 (modified)	3535	Water	Perfluorooctanesulfonic acid (PFOS)	
537 (modified)	3535	Water	Perfluorooctanoic acid (PFOA)	
537 (modified)	3535	Water	Perfluoropentanoic acid (PFPeA)	
537 (modified)	3535	Water	Perfluorotetradecanoic acid (PFTeA)	
537 (modified)	3535	Water	Perfluorotridecanoic Acid (PFTriA)	
537 (modified)	3535	Water	Perfluoroundecanoic acid (PFUnA)	
USEPA UCMR	Federal	1	CA00044	11-06-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
537 (modified)	3535	Water	6:2FTS
537 (modified)	3535	Water	8:2FTS
537 (modified)	3535	Water	N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)
537 (modified)	3535	Water	N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)
537 (modified)	3535	Water	Perfluorobutanesulfonic acid (PFBS)
537 (modified)	3535	Water	Perfluorobutanoic acid (PFBA)
537 (modified)	3535	Water	Perfluorodecanesulfonic acid (PFDS)
537 (modified)	3535	Water	Perfluorodecanoic acid (PFDA)
537 (modified)	3535	Water	Perfluorododecanoic acid (PFDoA)
537 (modified)	3535	Water	Perfluoroheptanesulfonic Acid (PFHpS)
537 (modified)	3535	Water	Perfluoroheptanoic acid (PFHpA)
537 (modified)	3535	Water	Perfluorohexanesulfonic acid (PFHxS)
537 (modified)	3535	Water	Perfluorohexanoic acid (PFHxA)

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Buffalo

Accreditation/Certification Summary

Client: New York State D.E.C.
Project/Site: Ontario Sanitary LF - Region 8

TestAmerica Job ID: 480-132645-1

Laboratory: TestAmerica Sacramento (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
USEPA UCMR	Federal	1	CA00044	11-06-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
537 (modified)	3535	Water	Perfluorononanoic acid (PFNA)
537 (modified)	3535	Water	Perfluorooctane Sulfonamide (FOSA)
537 (modified)	3535	Water	Perfluorooctanesulfonic acid (PFOS)
537 (modified)	3535	Water	Perfluorooctanoic acid (PFOA)
537 (modified)	3535	Water	Perfluoropentanoic acid (PFPeA)
537 (modified)	3535	Water	Perfluorotetradecanoic acid (PFTeA)
537 (modified)	3535	Water	Perfluorotridecanoic Acid (PFTriA)
537 (modified)	3535	Water	Perfluoroundecanoic acid (PFUnA)

Method Summary

Client: New York State D.E.C.
Project/Site: Ontario Sanitary LF - Region 8

TestAmerica Job ID: 480-132645-1

Method	Method Description	Protocol	Laboratory
8270D SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	TAL BUF
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: New York State D.E.C.

TestAmerica Job ID: 480-132645-1

Project/Site: Ontario Sanitary LF - Region 8

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-132645-1	ONTARIO COUNTY STAGE 120180314	Water	03/14/18 10:04	03/15/18 09:50
480-132645-2	ONTARIO COUNTY STAGE 1X-B1 20180314	Water	03/14/18 11:10	03/15/18 09:50
480-132645-3	ONTARIO COUNTY LAGOON 20180314	Water	03/14/18 12:00	03/15/18 09:50

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



480-132645 Field Sheet

Jol

Tracking # 4276 6716 4848 SO / PO / FO

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations.
File in the job folder with the COC.

Notes: _____

Therm. ID: AK-2 AK-3 / AK-4 / AK-5 / HACCP / Other _____

Ice ☒ Wet ☒ Gel _____ Other _____

Cooler Custody Seal: _____

Sample Custody Seal: _____

Cooler ID: _____

Temp: Observed 1.4 °C

From: Temp Blank ☐ Sample ☐

NCM Filed: Yes ☐ No ☐

	Yes	No	NA
Perchlorate has headspace?	☐	☐	☒
CoC is complete w/o discrepancies?	☒	☐	☐
Samples received within holding time?	☒	☐	☐
Sample preservatives verified?	☐	☐	☒
Cooler compromised/tampered with?	☐	☒	☐
Samples compromised/tampered with?	☐	☒	☐
Samples w/o discrepancies?	☒	☐	☐
Sample containers have legible labels?	☒	☐	☐
Containers are not broken or leaking?	☒	☐	☐
Sample date/times are provided.	☒	☐	☐
Appropriate containers are used?	☒	☐	☐
Sample bottles are completely filled?	☒	☐	☐
Zero headspace?*	☐	☐	☒
Multiphasic samples are not present?	☒	☐	☐
Sample temp OK?	☒	☐	☐
Sample out of temp?	☐	☒	☐

Initials: JS Date: 3 16 18 Time 905

*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")

WOB

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Part # 159460-434 RIT3 EXP 01/19 88

RT 362
1500
4848
03/16
A

ORIGIN ID:DKKA (716) 691-2600
CHAR BRONSON
TEST AMERICA
10 HAZELWOOD

SHIP DATE: 15MAR18
ACTWGT: 65.50 LB
CAD: 846654/CAFE3108
DIMS: 26x15x14 IN

AMHERST, NY 14228
UNITED STATES US

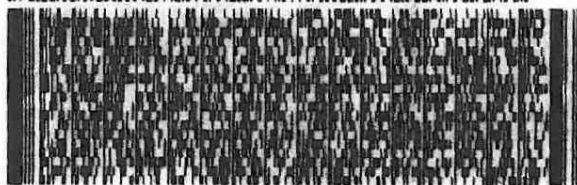
BILL RECIPIENT

TO **SAMPLE RECEIVING
TA SACRAMENTO
880 RIVERSIDE PARKWAY**

WEST SACRAMENTO CA 95605

(916) 373-6600
DEPT: SC

REF: SACRAMENTO



FedEx
Express



TRK# 4276 0716 4848
0201

**FRI - 16 MAR 3:00P
STANDARD OVERNIGHT**

XH BLUA

**95605
CA-US SMF**



Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-132645-1

Login Number: 132645

List Source: TestAmerica Buffalo

List Number: 1

Creator: Wallace, Cameron

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	NYS DEC
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-132645-1

Login Number: 132645

List Source: TestAmerica Sacramento

List Number: 2

List Creation: 03/19/18 10:58 AM

Creator: Nelson, Kym D

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.4C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica Buffalo

10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record



Client Information Client Contact: Mackenzie Osyplan Company: New York State D.E.C. Address: 6274 E. Avon-Lima Rd. City: Avon State/Zip: NY, 14414 Phone: 518-402-8671 (Tel) Email: Mackenzie.Osyplan@dec.ny.gov Project Name: Leachates-Ontario Sanitary LF - Region 8 Site: <u>Ontario County Landfill</u>		Sampler: <u>Jason Boliver</u> Phone: <u>585 478 3843</u> Lab PM: Johnson, Oriette S E-Mail: oriette.johnson@testamericainc.com		Carrier Tracking No(s): COC No: 480-110338-25639.1 Page: 1 of 1 Job #:	
Due Date Requested: TAT Requested (days): <u>10 Day</u> PO #: <u>Ontario County</u> Callout ID: <u>Landfill</u> WO #:		Analysis Requested			
Sample Identification <u>Ontario County Stage 120180314</u> <u>Ontario County Stage 1X-BI 20180314</u> <u>Ontario County Lagoon 20180314</u>		Sample Date <u>03/14/18</u> <u>03/14/18</u> <u>03/14/18</u>	Sample Time <u>10:04</u> <u>11:10</u> <u>12:06</u>	Sample Type (C=Comp, G=grab) <u>G</u> <u>G</u> <u>G</u>	Matrix (W=water, S=solid, O=wasteoil, BT=Tissue, A=Air) <u>Water</u> <u>Water</u> <u>Water</u> <u>Water</u> <u>Water</u>
Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) PFC, IPA - PFAS, Standard List (21 Analytes) 8270D, SIM, MS, ID - SIM 1,4-Dioxane		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) PFC, IPA - PFAS, Standard List (21 Analytes) 8270D, SIM, MS, ID - SIM 1,4-Dioxane		Total Number of Containers	
Special Instructions/Note: Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Anchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecalhydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)		Special Instructions/Note: Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Anchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:			
Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological Deliverable Requested: I, II, III, IV, Other (specify) <u>Category B NYSDEC EDD</u>					
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months					
Special Instructions/QC Requirements:					
Relinquished by: <u>Jason Boliver</u> Date/Time: <u>3/14/18 14:30</u> Company: <u>NYSDEC</u>		Relinquished by: <u>Jason Boliver</u> Date/Time: <u>3/14/18 14:30</u> Company: <u>NYSDEC</u>			
Relinquished by: <u>Jason Boliver</u> Date/Time: <u>3/14/18 14:30</u> Company: <u>NYSDEC</u>		Relinquished by: <u>Jason Boliver</u> Date/Time: <u>3/14/18 14:30</u> Company: <u>NYSDEC</u>			
Relinquished by: <u>Jason Boliver</u> Date/Time: <u>3/14/18 14:30</u> Company: <u>NYSDEC</u>		Relinquished by: <u>Jason Boliver</u> Date/Time: <u>3/14/18 14:30</u> Company: <u>NYSDEC</u>			
Custody Seals Intact: Δ Yes Δ No		Cooler Temperature(s) °C and Other Remarks: <u>72 H17CE</u>			

Chain of Custody Record

[illegible]