

February 26, 2021

NY95-219-04

Gould Electronics Inc.
2555 W. Fairview, Suite 103
Chandler, AZ 85224

Attention: James F. Cronmiller

**SAMPLING EVENT REPORT
YEAR TWENTY-FIVE – NOVEMBER/DECEMBER 2020
LONG TERM MONITORING PROGRAM
MARATHON REMEDIATION SITE**


Gentlemen:

Enclosed is the report of the sampling events conducted during Year 25 of the Long Term Monitoring Program for the Marathon Remediation Site. This report covers the November 2020 sampling of sediment in East Foundry Cove and the December 2020 groundwater sampling conducted in the former Plant Grounds.

If you have any questions concerning the contents of this report, please contact me at (610) 840-9145.

Very truly yours,

ADVANCED GEOSERVICES ENGINEERING & GEOLOGY, P.C.



Barbara L. Forslund, P.E.
Senior Project Consultant

BLF:mf

cc: J. Callahan, Gould (Via Email)
D. Hattula, Gould (Via Email)
P. Tames, USEPA (Via Email)
M. Squires, NYSDEC (Via Email)
M. Sergott, NYSDOH (Via Email)
E. Lind, Audubon Society (Via Email)
R. Shaheen, Scenic Hudson, Inc. (Via Email)



INTRODUCTION

This Sampling Event Report covers the Year 25 (2020) sampling events associated with the long term monitoring program for the Marathon Remediation Site. The sediment sampling work was conducted in accordance with Advanced GeoServices' recommendations for future monitoring presented in the "Five Year Review, Long Term Monitoring Program, Marathon Remediation Site" dated May 2, 2001. The sampling procedures and analytical protocols are described in the December 20, 1995 "Long Term Monitoring Plan for the Marathon Remediation Site" and the "Supplemental Long Term Monitoring Plan" issued February 21, 1996. The groundwater sampling was conducted as detailed in the December 20, 1995 Long Term Monitoring Plan at the two remaining long-term monitoring wells. Concentrations in the other 11 wells in the Long Term Monitoring Plan were at levels that no longer warranted monitoring and were decommissioned with the approval of the U.S. Environmental Protection Agency and the New York State Department of Environmental Conservation.

SAMPLING EVENT

The Year 25 event included sampling and analyses of two wells (7S and MB-3) within the Plant Ground area (Area II) and sediment from East Foundry Cove (Area III). The sampling of the two wells was incorporated into the groundwater sampling performed on December 14 and 15, 2020 as part of the work related to the ongoing groundwater natural attenuation program. The East Foundry Cove sediment samples were collected on November 13, 2020 with a hand auger in accordance with the Supplemental Long Term Monitoring Plan of February 21, 1996.

ANALYTICAL RESULTS

Laboratory analyses of the samples were conducted by Eurofins of Edison, NJ (NY Certification #11452). Validation of the analytical data was performed by Advanced GeoServices Engineering & Geology, P.C. The validation report for the sediment samples is included as Appendix A, and the validation report for the groundwater samples is included as Appendix B. Summaries of the analytical data are included in the validation reports in the Appendices, and the results are also presented on the following tables.

East Foundry Cove Sediments

Table A presents the cadmium levels detected in the sediment samples obtained from East Foundry Cove during this sampling event. For comparison purposes, the pre-remediation and post-remediation cadmium levels reported by others and the results from the previous Long Term Monitoring Program sampling events are also included in the table. The analytical results are within the range of variation experienced during previous sampling events. The average cadmium concentration of the sediment samples collected from East Foundry Cove in 2020 was 19.0 mg/kg.

The results are presented graphically for each location on Figures 1 through 5. As shown on the graphs, the cadmium concentrations are overall trending downward with the exception of location 3S that is shown in Figure 3. The upward trend at that location is largely attributed to a single, anomalous measurement from 2009; when that measurement is removed, the trend is essentially flat, as shown in Figure 3A.



Plant Ground Area Groundwater

Tables B-1, C-1, and D-1 present the Plant Ground Area groundwater sample analyses of the two long term monitoring wells (7S and MB-3) located along the southern property boundary. These tables show the concentrations of trichloroethene (TCE), 1,1,1-trichloroethane (TCA), and tetrachloroethene (PCE), respectively, since sampling began in 1985 for well MB-3 and in 1988 for well MW-7S; the results are depicted graphically on Figures 6 and 7. The TCE, TCA and PCE concentrations in Wells MB-3 and 7S are generally consistent with previous results and show the continued overall decrease in concentrations observed since sampling began.

For reference purposes, we have also included Tables B-2, C-2, and D-2 that show the TCE, TCA, and PCE results from all wells during the period from their initial installation until 2003.

FUTURE SAMPLING

The next annual sampling of the Area II groundwater and Area III sediments (East Foundry Cove) for the 2021 (Year 26) long term monitoring program will be performed in the fall of 2021.



TABLES

TABLE A

CADMIUM CONCENTRATIONS (mg/kg)
AREA III SEDIMENTS
EAST FOUNDRY COVE

1

SAMPLE LOCATION	EFC-1S	EFC-2S	EFC-3S	EFC-4S	EFC-5S
PRE-REMED.(1)	171	873	127	998	43.1
POST REMED.(2)	15.7	19.4	4.0	12.9	6.3
11/95	16J (52J)	85	6	190	42
3/96	7.08	14.4J (29.0J)	1.55	0.959	21.2
6/96	6.91	7.76	3.15	50.6	9.69J (4.01J)
4/97	0.386	46.4	21.5 (16.0)	104	0.454
4/98	14.2J	46.3J	7J	2.9J	75J
4/99	20.8	58.7	0.34	67.1	9.4
4/00	142.J (13.5J)	96.9J	0.83J	277J	100J
8/01	10.5 (14.1)	19.8	12.7	69.8	57.3
10/02	16.7J	58.1J (145J)	0.31J	58.3J	3.5
11/03	6.3J	31.7J	0.16U	50J (50.3J)	20.8J
11/04	17.1	50.5	20.4	35 (32.7)	36.8
9/06	22.9	22.5	6	0.35J (0.55J)	18.6
8/07	13.5 (12)	130	0.22U	16.1	0.3U
11/08	4.9	79.4 (62.3)	0.32	31.4	8.6
10/09	3.7 (3.8)	15	263	28.4	1.8
9/10	6 (6.3)	20.2	30.8	17.6	7.3
10/11	5.3 (5.6)	16.6	1	25.2	25.1
8/12	5.8 (4.6)	137	1.3	28.2	16.3
9/13	5.4 (4)	18.3	U	23.8	3.4
8/14	5 (4.6)	U	0.49	0.57	3
9/15	4.6	19.3	U	33.6 (40.1)	1
8/16	8.5	20.8	U	3.1 (2.7)	0.69
11/17	3.8	57.8	6.4	0.96J (0.9J)	3.5
10/18	6.7	22.8	U	11.9 (7.3)	22.3
10/19	16.2	17.5	U	66.7	18.7
11/20	6.3	10.8	32.9	24	21

NOTES:

(1) Samples obtained by Malcolm-Pirnie and others prior to the Remedial Action. These are the reported data closest to the present LTM sampling location.

(2) Average value of either the two closest post-remediation sample node locations or the analytical results of the various testing agencies (Sevenson, IQAT, and USCOE) for the same node location.

Values shown in parenthesis are field duplicates

J Estimated Value

U Undetected

TABLE B-1
**TRICHLOROETHENE (TCE) CONCENTRATIONS (µg/l)
 AREA II (PLANT GROUNDS) GROUNDWATER**

<u>Date</u>	<u>Well 7S</u>	<u>Well MB-3</u>
1985 ⁽¹⁾	-	170
1988 ⁽¹⁾	100	-
1988 ⁽¹⁾	82	65
11/93 ⁽²⁾	110J	76J
2/94 ⁽²⁾	100 (100)	73
10/94 ⁽²⁾	100	110
11/95 ⁽³⁾	80	51
6/96	82	120
10/96	89	70
4/97	99 (86)	61
10/97	99	64
4/98	100	78
11/98	94J	23J
4/99	84	62
11/99	82J (71J) ⁽⁶⁾	25J
4/00	77 (75)	33
10/00	82 (81) ⁽⁵⁾	46
8/01	74	47 (46)
9/03	74	50
11/04	76	43 (45)
9/06	79 (74)	47
7/07	73	44
7/08	68	37
8/09	59	20
9/09	60	36
9/10	65 (65)	29
8/11	58 (58)	38
8/12	66 (64)	43
5/14	66	29
11/15	57	23
11/16	63	21
12/17	50	23
12/18	52	22
12/19	53	20
12/20	54	18

NOTES:

- (1) Sampling performed by others.
- (2) Sampling performed by Advanced GeoServices Corp. during the remedial action.
- (3) First long-term monitoring sampling event.
- (4) Blank spaces or hyphen indicate the well was not sampled.
- (5) ND-Not Detected (detection limit=5 ug/l for 1985 through 1995 samples, and 2 ug/l from 1996 to the present).
- (6) 7S duplicate was a blind duplicate listed as 71 for analysis.

Values shown in parenthesis are field duplicates

TABLE B-2

**TRICHLOROETHENE (TCE) CONCENTRATIONS (ug/l)
AREA II (PLANT GROUNDS) GROUNDWATER**



WELL	SAMPLING EVENTS																		
	8/85 ⁽¹⁾	88(#1) ⁽¹⁾	88(#2) ⁽¹⁾	11/93 ⁽²⁾	2/94 ⁽²⁾	10/94 ⁽²⁾	11/95 ⁽³⁾	6/96	10/96	4/97	10/97	4/98	11/98	4/99	11/99	4/00	10/00	8/01	9/03
2S	⁽⁴⁾	ND ⁽⁵⁾	4J	ND		ND	⁽⁶⁾	ND	0.4U	0.4U	0.4U(0.4U)	1U	1U	0.3U	1U	0.2U	1U		
4I		ND	ND	ND	ND	ND	3.3U	ND	0.4U	0.4U	16	4.5(4.3)	2.4J	0.3U	2.1J	0.2U	6		1U
4D		ND	ND	ND	ND	ND	12	2	0.4U	0.7	32	3.9	6.3J	2.3	0.8J	0.2U	1U		1U
5S		ND	1J	ND	ND	ND	5.6	ND	0.4U	0.4U	23	1U	1U	0.3U	1.1J	0.2U	1U		
5I		ND	ND	ND	ND	ND	22	4	0.4U	0.4U	35	7.7	15J	8.1	2J	0.2U	1U		
6I		ND	ND	ND	ND	ND	7.3(5.3)	ND	0.4U	0.4U	1.6	1U	3.4J	1	1U	0.2U	1U		
6D				ND	ND	ND	10	3.5(4.0)	1.4	0.4U	4.7	1U	34J	0.7	1U	0.2U	1J		
7S		100	82	110J	100(100)	100	80	82	89	99(86)	99	100	94J	84	82J(71J) ⁽⁹⁾	77(75)	82(81)	74	74
7D				ND	4.3J	ND	4.4J	ND	0.4U	0.4U	0.4U	1U	1U	0.7	1U	0.2U	1U		
V5		ND	ND	ND		ND	22	ND	0.4U	0.4U	190	1U(1U)	1U	0.3U	1U	0.2U	1U		1U
MB-1			2J	ND	ND	ND	4.3J	2.8	2.5(2.1)	0.4U	0.4U	⁽⁸⁾	0.9J	1	1.6J	0.9	0.9J		
MB-2				ND			6.2	ND	0.4U	0.4U	0.4U	1U	1U	0.3U	1U	0.2U	1U		
MB-3	170		65	76J	73	110	51	120	70	61	64	78	23J	62	25J	33	46	47(46)	50

NOTES:

- (1) Sampling performed by others.
 - (2) Sampling performed by Advanced GeoServices Corp. during the Remedial Action.
 - (3) First long term monitoring sampling event.
 - (4) Blank spaces indicate the well was not sampled.
 - (5) ND=Not detected (detection limit=5 µg/l) for 1985 through 1995 samples, and 2 µg/l from 1996 to the present).
 - (6) Well casing was bent; no sample was obtained.
 - (7) MB-1 duplicate was a blind duplicate listed as MB-100 for analysis.
 - (8) Well dry during sampling event.
 - (9) 7S duplicate was a blind duplicate listed as 71 for analysis.
- 10 Values shown in parenthesis are field duplicates

TABLE C-1

**1,1,1 - TRICHLOROETHANE (TCA) CONCENTRATIONS (µg/l)
AREA II (PLANT GROUNDS) GROUNDWATER**

<u>Date</u>	<u>Well 7S</u>	<u>Well MB-3</u>
11/93 ⁽²⁾	3.2J	3J
2/94 ⁽²⁾	5U	7.9
10/94 ⁽²⁾	ND ⁽⁴⁾	6
11/95 ⁽³⁾	2.7J	2.7J
6/96	ND	7
10/96	5.8	7.4
4/97	ND	3
10/97	0.4U	0.4U
4/98	2	4.3
11/98	3.8J	5U
4/99	3	3.7
11/99	2.1J (1.6J) ⁽⁶⁾	1.2J
4/00	1.4 (1.2)	1.9
10/00	2.3J (2.2J) ⁽⁵⁾	2.1J
8/01	2.1	2.2 (2.1)
10/02	1.4J (1.5J)	1.7J
9/03	1.2	2.4
11/04	0.9	2.1 (2.3)
9/06	0.7	1.6
7/07	0.6	1.4
7/08	0.4	1.2
8/09	0.39	0.71
9/09	0.47	1.9
9/10	0.53 (0.58)	0.98
8/11	0.44 (0.49)	1.2
8/12	0.39 (0.44)	1.6
5/14	ND	ND
11/15	0.29	0.61
11/16	0.38	0.54
12/17	ND	0.76
12/18	ND	0.97
12/19	ND	0.49
12/20	ND	0.54

NOTES:

- (1) All other wells had non-detect results for all sampling events.
- (2) Sampling performed by Advanced GeoServices Corp. during the Remedial Action.
- (3) First long-term monitoring sampling event.
- (4) ND=Not Detected (detection limit= 5 µg/l for 1993 through 1995 samples, and 2 µg/l from 1996 to the present).
- (5) Blank spaces indicate the well was not sampled.
- (6) 7S duplicate was a blind duplicate listed as 71 for analysis.

Values shown in parenthesis are field duplicates

TABLE C-2

**1,1,1-TRICHLOROETHANE (TCA) CONCENTRATIONS (UG/L)
AREA II (PLANT GROUNDS) GROUNDWATER**



WELL ⁽¹⁾	SAMPLING EVENTS																
	11/93 ⁽²⁾	2/94 ⁽²⁾	10/94 ⁽²⁾	11/95 ⁽³⁾	6/96	10/96	4/97	10/97	4/98	11/98	4/99	11/99	4/00	10/00	8/01	10/02	9/03
7S	3.2J	5U	ND ⁽⁴⁾	2.7J	0.4U	5.8	0.4U	0.4U	2	3.8J	3	2.1J(1.6J) ⁽⁶⁾	1.4(1.2)	2.3J(2.2J) ⁽⁵⁾	2.1	1.4J(1.5J)	1.2
7D	ND	4.8J	ND	ND	0.4U	0.4U	0.4U	0.4U	1U	5U	1.3U	5U	0.2U	5U			
MB-2	2J	⁽⁵⁾		ND	0.4U	0.4U	0.4U	0.4U	1.3	1.2J	1J	0.8J	0.8	0.7J			
MB-3	3J	7.9	6	2.7J	7	7.4	3	0.4U	4.3	5U	3.7	1.2J	1.9	2.1J	2.2(2.1)	1.7J	2.4
4D	ND	ND	ND	ND	0.4U	5.6	0.4U	0.4U	1U	5U	1.3U	5U	0.2U	5U			
4I					0.4U	0.4U	0.4U	0.4U	1U	5U	1.3U	5U	0.2U	5U		5U	5U
V5					0.4U	0.4U	0.4U	0.4U	1U	5U	1.3U	5U	0.2U	5U		5U	5U

NOTES:

- (1) All other wells had non-detect results for all sampling events.
- (2) Sampling performed by Advanced GeoServices Corp. during the Remedial Action.
- (3) First long term monitoring sampling event.
- (4) ND=Not detected (detection limit=5 µg/l) for 1993 through 1995 samples, and 2 µg/l from 1996 to the present).
- (5) Blank spaces indicate the well was not sampled.
- (6) 7S duplicate was a blind duplicate listed as 71 for analysis.
- (7) Samples collected as part of in-situ bioremediation program.

Values shown in parenthesis are field duplicates

TABLE D-1
**TETRACHLOROETHENE (PCE) CONCENTRATIONS ($\mu\text{g/l}$)
 AREA II (PLANT GROUNDS) GROUNDWATER**

<u>Date</u>	<u>Well 7S</u>	<u>Well MB-3</u>
11/93 ⁽²⁾	1.2J	ND ⁽⁴⁾
2/94 ⁽²⁾	5.2	ND
10/94 ⁽²⁾	ND	ND
11/95 ⁽³⁾	7.7	3.2J
6/96	3	3
10/96	1.3	0.4U
4/97	0.4UJ (7.2J)	ND
10/97	3.1	3.6
4/98	4.5	2.6
11/98	5.6J	2.2J
4/99	6.3	2.7
11/99	4.8J (4.3J) ⁽⁵⁾	2.2J
4/00	4.0 (3.6)	3.3
10/00	5.4 (5.2) ⁽⁵⁾	2.7
8/01	3.8	4.8 (4.9)
10/02	3.3 (3.2)	4
9/03	3.5	4.2
11/04	3.5	2.3 (2.5)
9/06	4.2 (4)	1.8
7/07	4.5	2
7/08	4.8	1.4
8/09	4.9	1.4
9/09	4.2	1.5
9/10	4.1 (3.9)	2.0
8/11	3.8 (4)	2
8/12	4.9 (4.8)	1.7
5/14	7.0	1.5
11/15	4.1	4
11/16	4.2	4.7
12/17	4.2	4
12/18	4	1.6
12/19	4	3.1
12/20	4.4	3.3

NOTES:

- (1) All other wells had non-detect results for all sampling events.
- (2) Sampling performed by Advanced GeoServices Corp. during the Remedial Action.
- (3) First long-term monitoring sampling event.
- (4) ND=Not detected (detection limit= $5\mu\text{g/l}$) for 1993 through 1995 samples, and $2\mu\text{g/l}$ from 1996 to the present.
- (5) 7S duplicate was a blind duplicate listed as 71 for analysis.

TABLE D-2

TETRACHLOROETHENE (PCE) CONCENTRATIONS (ug/l)
 AREA II (PLANT GROUNDS) GROUNDWATER



WELL ⁽¹⁾	SAMPLING EVENTS																
	11/93 ⁽²⁾	2/94 ⁽²⁾	10/94 ⁽²⁾	11/95 ⁽³⁾	6/96	10/96	4/97	10/97	4/98	11/98	4/99	11/99	4/00	10/00	8/01	10/02	9/03
7S	1.2J	5.2	ND ⁽⁴⁾	7.7	2.7	1.3	0.4UJ(7.2J)	3.1	4.5	5.6J	6.3	4.8J(4.3J) ⁽⁵⁾	4.0(3.6)	5.4(5.2) ⁽⁵⁾	3.8	3.3(3.2)	3.5
MB-3	ND	ND	ND	3.2J	2.6	0.4U	0.4U	3.6	2.6	2.2J	2.7	2.2J	3.3	2.7	4.8(4.9)	4	4.2
4I					0.4U	0.4U	0.4U	0.4U	1U	1U	0.3U	1UJ	0.4U	1U		1U	1U
V5					0.4U	0.4U	0.4U	0.4U	1U	1U	0.3U	1U	0.4U	1U		1U	0.6J

NOTES:

- (1) All other wells had non-detect results for all sampling events.
- (2) Sampling performed by Advanced GeoServices Corp. during the Remedial Action.
- (3) First long term monitoring sampling event.
- (4) ND=Not detected (detection limit=5 µg/l) for 1993 through 1995 samples, and 2 µg/l from 1996 to the present).
- (5) 7S duplicate was a blind duplicate listed as 7I for analysis.
- (6) Samples collected as part of in-situ bioremediation program

Values shown in parenthesis are field duplicates

FIGURES

FIGURE 1
 CADMIUM CONCENTRATION TRENDS IN EFC-1S
 Marathon Remediation Site
 Cold Spring, New York

EFC-1S

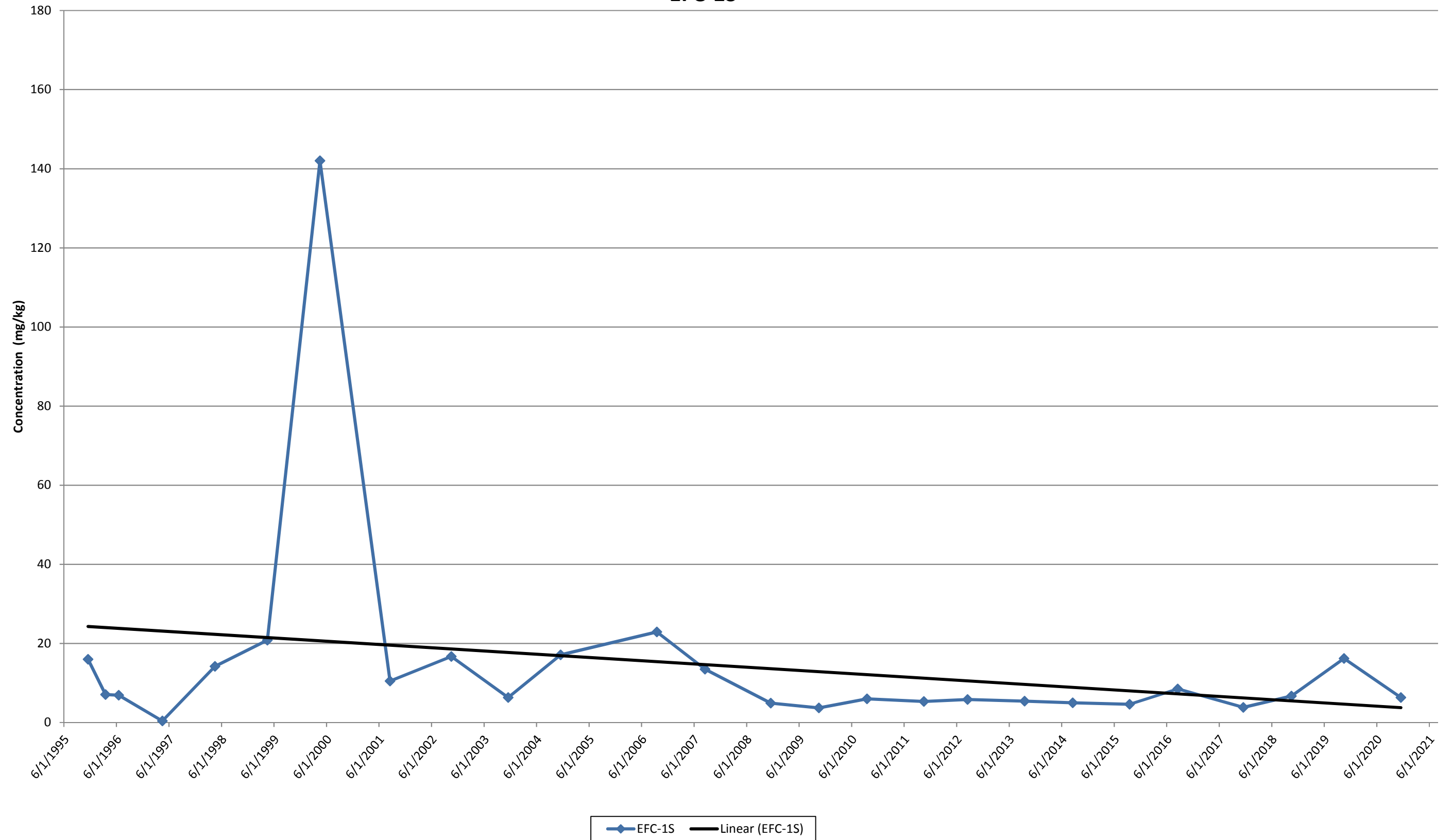


FIGURE 2
 CADMIUM CONCENTRATION TRENDS IN EFC-2S
 Marathon Remediation Site
 Cold Spring, New York

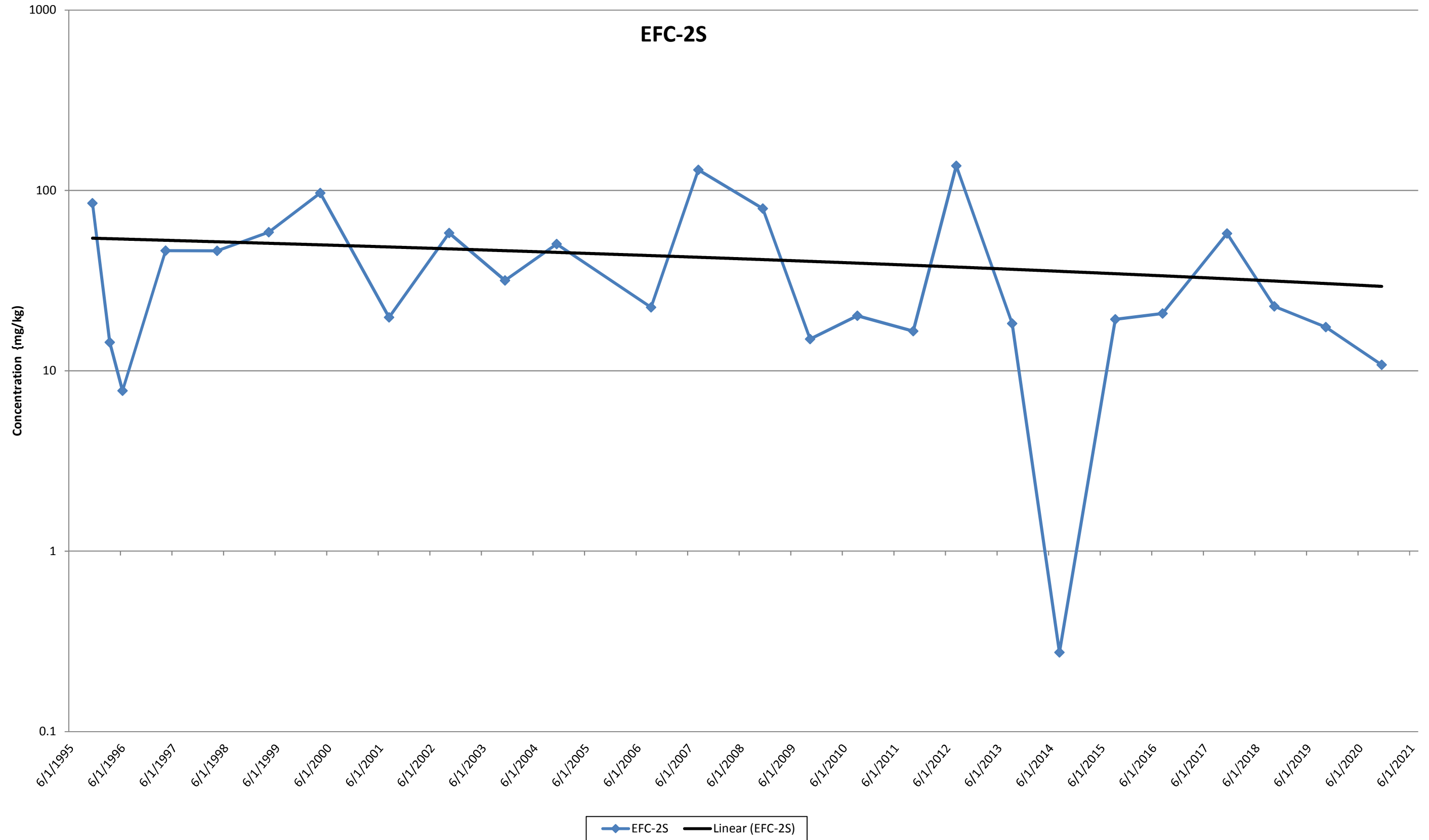


FIGURE 3
 CADMIUM CONCENTRATION TRENDS IN EFC-3S
 Marathon Remediation Site
 Cold Spring, New York

EFC-3S

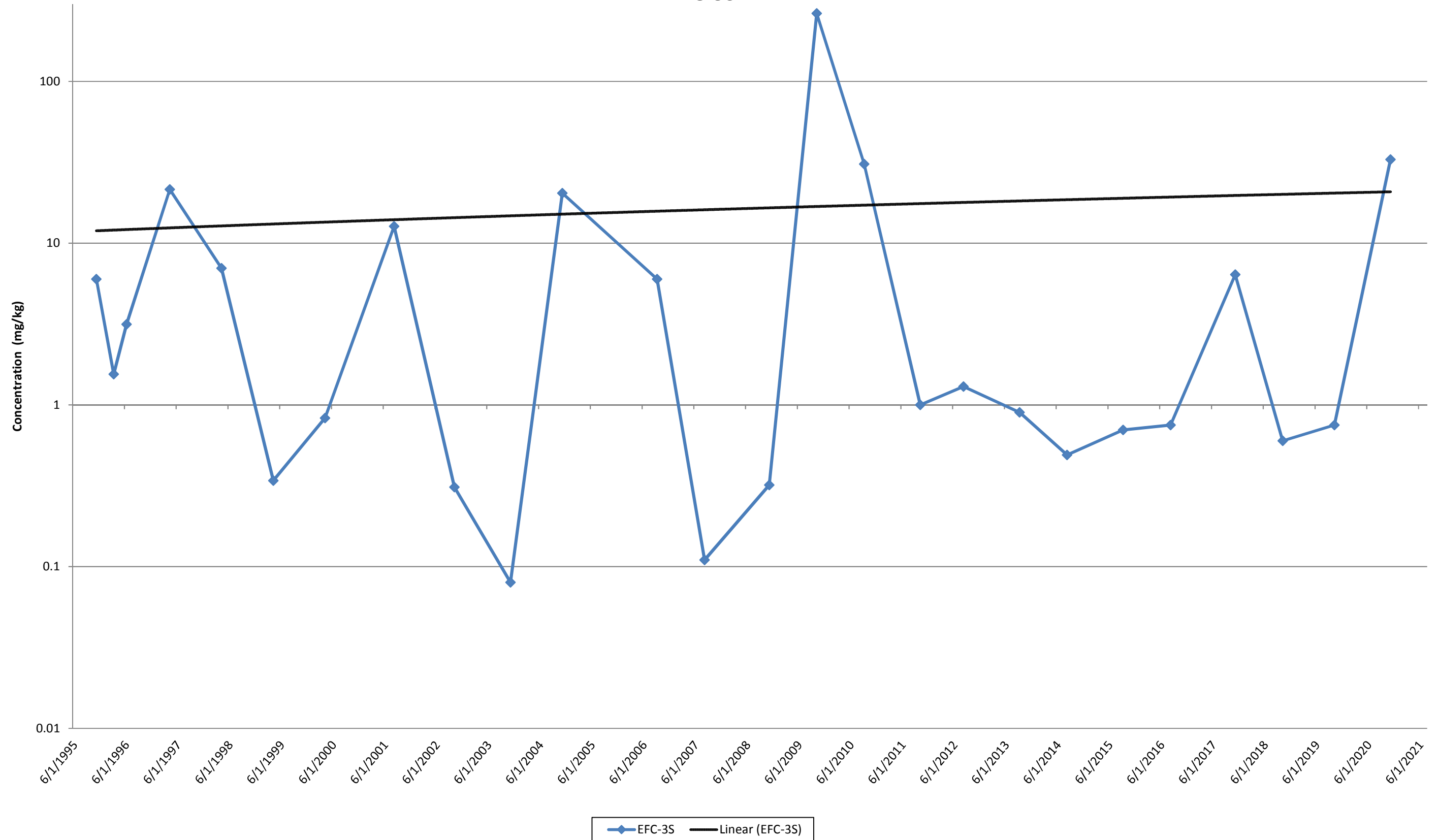


FIGURE 3a
 CADMIUM CONCENTRATION TRENDS IN EFC-3S
 Marathon Remediation Site
 Cold Spring, New York

EFC-3S
 with 2009 anomalous result removed

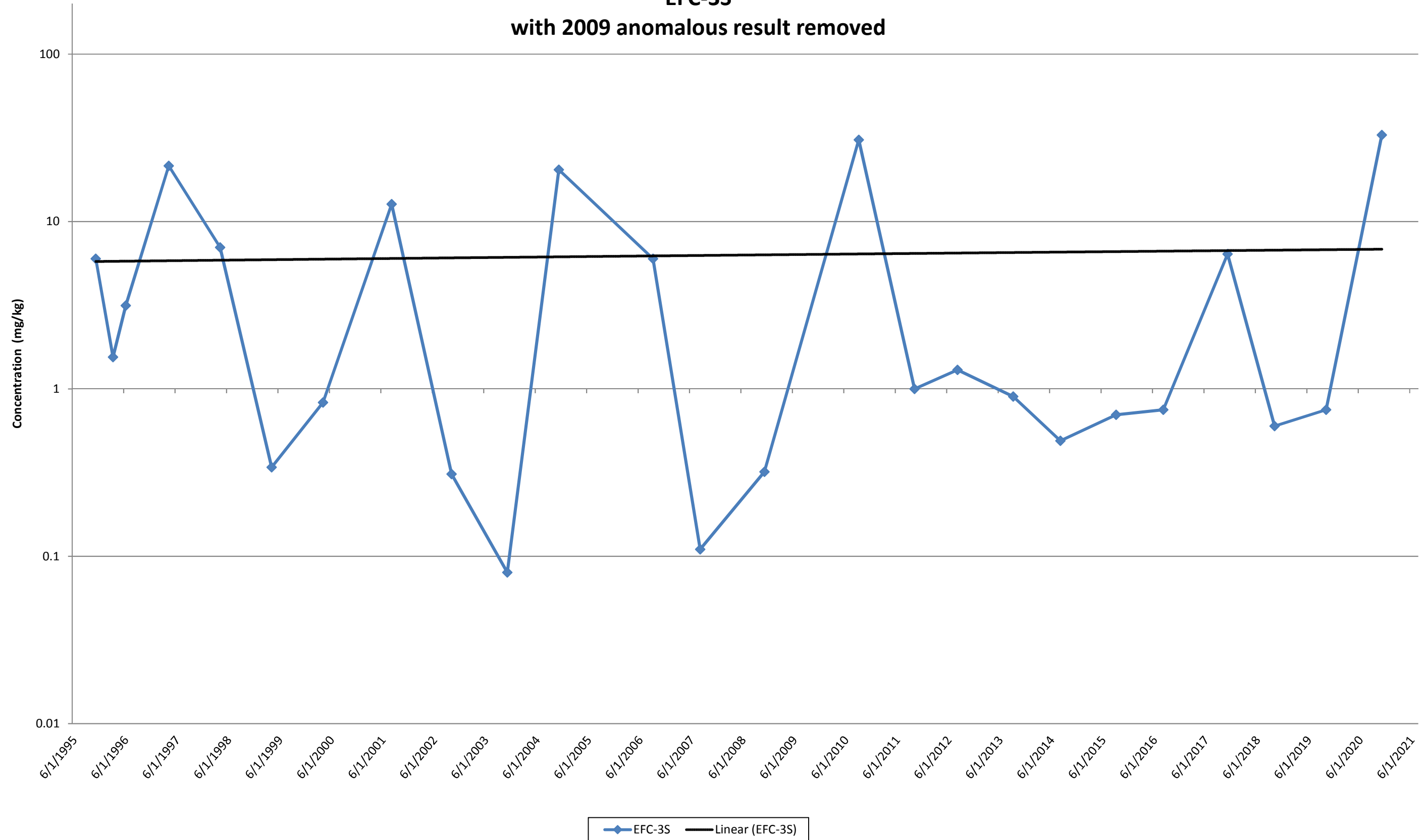


FIGURE 4
 CADMIUM CONCENTRATION TRENDS IN EFC-4S
 Marathon Remediation Site
 Cold Spring, New York

EFC-4S

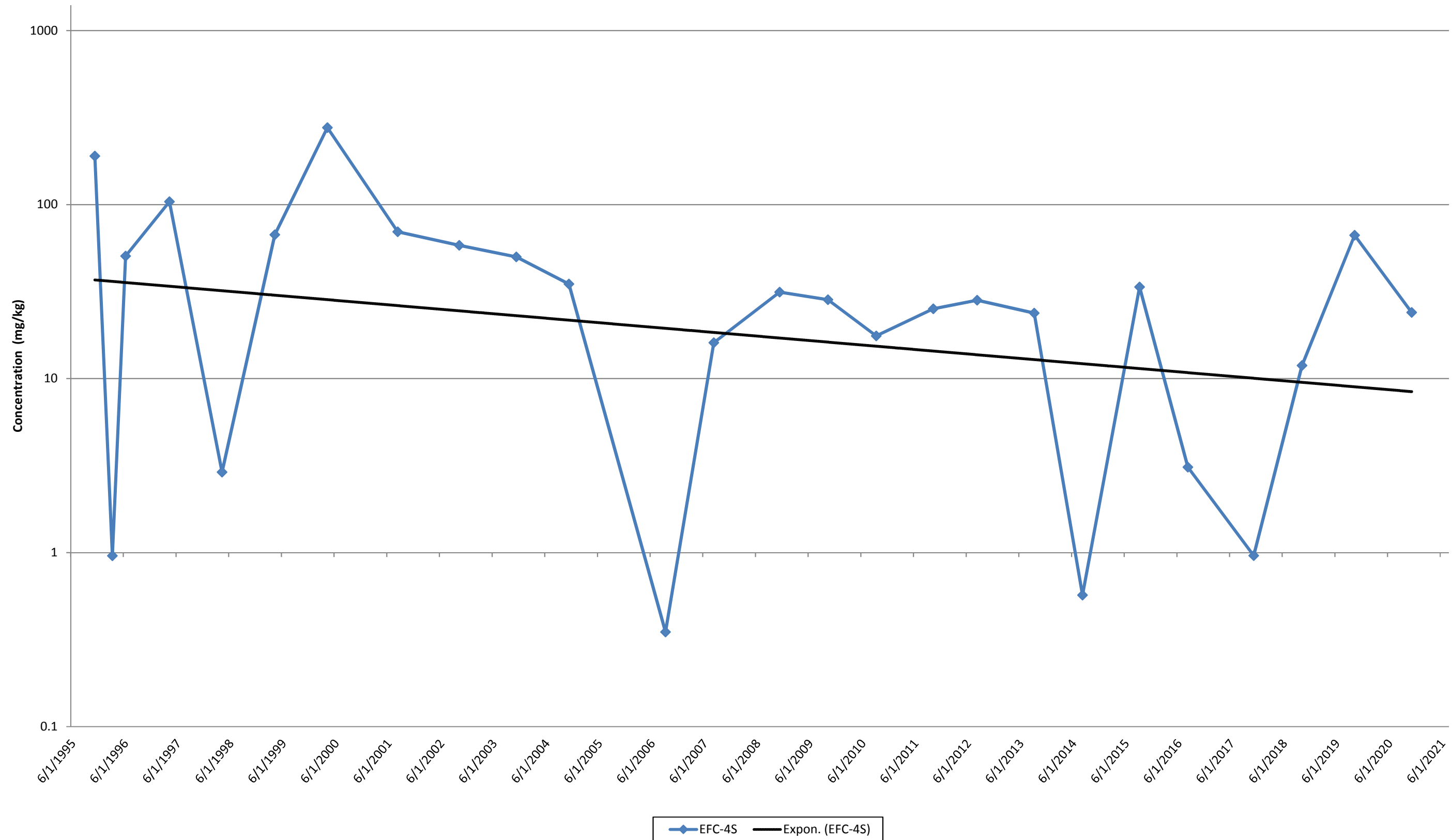


FIGURE 5
 CADMIUM CONCENTRATION TRENDS IN EFC-5S
 Marathon Remediation Site
 Cold Spring, New York

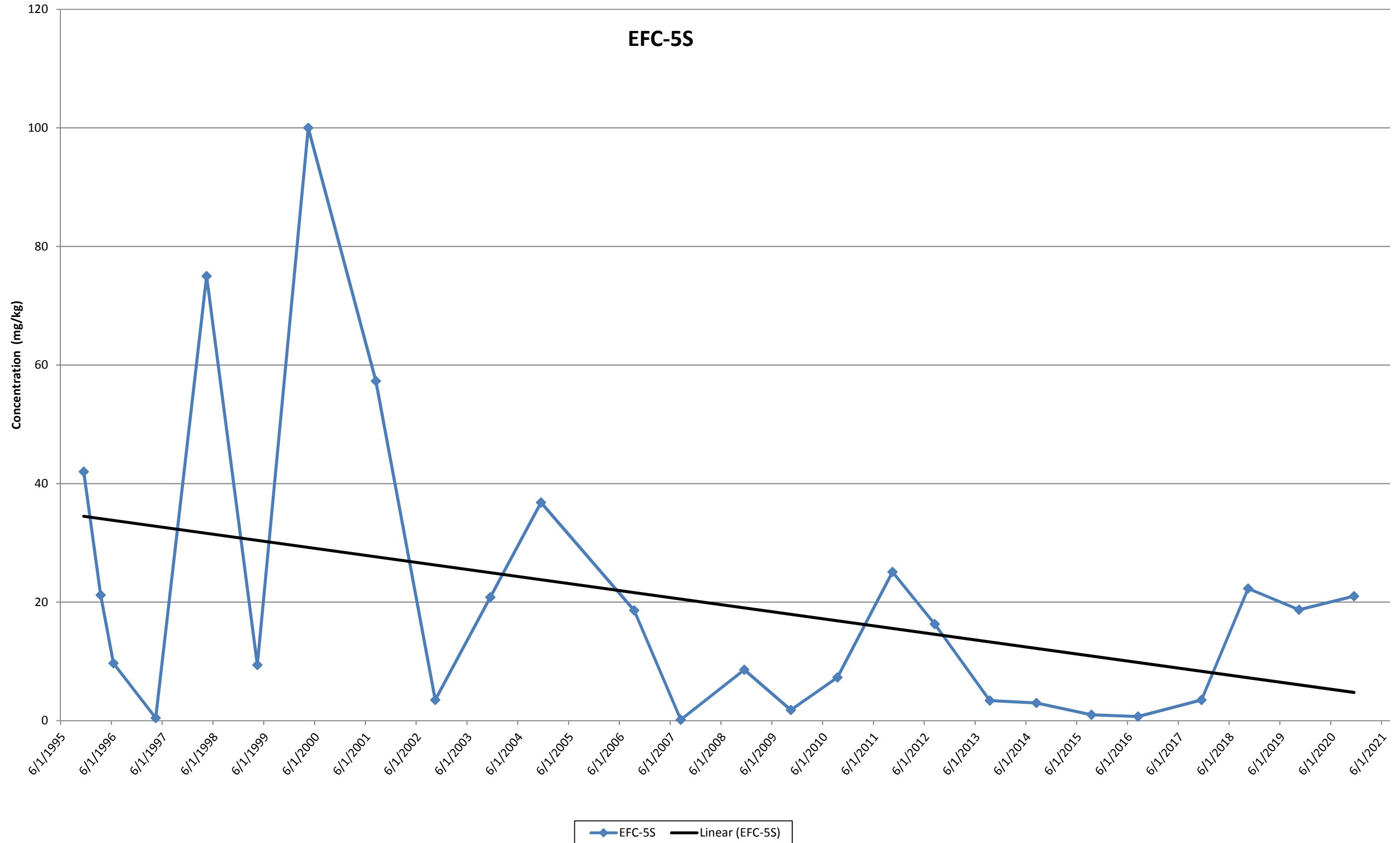


FIGURE 6
 VOC CONCENTRATION TRENDS IN MW-7S
 Marathon Remediation Site
 Cold Spring, New York

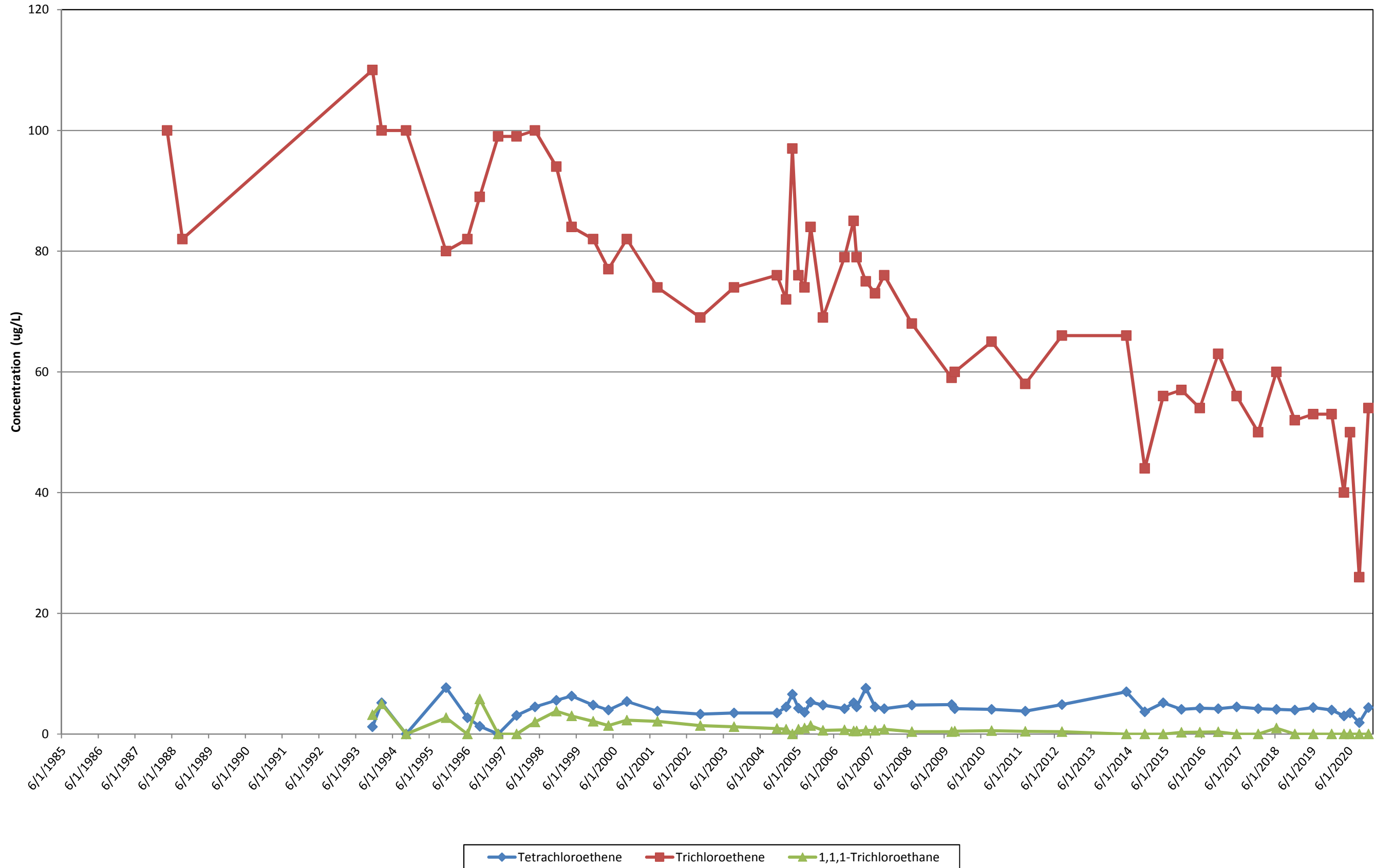
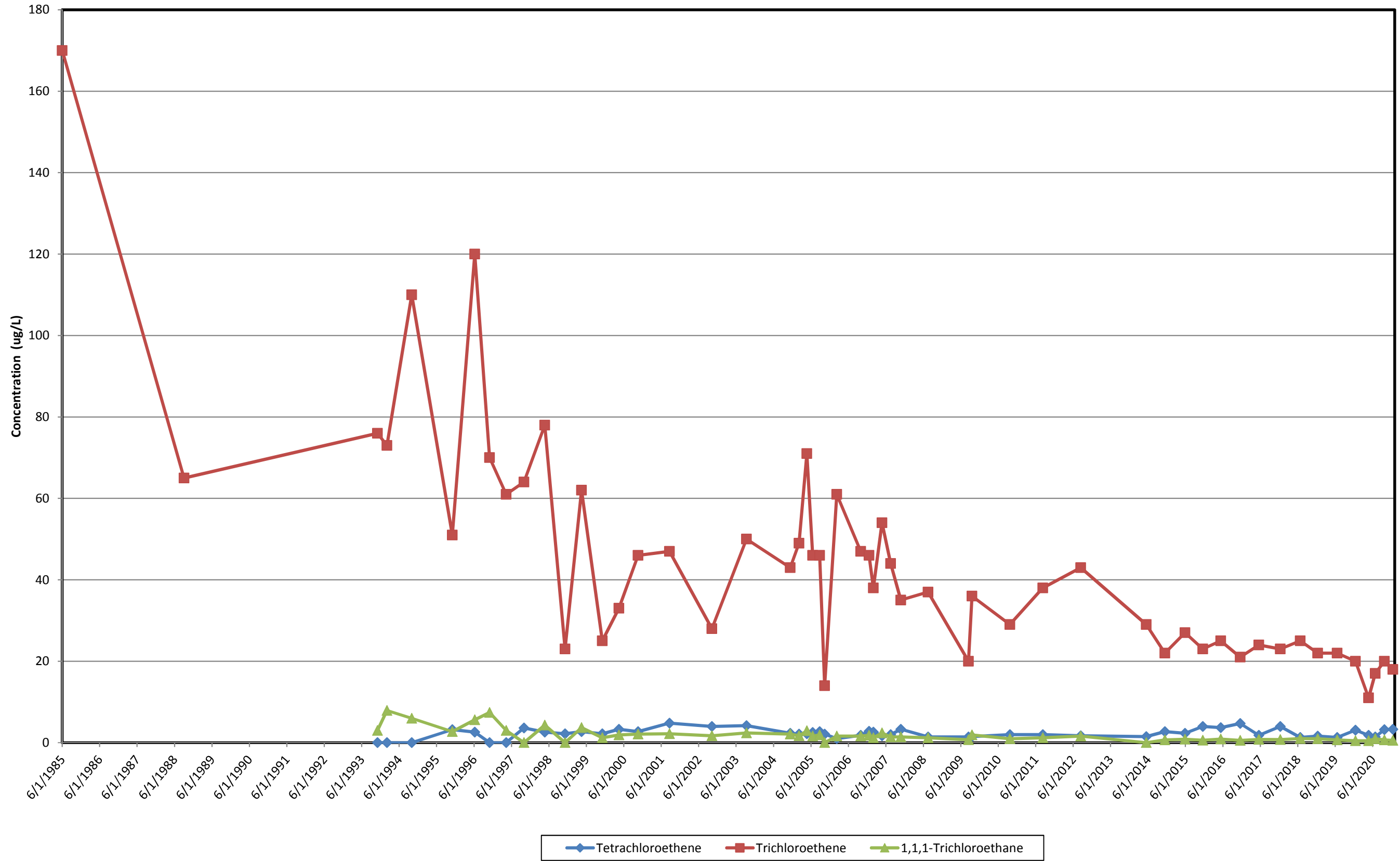


FIGURE 7
 VOC CONCENTRATION TRENDS IN MB-3
 Marathon Remediation Site
 Cold Spring, New York





APPENDIX A

DATA VALIDATION REPORT
OF
SEDIMENT SAMPLES
COLLECTED ON NOVEMBER 13, 2020
FOR
INORGANIC AND CONVENTIONAL ANALYSES

Laboratory Case Number 460-222887

PREPARED FOR:

GOULD ELECTRONICS INC.
MARATHON SITE
COLD SPRING, NEW YORK

PREPARED BY:

ADVANCED GEOSERVICES CORP
WEST CHESTER, PENNSYLVANIA

December 7, 2020
Project Number NY 95-219-03

DATA VALIDATION REPORT INORGANIC COMPOUNDS

INTRODUCTION

This data validation report addresses the inorganic results from the sediment samples collected from the Marathon Site on November 13, 2020, in Cold Spring, New York. Samples were analyzed by Test America in Edison, NJ (TA-Edison) by USEPA SW-846 methods. The data were reported by TA-Edison under sample delivery group (SDG) 460-222887.

The qualified analytical results are presented on the data summary table. The data summary table lists both non-detected and detected results. Support documentation summarizing the specifics of this review is presented at the end of this report.

INORGANIC COMPOUNDS

Five sediment samples, one field duplicate sample and one equipment blank sample were collected and analyzed for cadmium by USEPA SW-846 Method 6010D.

This review has been performed with guidance from the USEPA's *National Functional Guidelines for Inorganic Superfund Methods Data Review* (January 2017). The findings presented in this report are based upon a review of all data supplied by the laboratory. The information examined consists of sample results, analytical holding times, initial and continuing calibrations, blank analysis results, ICP interference check sample recoveries, duplicate results, matrix spike/matrix spike duplicate (MS/MSD) recoveries and relative percent differences (RPDs), serial dilution, laboratory control samples results, and field duplicates.

Holding times were met for all samples. All analytes and system monitoring compounds were within the method-required limits for the initial and continuing calibrations (90-110%). No equipment blank contamination was present. Sample EFC-4SD was the field duplicate of EFC-4S. The field duplicate RPD was greater than 40%. The percent recoveries for the MS and MSD, and LCS were acceptable. Laboratory duplicates and serial dilutions were acceptable.

QUALIFIERS

Field Sample Duplicate

- The Field Duplicate (EFC-4S and EFC-4SD) had a relative percent difference of 40.60% for Cadmium, which is greater than the relative percent difference criteria of 40%. The results for samples EFC-4S and EFC-4SD were qualified as estimated (J).

SUMMARY

All the data is useable as qualified.

DATA VALIDATION REPORT CONVENTIONALS

INTRODUCTION

This data validation report addresses the conventional analysis results from the sediment samples collected from the Marathon Site on November 13, 2020, in Cold Spring, New York. All samples were analyzed by Test America in Edison, NJ (TA-Edison). Sediment samples were analyzed for total organic carbon (TOC) by the Lloyd Kahn Method. The sample results were reported under TA-Edison sample delivery group (SDG) 460-222887.

The qualified analytical results are presented on the data summary table. The data summary table lists both non-detected and detected results. Support documentation summarizing the specifics of this review is presented at the end of this report.

CONVENTIONAL PARAMETERS

Five sediment samples and a field duplicate were collected and analyzed for TOC by the Lloyd Kahn Method. The equipment blank was collected and analyzed for TOC by USEPA SW-846 Method 9060A.

This conventional data review has been performed with guidance from the USEPA's *National Functional Guidelines for Inorganic Superfund Methods Data Review*, January 2017. The findings presented in this report are based upon a review of all data supplied by the laboratory. The information examined consists of sample results, analytical holding times, initial and continuing calibration standard recoveries, calibration curves, blank analysis results, matrix spike (MS) recoveries, matrix spike duplicate (MSD) recoveries, laboratory and field duplicate relative percent differences (RPD), and laboratory control sample results.

Holding times were met for all parameters. Initial and continuing calibration standard sample results were accurate. Calibration curves had correlation coefficients greater than 0.99. No equipment blank contamination was present. The TOC laboratory control sample percent recoveries were acceptable. Sample EFC-4SD was the field duplicate of EFC-4S. The field duplicate RPDs were less than 40%. The TOC laboratory control sample percent recoveries were acceptable.

QUALIFIERS

No qualification was required.

SUMMARY


The results are acceptable as reported.

QUALIFIER CODES

- U - Denotes the compound or analyte was not detected at or above the associated detection limit.
- J - Denotes an estimated value or the result is below the quantitation limit.
- UJ - Denotes an estimated detection or quantitation limit.
- R - Denotes a rejected result. The analyte may or may not be present.

Data review was performed by an experienced quality assurance scientist independent of the analytical laboratory.

This is to certify that I have examined the analytical data and based on the information provided to me by the laboratory, in my professional judgment the data are acceptable for use except where qualified with qualifiers that modify the usefulness of those individual values.



Quality Assurance Scientist

12/7/2020

Date



Quality Assurance Manager

12/7/2020

Date

TABLES

MARATHON

Annual Sediment Sampling 2020, 11/13/20
 Test America# 460-222887, Project# NY95-219

Sample Location		EFC-1S			EFC-2S			EFC-5S			EFC-4S			EFC-4SD			EFC-3S			EB-01-111320		
Lab ID		460-222887-01			460-222887-02			460-222887-03			460-222887-04			460-222887-05			460-222887-06			460-222887-07		
Sample Date		11/13/2020			11/13/2020			11/13/2020			11/13/2020			11/13/2020			11/13/2020			11/13/2020		
Matrix		Sediment			Sediment			Sediment			Sediment			Sediment			Sediment			Aqueous		
Remarks														FD of EFC-4S						Equipment Blank		
Parameter	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL
Total Metals																						
Cadmium	mg/Kg	6.3		1.8	10.8		2.5	21		2.4	24	J	2.3	15.9	J	2.1	32.9		1.6		U	4
Conventionals																						
Percent Moisture	%	59.9		1	67.7		1	68		1	66.7		1	65.2		1	52.4		1		NA	
Percent Solids	%	40.1		1	32.3		1	32		1	33.3		1	34.8		1	47.6		1		NA	
Total Organic Carbon	mg/Kg	14300		250	17300		309	29100		313	18800		300	17500		287	23800		210		U	1

QA Scientist Amy Graham

Date 12/07/2020

SUPPORT DOCUMENTATION
INORGANICS

METALS DATA VALIDATION SUMMARY

Site Name: Marathon
 Project Number: NY95-219
 Sampling Date(s): 11/13/2020

Laboratory: Test America - Edison
 Case/Order No.: 460-222887

Compound List: Cadmium

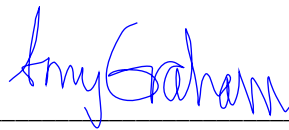
Method: 6010D

The following table indicates the data validation criteria examined, any problems identified, and the QA action applied.

Data Validation Criteria:	Accept	FYI	Qualify	Comments
Holding Times	X			
ICP/MS Tuning				NA
Initial Calibrations	X			
Continuing Calibrations	X			
Blank Analysis	X			
Field Duplicate Analysis			X	EFC-4SD & EFC-4S
Matrix Spike Analysis (MS/MSD)	X			EFC-2S
Laboratory Control Sample Analysis (LCS)	X			
Laboratory Duplicate Analysis	X			EFC-2S
ICP Internal Standard	X			
CRDL Standard				NA
Serial Dilution	X			
Interference Check Sample Recoveries	X			
Overall Assessment of Data				
Other:				

General Comments: Cooler Temp: 2.4°C

- Accept - No qualification required.
- FYI - For your information only, no qualification necessary.
- Qualify - Qualify as rejected, estimated or biased.
- NR - Not Reviewed
- NA - Not Applicable

QA Scientist 

Date 12/4/2020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: EFC-1S

Lab Sample ID: 460-222887-1

Lab Name: Eurofins TestAmerica, Edison

Job No.: 460-222887-1

SDG ID.: _____

Matrix: Solid

Date Sampled: 11/13/2020 08:25

Reporting Basis: DRY

Date Received: 11/13/2020 18:33

% Solids: 40.1

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	6.3	1.8	0.16	mg/Kg			2	6010D

1A-IN
 INORGANIC ANALYSIS DATA SHEET
 METALS

Client Sample ID: EFC-2S

Lab Sample ID: 460-222887-2

Lab Name: Eurofins TestAmerica, Edison

Job No.: 460-222887-1

SDG ID.: _____

Matrix: Solid

Date Sampled: 11/13/2020 08:40

Reporting Basis: DRY

Date Received: 11/13/2020 18:33

% Solids: 32.3

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	10.8	2.5	0.21	mg/Kg			2	6010D

1A-IN
 INORGANIC ANALYSIS DATA SHEET
 METALS

Client Sample ID: EFC-5S

Lab Sample ID: 460-222887-3

Lab Name: Eurofins TestAmerica, Edison

Job No.: 460-222887-1

SDG ID.: _____

Matrix: Solid

Date Sampled: 11/13/2020 08:55

Reporting Basis: DRY

Date Received: 11/13/2020 18:33

% Solids: 32.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	21.0	2.4	0.21	mg/Kg			2	6010D

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: EFC-4S

Lab Sample ID: 460-222887-4

Lab Name: Eurofins TestAmerica, Edison

Job No.: 460-222887-1

SDG ID.: _____

Matrix: Solid

Date Sampled: 11/13/2020 09:05

Reporting Basis: DRY

Date Received: 11/13/2020 18:33

% Solids: 33.3

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	24.0	2.3	0.20	mg/Kg			2	6010D

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: EFC-4SD

Lab Sample ID: 460-222887-5

Lab Name: Eurofins TestAmerica, Edison

Job No.: 460-222887-1

SDG ID.: _____

Matrix: Solid

Date Sampled: 11/13/2020 09:10

Reporting Basis: DRY

Date Received: 11/13/2020 18:33

% Solids: 34.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	15.9	2.1	0.18	mg/Kg		J	2	6010D

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: EFC-3S

Lab Sample ID: 460-222887-6

Lab Name: Eurofins TestAmerica, Edison

Job No.: 460-222887-1

SDG ID.: _____

Matrix: Solid

Date Sampled: 11/13/2020 09:20

Reporting Basis: DRY

Date Received: 11/13/2020 18:33

% Solids: 47.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	32.9	1.6	0.13	mg/Kg		J	2	6010D

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: EB-01-111320

Lab Sample ID: 460-222887-7

Lab Name: Eurofins TestAmerica, Edison

Job No.: 460-222887-1

SDG ID.: _____

Matrix: Water

Date Sampled: 11/13/2020 10:25

Reporting Basis: WET

Date Received: 11/13/2020 18:33

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-43-9	Cadmium	0.33	4.0	0.33	ug/L	U		1	6010D

Site Name: **Marathon**

Metals

Lab ID	Sample ID	Matrix	Analyte	Sample Date	Analyzed Date	Analysis Hold Time (days)	Days to Analysis	Qualify
460-222887-01	EFC-1S	Sediment	Cadmium	11/13/2020	11/17/2020	180	4.0	
460-222887-02	EFC-2S	Sediment	Cadmium	11/13/2020	11/17/2020	180	4.0	
460-222887-03	EFC-5S	Sediment	Cadmium	11/13/2020	11/17/2020	180	4.0	
460-222887-04	EFC-4S	Sediment	Cadmium	11/13/2020	11/17/2020	180	4.0	
460-222887-05	EFC-4SD	Sediment	Cadmium	11/13/2020	11/17/2020	180	4.0	
460-222887-06	EFC-3S	Sediment	Cadmium	11/13/2020	11/17/2020	180	4.0	
460-222887-07	EB-01-111320	Aqueous	Cadmium	11/13/2020	11/20/2020	180	7.0	

460-222887_Field Duplicate.xls
All Soil

Site Name: Marathon Laboratory: Test America - Edison
Project Number: NY95-219 Matrix: Sediment

Sample ID	Analyte	Units	Result	Q	RL	RPD	Qualify
EFC-4S	Cadmium	mg/Kg	24		2.3		
EFC-4SD	Cadmium	mg/Kg	15.9		2.1	40.60	yes

Duplicate Criteria: Aqueous matrices <30 % RPD or < ± 1*RL, Soil/Solid matrices <40 %RPD or < ± 2*RL.

* - Denotes %RPD or difference outside criteria.

NA - Duplicate relative percent difference or difference cannot be calculated.

U / ND - Not detected.

SUPPORT DOCUMENTATION
CONVENTIONALS

CONVENTIONALS DATA VALIDATION SUMMARY

Site Name: Marathon
 Project Number: NY95-219
 Sampling Date(s): 11/13/2020

Laboratory: Test America - Edison
 Case/Order No.: 460-222887

Compound List: Total Organic Carbon, Total Solids


Method: Lloyd Kahn, 9060A

The following table indicates the data validation criteria examined, any problems identified, and the QA action applied.

Data Validation Criteria:	Accept	FYI	Qualify	Comments
Holding Times	X			
Calibration Curve	X			
Initial Calibrations	X			
Continuing Calibrations	X			
Blank Analysis	X			
Field Duplicate Analysis	X			EFC-4SD & EFC-4S
Matrix Spike Analysis (MS/MSD)				NA
Laboratory Control Sample Analysis (LCS)	X			
Laboratory Duplicate Analysis	X			EFC-2S
Overall Assessment of Data	X			
Other:				

General Comments: Cooler Temp: 2.4°C

- Accept - No qualification required.
- FYI - For your information only, no qualification necessary.
- Qualify - Qualify as rejected, estimated or biased.
- NR - Not Reviewed
- NA - Not Applicable

QA Scientist 
 Date 12/7/2020

1B-IN
 INORGANIC ANALYSIS DATA SHEET
 GENERAL CHEMISTRY

Client Sample ID: EFC-1S

Lab Sample ID: 460-222887-1

Lab Name: Eurofins TestAmerica, Edison

Job No.: 460-222887-1

SDG ID.: _____

Matrix: Solid

Date Sampled: 11/13/2020 08:25

Reporting Basis: DRY

Date Received: 11/13/2020 18:33

% Solids: 40.1

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	TOC Result 1	14300	250	203	mg/Kg			1	Lloyd Kahn

1B-IN
 INORGANIC ANALYSIS DATA SHEET
 GENERAL CHEMISTRY

Client Sample ID: EFC-2S

Lab Sample ID: 460-222887-2

Lab Name: Eurofins TestAmerica, Edison

Job No.: 460-222887-1

SDG ID.: _____

Matrix: Solid

Date Sampled: 11/13/2020 08:40

Reporting Basis: DRY

Date Received: 11/13/2020 18:33

% Solids: 32.3

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	TOC Result 1	17300	309	251	mg/Kg			1	Lloyd Kahn

1B-IN
 INORGANIC ANALYSIS DATA SHEET
 GENERAL CHEMISTRY

Client Sample ID: EFC-5S

Lab Sample ID: 460-222887-3

Lab Name: Eurofins TestAmerica, Edison

Job No.: 460-222887-1

SDG ID.: _____

Matrix: Solid

Date Sampled: 11/13/2020 08:55

Reporting Basis: DRY

Date Received: 11/13/2020 18:33

% Solids: 32.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	TOC Result 1	29100	313	254	mg/Kg			1	Lloyd Kahn

1B-IN
 INORGANIC ANALYSIS DATA SHEET
 GENERAL CHEMISTRY

Client Sample ID: EFC-4S

Lab Sample ID: 460-222887-4

Lab Name: Eurofins TestAmerica, Edison

Job No.: 460-222887-1

SDG ID.: _____

Matrix: Solid

Date Sampled: 11/13/2020 09:05

Reporting Basis: DRY

Date Received: 11/13/2020 18:33

% Solids: 33.3

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	TOC Result 1	18800	300	244	mg/Kg			1	Lloyd Kahn

1B-IN
 INORGANIC ANALYSIS DATA SHEET
 GENERAL CHEMISTRY

Client Sample ID: EFC-4SD

Lab Sample ID: 460-222887-5

Lab Name: Eurofins TestAmerica, Edison

Job No.: 460-222887-1

SDG ID.: _____

Matrix: Solid

Date Sampled: 11/13/2020 09:10

Reporting Basis: DRY

Date Received: 11/13/2020 18:33

% Solids: 34.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	TOC Result 1	17500	287	234	mg/Kg			1	Lloyd Kahn

1B-IN
 INORGANIC ANALYSIS DATA SHEET
 GENERAL CHEMISTRY

Client Sample ID: EFC-3S

Lab Sample ID: 460-222887-6

Lab Name: Eurofins TestAmerica, Edison

Job No.: 460-222887-1

SDG ID.: _____

Matrix: Solid

Date Sampled: 11/13/2020 09:20

Reporting Basis: DRY

Date Received: 11/13/2020 18:33

% Solids: 47.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	TOC Result 1	23800	210	171	mg/Kg			1	Lloyd Kahn

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: EB-01-111320

Lab Sample ID: 460-222887-7

Lab Name: Eurofins TestAmerica, Edison

Job No.: 460-222887-1

SDG ID.: _____

Matrix: Water

Date Sampled: 11/13/2020 10:25

Reporting Basis: WET

Date Received: 11/13/2020 18:33

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Total Organic Carbon	0.58	1.0	0.58	mg/L	U		1	9060A

**HOLDING TIMES
WC**

Site Name: **Marathon**

Wet Chemistry

Lab ID	Sample ID	Matrix	Analyte	Sample Date	Date Analyzed	Analysis Hold Time (days)	Days to Analysis	Qualify
460-222887-01	EFC-1S	Sediment	Percent Moisture	11/13/2020	11/18/2020	7	5	
460-222887-02	EFC-2S	Sediment	Percent Moisture	11/13/2020	11/18/2020	7	5	
460-222887-03	EFC-5S	Sediment	Percent Moisture	11/13/2020	11/18/2020	7	5	
460-222887-04	EFC-4S	Sediment	Percent Moisture	11/13/2020	11/18/2020	7	5	
460-222887-05	EFC-4SD	Sediment	Percent Moisture	11/13/2020	11/18/2020	7	5	
460-222887-06	EFC-3S	Sediment	Percent Moisture	11/13/2020	11/18/2020	7	5	
460-222887-01	EFC-1S	Sediment	Percent Solids	11/13/2020	11/18/2020	7	5	
460-222887-02	EFC-2S	Sediment	Percent Solids	11/13/2020	11/18/2020	7	5	
460-222887-03	EFC-5S	Sediment	Percent Solids	11/13/2020	11/18/2020	7	5	
460-222887-04	EFC-4S	Sediment	Percent Solids	11/13/2020	11/18/2020	7	5	
460-222887-05	EFC-4SD	Sediment	Percent Solids	11/13/2020	11/18/2020	7	5	
460-222887-06	EFC-3S	Sediment	Percent Solids	11/13/2020	11/18/2020	7	5	
460-222887-01	EFC-1S	Sediment	Total Organic Carbon	11/13/2020	11/18/2020	14	5	
460-222887-02	EFC-2S	Sediment	Total Organic Carbon	11/13/2020	11/18/2020	14	5	
460-222887-03	EFC-5S	Sediment	Total Organic Carbon	11/13/2020	11/18/2020	14	5	
460-222887-04	EFC-4S	Sediment	Total Organic Carbon	11/13/2020	11/18/2020	14	5	
460-222887-05	EFC-4SD	Sediment	Total Organic Carbon	11/13/2020	11/18/2020	14	5	
460-222887-06	EFC-3S	Sediment	Total Organic Carbon	11/13/2020	11/18/2020	14	5	
460-222887-07	EB-01-111320	Aqueous	Total Organic Carbon	11/13/2020	11/17/2020	28	4	

460-222887_Field Duplicate.xls
All Soil

Site Name: Marathon **Laboratory:** Test America - Edison
Project Number: NY95-219 **Matrix:** Sediment

Sample ID	Analyte	Units	Result	Q	RL	RPD	Qualify
EFC-4S	Percent Solids	%	33.3		1		
EFC-4SD	Percent Solids	%	34.8		1	4.41	no

Sample ID	Analyte	Units	Result	Q	RL	RPD	Qualify
EFC-4S	Total Organic Carbon	mg/Kg	18800		300		
EFC-4SD	Total Organic Carbon	mg/Kg	17500		287	7.16	no

Duplicate Criteria: Aqueous matrices <30 % RPD or $\pm 1^*RL$, Soil/Solid matrices <40 %RPD or $\pm 2^*RL$.

* - Denotes %RPD or difference outside criteria.

NA - Duplicate relative percent difference or difference cannot be calculated.

U / ND - Not detected.



APPENDIX B

DATA VALIDATION REPORT
OF
GROUNDWATER SAMPLES
COLLECTED ON DECEMBER 14-15, 2020
FOR
ORGANIC ANALYSES

Laboratory Case Number 460-224998

PREPARED FOR:

GOULD ELECTRONICS INC.
MARATHON SITE
COLD SPRING, NEW YORK

PREPARED BY:

ADVANCED GEOSERVICES / MONTROSE ENVIRONMENTAL
WEST CHESTER, PENNSYLVANIA

January 13, 2021
Project Number NY 95-219-03

DATA VALIDATION REPORT ORGANIC COMPOUNDS

INTRODUCTION

This data validation report addresses the organic results from the groundwater samples collected from the Marathon Site monitoring wells on December 14-15, 2020 in Cold Spring, New York. Samples were analyzed by TestAmerica in Edison, NJ. The samples were analyzed for volatile organic compounds (VOCs) by USEPA *Test Methods for Evaluating Solid Waste Physical/Chemical Methods* (SW-846) Method 8260D. The sample results were reported under TestAmerica Case Number 460-224998.

The qualified analytical results are presented on the data summary table. The data summary table lists both non-detected and detected results. Support documentation summarizing the specifics of this review is presented at the end of this report.

VOLATILE ORGANIC COMPOUNDS

Nineteen (19) groundwater samples, two (2) field duplicate samples, one (1) equipment blank, and one (1) trip blank sample were collected and analyzed for VOCs by USEPA SW-846 Method 8260D.

This organic review has been performed with guidance from the USEPA "National Functional Guidelines for Organic Superfund Methods Data Review, January 2017. The findings presented in this report are based upon a review of all data supplied by the laboratory. The information examined consists of sample results, analytical holding times, initial and continuing calibrations, gas chromatographic/mass spectrometric (GC/MS) tunes, blank analysis results, matrix spike/matrix spike duplicate (MS/MSD) recoveries and relative percent differences (RPDs), laboratory control sample (LCS) recoveries and relative percent differences (RPDs), surrogate spike recoveries, standard areas and retention times and target compound identification.

The holding times were met for all samples. All GC/MS tunes for the target analytes were within method criteria. All analytes and system monitoring compounds relative response factors (RRF) and percent differences (%D) were within the National Functional Guidelines criteria for the initial and continuing calibrations except those addressed in the "Qualifier" section. The trip blank, equipment blank and method blanks were free of contamination except for those identified in the "QUALIFIER" section. All volatile system monitoring compound recoveries and internal standard areas were within acceptance criteria. All detected compounds met the relative retention time and mass spectral identification criteria. Samples MW-4/MW-4D and OSMW-01/OSMW-01D were field duplicates. The field duplicate results were precise. The LCS recoveries were within acceptance criteria. The MS/MSD recoveries were within the acceptance criteria except for those identified in the "QUALIFIER" section.

QUALIFIER

460-224998

Initial Calibration Verification

- ICV 460-746923/14; Bromomethane (59.5%) had a %D greater than 30%. The associated samples included MB-3, ASMP-1, VP-10, VP-9, VP-11, VP-8, VP-3, VP-7, VP-2, VP-1, MW-7S, IW-9, IW-8, IW-7, OSMW-01, OSMW-01D, EB-01-121520, OSMW-02, OSMW-03, MW-4, MW-4D, IW-6 and TB-01-121520. The sample reporting limits were qualified as estimated (UJ).

Continuing Calibration

- CCVIS 460-748021/3; Bromomethane (67.9%) had a %D greater than 30% and 1,1-Dichloroethene (-22.5%) had a %D greater than 20%. The associated sample included TB-01-121520. The sample reporting limits were qualified as estimated (UJ).
- CCVIS 460-748021/3; 1,1-Dichloroethene (-22.5%) had a %D greater than 20%. The associated sample included TB-01-121520. The sample reporting limit was qualified as estimated (UJ).
- CCVIS 460-748021/3; Bromomethane (74.5%) had a %D greater than 30%. The associated samples included VP-11, VP-2, VP-1, OSMW-01D, OSMW-2 and MW-4D. The sample reporting limits were qualified as estimated (UJ).
- CCVIS 460-748314/2; Bromomethane (41.2%) had a %D greater than 30%. The associated samples included IW-6, MB-3, ASMP-01, VP-10 and VP-9. The sample reporting limits were qualified as estimated (UJ).

Matrix Spike

- MS 460-224998-3; Acetone (58%) had a percent recovery (%R) outside the laboratory control limits of 61-134%. The parent sample (IW-8) reporting limit was qualified as estimated (UJ).
- MS/MSD 460-224998-3; Trichloroethene (46%/47%) had a percent recovery outside the laboratory control criteria of 71-121%. The parent sample (IW-8) sample result was qualified as estimated (J).

Field Blanks

- Equipment Blank; Chloroform (0.63 ug/L) was detected above the method detection limit of 0.33 ug/L. All associated samples included MB-3, ASMP-1, VP-10, VP-9, VP-11, VP-8, VP-3, VP-7, VP-2, VP-1, MW-7S, IW-9, IW-8, IW-7, OSMW-01, OSMW-01D, OSMW-02, OSMW-03, MW-4, MW-4D and IW-6. Sample concentrations less than the 5X the Equipment Blank concentration were qualified as non-detect (U) and samples concentrations less than the method detection limit were reported to the reporting limit and also qualified as non-detect (U).
- Trip Blank; Chloroform (0.74 ug/L) was detected above the method detection limit of 0.33 ug/L. All associated samples included MB-3, ASMP-1, VP-10, VP-9, VP-11, VP-8, VP-3, VP-7, VP-2, VP-1, MW-7S, IW-9, IW-8, IW-7, OSMW-01, OSMW-01D, OSMW-02, OSMW-03, MW-4, MW-4D and IW-6. Sample concentrations less than the 5X the Equipment Blank concentration were qualified as non-detect (U) and samples concentrations less than the method detection limit were reported to the reporting limit and also qualified as non-detect (U).

SUMMARY

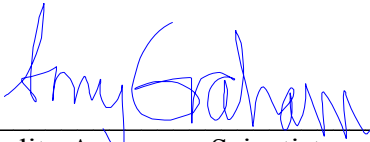
The results are acceptable as qualified.

QUALIFIER CODES

- U - Denotes the compound or analyte was not detected at or above the associated detection limit.
- J - Denotes an estimated value or the result is below the quantitation limit.
- UJ - Denotes an estimated detection or quantitation limit.
- R - Denotes a rejected result. The analyte may or may not be present.

Data review was performed by an experienced quality assurance scientist independent of the analytical laboratory.

This is to certify that I have examined the analytical data and based on the information provided to me by the laboratory, in my professional judgment the data are acceptable for use except where qualified with qualifiers that modify the usefulness of those individual values.



Quality Assurance Scientist

1/13/2021

Date




Quality Assurance Manager

1/13/2021


Date

TABLES

Sample Location	MW-7S			IW-9			IW-8			IW-7			OSMW-01			OSMW-01D			EB-01-121520			OSMW-02			OSMW-03			MW-4			MW-4D			IW-6					
Lab ID	460-224998-01			460-224998-02			460-224998-03			460-224998-04			460-224998-05			460-224998-06			460-224998-07			460-224998-08			460-224998-09			460-224998-10			460-224998-11			460-224998-12					
Sample Date	12/14/2020			12/14/2020			12/14/2020			12/15/2020			12/15/2020			12/15/2020			12/15/2020			12/15/2020			12/15/2020			12/15/2020			12/15/2020			12/15/2020					
Matrix	Groundwater			Groundwater			Groundwater			Groundwater			Groundwater			Groundwater			Aqueous			Groundwater			Groundwater			Groundwater			Groundwater			Groundwater					
Remarks																FD of OSMW-01			Equipment Blank																				
Parameter	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL					
Volatiles																																							
1,1,1-Trichloroethane	ug/L		U	1	1.2		1	1.2		1	1		1	0.46	J	1	0.42	J	1		U	1	0.4	J	1	0.66	J	1	0.69	J	1	0.62	J	1	1.8		1		
1,1,2,2-Tetrachloroethane	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		
1,1,2-Trichloroethane	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		
1,1-Dichloroethane	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		
1,1-Dichloroethene	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		
1,2-Dichloroethane	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		
1,2-Dichloropropane	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		
2-Butanone	ug/L		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5		
2-Hexanone	ug/L		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5		
4-Methyl-2-pentanone	ug/L		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5		
Acetone	ug/L		U	5		U	5		UJ	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5		
Benzene	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		
Bromodichloromethane	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		
Bromoform	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		
Bromomethane	ug/L		UJ	1		UJ	1		UJ	1		UJ	1		UJ	1		UJ	1		UJ	1		UJ	1		UJ	1		UJ	1		UJ	1		UJ	1		
Carbon disulfide	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		
Carbon tetrachloride	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		
Chlorobenzene	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		
Chloroethane	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		
Chloroform	ug/L	2.6	U	1	1	U	1	1	U	1	1	U	1	1	U	1	0.63	J	1		U	1	1	U	1	1	U	1	1	U	1	1	U	1	1	U	1		
Chloromethane	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		
cis-1,2-Dichloroethene	ug/L		U	1	1.5		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1	
cis-1,3-Dichloropropene	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		
Dibromochloromethane	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		
Ethylbenzene	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		
Methylene Chloride	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		
Styrene	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		
Tetrachloroethene	ug/L	4.4	U	1	7.2		U	1	6		U	1	0.77	J	1		U	1		U	1		U	1	0.64	J	1	1.5		U	1	1.5		U	1	1.1			
Toluene	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		
trans-1,2-Dichloroethene	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		
trans-1,3-Dichloropropene	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		
Trichloroethene	ug/L	54		U	1	43		U	1	34		J	1	28		U	1		U	1		U	1		U	1	13		U	1	27		U	1	25		U	1	83
Vinyl chloride	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		
Xylenes, Total	ug/L		U	2		U	2		U	2		U	2		U	2		U	2		U	2		U	2		U	2		U	2		U	2		U	2		

QA Scientist 

Sample Location		MB-3			ASMP-1			VP-10			VP-9			VP-11			VP-8			VP-3			VP-7			VP-2			VP-1			TB-01-121520								
Lab ID		460-224998-13			460-224998-14			460-224998-15			460-224998-16			460-224998-17			460-224998-18			460-224998-19			460-224998-20			460-224998-21			460-224998-22			460-224998-23								
Sample Date		12/15/2020			12/14/2020			12/14/2020			12/14/2020			12/14/2020			12/15/2020			12/15/2020			12/15/2020			12/15/2020			12/15/2020			12/15/2020								
Matrix		Groundwater			Groundwater			Groundwater			Groundwater			Groundwater			Groundwater			Groundwater			Groundwater			Groundwater			Groundwater			Aqueous								
Remarks																																Trip Blank								
Parameter	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL									
Volatiles																																								
1,1,1-Trichloroethane	ug/L	0.54	J	1	0.91	J	1	0.67	J	1	1		1		U	1	0.66	J	1	0.37	J	1		U	1		U	1		U	1		U	1		U	1		U	1
1,1,2,2-Tetrachloroethane	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1
1,1,2-Trichloroethane	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1
1,1-Dichloroethane	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1
1,1-Dichloroethene	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1
1,2-Dichloroethane	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1
1,2-Dichloropropane	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1
2-Butanone	ug/L		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5
2-Hexanone	ug/L		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5
4-Methyl-2-pentanone	ug/L		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5
Acetone	ug/L		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5
Benzene	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1
Bromodichloromethane	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1
Bromoform	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1
Bromomethane	ug/L		UJ	1		UJ	1		UJ	1		UJ	1		UJ	1		UJ	1		UJ	1		UJ	1		UJ	1		UJ	1		UJ	1		UJ	1		UJ	1
Carbon disulfide	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1
Carbon tetrachloride	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1
Chlorobenzene	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1
Chloroethane	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1
Chloroform	ug/L	1	U	1	1	U	1	1	U	1		U	1	2	U	1	1	U	1	1.3	U	1	2.7	U	1		U	1		U	1		U	1		U	1	0.74	J	1
Chloromethane	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1
cis-1,2-Dichloroethene	ug/L	1.5		1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1
cis-1,3-Dichloropropene	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1
Dibromochloromethane	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1
Ethylbenzene	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1
Methylene Chloride	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1
Styrene	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1
Tetrachloroethene	ug/L	3.3		1	11		1	0.88	J	1	0.47	J	1	6.8		1	1.8		1	17		1	2.6		1		U	1		U	1		U	1		U	1		U	1
Toluene	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1
trans-1,2-Dichloroethene	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1
trans-1,3-Dichloropropene	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1
Trichloroethene	ug/L	18		1	51		1	14		1	4.9		1	30		1	9.3		1	80		1	21		1	3.4		1		U	1		U	1		U	1		U	1
Vinyl chloride	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1
Xylenes, Total	ug/L		U	2		U	2		U	2		U	2		U	2		U	2		U	2		U	2		U	2		U	2		U	2		U	2		U	2

QA Scientist 
 Date 01/13/2021

SUPPORT DOCUMENTATION
ORGANICS

VOLATILES DATA VALIDATION SUMMARY

Site Name: Marathon
 Project Number: NY95-219
 Sampling Date(s): 12/14-15/2020

Laboratory: TestAmerica - Edison
 Case/Order No.: 460-224998

Compound List: Volatiles

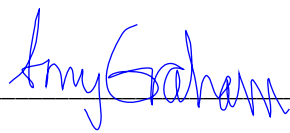
Method: 8260D

The following table indicates the data validation criteria examined, any problems identified, and the QA action applied.

Data Validation Criteria:	Accept	FYI	Qualify	Comments
Holding Times	X			
GC/MS Tuning	X			
Initial Calibrations/ICV			X	ICV %D
Continuing Calibrations			X	%D > 30%
Blank Analysis			X	Equipment Blank & Trip Blank
System Monitoring/Surrogate	X			
Field Duplicate Analysis	X			MW-4 & MW-4D, OSMW-01 & OSMW-01D
Matrix Spike Analysis (MS/MSD)			X	MS/MSD Recoveries (IW-8 & OSMW-03)
Laboratory Control Sample Analysis (LCS)		X		LCS Recoveries
Internal Standard Areas/RT	X			
Target Compound Identification	X			
TIC Identification				NA
Overall Assessment of Data	X			
Other:				

General Comments: Cooler temp: 3.9°C

- Accept - No qualification required.
- FYI - For your information only, no qualification necessary.
- Qualify - Qualify as rejected, estimated or biased.
- NR - Not Reviewed
- NA - Not Applicable

QA Scientist 
 Date 1/13/2021

Client Sample Results

Client: Advanced GeoServices Corporation
Project/Site: Marathon

Job ID: 460-224998-1

Client Sample ID: MW-7S

Lab Sample ID: 460-224998-1

Date Collected: 12/14/20 13:54

Matrix: Water

Date Received: 12/16/20 11:15

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L			12/19/20 04:00	1
1,1,2,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			12/19/20 04:00	1
1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L			12/19/20 04:00	1
1,1-Dichloroethane	0.26	U	1.0	0.26	ug/L			12/19/20 04:00	1
1,1-Dichloroethene	0.26	U	1.0	0.26	ug/L			12/19/20 04:00	1
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			12/19/20 04:00	1
1,2-Dichloropropane	0.35	U	1.0	0.35	ug/L			12/19/20 04:00	1
2-Butanone	1.9	U	5.0	1.9	ug/L			12/19/20 04:00	1
2-Hexanone	1.1	U	5.0	1.1	ug/L			12/19/20 04:00	1
4-Methyl-2-pentanone	1.3	U	5.0	1.3	ug/L			12/19/20 04:00	1
Acetone	4.4	U	5.0	4.4	ug/L			12/19/20 04:00	1
Benzene	0.20	U	1.0	0.20	ug/L			12/19/20 04:00	1
Bromodichloromethane	0.34	U	1.0	0.34	ug/L			12/19/20 04:00	1
Bromoform	0.54	U	1.0	0.54	ug/L			12/19/20 04:00	1
Bromomethane	0.55	U UJ	1.0	0.55	ug/L			12/19/20 04:00	1
Carbon disulfide	0.82	U	1.0	0.82	ug/L			12/19/20 04:00	1
Carbon tetrachloride	0.21	U	1.0	0.21	ug/L			12/19/20 04:00	1
Chlorobenzene	0.38	U	1.0	0.38	ug/L			12/19/20 04:00	1
Chloroethane	0.32	U	1.0	0.32	ug/L			12/19/20 04:00	1
Chloroform	2.6	U	1.0	0.33	ug/L			12/19/20 04:00	1
Chloromethane	0.40	U	1.0	0.40	ug/L			12/19/20 04:00	1
cis-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L			12/19/20 04:00	1
cis-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/19/20 04:00	1
Dibromochloromethane	0.28	U	1.0	0.28	ug/L			12/19/20 04:00	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			12/19/20 04:00	1
Methylene Chloride	0.32	U	1.0	0.32	ug/L			12/19/20 04:00	1
Styrene	0.42	U	1.0	0.42	ug/L			12/19/20 04:00	1
Tetrachloroethene	4.4		1.0	0.25	ug/L			12/19/20 04:00	1
Toluene	0.38	U	1.0	0.38	ug/L			12/19/20 04:00	1
trans-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L			12/19/20 04:00	1
trans-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/19/20 04:00	1
Trichloroethene	54		1.0	0.31	ug/L			12/19/20 04:00	1
Vinyl chloride	0.17	U	1.0	0.17	ug/L			12/19/20 04:00	1
Xylenes, Total	0.65	U	2.0	0.65	ug/L			12/19/20 04:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		75 - 123		12/19/20 04:00	1
Bromofluorobenzene	105		76 - 120		12/19/20 04:00	1
Dibromofluoromethane (Surr)	105		77 - 124		12/19/20 04:00	1
Toluene-d8 (Surr)	105		80 - 120		12/19/20 04:00	1

Client Sample ID: IW-9

Lab Sample ID: 460-224998-2

Date Collected: 12/14/20 15:00

Matrix: Water

Date Received: 12/16/20 11:15

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.2		1.0	0.24	ug/L			12/19/20 04:25	1
1,1,2,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			12/19/20 04:25	1
1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L			12/19/20 04:25	1

Client Sample Results

Client: Advanced GeoServices Corporation
 Project/Site: Marathon

Job ID: 460-224998-1

Client Sample ID: IW-9

Lab Sample ID: 460-224998-2

Date Collected: 12/14/20 15:00

Matrix: Water

Date Received: 12/16/20 11:15

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.26	U	1.0	0.26	ug/L			12/19/20 04:25	1
1,1-Dichloroethene	0.26	U	1.0	0.26	ug/L			12/19/20 04:25	1
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			12/19/20 04:25	1
1,2-Dichloropropane	0.35	U	1.0	0.35	ug/L			12/19/20 04:25	1
2-Butanone	1.9	U	5.0	1.9	ug/L			12/19/20 04:25	1
2-Hexanone	1.1	U	5.0	1.1	ug/L			12/19/20 04:25	1
4-Methyl-2-pentanone	1.3	U	5.0	1.3	ug/L			12/19/20 04:25	1
Acetone	4.4	U	5.0	4.4	ug/L			12/19/20 04:25	1
Benzene	0.20	U	1.0	0.20	ug/L			12/19/20 04:25	1
Bromodichloromethane	0.34	U	1.0	0.34	ug/L			12/19/20 04:25	1
Bromoform	0.54	U	1.0	0.54	ug/L			12/19/20 04:25	1
Bromomethane	0.55	U UJ	1.0	0.55	ug/L			12/19/20 04:25	1
Carbon disulfide	0.82	U	1.0	0.82	ug/L			12/19/20 04:25	1
Carbon tetrachloride	0.21	U	1.0	0.21	ug/L			12/19/20 04:25	1
Chlorobenzene	0.38	U	1.0	0.38	ug/L			12/19/20 04:25	1
Chloroethane	0.32	U	1.0	0.32	ug/L			12/19/20 04:25	1
Chloroform	1.0	0.54 U	1.0	0.33	ug/L			12/19/20 04:25	1
Chloromethane	0.40	U	1.0	0.40	ug/L			12/19/20 04:25	1
cis-1,2-Dichloroethene	1.5		1.0	0.22	ug/L			12/19/20 04:25	1
cis-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/19/20 04:25	1
Dibromochloromethane	0.28	U	1.0	0.28	ug/L			12/19/20 04:25	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			12/19/20 04:25	1
Methylene Chloride	0.32	U	1.0	0.32	ug/L			12/19/20 04:25	1
Styrene	0.42	U	1.0	0.42	ug/L			12/19/20 04:25	1
Tetrachloroethene	7.2		1.0	0.25	ug/L			12/19/20 04:25	1
Toluene	0.38	U	1.0	0.38	ug/L			12/19/20 04:25	1
trans-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L			12/19/20 04:25	1
trans-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/19/20 04:25	1
Trichloroethene	43		1.0	0.31	ug/L			12/19/20 04:25	1
Vinyl chloride	0.17	U	1.0	0.17	ug/L			12/19/20 04:25	1
Xylenes, Total	0.65	U	2.0	0.65	ug/L			12/19/20 04:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		75 - 123		12/19/20 04:25	1
Bromofluorobenzene	105		76 - 120		12/19/20 04:25	1
Dibromofluoromethane (Surr)	105		77 - 124		12/19/20 04:25	1
Toluene-d8 (Surr)	105		80 - 120		12/19/20 04:25	1

Client Sample ID: IW-8

Lab Sample ID: 460-224998-3

Date Collected: 12/14/20 15:50

Matrix: Water

Date Received: 12/16/20 11:15

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.2		1.0	0.24	ug/L			12/18/20 22:53	1
1,1,2,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			12/18/20 22:53	1
1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L			12/18/20 22:53	1
1,1-Dichloroethane	0.26	U	1.0	0.26	ug/L			12/18/20 22:53	1
1,1-Dichloroethene	0.26	U	1.0	0.26	ug/L			12/18/20 22:53	1
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			12/18/20 22:53	1

Eurofins Test America, Edison

01/13/2021

12/23/2020

Client Sample Results

Client: Advanced GeoServices Corporation
 Project/Site: Marathon

Job ID: 460-224998-1

Client Sample ID: IW-8

Lab Sample ID: 460-224998-3

Date Collected: 12/14/20 15:50

Matrix: Water

Date Received: 12/16/20 11:15

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	0.35	U	1.0	0.35	ug/L			12/18/20 22:53	1
2-Butanone	1.9	U	5.0	1.9	ug/L			12/18/20 22:53	1
2-Hexanone	1.1	U	5.0	1.1	ug/L			12/18/20 22:53	1
4-Methyl-2-pentanone	1.3	U	5.0	1.3	ug/L			12/18/20 22:53	1
Acetone	4.4	U J	5.0	4.4	ug/L			12/18/20 22:53	1
Benzene	0.20	U	1.0	0.20	ug/L			12/18/20 22:53	1
Bromodichloromethane	0.34	U	1.0	0.34	ug/L			12/18/20 22:53	1
Bromoform	0.54	U	1.0	0.54	ug/L			12/18/20 22:53	1
Bromomethane	0.55	U UJ	1.0	0.55	ug/L			12/18/20 22:53	1
Carbon disulfide	0.82	U	1.0	0.82	ug/L			12/18/20 22:53	1
Carbon tetrachloride	0.21	U	1.0	0.21	ug/L			12/18/20 22:53	1
Chlorobenzene	0.38	U	1.0	0.38	ug/L			12/18/20 22:53	1
Chloroethane	0.32	U	1.0	0.32	ug/L			12/18/20 22:53	1
Chloroform	1.0 0.75	J U	1.0	0.33	ug/L			12/18/20 22:53	1
Chloromethane	0.40	U	1.0	0.40	ug/L			12/18/20 22:53	1
cis-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L			12/18/20 22:53	1
cis-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/18/20 22:53	1
Dibromochloromethane	0.28	U	1.0	0.28	ug/L			12/18/20 22:53	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			12/18/20 22:53	1
Methylene Chloride	0.32	U	1.0	0.32	ug/L			12/18/20 22:53	1
Styrene	0.42	U	1.0	0.42	ug/L			12/18/20 22:53	1
Tetrachloroethene	6.0		1.0	0.25	ug/L			12/18/20 22:53	1
Toluene	0.38	U	1.0	0.38	ug/L			12/18/20 22:53	1
trans-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L			12/18/20 22:53	1
trans-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/18/20 22:53	1
Trichloroethene	34	J	1.0	0.31	ug/L			12/18/20 22:53	1
Vinyl chloride	0.17	U	1.0	0.17	ug/L			12/18/20 22:53	1
Xylenes, Total	0.65	U	2.0	0.65	ug/L			12/18/20 22:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		75 - 123					12/18/20 22:53	1
Bromofluorobenzene	104		76 - 120					12/18/20 22:53	1
Dibromofluoromethane (Surr)	106		77 - 124					12/18/20 22:53	1
Toluene-d8 (Surr)	106		80 - 120					12/18/20 22:53	1

Client Sample ID: IW-7

Lab Sample ID: 460-224998-4

Date Collected: 12/15/20 09:24

Matrix: Water

Date Received: 12/16/20 11:15

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0		1.0	0.24	ug/L			12/19/20 02:18	1
1,1,2,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			12/19/20 02:18	1
1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L			12/19/20 02:18	1
1,1-Dichloroethane	0.26	U	1.0	0.26	ug/L			12/19/20 02:18	1
1,1-Dichloroethene	0.26	U	1.0	0.26	ug/L			12/19/20 02:18	1
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			12/19/20 02:18	1
1,2-Dichloropropane	0.35	U	1.0	0.35	ug/L			12/19/20 02:18	1
2-Butanone	1.9	U	5.0	1.9	ug/L			12/19/20 02:18	1
2-Hexanone	1.1	U	5.0	1.1	ug/L			12/19/20 02:18	1

Client Sample Results

Client: Advanced GeoServices Corporation
Project/Site: Marathon

Job ID: 460-224998-1

Client Sample ID: IW-7
Date Collected: 12/15/20 09:24
Date Received: 12/16/20 11:15

Lab Sample ID: 460-224998-4
Matrix: Water

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone	1.3	U	5.0	1.3	ug/L			12/19/20 02:18	1
Acetone	4.4	U	5.0	4.4	ug/L			12/19/20 02:18	1
Benzene	0.20	U	1.0	0.20	ug/L			12/19/20 02:18	1
Bromodichloromethane	0.34	U	1.0	0.34	ug/L			12/19/20 02:18	1
Bromoform	0.54	U	1.0	0.54	ug/L			12/19/20 02:18	1
Bromomethane	0.55	U UJ	1.0	0.55	ug/L			12/19/20 02:18	1
Carbon disulfide	0.82	U	1.0	0.82	ug/L			12/19/20 02:18	1
Carbon tetrachloride	0.21	U	1.0	0.21	ug/L			12/19/20 02:18	1
Chlorobenzene	0.38	U	1.0	0.38	ug/L			12/19/20 02:18	1
Chloroethane	0.32	U	1.0	0.32	ug/L			12/19/20 02:18	1
Chloroform	1.0 0.33	J U	1.0	0.33	ug/L			12/19/20 02:18	1
Chloromethane	0.40	U	1.0	0.40	ug/L			12/19/20 02:18	1
cis-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L			12/19/20 02:18	1
cis-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/19/20 02:18	1
Dibromochloromethane	0.28	U	1.0	0.28	ug/L			12/19/20 02:18	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			12/19/20 02:18	1
Methylene Chloride	0.32	U	1.0	0.32	ug/L			12/19/20 02:18	1
Styrene	0.42	U	1.0	0.42	ug/L			12/19/20 02:18	1
Tetrachloroethene	0.77	J	1.0	0.25	ug/L			12/19/20 02:18	1
Toluene	0.38	U	1.0	0.38	ug/L			12/19/20 02:18	1
trans-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L			12/19/20 02:18	1
trans-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/19/20 02:18	1
Trichloroethene	28		1.0	0.31	ug/L			12/19/20 02:18	1
Vinyl chloride	0.17	U	1.0	0.17	ug/L			12/19/20 02:18	1
Xylenes, Total	0.65	U	2.0	0.65	ug/L			12/19/20 02:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		75 - 123					12/19/20 02:18	1
Bromofluorobenzene	105		76 - 120					12/19/20 02:18	1
Dibromofluoromethane (Surr)	100		77 - 124					12/19/20 02:18	1
Toluene-d8 (Surr)	106		80 - 120					12/19/20 02:18	1

Client Sample ID: OSMW-1
Date Collected: 12/15/20 11:00
Date Received: 12/16/20 11:15

Lab Sample ID: 460-224998-5
Matrix: Water

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.46	J	1.0	0.24	ug/L			12/18/20 23:44	1
1,1,2,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			12/18/20 23:44	1
1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L			12/18/20 23:44	1
1,1-Dichloroethane	0.26	U	1.0	0.26	ug/L			12/18/20 23:44	1
1,1-Dichloroethene	0.26	U	1.0	0.26	ug/L			12/18/20 23:44	1
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			12/18/20 23:44	1
1,2-Dichloropropane	0.35	U	1.0	0.35	ug/L			12/18/20 23:44	1
2-Butanone	1.9	U	5.0	1.9	ug/L			12/18/20 23:44	1
2-Hexanone	1.1	U	5.0	1.1	ug/L			12/18/20 23:44	1
4-Methyl-2-pentanone	1.3	U	5.0	1.3	ug/L			12/18/20 23:44	1
Acetone	4.4	U	5.0	4.4	ug/L			12/18/20 23:44	1
Benzene	0.20	U	1.0	0.20	ug/L			12/18/20 23:44	1

Client Sample Results

Client: Advanced GeoServices Corporation
Project/Site: Marathon

Job ID: 460-224998-1

Client Sample ID: OSMW-1

Lab Sample ID: 460-224998-5

Date Collected: 12/15/20 11:00

Matrix: Water

Date Received: 12/16/20 11:15

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	0.34	U	1.0	0.34	ug/L			12/18/20 23:44	1
Bromoform	0.54	U	1.0	0.54	ug/L			12/18/20 23:44	1
Bromomethane	0.55	U UJ	1.0	0.55	ug/L			12/18/20 23:44	1
Carbon disulfide	0.82	U	1.0	0.82	ug/L			12/18/20 23:44	1
Carbon tetrachloride	0.21	U	1.0	0.21	ug/L			12/18/20 23:44	1
Chlorobenzene	0.38	U	1.0	0.38	ug/L			12/18/20 23:44	1
Chloroethane	0.32	U	1.0	0.32	ug/L			12/18/20 23:44	1
Chloroform	0.33	U	1.0	0.33	ug/L			12/18/20 23:44	1
Chloromethane	0.40	U	1.0	0.40	ug/L			12/18/20 23:44	1
cis-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L			12/18/20 23:44	1
cis-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/18/20 23:44	1
Dibromochloromethane	0.28	U	1.0	0.28	ug/L			12/18/20 23:44	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			12/18/20 23:44	1
Methylene Chloride	0.32	U	1.0	0.32	ug/L			12/18/20 23:44	1
Styrene	0.42	U	1.0	0.42	ug/L			12/18/20 23:44	1
Tetrachloroethene	0.25	U	1.0	0.25	ug/L			12/18/20 23:44	1
Toluene	0.38	U	1.0	0.38	ug/L			12/18/20 23:44	1
trans-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L			12/18/20 23:44	1
trans-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/18/20 23:44	1
Trichloroethene	0.31	U	1.0	0.31	ug/L			12/18/20 23:44	1
Vinyl chloride	0.17	U	1.0	0.17	ug/L			12/18/20 23:44	1
Xylenes, Total	0.65	U	2.0	0.65	ug/L			12/18/20 23:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		75 - 123		12/18/20 23:44	1
Bromofluorobenzene	105		76 - 120		12/18/20 23:44	1
Dibromofluoromethane (Surr)	105		77 - 124		12/18/20 23:44	1
Toluene-d8 (Surr)	107		80 - 120		12/18/20 23:44	1

Client Sample ID: OSMW-1D

Lab Sample ID: 460-224998-6

Date Collected: 12/15/20 11:15

Matrix: Water

Date Received: 12/16/20 11:15

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.42	J	1.0	0.24	ug/L			12/20/20 17:19	1
1,1,2,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			12/20/20 17:19	1
1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L			12/20/20 17:19	1
1,1-Dichloroethane	0.26	U	1.0	0.26	ug/L			12/20/20 17:19	1
1,1-Dichloroethene	0.26	U	1.0	0.26	ug/L			12/20/20 17:19	1
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			12/20/20 17:19	1
1,2-Dichloropropane	0.35	U	1.0	0.35	ug/L			12/20/20 17:19	1
2-Butanone	1.9	U	5.0	1.9	ug/L			12/20/20 17:19	1
2-Hexanone	1.1	U	5.0	1.1	ug/L			12/20/20 17:19	1
4-Methyl-2-pentanone	1.3	U	5.0	1.3	ug/L			12/20/20 17:19	1
Acetone	4.4	U	5.0	4.4	ug/L			12/20/20 17:19	1
Benzene	0.20	U	1.0	0.20	ug/L			12/20/20 17:19	1
Bromodichloromethane	0.34	U	1.0	0.34	ug/L			12/20/20 17:19	1
Bromoform	0.54	U	1.0	0.54	ug/L			12/20/20 17:19	1
Bromomethane	0.55	U	1.0	0.55	ug/L			12/20/20 17:19	1

Eurofins Test America, Edison

01/13/2021

12/23/2020

Client Sample Results

Client: Advanced GeoServices Corporation
 Project/Site: Marathon

Job ID: 460-224998-1

Client Sample ID: OSMW-1D

Lab Sample ID: 460-224998-6

Date Collected: 12/15/20 11:15

Matrix: Water

Date Received: 12/16/20 11:15

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon disulfide	0.82	U	1.0	0.82	ug/L			12/20/20 17:19	1
Carbon tetrachloride	0.21	U	1.0	0.21	ug/L			12/20/20 17:19	1
Chlorobenzene	0.38	U	1.0	0.38	ug/L			12/20/20 17:19	1
Chloroethane	0.32	U	1.0	0.32	ug/L			12/20/20 17:19	1
Chloroform	0.33	U	1.0	0.33	ug/L			12/20/20 17:19	1
Chloromethane	0.40	U	1.0	0.40	ug/L			12/20/20 17:19	1
cis-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L			12/20/20 17:19	1
cis-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/20/20 17:19	1
Dibromochloromethane	0.28	U	1.0	0.28	ug/L			12/20/20 17:19	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			12/20/20 17:19	1
Methylene Chloride	0.32	U	1.0	0.32	ug/L			12/20/20 17:19	1
Styrene	0.42	U	1.0	0.42	ug/L			12/20/20 17:19	1
Tetrachloroethene	0.25	U	1.0	0.25	ug/L			12/20/20 17:19	1
Toluene	0.38	U	1.0	0.38	ug/L			12/20/20 17:19	1
trans-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L			12/20/20 17:19	1
trans-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/20/20 17:19	1
Trichloroethene	0.31	U	1.0	0.31	ug/L			12/20/20 17:19	1
Vinyl chloride	0.17	U	1.0	0.17	ug/L			12/20/20 17:19	1
Xylenes, Total	0.65	U	2.0	0.65	ug/L			12/20/20 17:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		75 - 123		12/20/20 17:19	1
Bromofluorobenzene	105		76 - 120		12/20/20 17:19	1
Dibromofluoromethane (Surr)	96		77 - 124		12/20/20 17:19	1
Toluene-d8 (Surr)	106		80 - 120		12/20/20 17:19	1

Client Sample ID: EB-01-121520

Lab Sample ID: 460-224998-7

Date Collected: 12/15/20 10:30

Matrix: Water

Date Received: 12/16/20 11:15

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L			12/19/20 01:01	1
1,1,2,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			12/19/20 01:01	1
1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L			12/19/20 01:01	1
1,1-Dichloroethane	0.26	U	1.0	0.26	ug/L			12/19/20 01:01	1
1,1-Dichloroethene	0.26	U	1.0	0.26	ug/L			12/19/20 01:01	1
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			12/19/20 01:01	1
1,2-Dichloropropane	0.35	U	1.0	0.35	ug/L			12/19/20 01:01	1
2-Butanone	1.9	U	5.0	1.9	ug/L			12/19/20 01:01	1
2-Hexanone	1.1	U	5.0	1.1	ug/L			12/19/20 01:01	1
4-Methyl-2-pentanone	1.3	U	5.0	1.3	ug/L			12/19/20 01:01	1
Acetone	4.4	U	5.0	4.4	ug/L			12/19/20 01:01	1
Benzene	0.20	U	1.0	0.20	ug/L			12/19/20 01:01	1
Bromodichloromethane	0.34	U	1.0	0.34	ug/L			12/19/20 01:01	1
Bromoform	0.54	U	1.0	0.54	ug/L			12/19/20 01:01	1
Bromomethane	0.55	U UJ	1.0	0.55	ug/L			12/19/20 01:01	1
Carbon disulfide	0.82	U	1.0	0.82	ug/L			12/19/20 01:01	1
Carbon tetrachloride	0.21	U	1.0	0.21	ug/L			12/19/20 01:01	1
Chlorobenzene	0.38	U	1.0	0.38	ug/L			12/19/20 01:01	1

Eurofins Test America, Edison

01/13/2021

12/23/2020

Client Sample Results

Client: Advanced GeoServices Corporation
 Project/Site: Marathon

Job ID: 460-224998-1

Client Sample ID: EB-01-121520

Lab Sample ID: 460-224998-7

Date Collected: 12/15/20 10:30

Matrix: Water

Date Received: 12/16/20 11:15

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	0.32	U	1.0	0.32	ug/L			12/19/20 01:01	1
Chloroform	0.63	J	1.0	0.33	ug/L			12/19/20 01:01	1
Chloromethane	0.40	U	1.0	0.40	ug/L			12/19/20 01:01	1
cis-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L			12/19/20 01:01	1
cis-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/19/20 01:01	1
Dibromochloromethane	0.28	U	1.0	0.28	ug/L			12/19/20 01:01	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			12/19/20 01:01	1
Methylene Chloride	0.32	U	1.0	0.32	ug/L			12/19/20 01:01	1
Styrene	0.42	U	1.0	0.42	ug/L			12/19/20 01:01	1
Tetrachloroethene	0.25	U	1.0	0.25	ug/L			12/19/20 01:01	1
Toluene	0.38	U	1.0	0.38	ug/L			12/19/20 01:01	1
trans-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L			12/19/20 01:01	1
trans-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/19/20 01:01	1
Trichloroethene	0.31	U	1.0	0.31	ug/L			12/19/20 01:01	1
Vinyl chloride	0.17	U	1.0	0.17	ug/L			12/19/20 01:01	1
Xylenes, Total	0.65	U	2.0	0.65	ug/L			12/19/20 01:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		75 - 123					12/19/20 01:01	1
Bromofluorobenzene	104		76 - 120					12/19/20 01:01	1
Dibromofluoromethane (Surr)	107		77 - 124					12/19/20 01:01	1
Toluene-d8 (Surr)	105		80 - 120					12/19/20 01:01	1

Client Sample ID: OSMW-2

Lab Sample ID: 460-224998-8

Date Collected: 12/15/20 12:06

Matrix: Water

Date Received: 12/16/20 11:15

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.40	J	1.0	0.24	ug/L			12/20/20 17:44	1
1,1,2,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			12/20/20 17:44	1
1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L			12/20/20 17:44	1
1,1-Dichloroethane	0.26	U	1.0	0.26	ug/L			12/20/20 17:44	1
1,1-Dichloroethene	0.26	U	1.0	0.26	ug/L			12/20/20 17:44	1
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			12/20/20 17:44	1
1,2-Dichloropropane	0.35	U	1.0	0.35	ug/L			12/20/20 17:44	1
2-Butanone	1.9	U	5.0	1.9	ug/L			12/20/20 17:44	1
2-Hexanone	1.1	U	5.0	1.1	ug/L			12/20/20 17:44	1
4-Methyl-2-pentanone	1.3	U	5.0	1.3	ug/L			12/20/20 17:44	1
Acetone	4.4	U	5.0	4.4	ug/L			12/20/20 17:44	1
Benzene	0.20	U	1.0	0.20	ug/L			12/20/20 17:44	1
Bromodichloromethane	0.34	U	1.0	0.34	ug/L			12/20/20 17:44	1
Bromoform	0.54	U	1.0	0.54	ug/L			12/20/20 17:44	1
Bromomethane	0.55	U J	1.0	0.55	ug/L			12/20/20 17:44	1
Carbon disulfide	0.82	U	1.0	0.82	ug/L			12/20/20 17:44	1
Carbon tetrachloride	0.21	U	1.0	0.21	ug/L			12/20/20 17:44	1
Chlorobenzene	0.38	U	1.0	0.38	ug/L			12/20/20 17:44	1
Chloroethane	0.32	U	1.0	0.32	ug/L			12/20/20 17:44	1
Chloroform	0.33	U	1.0	0.33	ug/L			12/20/20 17:44	1
Chloromethane	0.40	U	1.0	0.40	ug/L			12/20/20 17:44	1

Client Sample Results

Client: Advanced GeoServices Corporation
Project/Site: Marathon

Job ID: 460-224998-1

Client Sample ID: OSMW-2

Lab Sample ID: 460-224998-8

Date Collected: 12/15/20 12:06

Matrix: Water

Date Received: 12/16/20 11:15

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L			12/20/20 17:44	1
cis-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/20/20 17:44	1
Dibromochloromethane	0.28	U	1.0	0.28	ug/L			12/20/20 17:44	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			12/20/20 17:44	1
Methylene Chloride	0.32	U	1.0	0.32	ug/L			12/20/20 17:44	1
Styrene	0.42	U	1.0	0.42	ug/L			12/20/20 17:44	1
Tetrachloroethene	0.25	U	1.0	0.25	ug/L			12/20/20 17:44	1
Toluene	0.38	U	1.0	0.38	ug/L			12/20/20 17:44	1
trans-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L			12/20/20 17:44	1
trans-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/20/20 17:44	1
Trichloroethene	0.31	U	1.0	0.31	ug/L			12/20/20 17:44	1
Vinyl chloride	0.17	U	1.0	0.17	ug/L			12/20/20 17:44	1
Xylenes, Total	0.65	U	2.0	0.65	ug/L			12/20/20 17:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		75 - 123					12/20/20 17:44	1
Bromofluorobenzene	103		76 - 120					12/20/20 17:44	1
Dibromofluoromethane (Surr)	97		77 - 124					12/20/20 17:44	1
Toluene-d8 (Surr)	105		80 - 120					12/20/20 17:44	1

Client Sample ID: OSMW-3

Lab Sample ID: 460-224998-9

Date Collected: 12/15/20 13:30

Matrix: Water

Date Received: 12/16/20 11:15

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.66	J	1.0	0.24	ug/L			12/19/20 00:35	1
1,1,2,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			12/19/20 00:35	1
1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L			12/19/20 00:35	1
1,1-Dichloroethane	0.26	U	1.0	0.26	ug/L			12/19/20 00:35	1
1,1-Dichloroethene	0.26	U	1.0	0.26	ug/L			12/19/20 00:35	1
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			12/19/20 00:35	1
1,2-Dichloropropane	0.35	U	1.0	0.35	ug/L			12/19/20 00:35	1
2-Butanone	1.9	U	5.0	1.9	ug/L			12/19/20 00:35	1
2-Hexanone	1.1	U	5.0	1.1	ug/L			12/19/20 00:35	1
4-Methyl-2-pentanone	1.3	U	5.0	1.3	ug/L			12/19/20 00:35	1
Acetone	4.4	U	5.0	4.4	ug/L			12/19/20 00:35	1
Benzene	0.20	U	1.0	0.20	ug/L			12/19/20 00:35	1
Bromodichloromethane	0.34	U	1.0	0.34	ug/L			12/19/20 00:35	1
Bromoform	0.54	U	1.0	0.54	ug/L			12/19/20 00:35	1
Bromomethane	0.55	U	1.0	0.55	ug/L			12/19/20 00:35	1
Carbon disulfide	0.82	U	1.0	0.82	ug/L			12/19/20 00:35	1
Carbon tetrachloride	0.21	U	1.0	0.21	ug/L			12/19/20 00:35	1
Chlorobenzene	0.38	U	1.0	0.38	ug/L			12/19/20 00:35	1
Chloroethane	0.32	U	1.0	0.32	ug/L			12/19/20 00:35	1
Chloroform	1.0	U	1.0	0.33	ug/L			12/19/20 00:35	1
Chloromethane	0.40	U	1.0	0.40	ug/L			12/19/20 00:35	1
cis-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L			12/19/20 00:35	1
cis-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/19/20 00:35	1
Dibromochloromethane	0.28	U	1.0	0.28	ug/L			12/19/20 00:35	1

Client Sample Results

Client: Advanced GeoServices Corporation
Project/Site: Marathon

Job ID: 460-224998-1

Client Sample ID: OSMW-3

Lab Sample ID: 460-224998-9

Date Collected: 12/15/20 13:30

Matrix: Water

Date Received: 12/16/20 11:15

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	0.30	U	1.0	0.30	ug/L			12/19/20 00:35	1
Methylene Chloride	0.32	U	1.0	0.32	ug/L			12/19/20 00:35	1
Styrene	0.42	U	1.0	0.42	ug/L			12/19/20 00:35	1
Tetrachloroethene	0.64	J	1.0	0.25	ug/L			12/19/20 00:35	1
Toluene	0.38	U	1.0	0.38	ug/L			12/19/20 00:35	1
trans-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L			12/19/20 00:35	1
trans-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/19/20 00:35	1
Trichloroethene	13		1.0	0.31	ug/L			12/19/20 00:35	1
Vinyl chloride	0.17	U	1.0	0.17	ug/L			12/19/20 00:35	1
Xylenes, Total	0.65	U	2.0	0.65	ug/L			12/19/20 00:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		75 - 123					12/19/20 00:35	1
Bromofluorobenzene	114		76 - 120					12/19/20 00:35	1
Dibromofluoromethane (Surr)	109		77 - 124					12/19/20 00:35	1
Toluene-d8 (Surr)	116		80 - 120					12/19/20 00:35	1

Client Sample ID: MW-4

Lab Sample ID: 460-224998-10

Date Collected: 12/15/20 15:03

Matrix: Water

Date Received: 12/16/20 11:15

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.69	J	1.0	0.24	ug/L			12/19/20 00:10	1
1,1,2,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			12/19/20 00:10	1
1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L			12/19/20 00:10	1
1,1-Dichloroethane	0.26	U	1.0	0.26	ug/L			12/19/20 00:10	1
1,1-Dichloroethene	0.26	U	1.0	0.26	ug/L			12/19/20 00:10	1
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			12/19/20 00:10	1
1,2-Dichloropropane	0.35	U	1.0	0.35	ug/L			12/19/20 00:10	1
2-Butanone	1.9	U	5.0	1.9	ug/L			12/19/20 00:10	1
2-Hexanone	1.1	U	5.0	1.1	ug/L			12/19/20 00:10	1
4-Methyl-2-pentanone	1.3	U	5.0	1.3	ug/L			12/19/20 00:10	1
Acetone	4.4	U	5.0	4.4	ug/L			12/19/20 00:10	1
Benzene	0.20	U	1.0	0.20	ug/L			12/19/20 00:10	1
Bromodichloromethane	0.34	U	1.0	0.34	ug/L			12/19/20 00:10	1
Bromoform	0.54	U	1.0	0.54	ug/L			12/19/20 00:10	1
Bromomethane	0.55	U J	1.0	0.55	ug/L			12/19/20 00:10	1
Carbon disulfide	0.82	U	1.0	0.82	ug/L			12/19/20 00:10	1
Carbon tetrachloride	0.21	U	1.0	0.21	ug/L			12/19/20 00:10	1
Chlorobenzene	0.38	U	1.0	0.38	ug/L			12/19/20 00:10	1
Chloroethane	0.32	U	1.0	0.32	ug/L			12/19/20 00:10	1
Chloroform	1.0	0.32 J U	1.0	0.33	ug/L			12/19/20 00:10	1
Chloromethane	0.40	U	1.0	0.40	ug/L			12/19/20 00:10	1
cis-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L			12/19/20 00:10	1
cis-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/19/20 00:10	1
Dibromochloromethane	0.28	U	1.0	0.28	ug/L			12/19/20 00:10	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			12/19/20 00:10	1
Methylene Chloride	0.32	U	1.0	0.32	ug/L			12/19/20 00:10	1
Styrene	0.42	U	1.0	0.42	ug/L			12/19/20 00:10	1

Client Sample Results

Client: Advanced GeoServices Corporation
 Project/Site: Marathon

Job ID: 460-224998-1

Client Sample ID: MW-4
Date Collected: 12/15/20 15:03
Date Received: 12/16/20 11:15

Lab Sample ID: 460-224998-10
Matrix: Water

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	1.5		1.0	0.25	ug/L			12/19/20 00:10	1
Toluene	0.38	U	1.0	0.38	ug/L			12/19/20 00:10	1
trans-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L			12/19/20 00:10	1
trans-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/19/20 00:10	1
Trichloroethene	27		1.0	0.31	ug/L			12/19/20 00:10	1
Vinyl chloride	0.17	U	1.0	0.17	ug/L			12/19/20 00:10	1
Xylenes, Total	0.65	U	2.0	0.65	ug/L			12/19/20 00:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		75 - 123					12/19/20 00:10	1
Bromofluorobenzene	106		76 - 120					12/19/20 00:10	1
Dibromofluoromethane (Surr)	111		77 - 124					12/19/20 00:10	1
Toluene-d8 (Surr)	107		80 - 120					12/19/20 00:10	1

Client Sample ID: MW-4D
Date Collected: 12/15/20 15:23
Date Received: 12/16/20 11:15

Lab Sample ID: 460-224998-11
Matrix: Water

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.62	J	1.0	0.24	ug/L			12/20/20 18:10	1
1,1,2,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			12/20/20 18:10	1
1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L			12/20/20 18:10	1
1,1-Dichloroethane	0.26	U	1.0	0.26	ug/L			12/20/20 18:10	1
1,1-Dichloroethene	0.26	U	1.0	0.26	ug/L			12/20/20 18:10	1
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			12/20/20 18:10	1
1,2-Dichloropropane	0.35	U	1.0	0.35	ug/L			12/20/20 18:10	1
2-Butanone	1.9	U	5.0	1.9	ug/L			12/20/20 18:10	1
2-Hexanone	1.1	U	5.0	1.1	ug/L			12/20/20 18:10	1
4-Methyl-2-pentanone	1.3	U	5.0	1.3	ug/L			12/20/20 18:10	1
Acetone	4.4	U	5.0	4.4	ug/L			12/20/20 18:10	1
Benzene	0.20	U	1.0	0.20	ug/L			12/20/20 18:10	1
Bromodichloromethane	0.34	U	1.0	0.34	ug/L			12/20/20 18:10	1
Bromoform	0.54	U	1.0	0.54	ug/L			12/20/20 18:10	1
Bromomethane	0.55	UJ	1.0	0.55	ug/L			12/20/20 18:10	1
Carbon disulfide	0.82	U	1.0	0.82	ug/L			12/20/20 18:10	1
Carbon tetrachloride	0.21	U	1.0	0.21	ug/L			12/20/20 18:10	1
Chlorobenzene	0.38	U	1.0	0.38	ug/L			12/20/20 18:10	1
Chloroethane	0.32	U	1.0	0.32	ug/L			12/20/20 18:10	1
Chloroform	1.0	0.33 U	1.0	0.33	ug/L			12/20/20 18:10	1
Chloromethane	0.40	U	1.0	0.40	ug/L			12/20/20 18:10	1
cis-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L			12/20/20 18:10	1
cis-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/20/20 18:10	1
Dibromochloromethane	0.28	U	1.0	0.28	ug/L			12/20/20 18:10	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			12/20/20 18:10	1
Methylene Chloride	0.32	U	1.0	0.32	ug/L			12/20/20 18:10	1
Styrene	0.42	U	1.0	0.42	ug/L			12/20/20 18:10	1
Tetrachloroethene	1.5		1.0	0.25	ug/L			12/20/20 18:10	1
Toluene	0.38	U	1.0	0.38	ug/L			12/20/20 18:10	1
trans-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L			12/20/20 18:10	1

Client Sample Results

Client: Advanced GeoServices Corporation
 Project/Site: Marathon

Job ID: 460-224998-1

Client Sample ID: MW-4D

Lab Sample ID: 460-224998-11

Date Collected: 12/15/20 15:23

Matrix: Water

Date Received: 12/16/20 11:15

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/20/20 18:10	1
Trichloroethene	25		1.0	0.31	ug/L			12/20/20 18:10	1
Vinyl chloride	0.17	U	1.0	0.17	ug/L			12/20/20 18:10	1
Xylenes, Total	0.65	U	2.0	0.65	ug/L			12/20/20 18:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		75 - 123					12/20/20 18:10	1
Bromofluorobenzene	105		76 - 120					12/20/20 18:10	1
Dibromofluoromethane (Surr)	97		77 - 124					12/20/20 18:10	1
Toluene-d8 (Surr)	106		80 - 120					12/20/20 18:10	1

Client Sample ID: IW-6

Lab Sample ID: 460-224998-12

Date Collected: 12/15/20 15:53

Matrix: Water

Date Received: 12/16/20 11:15

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.8		1.0	0.24	ug/L			12/20/20 22:25	1
1,1,2,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			12/20/20 22:25	1
1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L			12/20/20 22:25	1
1,1-Dichloroethane	0.26	U	1.0	0.26	ug/L			12/20/20 22:25	1
1,1-Dichloroethene	0.26	U	1.0	0.26	ug/L			12/20/20 22:25	1
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			12/20/20 22:25	1
1,2-Dichloropropane	0.35	U	1.0	0.35	ug/L			12/20/20 22:25	1
2-Butanone	1.9	U	5.0	1.9	ug/L			12/20/20 22:25	1
2-Hexanone	1.1	U	5.0	1.1	ug/L			12/20/20 22:25	1
4-Methyl-2-pentanone	1.3	U	5.0	1.3	ug/L			12/20/20 22:25	1
Acetone	4.4	U	5.0	4.4	ug/L			12/20/20 22:25	1
Benzene	0.20	U	1.0	0.20	ug/L			12/20/20 22:25	1
Bromodichloromethane	0.34	U	1.0	0.34	ug/L			12/20/20 22:25	1
Bromoform	0.54	U	1.0	0.54	ug/L			12/20/20 22:25	1
Bromomethane	0.55	U	1.0	0.55	ug/L			12/20/20 22:25	1
Carbon disulfide	0.82	U	1.0	0.82	ug/L			12/20/20 22:25	1
Carbon tetrachloride	0.21	U	1.0	0.21	ug/L			12/20/20 22:25	1
Chlorobenzene	0.38	U	1.0	0.38	ug/L			12/20/20 22:25	1
Chloroethane	0.32	U	1.0	0.32	ug/L			12/20/20 22:25	1
Chloroform	1.0	0.48 U	1.0	0.33	ug/L			12/20/20 22:25	1
Chloromethane	0.40	U	1.0	0.40	ug/L			12/20/20 22:25	1
cis-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L			12/20/20 22:25	1
cis-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/20/20 22:25	1
Dibromochloromethane	0.28	U	1.0	0.28	ug/L			12/20/20 22:25	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			12/20/20 22:25	1
Methylene Chloride	0.32	U	1.0	0.32	ug/L			12/20/20 22:25	1
Styrene	0.42	U	1.0	0.42	ug/L			12/20/20 22:25	1
Tetrachloroethene	1.1		1.0	0.25	ug/L			12/20/20 22:25	1
Toluene	0.38	U	1.0	0.38	ug/L			12/20/20 22:25	1
trans-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L			12/20/20 22:25	1
trans-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/20/20 22:25	1
Trichloroethene	83		1.0	0.31	ug/L			12/20/20 22:25	1
Vinyl chloride	0.17	U	1.0	0.17	ug/L			12/20/20 22:25	1

Client Sample Results

Client: Advanced GeoServices Corporation
 Project/Site: Marathon

Job ID: 460-224998-1

Client Sample ID: IW-6

Lab Sample ID: 460-224998-12

Date Collected: 12/15/20 15:53

Matrix: Water

Date Received: 12/16/20 11:15

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	0.65	U	2.0	0.65	ug/L			12/20/20 22:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		75 - 123		12/20/20 22:25	1
Bromofluorobenzene	102		76 - 120		12/20/20 22:25	1
Dibromofluoromethane (Surr)	87		77 - 124		12/20/20 22:25	1
Toluene-d8 (Surr)	103		80 - 120		12/20/20 22:25	1

Client Sample ID: MB-3

Lab Sample ID: 460-224998-13

Date Collected: 12/15/20 16:37

Matrix: Water

Date Received: 12/16/20 11:15

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.54	J	1.0	0.24	ug/L			12/20/20 22:50	1
1,1,2,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			12/20/20 22:50	1
1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L			12/20/20 22:50	1
1,1-Dichloroethane	0.26	U	1.0	0.26	ug/L			12/20/20 22:50	1
1,1-Dichloroethene	0.26	U	1.0	0.26	ug/L			12/20/20 22:50	1
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			12/20/20 22:50	1
1,2-Dichloropropane	0.35	U	1.0	0.35	ug/L			12/20/20 22:50	1
2-Butanone	1.9	U	5.0	1.9	ug/L			12/20/20 22:50	1
2-Hexanone	1.1	U	5.0	1.1	ug/L			12/20/20 22:50	1
4-Methyl-2-pentanone	1.3	U	5.0	1.3	ug/L			12/20/20 22:50	1
Acetone	4.4	U	5.0	4.4	ug/L			12/20/20 22:50	1
Benzene	0.20	U	1.0	0.20	ug/L			12/20/20 22:50	1
Bromodichloromethane	0.34	U	1.0	0.34	ug/L			12/20/20 22:50	1
Bromoform	0.54	U	1.0	0.54	ug/L			12/20/20 22:50	1
Bromomethane	0.55	U J	1.0	0.55	ug/L			12/20/20 22:50	1
Carbon disulfide	0.82	U	1.0	0.82	ug/L			12/20/20 22:50	1
Carbon tetrachloride	0.21	U	1.0	0.21	ug/L			12/20/20 22:50	1
Chlorobenzene	0.38	U	1.0	0.38	ug/L			12/20/20 22:50	1
Chloroethane	0.32	U	1.0	0.32	ug/L			12/20/20 22:50	1
Chloroform	1.0	U	1.0	0.33	ug/L			12/20/20 22:50	1
Chloromethane	0.40	U	1.0	0.40	ug/L			12/20/20 22:50	1
cis-1,2-Dichloroethene	1.5		1.0	0.22	ug/L			12/20/20 22:50	1
cis-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/20/20 22:50	1
Dibromochloromethane	0.28	U	1.0	0.28	ug/L			12/20/20 22:50	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			12/20/20 22:50	1
Methylene Chloride	0.32	U	1.0	0.32	ug/L			12/20/20 22:50	1
Styrene	0.42	U	1.0	0.42	ug/L			12/20/20 22:50	1
Tetrachloroethene	3.3		1.0	0.25	ug/L			12/20/20 22:50	1
Toluene	0.38	U	1.0	0.38	ug/L			12/20/20 22:50	1
trans-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L			12/20/20 22:50	1
trans-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/20/20 22:50	1
Trichloroethene	18		1.0	0.31	ug/L			12/20/20 22:50	1
Vinyl chloride	0.17	U	1.0	0.17	ug/L			12/20/20 22:50	1
Xylenes, Total	0.65	U	2.0	0.65	ug/L			12/20/20 22:50	1

Client Sample Results

Client: Advanced GeoServices Corporation
Project/Site: Marathon

Job ID: 460-224998-1

Client Sample ID: MB-3

Lab Sample ID: 460-224998-13

Date Collected: 12/15/20 16:37

Matrix: Water

Date Received: 12/16/20 11:15

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		75 - 123		12/20/20 22:50	1
Bromofluorobenzene	102		76 - 120		12/20/20 22:50	1
Dibromofluoromethane (Surr)	96		77 - 124		12/20/20 22:50	1
Toluene-d8 (Surr)	103		80 - 120		12/20/20 22:50	1

Client Sample ID: ASMP-01

Lab Sample ID: 460-224998-14

Date Collected: 12/14/20 13:35

Matrix: Water

Date Received: 12/16/20 11:15

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.91	J	1.0	0.24	ug/L			12/20/20 23:16	1
1,1,1,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			12/20/20 23:16	1
1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L			12/20/20 23:16	1
1,1-Dichloroethane	0.26	U	1.0	0.26	ug/L			12/20/20 23:16	1
1,1-Dichloroethene	0.26	U	1.0	0.26	ug/L			12/20/20 23:16	1
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			12/20/20 23:16	1
1,2-Dichloropropane	0.35	U	1.0	0.35	ug/L			12/20/20 23:16	1
2-Butanone	1.9	U	5.0	1.9	ug/L			12/20/20 23:16	1
2-Hexanone	1.1	U	5.0	1.1	ug/L			12/20/20 23:16	1
4-Methyl-2-pentanone	1.3	U	5.0	1.3	ug/L			12/20/20 23:16	1
Acetone	4.4	U	5.0	4.4	ug/L			12/20/20 23:16	1
Benzene	0.20	U	1.0	0.20	ug/L			12/20/20 23:16	1
Bromodichloromethane	0.34	U	1.0	0.34	ug/L			12/20/20 23:16	1
Bromoform	0.54	U	1.0	0.54	ug/L			12/20/20 23:16	1
Bromomethane	0.55	U J	1.0	0.55	ug/L			12/20/20 23:16	1
Carbon disulfide	0.82	U	1.0	0.82	ug/L			12/20/20 23:16	1
Carbon tetrachloride	0.21	U	1.0	0.21	ug/L			12/20/20 23:16	1
Chlorobenzene	0.38	U	1.0	0.38	ug/L			12/20/20 23:16	1
Chloroethane	0.32	U	1.0	0.32	ug/L			12/20/20 23:16	1
Chloroform	1.0	U 0.64 J U	1.0	0.33	ug/L			12/20/20 23:16	1
Chloromethane	0.40	U	1.0	0.40	ug/L			12/20/20 23:16	1
cis-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L			12/20/20 23:16	1
cis-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/20/20 23:16	1
Dibromochloromethane	0.28	U	1.0	0.28	ug/L			12/20/20 23:16	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			12/20/20 23:16	1
Methylene Chloride	0.32	U	1.0	0.32	ug/L			12/20/20 23:16	1
Styrene	0.42	U	1.0	0.42	ug/L			12/20/20 23:16	1
Tetrachloroethene	11		1.0	0.25	ug/L			12/20/20 23:16	1
Toluene	0.38	U	1.0	0.38	ug/L			12/20/20 23:16	1
trans-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L			12/20/20 23:16	1
trans-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/20/20 23:16	1
Trichloroethene	51		1.0	0.31	ug/L			12/20/20 23:16	1
Vinyl chloride	0.17	U	1.0	0.17	ug/L			12/20/20 23:16	1
Xylenes, Total	0.65	U	2.0	0.65	ug/L			12/20/20 23:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		75 - 123		12/20/20 23:16	1
Bromofluorobenzene	103		76 - 120		12/20/20 23:16	1
Dibromofluoromethane (Surr)	94		77 - 124		12/20/20 23:16	1
Toluene-d8 (Surr)	103		80 - 120		12/20/20 23:16	1

Eurofins Test America, Edison

01/13/2021

12/23/2020

Client Sample Results

Client: Advanced GeoServices Corporation
 Project/Site: Marathon

Job ID: 460-224998-1

Client Sample ID: VP-10

Lab Sample ID: 460-224998-15

Date Collected: 12/14/20 14:21

Matrix: Water

Date Received: 12/16/20 11:15

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.67	J	1.0	0.24	ug/L			12/20/20 23:41	1
1,1,2,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			12/20/20 23:41	1
1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L			12/20/20 23:41	1
1,1-Dichloroethane	0.26	U	1.0	0.26	ug/L			12/20/20 23:41	1
1,1-Dichloroethene	0.26	U	1.0	0.26	ug/L			12/20/20 23:41	1
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			12/20/20 23:41	1
1,2-Dichloropropane	0.35	U	1.0	0.35	ug/L			12/20/20 23:41	1
2-Butanone	1.9	U	5.0	1.9	ug/L			12/20/20 23:41	1
2-Hexanone	1.1	U	5.0	1.1	ug/L			12/20/20 23:41	1
4-Methyl-2-pentanone	1.3	U	5.0	1.3	ug/L			12/20/20 23:41	1
Acetone	4.4	U	5.0	4.4	ug/L			12/20/20 23:41	1
Benzene	0.20	U	1.0	0.20	ug/L			12/20/20 23:41	1
Bromodichloromethane	0.34	U	1.0	0.34	ug/L			12/20/20 23:41	1
Bromoform	0.54	U	1.0	0.54	ug/L			12/20/20 23:41	1
Bromomethane	0.55	U J	1.0	0.55	ug/L			12/20/20 23:41	1
Carbon disulfide	0.82	U	1.0	0.82	ug/L			12/20/20 23:41	1
Carbon tetrachloride	0.21	U	1.0	0.21	ug/L			12/20/20 23:41	1
Chlorobenzene	0.38	U	1.0	0.38	ug/L			12/20/20 23:41	1
Chloroethane	0.32	U	1.0	0.32	ug/L			12/20/20 23:41	1
Chloroform	1.0	U	1.0	0.33	ug/L			12/20/20 23:41	1
Chloromethane	0.40	U	1.0	0.40	ug/L			12/20/20 23:41	1
cis-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L			12/20/20 23:41	1
cis-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/20/20 23:41	1
Dibromochloromethane	0.28	U	1.0	0.28	ug/L			12/20/20 23:41	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			12/20/20 23:41	1
Methylene Chloride	0.32	U	1.0	0.32	ug/L			12/20/20 23:41	1
Styrene	0.42	U	1.0	0.42	ug/L			12/20/20 23:41	1
Tetrachloroethene	0.88	J	1.0	0.25	ug/L			12/20/20 23:41	1
Toluene	0.38	U	1.0	0.38	ug/L			12/20/20 23:41	1
trans-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L			12/20/20 23:41	1
trans-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/20/20 23:41	1
Trichloroethene	14		1.0	0.31	ug/L			12/20/20 23:41	1
Vinyl chloride	0.17	U	1.0	0.17	ug/L			12/20/20 23:41	1
Xylenes, Total	0.65	U	2.0	0.65	ug/L			12/20/20 23:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		75 - 123		12/20/20 23:41	1
Bromofluorobenzene	100		76 - 120		12/20/20 23:41	1
Dibromofluoromethane (Surr)	91		77 - 124		12/20/20 23:41	1
Toluene-d8 (Surr)	101		80 - 120		12/20/20 23:41	1

Client Sample ID: VP-9

Lab Sample ID: 460-224998-16

Date Collected: 12/14/20 15:10

Matrix: Water

Date Received: 12/16/20 11:15

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0		1.0	0.24	ug/L			12/21/20 00:07	1
1,1,2,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			12/21/20 00:07	1
1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L			12/21/20 00:07	1

Eurofins Test America, Edison

01/13/2021

12/23/2020

Client Sample Results

Client: Advanced GeoServices Corporation
 Project/Site: Marathon

Job ID: 460-224998-1

Client Sample ID: VP-9

Lab Sample ID: 460-224998-16

Date Collected: 12/14/20 15:10

Matrix: Water

Date Received: 12/16/20 11:15

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.26	U	1.0	0.26	ug/L			12/21/20 00:07	1
1,1-Dichloroethene	0.26	U	1.0	0.26	ug/L			12/21/20 00:07	1
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			12/21/20 00:07	1
1,2-Dichloropropane	0.35	U	1.0	0.35	ug/L			12/21/20 00:07	1
2-Butanone	1.9	U	5.0	1.9	ug/L			12/21/20 00:07	1
2-Hexanone	1.1	U	5.0	1.1	ug/L			12/21/20 00:07	1
4-Methyl-2-pentanone	1.3	U	5.0	1.3	ug/L			12/21/20 00:07	1
Acetone	4.4	U	5.0	4.4	ug/L			12/21/20 00:07	1
Benzene	0.20	U	1.0	0.20	ug/L			12/21/20 00:07	1
Bromodichloromethane	0.34	U	1.0	0.34	ug/L			12/21/20 00:07	1
Bromoform	0.54	U	1.0	0.54	ug/L			12/21/20 00:07	1
Bromomethane	0.55	U J	1.0	0.55	ug/L			12/21/20 00:07	1
Carbon disulfide	0.82	U	1.0	0.82	ug/L			12/21/20 00:07	1
Carbon tetrachloride	0.21	U	1.0	0.21	ug/L			12/21/20 00:07	1
Chlorobenzene	0.38	U	1.0	0.38	ug/L			12/21/20 00:07	1
Chloroethane	0.32	U	1.0	0.32	ug/L			12/21/20 00:07	1
Chloroform	0.33	U	1.0	0.33	ug/L			12/21/20 00:07	1
Chloromethane	0.40	U	1.0	0.40	ug/L			12/21/20 00:07	1
cis-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L			12/21/20 00:07	1
cis-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/21/20 00:07	1
Dibromochloromethane	0.28	U	1.0	0.28	ug/L			12/21/20 00:07	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			12/21/20 00:07	1
Methylene Chloride	0.32	U	1.0	0.32	ug/L			12/21/20 00:07	1
Styrene	0.42	U	1.0	0.42	ug/L			12/21/20 00:07	1
Tetrachloroethene	0.47	J	1.0	0.25	ug/L			12/21/20 00:07	1
Toluene	0.38	U	1.0	0.38	ug/L			12/21/20 00:07	1
trans-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L			12/21/20 00:07	1
trans-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/21/20 00:07	1
Trichloroethene	4.9		1.0	0.31	ug/L			12/21/20 00:07	1
Vinyl chloride	0.17	U	1.0	0.17	ug/L			12/21/20 00:07	1
Xylenes, Total	0.65	U	2.0	0.65	ug/L			12/21/20 00:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		75 - 123		12/21/20 00:07	1
Bromofluorobenzene	102		76 - 120		12/21/20 00:07	1
Dibromofluoromethane (Surr)	96		77 - 124		12/21/20 00:07	1
Toluene-d8 (Surr)	103		80 - 120		12/21/20 00:07	1

Client Sample ID: VP-11

Lab Sample ID: 460-224998-17

Date Collected: 12/14/20 16:02

Matrix: Water

Date Received: 12/16/20 11:15

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L			12/20/20 16:02	1
1,1,2,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			12/20/20 16:02	1
1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L			12/20/20 16:02	1
1,1-Dichloroethane	0.26	U	1.0	0.26	ug/L			12/20/20 16:02	1
1,1-Dichloroethene	0.26	U	1.0	0.26	ug/L			12/20/20 16:02	1
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			12/20/20 16:02	1

Eurofins Test America, Edison

01/13/2021

12/23/2020

Client Sample Results

Client: Advanced GeoServices Corporation
Project/Site: Marathon

Job ID: 460-224998-1

Client Sample ID: VP-11
Date Collected: 12/14/20 16:02
Date Received: 12/16/20 11:15

Lab Sample ID: 460-224998-17
Matrix: Water

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	0.35	U	1.0	0.35	ug/L			12/20/20 16:02	1
2-Butanone	1.9	U	5.0	1.9	ug/L			12/20/20 16:02	1
2-Hexanone	1.1	U	5.0	1.1	ug/L			12/20/20 16:02	1
4-Methyl-2-pentanone	1.3	U	5.0	1.3	ug/L			12/20/20 16:02	1
Acetone	4.4	U	5.0	4.4	ug/L			12/20/20 16:02	1
Benzene	0.20	U	1.0	0.20	ug/L			12/20/20 16:02	1
Bromodichloromethane	0.34	U	1.0	0.34	ug/L			12/20/20 16:02	1
Bromoform	0.54	U	1.0	0.54	ug/L			12/20/20 16:02	1
Bromomethane	0.55	U J	1.0	0.55	ug/L			12/20/20 16:02	1
Carbon disulfide	0.82	U	1.0	0.82	ug/L			12/20/20 16:02	1
Carbon tetrachloride	0.21	U	1.0	0.21	ug/L			12/20/20 16:02	1
Chlorobenzene	0.38	U	1.0	0.38	ug/L			12/20/20 16:02	1
Chloroethane	0.32	U	1.0	0.32	ug/L			12/20/20 16:02	1
Chloroform	2.0	U	1.0	0.33	ug/L			12/20/20 16:02	1
Chloromethane	0.40	U	1.0	0.40	ug/L			12/20/20 16:02	1
cis-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L			12/20/20 16:02	1
cis-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/20/20 16:02	1
Dibromochloromethane	0.28	U	1.0	0.28	ug/L			12/20/20 16:02	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			12/20/20 16:02	1
Methylene Chloride	0.32	U	1.0	0.32	ug/L			12/20/20 16:02	1
Styrene	0.42	U	1.0	0.42	ug/L			12/20/20 16:02	1
Tetrachloroethene	6.8		1.0	0.25	ug/L			12/20/20 16:02	1
Toluene	0.38	U	1.0	0.38	ug/L			12/20/20 16:02	1
trans-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L			12/20/20 16:02	1
trans-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/20/20 16:02	1
Trichloroethene	30		1.0	0.31	ug/L			12/20/20 16:02	1
Vinyl chloride	0.17	U	1.0	0.17	ug/L			12/20/20 16:02	1
Xylenes, Total	0.65	U	2.0	0.65	ug/L			12/20/20 16:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		75 - 123					12/20/20 16:02	1
Bromofluorobenzene	105		76 - 120					12/20/20 16:02	1
Dibromofluoromethane (Surr)	93		77 - 124					12/20/20 16:02	1
Toluene-d8 (Surr)	105		80 - 120					12/20/20 16:02	1

Client Sample ID: VP-8
Date Collected: 12/15/20 11:59
Date Received: 12/16/20 11:15

Lab Sample ID: 460-224998-18
Matrix: Water

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.66	J	1.0	0.24	ug/L			12/19/20 02:43	1
1,1,2,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			12/19/20 02:43	1
1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L			12/19/20 02:43	1
1,1-Dichloroethane	0.26	U	1.0	0.26	ug/L			12/19/20 02:43	1
1,1-Dichloroethene	0.26	U	1.0	0.26	ug/L			12/19/20 02:43	1
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			12/19/20 02:43	1
1,2-Dichloropropane	0.35	U	1.0	0.35	ug/L			12/19/20 02:43	1
2-Butanone	1.9	U	5.0	1.9	ug/L			12/19/20 02:43	1
2-Hexanone	1.1	U	5.0	1.1	ug/L			12/19/20 02:43	1

Client Sample Results

Client: Advanced GeoServices Corporation
Project/Site: Marathon

Job ID: 460-224998-1

Client Sample ID: VP-8

Lab Sample ID: 460-224998-18

Date Collected: 12/15/20 11:59

Matrix: Water

Date Received: 12/16/20 11:15

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone	1.3	U	5.0	1.3	ug/L			12/19/20 02:43	1
Acetone	4.4	U	5.0	4.4	ug/L			12/19/20 02:43	1
Benzene	0.20	U	1.0	0.20	ug/L			12/19/20 02:43	1
Bromodichloromethane	0.34	U	1.0	0.34	ug/L			12/19/20 02:43	1
Bromoform	0.54	U	1.0	0.54	ug/L			12/19/20 02:43	1
Bromomethane	0.55	U J	1.0	0.55	ug/L			12/19/20 02:43	1
Carbon disulfide	0.82	U	1.0	0.82	ug/L			12/19/20 02:43	1
Carbon tetrachloride	0.21	U	1.0	0.21	ug/L			12/19/20 02:43	1
Chlorobenzene	0.38	U	1.0	0.38	ug/L			12/19/20 02:43	1
Chloroethane	0.32	U	1.0	0.32	ug/L			12/19/20 02:43	1
Chloroform	1.0	U	1.0	0.33	ug/L			12/19/20 02:43	1
Chloromethane	0.40	U	1.0	0.40	ug/L			12/19/20 02:43	1
cis-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L			12/19/20 02:43	1
cis-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/19/20 02:43	1
Dibromochloromethane	0.28	U	1.0	0.28	ug/L			12/19/20 02:43	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			12/19/20 02:43	1
Methylene Chloride	0.32	U	1.0	0.32	ug/L			12/19/20 02:43	1
Styrene	0.42	U	1.0	0.42	ug/L			12/19/20 02:43	1
Tetrachloroethene	1.8		1.0	0.25	ug/L			12/19/20 02:43	1
Toluene	0.38	U	1.0	0.38	ug/L			12/19/20 02:43	1
trans-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L			12/19/20 02:43	1
trans-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/19/20 02:43	1
Trichloroethene	9.3		1.0	0.31	ug/L			12/19/20 02:43	1
Vinyl chloride	0.17	U	1.0	0.17	ug/L			12/19/20 02:43	1
Xylenes, Total	0.65	U	2.0	0.65	ug/L			12/19/20 02:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		75 - 123		12/19/20 02:43	1
Bromofluorobenzene	105		76 - 120		12/19/20 02:43	1
Dibromofluoromethane (Surr)	104		77 - 124		12/19/20 02:43	1
Toluene-d8 (Surr)	107		80 - 120		12/19/20 02:43	1

Client Sample ID: VP-3

Lab Sample ID: 460-224998-19

Date Collected: 12/15/20 12:59

Matrix: Water

Date Received: 12/16/20 11:15

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.37	J	1.0	0.24	ug/L			12/19/20 03:09	1
1,1,2,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			12/19/20 03:09	1
1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L			12/19/20 03:09	1
1,1-Dichloroethane	0.26	U	1.0	0.26	ug/L			12/19/20 03:09	1
1,1-Dichloroethene	0.26	U	1.0	0.26	ug/L			12/19/20 03:09	1
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			12/19/20 03:09	1
1,2-Dichloropropane	0.35	U	1.0	0.35	ug/L			12/19/20 03:09	1
2-Butanone	1.9	U	5.0	1.9	ug/L			12/19/20 03:09	1
2-Hexanone	1.1	U	5.0	1.1	ug/L			12/19/20 03:09	1
4-Methyl-2-pentanone	1.3	U	5.0	1.3	ug/L			12/19/20 03:09	1
Acetone	4.4	U	5.0	4.4	ug/L			12/19/20 03:09	1
Benzene	0.20	U	1.0	0.20	ug/L			12/19/20 03:09	1

Client Sample Results

Client: Advanced GeoServices Corporation
 Project/Site: Marathon

Job ID: 460-224998-1

Client Sample ID: VP-3

Lab Sample ID: 460-224998-19

Date Collected: 12/15/20 12:59

Matrix: Water

Date Received: 12/16/20 11:15

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	0.34	U	1.0	0.34	ug/L			12/19/20 03:09	1
Bromoform	0.54	U	1.0	0.54	ug/L			12/19/20 03:09	1
Bromomethane	0.55	U	1.0	0.55	ug/L			12/19/20 03:09	1
Carbon disulfide	0.82	U	1.0	0.82	ug/L			12/19/20 03:09	1
Carbon tetrachloride	0.21	U	1.0	0.21	ug/L			12/19/20 03:09	1
Chlorobenzene	0.38	U	1.0	0.38	ug/L			12/19/20 03:09	1
Chloroethane	0.32	U	1.0	0.32	ug/L			12/19/20 03:09	1
Chloroform	1.3	U	1.0	0.33	ug/L			12/19/20 03:09	1
Chloromethane	0.40	U	1.0	0.40	ug/L			12/19/20 03:09	1
cis-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L			12/19/20 03:09	1
cis-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/19/20 03:09	1
Dibromochloromethane	0.28	U	1.0	0.28	ug/L			12/19/20 03:09	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			12/19/20 03:09	1
Methylene Chloride	0.32	U	1.0	0.32	ug/L			12/19/20 03:09	1
Styrene	0.42	U	1.0	0.42	ug/L			12/19/20 03:09	1
Tetrachloroethene	17		1.0	0.25	ug/L			12/19/20 03:09	1
Toluene	0.38	U	1.0	0.38	ug/L			12/19/20 03:09	1
trans-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L			12/19/20 03:09	1
trans-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/19/20 03:09	1
Trichloroethene	80		1.0	0.31	ug/L			12/19/20 03:09	1
Vinyl chloride	0.17	U	1.0	0.17	ug/L			12/19/20 03:09	1
Xylenes, Total	0.65	U	2.0	0.65	ug/L			12/19/20 03:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		75 - 123		12/19/20 03:09	1
Bromofluorobenzene	105		76 - 120		12/19/20 03:09	1
Dibromofluoromethane (Surr)	104		77 - 124		12/19/20 03:09	1
Toluene-d8 (Surr)	106		80 - 120		12/19/20 03:09	1

Client Sample ID: VP-7

Lab Sample ID: 460-224998-20

Date Collected: 12/15/20 14:11

Matrix: Water

Date Received: 12/16/20 11:15

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L			12/19/20 03:34	1
1,1,2,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			12/19/20 03:34	1
1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L			12/19/20 03:34	1
1,1-Dichloroethane	0.26	U	1.0	0.26	ug/L			12/19/20 03:34	1
1,1-Dichloroethene	0.26	U	1.0	0.26	ug/L			12/19/20 03:34	1
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			12/19/20 03:34	1
1,2-Dichloropropane	0.35	U	1.0	0.35	ug/L			12/19/20 03:34	1
2-Butanone	1.9	U	5.0	1.9	ug/L			12/19/20 03:34	1
2-Hexanone	1.1	U	5.0	1.1	ug/L			12/19/20 03:34	1
4-Methyl-2-pentanone	1.3	U	5.0	1.3	ug/L			12/19/20 03:34	1
Acetone	4.4	U	5.0	4.4	ug/L			12/19/20 03:34	1
Benzene	0.20	U	1.0	0.20	ug/L			12/19/20 03:34	1
Bromodichloromethane	0.34	U	1.0	0.34	ug/L			12/19/20 03:34	1
Bromoform	0.54	U	1.0	0.54	ug/L			12/19/20 03:34	1
Bromomethane	0.55	U	1.0	0.55	ug/L			12/19/20 03:34	1

Eurofins Test America, Edison

01/13/2021

12/23/2020

Client Sample Results

Client: Advanced GeoServices Corporation
 Project/Site: Marathon

Job ID: 460-224998-1

Client Sample ID: VP-7

Lab Sample ID: 460-224998-20

Date Collected: 12/15/20 14:11

Matrix: Water

Date Received: 12/16/20 11:15

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon disulfide	0.82	U	1.0	0.82	ug/L			12/19/20 03:34	1
Carbon tetrachloride	0.21	U	1.0	0.21	ug/L			12/19/20 03:34	1
Chlorobenzene	0.38	U	1.0	0.38	ug/L			12/19/20 03:34	1
Chloroethane	0.32	U	1.0	0.32	ug/L			12/19/20 03:34	1
Chloroform	2.7	U	1.0	0.33	ug/L			12/19/20 03:34	1
Chloromethane	0.40	U	1.0	0.40	ug/L			12/19/20 03:34	1
cis-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L			12/19/20 03:34	1
cis-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/19/20 03:34	1
Dibromochloromethane	0.28	U	1.0	0.28	ug/L			12/19/20 03:34	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			12/19/20 03:34	1
Methylene Chloride	0.32	U	1.0	0.32	ug/L			12/19/20 03:34	1
Styrene	0.42	U	1.0	0.42	ug/L			12/19/20 03:34	1
Tetrachloroethene	2.6		1.0	0.25	ug/L			12/19/20 03:34	1
Toluene	0.38	U	1.0	0.38	ug/L			12/19/20 03:34	1
trans-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L			12/19/20 03:34	1
trans-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/19/20 03:34	1
Trichloroethene	21		1.0	0.31	ug/L			12/19/20 03:34	1
Vinyl chloride	0.17	U	1.0	0.17	ug/L			12/19/20 03:34	1
Xylenes, Total	0.65	U	2.0	0.65	ug/L			12/19/20 03:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		75 - 123		12/19/20 03:34	1
Bromofluorobenzene	106		76 - 120		12/19/20 03:34	1
Dibromofluoromethane (Surr)	97		77 - 124		12/19/20 03:34	1
Toluene-d8 (Surr)	106		80 - 120		12/19/20 03:34	1

Client Sample ID: VP-2

Lab Sample ID: 460-224998-21

Date Collected: 12/15/20 15:14

Matrix: Water

Date Received: 12/16/20 11:15

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L			12/20/20 16:28	1
1,1,2,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			12/20/20 16:28	1
1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L			12/20/20 16:28	1
1,1-Dichloroethane	0.26	U	1.0	0.26	ug/L			12/20/20 16:28	1
1,1-Dichloroethene	0.26	U	1.0	0.26	ug/L			12/20/20 16:28	1
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			12/20/20 16:28	1
1,2-Dichloropropane	0.35	U	1.0	0.35	ug/L			12/20/20 16:28	1
2-Butanone	1.9	U	5.0	1.9	ug/L			12/20/20 16:28	1
2-Hexanone	1.1	U	5.0	1.1	ug/L			12/20/20 16:28	1
4-Methyl-2-pentanone	1.3	U	5.0	1.3	ug/L			12/20/20 16:28	1
Acetone	4.4	U	5.0	4.4	ug/L			12/20/20 16:28	1
Benzene	0.20	U	1.0	0.20	ug/L			12/20/20 16:28	1
Bromodichloromethane	0.34	U	1.0	0.34	ug/L			12/20/20 16:28	1
Bromoform	0.54	U	1.0	0.54	ug/L			12/20/20 16:28	1
Bromomethane	0.55	UJ	1.0	0.55	ug/L			12/20/20 16:28	1
Carbon disulfide	0.82	U	1.0	0.82	ug/L			12/20/20 16:28	1
Carbon tetrachloride	0.21	U	1.0	0.21	ug/L			12/20/20 16:28	1
Chlorobenzene	0.38	U	1.0	0.38	ug/L			12/20/20 16:28	1

Client Sample Results

Client: Advanced GeoServices Corporation
 Project/Site: Marathon

Job ID: 460-224998-1

Client Sample ID: VP-2

Lab Sample ID: 460-224998-21

Date Collected: 12/15/20 15:14

Matrix: Water

Date Received: 12/16/20 11:15

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	0.32	U	1.0	0.32	ug/L			12/20/20 16:28	1
Chloroform	0.33	U	1.0	0.33	ug/L			12/20/20 16:28	1
Chloromethane	0.40	U	1.0	0.40	ug/L			12/20/20 16:28	1
cis-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L			12/20/20 16:28	1
cis-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/20/20 16:28	1
Dibromochloromethane	0.28	U	1.0	0.28	ug/L			12/20/20 16:28	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			12/20/20 16:28	1
Methylene Chloride	0.32	U	1.0	0.32	ug/L			12/20/20 16:28	1
Styrene	0.42	U	1.0	0.42	ug/L			12/20/20 16:28	1
Tetrachloroethene	0.25	U	1.0	0.25	ug/L			12/20/20 16:28	1
Toluene	0.38	U	1.0	0.38	ug/L			12/20/20 16:28	1
trans-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L			12/20/20 16:28	1
trans-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/20/20 16:28	1
Trichloroethene	3.4		1.0	0.31	ug/L			12/20/20 16:28	1
Vinyl chloride	0.17	U	1.0	0.17	ug/L			12/20/20 16:28	1
Xylenes, Total	0.65	U	2.0	0.65	ug/L			12/20/20 16:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		75 - 123		12/20/20 16:28	1
Bromofluorobenzene	104		76 - 120		12/20/20 16:28	1
Dibromofluoromethane (Surr)	100		77 - 124		12/20/20 16:28	1
Toluene-d8 (Surr)	104		80 - 120		12/20/20 16:28	1

Client Sample ID: VP-1

Lab Sample ID: 460-224998-22

Date Collected: 12/15/20 16:14

Matrix: Water

Date Received: 12/16/20 11:15

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L			12/20/20 16:53	1
1,1,2,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			12/20/20 16:53	1
1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L			12/20/20 16:53	1
1,1-Dichloroethane	0.26	U	1.0	0.26	ug/L			12/20/20 16:53	1
1,1-Dichloroethene	0.26	U	1.0	0.26	ug/L			12/20/20 16:53	1
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			12/20/20 16:53	1
1,2-Dichloropropane	0.35	U	1.0	0.35	ug/L			12/20/20 16:53	1
2-Butanone	1.9	U	5.0	1.9	ug/L			12/20/20 16:53	1
2-Hexanone	1.1	U	5.0	1.1	ug/L			12/20/20 16:53	1
4-Methyl-2-pentanone	1.3	U	5.0	1.3	ug/L			12/20/20 16:53	1
Acetone	4.4	U	5.0	4.4	ug/L			12/20/20 16:53	1
Benzene	0.20	U	1.0	0.20	ug/L			12/20/20 16:53	1
Bromodichloromethane	0.34	U	1.0	0.34	ug/L			12/20/20 16:53	1
Bromoform	0.54	U	1.0	0.54	ug/L			12/20/20 16:53	1
Bromomethane	0.55	UJ	1.0	0.55	ug/L			12/20/20 16:53	1
Carbon disulfide	0.82	U	1.0	0.82	ug/L			12/20/20 16:53	1
Carbon tetrachloride	0.21	U	1.0	0.21	ug/L			12/20/20 16:53	1
Chlorobenzene	0.38	U	1.0	0.38	ug/L			12/20/20 16:53	1
Chloroethane	0.32	U	1.0	0.32	ug/L			12/20/20 16:53	1
Chloroform	0.33	U	1.0	0.33	ug/L			12/20/20 16:53	1
Chloromethane	0.40	U	1.0	0.40	ug/L			12/20/20 16:53	1

Client Sample Results

Client: Advanced GeoServices Corporation
 Project/Site: Marathon

Job ID: 460-224998-1

Client Sample ID: VP-1
Date Collected: 12/15/20 16:14
Date Received: 12/16/20 11:15

Lab Sample ID: 460-224998-22
Matrix: Water

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L			12/20/20 16:53	1
cis-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/20/20 16:53	1
Dibromochloromethane	0.28	U	1.0	0.28	ug/L			12/20/20 16:53	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			12/20/20 16:53	1
Methylene Chloride	0.32	U	1.0	0.32	ug/L			12/20/20 16:53	1
Styrene	0.42	U	1.0	0.42	ug/L			12/20/20 16:53	1
Tetrachloroethene	0.25	U	1.0	0.25	ug/L			12/20/20 16:53	1
Toluene	0.38	U	1.0	0.38	ug/L			12/20/20 16:53	1
trans-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L			12/20/20 16:53	1
trans-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/20/20 16:53	1
Trichloroethene	0.31	U	1.0	0.31	ug/L			12/20/20 16:53	1
Vinyl chloride	0.17	U	1.0	0.17	ug/L			12/20/20 16:53	1
Xylenes, Total	0.65	U	2.0	0.65	ug/L			12/20/20 16:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		75 - 123		12/20/20 16:53	1
Bromofluorobenzene	105		76 - 120		12/20/20 16:53	1
Dibromofluoromethane (Surr)	94		77 - 124		12/20/20 16:53	1
Toluene-d8 (Surr)	106		80 - 120		12/20/20 16:53	1

Client Sample ID: TB-01
Date Collected: 12/15/20 00:00
Date Received: 12/16/20 11:15

Lab Sample ID: 460-224998-23
Matrix: Water

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L			12/19/20 12:06	1
1,1,2,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			12/19/20 12:06	1
1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L			12/19/20 12:06	1
1,1-Dichloroethane	0.26	U	1.0	0.26	ug/L			12/19/20 12:06	1
1,1-Dichloroethene	0.26	U J	1.0	0.26	ug/L			12/19/20 12:06	1
1,2-Dichloroethane	0.43	U	1.0	0.43	ug/L			12/19/20 12:06	1
1,2-Dichloropropane	0.35	U	1.0	0.35	ug/L			12/19/20 12:06	1
2-Butanone	1.9	U	5.0	1.9	ug/L			12/19/20 12:06	1
2-Hexanone	1.1	U	5.0	1.1	ug/L			12/19/20 12:06	1
4-Methyl-2-pentanone	1.3	U	5.0	1.3	ug/L			12/19/20 12:06	1
Acetone	39		5.0	4.4	ug/L			12/19/20 12:06	1
Benzene	0.20	U	1.0	0.20	ug/L			12/19/20 12:06	1
Bromodichloromethane	0.34	U	1.0	0.34	ug/L			12/19/20 12:06	1
Bromoform	0.54	U	1.0	0.54	ug/L			12/19/20 12:06	1
Bromomethane	0.55	U J	1.0	0.55	ug/L			12/19/20 12:06	1
Carbon disulfide	0.82	U	1.0	0.82	ug/L			12/19/20 12:06	1
Carbon tetrachloride	0.21	U	1.0	0.21	ug/L			12/19/20 12:06	1
Chlorobenzene	0.38	U	1.0	0.38	ug/L			12/19/20 12:06	1
Chloroethane	0.32	U	1.0	0.32	ug/L			12/19/20 12:06	1
Chloroform	0.74	J	1.0	0.33	ug/L			12/19/20 12:06	1
Chloromethane	0.40	U	1.0	0.40	ug/L			12/19/20 12:06	1
cis-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L			12/19/20 12:06	1
cis-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/19/20 12:06	1
Dibromochloromethane	0.28	U	1.0	0.28	ug/L			12/19/20 12:06	1

Client Sample Results

Client: Advanced GeoServices Corporation
 Project/Site: Marathon

Job ID: 460-224998-1

Client Sample ID: TB-01

Lab Sample ID: 460-224998-23

Date Collected: 12/15/20 00:00

Matrix: Water

Date Received: 12/16/20 11:15

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	0.30	U	1.0	0.30	ug/L			12/19/20 12:06	1
Methylene Chloride	0.32	U	1.0	0.32	ug/L			12/19/20 12:06	1
Styrene	0.42	U	1.0	0.42	ug/L			12/19/20 12:06	1
Tetrachloroethene	0.25	U	1.0	0.25	ug/L			12/19/20 12:06	1
Toluene	0.38	U	1.0	0.38	ug/L			12/19/20 12:06	1
trans-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L			12/19/20 12:06	1
trans-1,3-Dichloropropene	0.22	U	1.0	0.22	ug/L			12/19/20 12:06	1
Trichloroethene	0.31	U	1.0	0.31	ug/L			12/19/20 12:06	1
Vinyl chloride	0.17	U	1.0	0.17	ug/L			12/19/20 12:06	1
Xylenes, Total	0.65	U	2.0	0.65	ug/L			12/19/20 12:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		75 - 123		12/19/20 12:06	1
Bromofluorobenzene	105		76 - 120		12/19/20 12:06	1
Dibromofluoromethane (Surr)	111		77 - 124		12/19/20 12:06	1
Toluene-d8 (Surr)	108		80 - 120		12/19/20 12:06	1

HOLDING TIMES
Volatiles

Site Name: Marathon Volatiles

Lab ID	Sample ID	Matrix	Analyte	Sample Date	Date Analyzed	Analysis Hold Time (days)	Days to Analysis	Qualify
460-224998-01	MW-7S	Groundwater	Volatiles	12/14/2020	12/19/2020	14	5	
460-224998-02	IW-9	Groundwater	Volatiles	12/14/2020	12/19/2020	14	5	
460-224998-03	IW-8	Groundwater	Volatiles	12/14/2020	12/18/2020	14	4	
460-224998-04	IW-7	Groundwater	Volatiles	12/15/2020	12/19/2020	14	4	
460-224998-05	OSMW-01	Groundwater	Volatiles	12/15/2020	12/18/2020	14	3	
460-224998-06	OSMW-01D	Groundwater	Volatiles	12/15/2020	12/20/2020	14	5	
460-224998-07	EB-01-121520	Aqueous	Volatiles	12/15/2020	12/19/2020	14	4	
460-224998-08	OSMW-02	Groundwater	Volatiles	12/15/2020	12/20/2020	14	5	
460-224998-09	OSMW-03	Groundwater	Volatiles	12/15/2020	12/19/2020	14	4	
460-224998-10	MW-4	Groundwater	Volatiles	12/15/2020	12/19/2020	14	4	
460-224998-11	MW-4D	Groundwater	Volatiles	12/15/2020	12/20/2020	14	5	
460-224998-12	IW-6	Groundwater	Volatiles	12/15/2020	12/20/2020	14	5	
460-224998-13	MB-3	Groundwater	Volatiles	12/15/2020	12/20/2020	14	5	
460-224998-14	ASMP-1	Groundwater	Volatiles	12/14/2020	12/20/2020	14	6	
460-224998-15	VP-10	Groundwater	Volatiles	12/14/2020	12/20/2020	14	6	
460-224998-16	VP-9	Groundwater	Volatiles	12/14/2020	12/21/2020	14	7	
460-224998-17	VP-11	Groundwater	Volatiles	12/14/2020	12/20/2020	14	6	
460-224998-18	VP-8	Groundwater	Volatiles	12/15/2020	12/19/2020	14	4	
460-224998-19	VP-3	Groundwater	Volatiles	12/15/2020	12/19/2020	14	4	
460-224998-20	VP-7	Groundwater	Volatiles	12/15/2020	12/19/2020	14	4	
460-224998-21	VP-2	Groundwater	Volatiles	12/15/2020	12/20/2020	14	5	
460-224998-22	VP-1	Groundwater	Volatiles	12/15/2020	12/20/2020	14	5	
460-224998-23	TB-01-121520	Aqueous	Volatiles	12/15/2020	12/19/2020	14	4	

AKS
01/13/2021

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-224998-1
 SDG No.: _____
 Lab Sample ID: ICV 460-746923/14 Calibration Date: 12/15/2020 02:46
 Instrument ID: CVOAMS12 Calib Start Date: 12/14/2020 21:39
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 12/15/2020 00:38
 Lab File ID: O66917.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorotrifluoroethene	QuaF		1.799		19.1	20.0	34.6	30.0
Dichlorodifluoromethane	Ave	0.3589	0.3581	0.1000	20.0	20.0	-0.2	30.0
Chlorodifluoromethane	Ave	0.0549	0.0495		18.0	20.0	-9.9	30.0
Chloromethane	Ave	0.3675	0.3637	0.1000	19.8	20.0	-1.0	30.0
Vinyl chloride	Ave	0.3407	0.3615	0.1000	21.2	20.0	6.1	30.0
Butadiene	Ave	0.2440	0.1976		16.2	20.0	-19.0	30.0
Bromomethane	Ave	15.93	25.41	0.1000	31.9	20.0	59.5*	30.0
Chloroethane	Ave	0.1744	0.1976	0.1000	22.7	20.0	13.3	30.0
Dichlorofluoromethane	Ave	0.4273	0.4615		21.6	20.0	8.0	30.0
Trichlorofluoromethane	Ave	0.2832	0.2684	0.1000	19.0	20.0	-5.2	30.0
Pentane	Ave	0.0344	0.0423		49.1	40.0	22.8	30.0
Ethanol	Ave	0.1298	0.1529		942	800	17.8	30.0
1,2-Dichloro-1,1,2-trifluoroethane	Ave	0.1452	0.1255		17.3	20.0	-13.6	30.0
Ethyl ether	Ave	0.1177	0.1161		19.7	20.0	-1.4	30.0
2-Methyl-1,3-butadiene	Ave	0.1851	0.1974		21.3	20.0	6.6	30.0
1,1,1-Trifluoro-2,2-dichloroethane	Ave	0.2306	0.2008		17.4	20.0	-12.9	30.0
Acrolein	Ave	1.421	1.652		46.6	40.1	16.3	30.0
1,1-Dichloroethene	Ave	0.1590	0.1324	0.1000	16.7	20.0	-16.7	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1694	0.1847	0.1000	21.8	20.0	9.1	30.0
Acetone	Ave	0.1823	0.1294	0.0500	71.0	100	-29.0	30.0
Iodomethane	QuaF		0.0873		15.7	20.0	-21.4	30.0
Isopropyl alcohol	Ave	0.6004	0.4367		145	200	-27.3	30.0
Carbon disulfide	Ave	0.7349	0.6983	0.1000	19.0	20.0	-5.0	30.0
3-Chloro-1-propene	Ave	0.1297	0.1097		16.9	20.0	-15.4	30.0
Acetonitrile	Ave	0.9290	1.054		227	200	13.5	30.0
Methyl acetate	QuaF		1.186	0.1000	25.4	40.0	36.6	30.0
Cyclopentene	Ave	0.4083	0.3698		18.1	20.0	-9.4	30.0
Methylene Chloride	Ave	0.2801	0.2569	0.1000	18.3	20.0	-8.3	30.0
2-Methyl-2-propanol	Ave	1.078	1.025		190	200	-5.0	30.0
Acrylonitrile	Ave	0.0373	0.0298		159	200	-20.3	30.0
trans-1,2-Dichloroethene	Ave	0.1820	0.1618	0.1000	17.8	20.0	-11.1	30.0
Methyl tert-butyl ether	Ave	0.4495	0.4576	0.1000	20.4	20.0	1.8	30.0
Hexane	Ave	0.3311	0.3673		22.2	20.0	10.9	30.0
1,1-Dichloroethane	Ave	0.3509	0.2991	0.2000	17.1	20.0	-14.7	30.0
Vinyl acetate	Ave	0.7235	0.6614		36.6	40.0	-8.6	30.0
Isopropyl ether	Ave	0.7303	0.7671		21.0	20.0	5.0	30.0
2-Chloro-1,3-butadiene	Ave	0.2137	0.2248		21.0	20.0	5.2	30.0
Tert-butyl ethyl ether	Ave	0.6933	0.7086		20.4	20.0	2.2	30.0
2,2-Dichloropropane	Ave	0.0751	0.0726		19.4	20.0	-3.2	30.0

NR - Not Reported
 ICV %D > 30%, associated samples include MW-7S, IW-9, IW-8, IW-7, OSMW-01, OSMW-01D, EB-01-121520, OSMW-02, OSMW-03, MW-4, MW-4D, IW-6, MB-3, ASMP-1, VP-10, VP-9, VP-11, VP-8, VP-3, VP-7, VP-2, VP-1 and TB-01-121520. All sample results non-detect, therefore reporting limits qualified as estimated (UJ).
 FORM VII 8360D
 01/13/2021
 12/23/2020

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-224998-1
 SDG No.: _____
 Lab Sample ID: CCVIS 460-748021/3 Calibration Date: 12/19/2020 07:50
 Instrument ID: CVOAMS12 Calib Start Date: 12/14/2020 21:39
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 12/15/2020 00:38
 Lab File ID: O67115.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3589	0.3660	0.1000	20.4	20.0	2.0	20.0
Chloromethane	Ave	0.3675	0.3399	0.1000	18.5	20.0	-7.5	20.0
Vinyl chloride	Ave	0.3407	0.3348	0.1000	19.7	20.0	-1.7	20.0
Butadiene	Ave	0.2440	0.1917		15.7	20.0	21.4	20.0
Bromomethane	Ave	15.93	26.76	0.1000	33.6	20.0	67.9*	50.0
Chloroethane	Ave	0.1744	0.1839	0.1000	21.1	20.0	5.4	50.0
Dichlorofluoromethane	Ave	0.4273	0.4311		20.2	20.0	0.9	20.0
Trichlorofluoromethane	Ave	0.2832	0.2537	0.1000	17.9	20.0	-10.4	20.0
Pentane	Ave	0.0344	0.0367		42.6	40.0	6.5	20.0
Ethanol	Ave	0.1298	0.1584		976	800	22.0	50.0
Ethyl ether	Ave	0.1177	0.1067		18.1	20.0	-9.4	20.0
2-Methyl-1,3-butadiene	Ave	0.1851	0.1816		19.6	20.0	-1.9	20.0
Acrolein	Ave	1.421	1.250		35.2	40.0	-12.0	50.0
1,1-Dichloroethene	Ave	0.1590	0.1232	0.1000	15.5	20.0	-22.5*	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1694	0.1697	0.1000	20.0	20.0	0.2	20.0
Acetone	Ave	0.1823	0.1168	0.0500	64.1	100	-35.9	50.0
Iodomethane	QuaF		0.0747		13.4	20.0	32.9*	20.0
Isopropyl alcohol	Ave	0.6004	0.4638		154	200	-22.8	50.0
Carbon disulfide	Ave	0.7349	0.6059	0.1000	16.5	20.0	-17.6	50.0
3-Chloro-1-propene	Ave	0.1297	0.0979		15.1	20.0	24.5*	20.0
Acetonitrile	Ave	0.9290	1.027		221	200	10.5	20.0
Methyl acetate	QuaF		1.227	0.1000	26.2	40.0	34.4*	20.0
Cyclopentene	Ave	0.4083	0.3394		16.6	20.0	-16.9	20.0
Methylene Chloride	Ave	0.2801	0.2422	0.1000	17.3	20.0	-13.6	20.0
2-Methyl-2-propanol	Ave	1.078	1.060		197	200	-1.7	50.0
Acrylonitrile	Ave	0.0373	0.0279		150	200	25.2*	20.0
trans-1,2-Dichloroethene	Ave	0.1820	0.1509	0.1000	16.6	20.0	-17.1	20.0
Methyl tert-butyl ether	Ave	0.4495	0.4279	0.1000	19.0	20.0	-4.8	20.0
Hexane	Ave	0.3311	0.3379		20.4	20.0	2.0	20.0
1,1-Dichloroethane	Ave	0.3509	0.2897	0.2000	16.5	20.0	-17.4	20.0
Vinyl acetate	Ave	0.7235	0.8290		45.8	40.0	14.6	20.0
Isopropyl ether	Ave	0.7303	0.7326		20.1	20.0	0.3	20.0
2-Chloro-1,3-butadiene	Ave	0.2137	0.2123		19.9	20.0	-0.6	20.0
Tert-butyl ethyl ether	Ave	0.6933	0.6637		19.1	20.0	-4.3	20.0
2,2-Dichloropropane	Ave	0.0751	0.0699		18.6	20.0	-6.9	20.0
cis-1,2-Dichloroethene	Ave	0.1934	0.1576	0.1000	16.3	20.0	-18.5	20.0
2-Butanone	Ave	0.2777	0.2686	0.0500	96.7	100	-3.3	50.0
Propionitrile	Ave	0.4152	0.3462		167	200	-16.6	20.0
Ethyl acetate	Ave	0.3315	0.3406		41.1	40.0	2.7	20.0
Methyl acrylate	Ave	0.1298	0.1173		18.1	20.0	-9.7	20.0

* %D > 30%, associated samples include TB-01, sample reporting limits qualified as estimated (UJ).
 ** %D > 20%, associated samples include TB-01, sample reporting limits qualified as estimated (UJ).

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-224998-1
 SDG No.: _____
 Lab Sample ID: CCVIS 460-748194/2 Calibration Date: 12/20/2020 09:38
 Instrument ID: CVOAMS12 Calib Start Date: 12/14/2020 21:39
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 12/15/2020 00:38
 Lab File ID: O67170.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3589	0.4013	0.1000	22.4	20.0	11.8	20.0
Chloromethane	Ave	0.3675	0.3732	0.1000	20.3	20.0	1.5	20.0
Vinyl chloride	Ave	0.3407	0.3687	0.1000	21.6	20.0	8.2	20.0
Butadiene	Ave	0.2440	0.2326		19.1	20.0	-4.6	20.0
Bromomethane	Ave	15.93	27.81	0.1000	34.9	20.0	74.5*	50.0
Chloroethane	Ave	0.1744	0.2031	0.1000	23.3	20.0	16.4	50.0
Dichlorofluoromethane	Ave	0.4273	0.4607		21.6	20.0	7.8	20.0
Trichlorofluoromethane	Ave	0.2832	0.2957	0.1000	20.9	20.0	4.4	20.0
Pentane	Ave	0.0344	0.0386		44.8	40.0	11.9	20.0
Ethanol	Ave	0.1298	0.1623		1000	800	25.0	50.0
Ethyl ether	Ave	0.1177	0.1111		18.9	20.0	-5.6	20.0
2-Methyl-1,3-butadiene	Ave	0.1851	0.1993		21.5	20.0	7.7	20.0
Acrolein	Ave	1.421	1.127		31.7	40.0	-20.7	50.0
1,1-Dichloroethene	Ave	0.1590	0.1393	0.1000	17.5	20.0	-12.4	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1694	0.1896	0.1000	22.4	20.0	11.9	20.0
Acetone	Ave	0.1823	0.1279	0.0500	70.2	100	-29.8	50.0
Iodomethane	QuaF		0.0811		14.6	20.0	27.6*	20.0
Isopropyl alcohol	Ave	0.6004	0.4750		158	200	-20.9	50.0
Carbon disulfide	Ave	0.7349	0.6493	0.1000	17.7	20.0	-11.6	50.0
Acetonitrile	Ave	0.9290	1.023		220	200	10.1	20.0
3-Chloro-1-propene	Ave	0.1297	0.1030		15.9	20.0	20.6*	20.0
Methyl acetate	QuaF		1.329	0.1000	28.4	40.0	28.0*	20.0
Cyclopentene	Ave	0.4083	0.3781		18.5	20.0	-7.4	20.0
Methylene Chloride	Ave	0.2801	0.2470	0.1000	17.6	20.0	-11.8	20.0
2-Methyl-2-propanol	Ave	1.078	1.046		194	200	-3.0	50.0
Acrylonitrile	Ave	0.0373	0.0295		158	200	20.0*	20.0
trans-1,2-Dichloroethene	Ave	0.1820	0.1650	0.1000	18.1	20.0	-9.3	20.0
Methyl tert-butyl ether	Ave	0.4495	0.4261	0.1000	19.0	20.0	-5.2	20.0
Hexane	Ave	0.3311	0.3548		21.4	20.0	7.2	20.0
1,1-Dichloroethane	Ave	0.3509	0.3133	0.2000	17.9	20.0	-10.7	20.0
Vinyl acetate	Ave	0.7235	0.7079		39.1	40.0	-2.2	20.0
2-Chloro-1,3-butadiene	Ave	0.2137	0.2241		21.0	20.0	4.9	20.0
Isopropyl ether	Ave	0.7303	0.7233		19.8	20.0	-1.0	20.0
Tert-butyl ethyl ether	Ave	0.6933	0.6446		18.6	20.0	-7.0	20.0
2,2-Dichloropropane	Ave	0.0751	0.0681		18.1	20.0	-9.3	20.0
cis-1,2-Dichloroethene	Ave	0.1934	0.1644	0.1000	17.0	20.0	-15.0	20.0
2-Butanone	Ave	0.2777	0.2656	0.0500	95.6	100	-4.4	50.0
Propionitrile	Ave	0.4152	0.4088		197	200	-1.6	20.0
Ethyl acetate	Ave	0.3315	0.3321		40.1	40.0	0.2	20.0
Methyl acrylate	Ave	0.1298	0.1178		18.1	20.0	-9.3	20.0

%D > 30%, associated samples include VP-11, VP-2, VP-1, OSMW-01D, OSMW-2 and MW-4D, sample reporting limits qualified as estimated (U)

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-224998-1
 SDG No.: _____
 Lab Sample ID: CCVIS 460-748314/2 Calibration Date: 12/20/2020 18:59
 Instrument ID: CVOAMS12 Calib Start Date: 12/14/2020 21:39
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 12/15/2020 00:38
 Lab File ID: O67192.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3589	0.3717	0.1000	20.7	20.0	3.6	20.0
Chloromethane	Ave	0.3675	0.3695	0.1000	20.1	20.0	0.5	20.0
Vinyl chloride	Ave	0.3407	0.3498	0.1000	20.5	20.0	2.7	20.0
Butadiene	Ave	0.2440	0.2337		19.2	20.0	-4.2	20.0
Bromomethane	Ave	15.93	22.50	0.1000	28.2	20.0	41.2	50.0
Chloroethane	Ave	0.1744	0.1969	0.1000	22.6	20.0	12.9	50.0
Dichlorofluoromethane	Ave	0.4273	0.4579		21.4	20.0	7.1	20.0
Trichlorofluoromethane	Ave	0.2832	0.2941	0.1000	20.8	20.0	3.9	20.0
Pentane	Ave	0.0344	0.0379		44.0	40.0	10.1	20.0
Ethanol	Ave	0.1298	0.1368		843	800	5.4	50.0
Ethyl ether	Ave	0.1177	0.1181		20.1	20.0	0.3	20.0
2-Methyl-1,3-butadiene	Ave	0.1851	0.1964		21.2	20.0	6.1	20.0
Acrolein	Ave	1.421	1.213		34.2	40.0	-14.6	50.0
1,1-Dichloroethene	Ave	0.1590	0.1487	0.1000	18.7	20.0	-6.5	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1694	0.1855	0.1000	21.9	20.0	9.5	20.0
Acetone	Ave	0.1823	0.1251	0.0500	68.7	100	-31.3	50.0
Iodomethane	QuaF	0.0735	0.0735	0.1000	13.2	20.0	33.9*	20.0
Isopropyl alcohol	Ave	0.6004	0.4613		154	200	-23.2	50.0
Carbon disulfide	Ave	0.7349	0.6623	0.1000	18.0	20.0	-9.9	50.0
3-Chloro-1-propene	Ave	0.1297	0.1203		18.5	20.0	-7.3	20.0
Acetonitrile	Ave	0.9290	0.9167		197	200	-1.3	20.0
Methyl acetate	QuaF	0.1175	1.175	0.1000	25.1	40.0	37.2*	20.0
Cyclopentene	Ave	0.4083	0.3923		19.2	20.0	-3.9	20.0
Methylene Chloride	Ave	0.2801	0.2531	0.1000	18.1	20.0	-9.6	20.0
2-Methyl-2-propanol	Ave	1.078	0.9920		184	200	-8.0	50.0
Acrylonitrile	Ave	0.0373	0.0314		168	200	-15.9	20.0
trans-1,2-Dichloroethene	Ave	0.1820	0.1772	0.1000	19.5	20.0	-2.6	20.0
Methyl tert-butyl ether	Ave	0.4495	0.4499	0.1000	20.0	20.0	0.1	20.0
Hexane	Ave	0.3311	0.3414		20.6	20.0	3.1	20.0
1,1-Dichloroethane	Ave	0.3509	0.3308	0.2000	18.9	20.0	-5.7	20.0
Vinyl acetate	Ave	0.7235	0.8111		44.8	40.0	12.1	20.0
Isopropyl ether	Ave	0.7303	0.7499		20.5	20.0	2.7	20.0
2-Chloro-1,3-butadiene	Ave	0.2137	0.2171		20.3	20.0	1.6	20.0
Tert-butyl ethyl ether	Ave	0.6933	0.6646		19.2	20.0	-4.1	20.0
2,2-Dichloropropane	Ave	0.0751	0.0739		19.7	20.0	-1.6	20.0
cis-1,2-Dichloroethene	Ave	0.1934	0.1813	0.1000	18.7	20.0	-6.3	20.0
2-Butanone	Ave	0.2777	0.2719	0.0500	97.9	100	-2.1	50.0
Propionitrile	Ave	0.4152	0.3771		182	200	-9.2	20.0
Ethyl acetate	Ave	0.3315	0.3142		37.9	40.0	-5.2	20.0
Methyl acrylate	Ave	0.1298	0.1209		18.6	20.0	-6.9	20.0

* %D > 30%, associated samples include IW-6, MB-3, ASMP-01, VP-10 and VP-9, sample reporting limits qualified as estimated (UJ).

460-224998_Field Duplicate.xls
VOCs

Site Name: Marathon
Project Number: NY95-219

Laboratory: Test America - Edison
Matrix: Groundwater

Sample ID	Analyte	Units	Result	Q	RL	Difference	Qualify
MW-4D	1,1,1-Trichloroethane	ug/L	0.62	J	1		
MW-4	1,1,1-Trichloroethane	ug/L	0.69	J	1	0.07	no

Sample ID	Analyte	Units	Result	Q	RL	Difference	Qualify
OSMW-01	1,1,1-Trichloroethane	ug/L	0.46	J	1		
OSMW-01D	1,1,1-Trichloroethane	ug/L	0.42	J	1	0.04	no

Sample ID	Analyte	Units	Result	Q	RL	Difference	Qualify
MW-4D	Chloroform	ug/L	0.53	J	1		
MW-4	Chloroform	ug/L	0.62	J	1	0.09	no

Sample ID	Analyte	Units	Result	Q	RL	Difference	Qualify
MW-4D	Tetrachloroethene	ug/L	1.5		1		
MW-4	Tetrachloroethene	ug/L	1.5		1	0.00	no

Sample ID	Analyte	Units	Result	Q	RL	RPD	Qualify
MW-4D	Trichloroethene	ug/L	25		1		
MW-4	Trichloroethene	ug/L	27		1	7.69	no

Duplicate Criteria: Aqueous matrices <30 % RPD or $\pm 1^*RL$, Soil/Solid matrices <40 %RPD or $\pm 2^*RL$.

* - Denotes %RPD or difference outside criteria.

NA - Duplicate relative percent difference or difference cannot be calculated.

U / ND - Not detected.

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Edison

Job No.: 460-224998-1

SDG No.: _____

Matrix: Water Level: Low

Lab File ID: O67182.D

Lab ID: 460-224998-3 MS

Client ID: IW-8 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	1.2	19.7	93	68-128	
1,1,2,2-Tetrachloroethane	20.0	0.37 U	19.7	99	63-139	
1,1,2-Trichloroethane	20.0	0.20 U	19.6	98	74-125	
1,1-Dichloroethane	20.0	0.26 U	16.5	82	73-130	
1,1-Dichloroethene	20.0	0.26 U	15.8	79	68-133	
1,2-Dichloroethane	20.0	0.43 U	16.9	85	75-121	
1,2-Dichloropropane	20.0	0.35 U	19.3	97	76-126	
2-Butanone	100	1.9 U	95.6	96	69-128	
2-Hexanone	100	1.1 U	111	111	74-127	
4-Methyl-2-pentanone	100	1.3 U	111	** 111	78-125	
Acetone	100	4.4 U	58.4	58	61-134	F1
Benzene	20.0	0.20 U	19.6	98	78-126	
Bromodichloromethane	20.0	0.34 U	18.0	90	72-121	
Bromoform	20.0	0.54 U	17.9	* 89	38-144	
Bromomethane	20.0	0.55 U	33.3	167	10-150	F1
Carbon disulfide	20.0	0.82 U	17.5	87	64-138	
Carbon tetrachloride	20.0	0.21 U	18.6	93	56-131	
Chlorobenzene	20.0	0.38 U	20.1	100	80-119	
Chloroethane	20.0	0.32 U	21.9	109	29-150	
Chloroform	20.0	0.75 J	17.5	84	78-125	
Chloromethane	20.0	0.40 U	18.8	94	38-150	
cis-1,2-Dichloroethene	20.0	0.22 U	16.1	80	78-121	
cis-1,3-Dichloropropene	20.0	0.22 U	19.0	95	74-125	
Dibromochloromethane	20.0	0.28 U	18.7	94	58-130	
Ethylbenzene	20.0	0.30 U	19.7	99	78-120	
m&p-Xylene	20.0	0.30 U	19.6	98	78-123	
Methylene Chloride	20.0	0.32 U	17.3	87	74-127	
o-Xylene	20.0	0.36 U	19.9	100	78-122	
Styrene	20.0	0.42 U	20.1	101	75-127	
Tetrachloroethene	20.0	6.0	25.1	96	70-127	
Toluene	20.0	0.38 U	19.7	99	78-119	
trans-1,2-Dichloroethene	20.0	0.24 U	17.0	85	74-126	
trans-1,3-Dichloropropene	20.0	0.22 U	18.2	** 91	66-127	
Trichloroethene	20.0	34	43.6	46	71-121	F1
Vinyl chloride	20.0	0.17 U	19.6	98	61-144	
Xylenes, Total	40.0	0.65 U	39.5	99	78-122	

* FYI MS Recovery outside of the laboratory control limits (high), associated batched samples include VP-11, VP-2, VP-1, OSMW-1D, OSMW-2 and MW-4D. Parent sample IW-8 and sample results non-detect.

** MS Recovery outside of the laboratory control limits (low), associated batched samples include VP-11, VP-2, VP-1, OSMW-1D, OSMW-2 and MW-4D. Parent sample IW-8, sample results qualified as estimated (UJ/J)

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Edison

Job No.: 460-224998-1

SDG No.: _____

Matrix: Water Level: Low

Lab File ID: O67183.D

Lab ID: 460-224998-3 MSD

Client ID: IW-8 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
1,1,1-Trichloroethane	20.0	20.1	94	2	30	68-128	
1,1,2,2-Tetrachloroethane	20.0	19.6	98	1	30	63-139	
1,1,2-Trichloroethane	20.0	19.6	98	0	30	74-125	
1,1-Dichloroethane	20.0	18.4	92	11	30	73-130	
1,1-Dichloroethene	20.0	18.5	92	15	30	68-133	
1,2-Dichloroethane	20.0	18.2	91	8	30	75-121	
1,2-Dichloropropane	20.0	19.9	99	3	30	76-126	
2-Butanone	100	94.3	94	1	30	69-128	
2-Hexanone	100	99.1	99	11	30	74-127	
4-Methyl-2-pentanone	100	99.4	99	11	30	78-125	
Acetone	100	65.9	66	12	30	61-134	
Benzene	20.0	19.7	98	0	30	78-126	
Bromodichloromethane	20.0	18.9	94	5	30	72-121	
Bromoform	20.0	17.6	88	1	30	38-144	
Bromomethane	20.0	27.5	137	19	30	10-150	
Carbon disulfide	20.0	18.1	91	3	30	64-138	
Carbon tetrachloride	20.0	18.9	95	2	30	56-131	
Chlorobenzene	20.0	19.8	99	1	30	80-119	
Chloroethane	20.0	21.4	107	2	30	29-150	
Chloroform	20.0	19.0	91	9	30	78-125	
Chloromethane	20.0	19.0	95	1	30	38-150	
cis-1,2-Dichloroethene	20.0	18.6	93	14	30	78-121	
cis-1,3-Dichloropropene	20.0	19.0	95	0	30	74-125	
Dibromochloromethane	20.0	19.3	96	3	30	58-130	
Ethylbenzene	20.0	19.7	99	0	30	78-120	
m&p-Xylene	20.0	19.6	98	0	30	78-123	
Methylene Chloride	20.0	17.1	86	1	30	74-127	
o-Xylene	20.0	20.1	100	1	30	78-122	
Styrene	20.0	20.1	100	0	30	75-127	
Tetrachloroethene	20.0	24.9	94	1	30	70-127	
Toluene	20.0	19.7	98	0	30	78-119	
trans-1,2-Dichloroethene	20.0	18.5	93	9	30	74-126	
trans-1,3-Dichloropropene	20.0	18.3	91	0	30	66-127	
Trichloroethene	20.0	44.3	49	1	30	71-121	F1
Vinyl chloride	20.0	20.0	100	2	30	61-144	
Xylenes, Total	40.0	39.7	99	0	30	78-122	

** MSD Recovery outside of the laboratory control limits (low), associated batched samples include VP-11, VP-2, VP-1, OSMW-1D, OSMW-2 and MW-4D. Parent sample IW-8, sample results qualified as estimated (J)

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Edison

Job No.: 460-224998-1

SDG No.: _____

Matrix: Water Level: Low

Lab File ID: O67180.D

Lab ID: 460-224998-9 MS

Client ID: OSMW-3 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	0.66 J	19.5	94	68-128	
1,1,2,2-Tetrachloroethane	20.0	0.37 U	19.6	98	63-139	
1,1,2-Trichloroethane	20.0	0.20 U	20.0	100	74-125	
1,1-Dichloroethane	20.0	0.26 U	16.6	83	73-130	
1,1-Dichloroethene	20.0	0.26 U	15.5	78	68-133	
1,2-Dichloroethane	20.0	0.43 U	17.3	87	75-121	
1,2-Dichloropropane	20.0	0.35 U	19.5	97	76-126	
2-Butanone	100	1.9 U	93.2	93	69-128	
2-Hexanone	100	1.1 U	114	114	74-127	
4-Methyl-2-pentanone	100	1.3 U	114	114	78-125	
Acetone	100	4.4 U	69.8	70	61-134	
Benzene	20.0	0.20 U	19.7	99	78-126	
Bromodichloromethane	20.0	0.34 U	17.7	89	72-121	
Bromoform	20.0	0.54 U	17.4	87	38-144	
Bromomethane	20.0	0.55 U	31.2	156	10-150	F1
Carbon disulfide	20.0	0.82 U	17.0	85	64-138	
Carbon tetrachloride	20.0	0.21 U	18.6	93	56-131	
Chlorobenzene	20.0	0.38 U	20.0	100	80-119	
Chloroethane	20.0	0.32 U	22.0	110	29-150	
Chloroform	20.0	0.79 J	17.3	83	78-125	
Chloromethane	20.0	0.40 U	18.7	93	38-150	
cis-1,2-Dichloroethene	20.0	0.22 U	16.2	81	78-121	
cis-1,3-Dichloropropene	20.0	0.22 U	19.0	95	74-125	
Dibromochloromethane	20.0	0.28 U	18.8	94	58-130	
Ethylbenzene	20.0	0.30 U	19.9	99	78-120	
m&p-Xylene	20.0	0.30 U	19.8	99	78-123	
Methylene Chloride	20.0	0.32 U	17.5	87	74-127	
o-Xylene	20.0	0.36 U	20.0	100	78-122	
Styrene	20.0	0.42 U	20.3	102	75-127	
Tetrachloroethene	20.0	0.64 J	21.0	102	70-127	
Toluene	20.0	0.38 U	19.7	98	78-119	
trans-1,2-Dichloroethene	20.0	0.24 U	16.8	84	74-126	
trans-1,3-Dichloropropene	20.0	0.22 U	18.0	90	66-127	
Trichloroethene	20.0	13	27.8	72	71-121	
Vinyl chloride	20.0	0.17 U	20.0	100	61-144	
Xylenes, Total	40.0	0.65 U	39.9	100	78-122	

* FYI MS Recovery outside of the laboratory control limits (high), associated batched samples include VP-11, VP-2, VP-1, OSMW-1D, OSMW-2 and MW-4D. Parent sample OSMW-03, sample results non-detect.

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Edison

Job No.: 460-224998-1

SDG No.: _____

Matrix: Water Level: Low

Lab File ID: O67181.D

Lab ID: 460-224998-9 MSD

Client ID: OSMW-3 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
1,1,1-Trichloroethane	20.0	19.8	96	2	30	68-128	
1,1,1-Trichloroethane	20.0	19.8	96	2	30	68-128	
1,1,2,2-Tetrachloroethane	20.0	19.7	99	1	30	63-139	
1,1,2,2-Tetrachloroethane	20.0	19.7	99	1	30	63-139	
1,1,2-Trichloroethane	20.0	20.2	101	1	30	74-125	
1,1,2-Trichloroethane	20.0	20.2	101	1	30	74-125	
1,1-Dichloroethane	20.0	18.2	91	9	30	73-130	
1,1-Dichloroethane	20.0	18.2	91	9	30	73-130	
1,1-Dichloroethene	20.0	17.6	88	13	30	68-133	
1,1-Dichloroethene	20.0	17.6	88	13	30	68-133	
1,2-Dichloroethane	20.0	18.0	90	4	30	75-121	
1,2-Dichloroethane	20.0	18.0	90	4	30	75-121	
1,2-Dichloropropane	20.0	19.5	98	0	30	76-126	
1,2-Dichloropropane	20.0	19.5	98	0	30	76-126	
2-Butanone	100	97.4	97	4	30	69-128	
2-Butanone	100	97.4	97	4	30	69-128	
2-Hexanone	100	107	107	7	30	74-127	
2-Hexanone	100	107	107	7	30	74-127	
4-Methyl-2-pentanone	100	106	106	7	30	78-125	
4-Methyl-2-pentanone	100	106	106	7	30	78-125	
Acetone	100	61.6	62	12	30	61-134	
Acetone	100	61.6	62	12	30	61-134	
Benzene	20.0	19.9	99	1	30	78-126	
Benzene	20.0	19.9	99	1	30	78-126	
Bromodichloromethane	20.0	18.5	93	4	30	72-121	
Bromodichloromethane	20.0	18.5	93	4	30	72-121	
Bromoform	20.0	17.4	87	0	30	38-144	
Bromoform	20.0	17.4	87	0	30	38-144	
Bromomethane	20.0	30.7	154	2	30	10-150	F1
Bromomethane	20.0	30.7	154	2	30	10-150	F1
Carbon disulfide	20.0	17.9	90	5	30	64-138	
Carbon disulfide	20.0	17.9	90	5	30	64-138	
Carbon tetrachloride	20.0	19.3	96	3	30	56-131	
Carbon tetrachloride	20.0	19.3	96	3	30	56-131	
Chlorobenzene	20.0	20.2	101	1	30	80-119	
Chlorobenzene	20.0	20.2	101	1	30	80-119	
Chloroethane	20.0	21.7	109	1	30	29-150	
Chloroethane	20.0	21.7	109	1	30	29-150	
Chloroform	20.0	18.8	90	8	30	78-125	
Chloroform	20.0	18.8	90	8	30	78-125	
Chloromethane	20.0	19.2	96	3	30	38-150	
Chloromethane	20.0	19.2	96	3	30	38-150	

* FYI MSD Recovery outside of the laboratory control limits (high), associated batched samples include VP-11, VP-2, VP-1, OSMW-1D, OSMW-2 and MW-4D. Parent sample OSMW-03, sample results non-detect.
Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Edison

Job No.: 460-224998-1

SDG No.: _____

Matrix: Water Level: Low

Lab File ID: O67214.D

Lab ID: 460-225128-C-1 MS

Client ID: _____

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	0.24 U	18.1	91	68-128	
1,1,2,2-Tetrachloroethane	20.0	0.37 U	19.5	98	63-139	
1,1,2-Trichloroethane	20.0	0.20 U	20.0	100	74-125	
1,1-Dichloroethane	20.0	0.26 U	16.7	84	73-130	
1,1-Dichloroethene	20.0	0.26 U	15.8	79	68-133	
1,2-Dichloroethane	20.0	0.43 U	17.5	88	75-121	
1,2-Dichloropropane	20.0	0.35 U	19.1	96	76-126	
2-Butanone	100	1.9 U	96.3	96	69-128	
2-Hexanone	100	1.1 U	113	113	74-127	
4-Methyl-2-pentanone	100	1.3 U	110	110	78-125	
Acetone	100	4.4 U	66.3	66	61-134	
Benzene	20.0	7.9	25.7	89	78-126	
Bromodichloromethane	20.0	0.34 U	17.4	87	72-121	
Bromoform	20.0	0.54 U	16.9	84	38-144	
Bromomethane	20.0	0.55 U	18.4	92	10-150	
Carbon disulfide	20.0	0.82 U	17.2	86	64-138	
Carbon tetrachloride	20.0	0.21 U	17.8	89	56-131	
Chlorobenzene	20.0	1.4	21.0	98	80-119	
Chloroethane	20.0	0.32 U	20.6	103	29-150	
Chloroform	20.0	0.33 U	16.9	85	78-125	
Chloromethane	20.0	0.40 U	17.4	87	38-150	
cis-1,2-Dichloroethene	20.0	0.22 U	16.1	81	78-121	
cis-1,3-Dichloropropene	20.0	0.22 U	17.8	89	74-125	
Dibromochloromethane	20.0	0.28 U	18.1	91	58-130	
Ethylbenzene	20.0	270	260	-59	78-120	4
m&p-Xylene	20.0	2.5	20.6	91	78-123	
Methylene Chloride	20.0	0.32 U	17.2	86	74-127	
o-Xylene	20.0	10	28.8	93	78-122	
Styrene	20.0	0.42 U	20.0	100	75-127	
Tetrachloroethene	20.0	0.25 U	20.3	102	70-127	
Toluene	20.0	2.3	21.4	95	78-119	
trans-1,2-Dichloroethene	20.0	0.24 U	17.5	87	74-126	
trans-1,3-Dichloropropene	20.0	0.22 U	17.5	87	66-127	
Trichloroethene	20.0	0.31 U	19.0	95	71-121	
Vinyl chloride	20.0	0.17 U	18.0	90	61-144	
Xylenes, Total	40.0	13	49.4	92	78-122	

FYI MS Recovery outside of the laboratory control limits (low), associated batched samples include IW-6, MB-3, ASMP-01, VP-10 and VP-9. Parent sample not project specific.

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Edison

Job No.: 460-224998-1

SDG No.: _____

Matrix: Water Level: Low

Lab File ID: O67215.D

Lab ID: 460-225128-B-1 MSD

Client ID: _____

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
1,1,1-Trichloroethane	20.0	19.5	98	8	30	68-128	
1,1,2,2-Tetrachloroethane	20.0	21.8	109	11	30	63-139	
1,1,2-Trichloroethane	20.0	21.1	105	6	30	74-125	
1,1-Dichloroethane	20.0	17.6	88	5	30	73-130	
1,1-Dichloroethene	20.0	17.0	85	7	30	68-133	
1,2-Dichloroethane	20.0	18.4	92	5	30	75-121	
1,2-Dichloropropane	20.0	20.5	103	7	30	76-126	
2-Butanone	100	99.5	100	3	30	69-128	
2-Hexanone	100	122	122	8	30	74-127	
4-Methyl-2-pentanone	100	119	119	8	30	78-125	
Acetone	100	73.5	74	10	30	61-134	
Benzene	20.0	27.3	97	6	30	78-126	
Bromodichloromethane	20.0	18.9	95	8	30	72-121	
Bromoform	20.0	18.7	94	10	30	38-144	
Bromomethane	20.0	22.4	112	20	30	10-150	
Carbon disulfide	20.0	18.6	93	8	30	64-138	
Carbon tetrachloride	20.0	19.4	97	8	30	56-131	
Chlorobenzene	20.0	22.2	104	5	30	80-119	
Chloroethane	20.0	21.6	108	5	30	29-150	
Chloroform	20.0	18.6	93	9	30	78-125	
Chloromethane	20.0	18.6	93	6	30	38-150	
cis-1,2-Dichloroethene	20.0	17.3	87	7	30	78-121	
cis-1,3-Dichloropropene	20.0	19.3	97	8	30	74-125	
Dibromochloromethane	20.0	20.2	101	11	30	58-130	
Ethylbenzene	20.0	267	-26	3	30	78-120	4
m&p-Xylene	20.0	22.1	98	7	30	78-123	
Methylene Chloride	20.0	18.3	92	6	30	74-127	
o-Xylene	20.0	30.3	100	5	30	78-122	
Styrene	20.0	21.5	108	7	30	75-127	
Tetrachloroethene	20.0	22.0	110	8	30	70-127	
Toluene	20.0	22.8	102	6	30	78-119	
trans-1,2-Dichloroethene	20.0	18.6	93	6	30	74-126	
trans-1,3-Dichloropropene	20.0	18.8	94	7	30	66-127	
Trichloroethene	20.0	20.4	102	7	30	71-121	
Vinyl chloride	20.0	19.7	99	9	30	61-144	
Xylenes, Total	40.0	52.3	99	6	30	78-122	

FYI MS Recovery outside of the laboratory control limits (low), associated batched samples include IW-6, MB-3, ASMP-01, VP-10 and VP-9. Parent sample not project specific.

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-224998-1

SDG No.: _____

Matrix: Water Level: Low Lab File ID: O67087.D

Lab ID: LCS 460-747909/4 Client ID: _____

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	21.1	106	68-128	
1,1,2,2-Tetrachloroethane	20.0	20.1	100	63-139	
1,1,2-Trichloroethane	20.0	21.0	105	74-125	
1,1-Dichloroethane	20.0	18.3	92	73-130	
1,1-Dichloroethene	20.0	17.9	89	68-133	
1,2-Dichloroethane	20.0	19.0	95	75-121	
1,2-Dichloropropane	20.0	21.4	107	76-126	
2-Butanone	100	104	104	69-128	
2-Hexanone	100	123	123	74-127	
4-Methyl-2-pentanone	100	118	118	78-125	
Acetone	100	74.9	75	61-134	
Benzene	20.0	21.1	105	78-126	
Bromodichloromethane	20.0	19.9	100	72-121	
Bromoform	20.0	18.4	92	38-144	
Bromomethane	20.0	32.6	163	10-150	*+
Carbon disulfide	20.0	19.3	96	64-138	
Carbon tetrachloride	20.0	20.6	103	56-131	
Chlorobenzene	20.0	21.1	106	80-119	
Chloroethane	20.0	24.2	121	29-150	
Chloroform	20.0	18.9	95	78-125	
Chloromethane	20.0	20.5	103	38-150	
cis-1,2-Dichloroethene	20.0	17.8	89	78-121	
cis-1,3-Dichloropropene	20.0	20.1	101	74-125	
Dibromochloromethane	20.0	19.8	99	58-130	
Ethylbenzene	20.0	20.7	103	78-120	
m&p-Xylene	20.0	20.9	105	78-123	
Methylene Chloride	20.0	20.3	101	74-127	
o-Xylene	20.0	21.1	106	78-122	
Styrene	20.0	21.6	108	75-127	
Tetrachloroethene	20.0	21.8	109	70-127	
Toluene	20.0	21.0	105	78-119	
trans-1,2-Dichloroethene	20.0	19.2	96	74-126	
trans-1,3-Dichloropropene	20.0	19.6	98	66-127	
Trichloroethene	20.0	21.6	108	71-121	
Vinyl chloride	20.0	22.3	111	61-144	
Xylenes, Total	40.0	42.1	105	78-122	

FYI LCS Recovery outside of the laboratory control limits (high), associated batched samples include IW-8, OSMW-1, MW-4, OSMW-3, EB-01-121520, IW-7, VP-8, VP-3, VP-7, MW-7S and IW-9. All samples results non-detect.

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Edison Job No.: 460-224998-1

SDG No.: _____

Matrix: Water Level: Low Lab File ID: O67116.D

Lab ID: LCS 460-748021/4 Client ID: _____

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	18.8	94	68-128	
1,1,2,2-Tetrachloroethane	20.0	20.6	103	63-139	
1,1,2-Trichloroethane	20.0	20.7	103	74-125	
1,1-Dichloroethane	20.0	17.7	89	73-130	
1,1-Dichloroethene	20.0	16.3	81	68-133	
1,2-Dichloroethane	20.0	18.0	90	75-121	
1,2-Dichloropropane	20.0	20.2	101	76-126	
2-Butanone	100	107	107	69-128	
2-Hexanone	100	120	120	74-127	
4-Methyl-2-pentanone	100	117	117	78-125	
Acetone	100	81.1	81	61-134	
Benzene	20.0	20.4	102	78-126	
Bromodichloromethane	20.0	18.5	93	72-121	
Bromoform	20.0	18.5	92	38-144	
Bromomethane	20.0	33.1	165	10-150	*+
Carbon disulfide	20.0	17.6	88	64-138	
Carbon tetrachloride	20.0	18.4	92	56-131	
Chlorobenzene	20.0	20.3	101	80-119	
Chloroethane	20.0	21.9	109	29-150	
Chloroform	20.0	18.0	90	78-125	
Chloromethane	20.0	18.7	94	38-150	
cis-1,2-Dichloroethene	20.0	17.5	87	78-121	
cis-1,3-Dichloropropene	20.0	20.0	100	74-125	
Dibromochloromethane	20.0	19.9	99	58-130	
Ethylbenzene	20.0	20.3	101	78-120	
m&p-Xylene	20.0	20.2	101	78-123	
Methylene Chloride	20.0	18.0	90	74-127	
o-Xylene	20.0	20.8	104	78-122	
Styrene	20.0	20.9	104	75-127	
Tetrachloroethene	20.0	21.0	105	70-127	
Toluene	20.0	20.2	101	78-119	
trans-1,2-Dichloroethene	20.0	17.8	89	74-126	
trans-1,3-Dichloropropene	20.0	19.2	96	66-127	
Trichloroethene	20.0	19.6	98	71-121	
Vinyl chloride	20.0	19.6	98	61-144	
Xylenes, Total	40.0	41.0	102	78-122	

FYI LCSD Recovery outside of the laboratory control limits (high), associated batched samples include TB-01-121520. All samples results non-detect.

Column to be used to flag recovery and RPD values

FORM III 8260D