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June 1, 2022

Project No. 631022836

Steven Moeller, P.G.
Engineering Geologist
New York State Department of Environmental Conservation
Division of Environmental Remediation
270 Michigan Avenue
Buffalo, NY 14203

**Re: Off-Site System Performance Review
Former Bell Aerospace Textron Facility
Textron Inc., Wheatfield Site No. 932052
Wheatfield, New York**

Dear Mr. Moeller:

THESE ARE TRANSMITTED as checked below:

Per Your Request
 For Your Files
 For Approval

For Your Review & Comment
 For Your Use

Enclosed please find the *Semiannual Off-Site System Performance Review* for the former Bell Aerospace facility located in Wheatfield, New York.

If you have any comments or questions regarding this submittal, please do not hesitate to contact me.

Sincerely:

Paul J. Bauer, P.G.
Project Manager
412.858.1594
Paul.Bauer@aptim.com

PJB:lmk
Enclosures

cc: Ms. Charlotte Bethoney, NYSDOH
Mr. Stephen Lawrence, NYSDOH
Mr. Greg Simpson, Textron



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June 1, 2022

Project No. 631022836

Steven Moeller, P.G.
Engineering Geologist
New York State Department of Environmental Conservation
Division of Environmental Remediation
270 Michigan Avenue
Buffalo, NY 14203

Subject: *Off-Site System Performance Review*
Textron Inc.
Wheatfield, New York
New York State Site No. 932052

Dear Mr. Moeller:

On behalf of Textron Inc. (Textron), Aptim Environmental & Infrastructure, LLC (APTIM) has prepared this assessment of the data collected as part of the extended pilot shutdown of Extraction Well EW-5. Pursuant to the New York State Department of Environmental Conservation's (NYSDEC) electronic mail of July 22, 2013, Extraction Well EW-5 was taken off line on September 5, 2013 as part of the evaluation regarding the ability of the three northernmost extraction wells to control the prevailing southerly groundwater migration. Groundwater conditions at the site have been monitored, and key well locations have been sampled for volatile organic compounds (VOCs) bi-annually since 2013 as part of this extended pilot study.

Groundwater quality samples were collected from the Off-Site System extraction wells (EW-2, EW-3, EW-4, EW-5, and EW-6) and Monitoring Well 93-03(1) on April 11, 2022. The groundwater analytical data are summarized in Table 1, the complete analytical data package is included as Attachment A, and the groundwater field sampling sheets are included as Attachment B. The April 2022 groundwater elevations for the Off-Site System are shown on Figure 1.

The October 2011 analytical data were used as a baseline for comparison because this sampling event was completed prior to the initial shutdown of Extraction Well EW-5. As shown below, groundwater quality in all five of the extraction wells demonstrates significant decreases in total VOC concentrations after Extraction Well EW-5 was taken off line.

Extraction Well Location	Decrease in VOC Concentration - 2011 to 2022
EW-2	85.07 %
EW-3	61.46 %
EW-4	98.46 %
EW-5	94.77 %
EW-6	21.84 %

Total VOC concentrations at Extraction Well EW-3 increased from 184.5 micrograms per liter ($\mu\text{g}/\text{L}$) to 1,594 $\mu\text{g}/\text{L}$ between the April 2021 and April 2022 sampling events. Vinyl chloride concentrations have increased, indicating that degradation is occurring, resulting in higher total VOCs at Extraction Well EW-3. Total VOC concentrations at Extraction Well EW-6 decreased from 61.41 $\mu\text{g}/\text{L}$ to 7.8 $\mu\text{g}/\text{L}$ between the baseline and April 2021 sampling events. The October 2021 and April 2022 analytical data show an increase in total VOC concentration at Extraction Well EW-6. Vinyl chloride and cis-1,2-dichloroethene concentrations have increased, indicating that degradation is occurring. The analytical results are shown graphically on Figure 2.

The sample results indicate that all VOC concentrations were below the laboratory reporting limit, and therefore, below the New York State Groundwater Guidance Values for the sample collected from Monitoring Well 93-03(1).

Based on the groundwater capture and the continued observation of decreases in total VOC concentrations in the Off-Site System, the pilot study continues to be successful. The extraction well system is creating the expected zone of influence in the area of the Off-Site System as shown on the attached Figure 1. The three operational extraction wells not only provide hydraulic control but are capable of drawing the leading edge of the plume northward (as has been requested by the NYSDEC).

Based upon these results, Textron respectfully requests that Extraction Well EW-5 continue to remain off line. Textron would like to propose the shutdown of Extraction Well EW-3. Existing data indicate that Extraction Well EW-4 successfully maintains control of the dissolved phase plume. Extraction Well EW-3 will continue to be monitored on a semiannual basis. The next bi-annual groundwater sampling event is scheduled for October 2022. The analytical and gauging results will continue to be examined and the performance of the Off-Site System assessed and reported to the NYSDEC in the *2022 Annual Summary and Site Maintenance and Monitoring Report*.

APTIM and Textron appreciate the NYSDEC's consideration of these matters. If there are any questions or concerns, please feel free to contact Greg Simpson at (401) 457-2635 or myself at (412) 858-1594 or via electronic mail to paul.bauer@aptim.com.

Sincerely,



Paul Bauer, P.G.
Project Manager
paul.bauer@aptim.com

PJB:lmk

Attachments: Table
Figures
Attachment A – Analytical Report
Attachment B – Field Sampling Sheets

cc: Mr. Stephen Lawrence – NYSDOH
Ms. Charlotte Bethoney – NYSDOH
Mr. Greg Simpson – Textron, e-copy

Table

Table 1
Summary of Groundwater Analytical Data
Former Bell Aerospace Textron Inc.
Wheatfield, New York
April 2022

Location Code	93-03(1)	EW-2	EW-3	EW-4	EW-5	EW-6
Sample Date	4/11/2022	4/11/2022	4/11/2022	4/11/2022	4/11/2022	4/11/2022
Sample Purpose	N	N	N	N	N	N
Sample Event	OFFSITE EW	OFFSITE EW	OFFSITE EW	OFFSITE EW	OFFSITE EW	OFFSITE EW
Parameters	Units	Result	Result	Result	Result	Result
VOLATILES						
1,1,1-Trichloroethane	µg/L	< 1	< 5	10	< 1	< 1
1,1,2,2-Tetrachloroethane	µg/L	< 1	< 5	< 10	< 1	< 1
1,1,2-Trichloroethane	µg/L	< 1	< 5	< 10	< 1	< 1
1,1-Dichloroethane	µg/L	< 1	2.1 J	14	0.49 J	0.87 J
1,1-Dichloroethene	µg/L	< 1	< 5	< 10	< 1	< 1
1,2-Dichloroethane	µg/L	< 1	< 5	< 10	< 1	< 1
1,2-Dichloropropane	µg/L	< 1	< 5	< 10	< 1	< 1
2-Butanone	µg/L	< 10	< 50	< 100	< 10	< 10
2-Hexanone	µg/L	< 5	< 25	< 50	< 5	< 5
4-Methyl-2-pentanone	µg/L	< 5	< 25	< 50	< 5	< 5
Acetone	µg/L	< 10	< 50	< 100	< 10	< 10
Benzene	µg/L	< 1	< 5	< 10	< 1	< 1
Bromodichloromethane	µg/L	< 1	< 5	< 10	< 1	< 1
Bromoform	µg/L	< 1	< 5	< 10	< 1	< 1
Bromomethane	µg/L	< 1	< 5	< 10	< 1	< 1
Carbondisulfide	µg/L	< 1	< 5	< 10	< 1	< 1
Carbontetrachloride	µg/L	< 1	< 5	< 10	< 1	< 1
Chlorobenzene	µg/L	< 1	< 5	< 10	< 1	< 1
Chloroethane	µg/L	< 1	< 5	< 10	< 1	< 1
Chloroform	µg/L	< 1	< 5	< 10	< 1	< 1
Chloromethane	µg/L	< 1	< 5	< 10	< 1	< 1
cis-1,2-Dichloroethene	µg/L	< 1	29	470	5.1	27
cis-1,3-Dichloropropene	µg/L	< 1	< 5	< 10	< 1	< 1
Dibromochloromethane	µg/L	< 1	< 5	< 10	< 1	< 1
Ethylbenzene	µg/L	< 1	< 5	< 10	< 1	< 1
m,p-xylene	µg/L	< 2	< 10	< 20	< 2	< 2
Methylene Chloride	µg/L	< 1	< 5	< 10	< 1	< 1
o-Xylene	µg/L	< 1	< 5	< 10	< 1	< 1
Styrene	µg/L	< 1	< 5	< 10	< 1	< 1
Tetrachloroethene	µg/L	< 1	< 5	< 10	< 1	< 1
Toluene	µg/L	< 1	< 5	< 10	< 1	< 1
trans-1,2-Dichloroethene	µg/L	< 1	< 5	< 10	< 1	< 1
Trans-1,3-Dichloropropene	µg/L	< 1	< 5	< 10	< 1	< 1
Trichloroethene	µg/L	< 1	5.4	5.9 J	< 1	< 1
Vinyl chloride	µg/L	< 1	130	1100 F1	10	29
Xylene (total)	µg/L	< 2	< 10	< 20	< 2	< 2

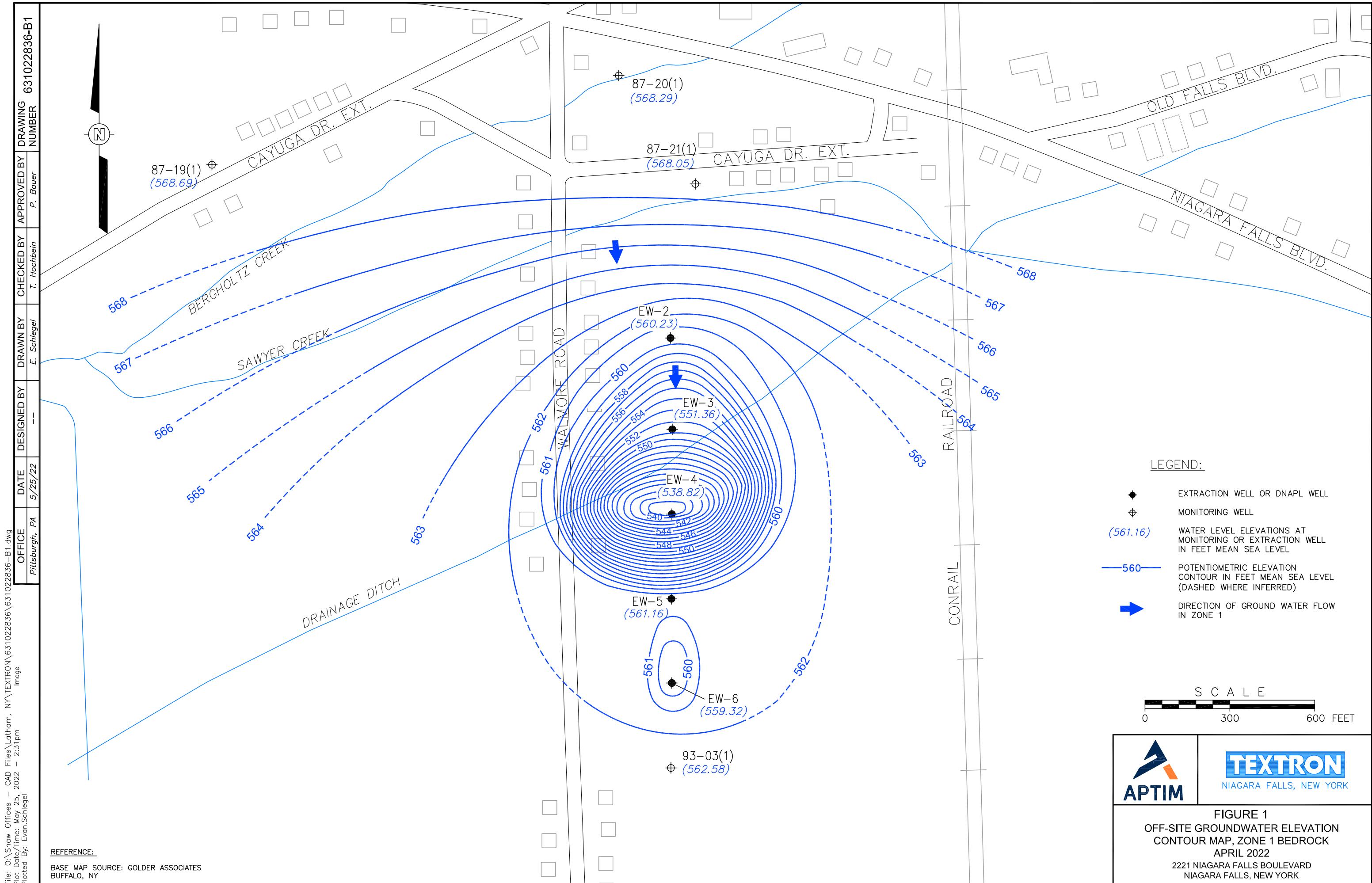
Bold = Compound detected at concentration.

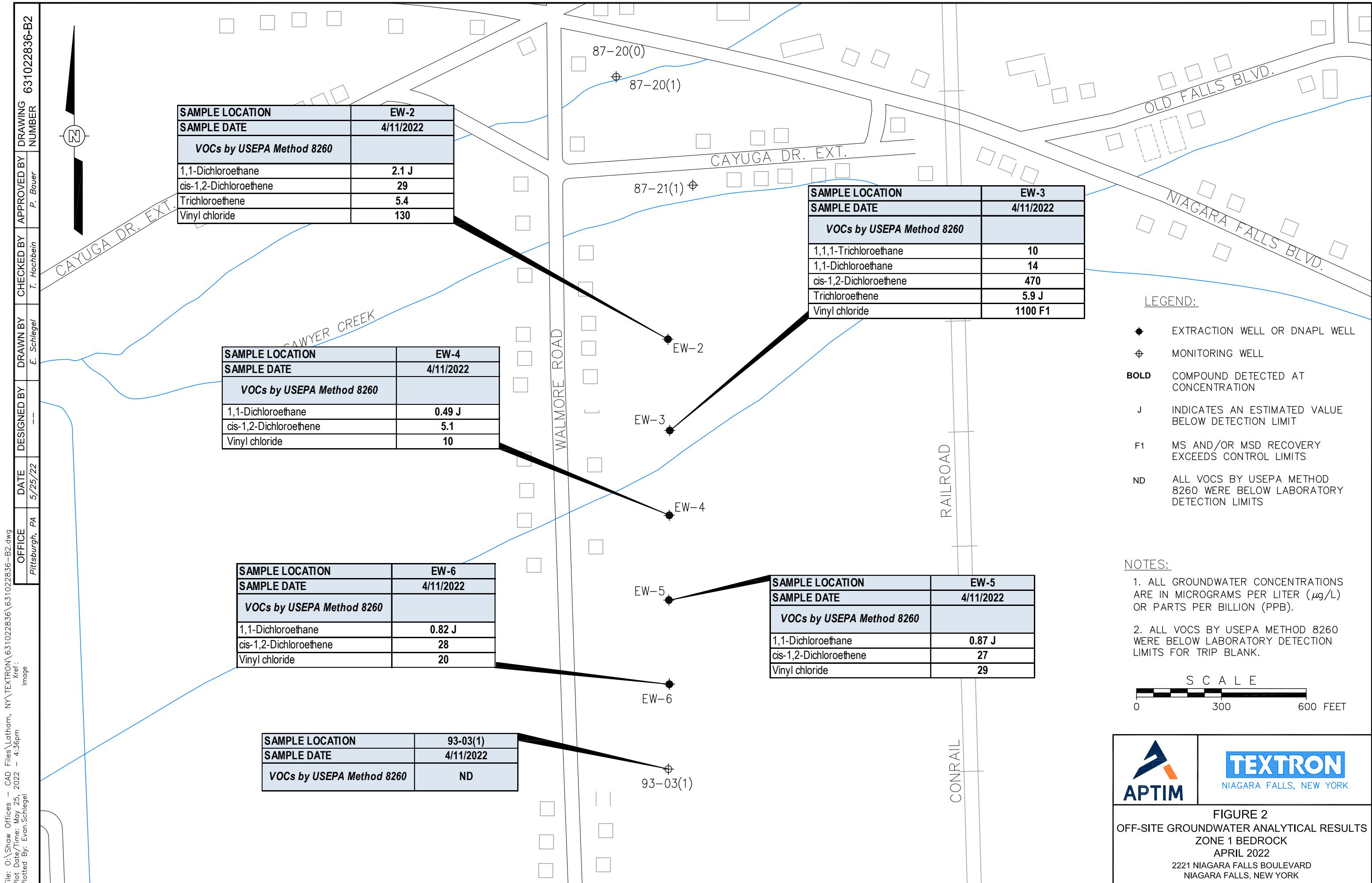
J = An estimated value below detection limit.

F1 = MS and/or MSD recovery exceeds control limits.

N = Normal sample.

Figures





Attachment A

Laboratory Analytical Report



eurofins

Environment Testing
America



ANALYTICAL REPORT

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

Laboratory Job ID: 480-196687-1
Client Project/Site: Bell Aerospace Textron

For:

Aptim Environmental & Infrastructure Inc
500 Penn Center Blvd, Suite 1000
Pittsburgh, Pennsylvania 15235

Attn: Mr. Paul Bauer

Authorized for release by:

4/19/2022 2:30:55 PM

Rebecca Jones, Project Management Assistant I
Rebecca.Jones@et.eurofinsus.com

Designee for

Brian Fischer, Manager of Project Management
(716)504-9835
Brian.Fischer@et.eurofinsus.com

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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

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10

11

12

13

14

15

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Detection Summary	5
Client Sample Results	6
Surrogate Summary	14
QC Sample Results	15
QC Association Summary	24
Lab Chronicle	25
Certification Summary	27
Method Summary	28
Sample Summary	29
Chain of Custody	30
Receipt Checklists	31

Definitions/Glossary

Client: Aptim Environmental & Infrastructure Inc
Project/Site: Bell Aerospace Textron

Job ID: 480-196687-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation

These commonly used abbreviations may or may not be present in this report.

%	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Aptim Environmental & Infrastructure Inc
Project/Site: Bell Aerospace Textron

Job ID: 480-196687-1

Job ID: 480-196687-1

Laboratory: Eurofins Buffalo

Narrative

Job Narrative 480-196687-1

Comments

No additional comments.

Receipt

The samples were received on 4/12/2022 2:26 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 6.6° C.

GC/MS VOA

Method 8260C: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 480-621713 recovered outside control limits for the following analytes: 2-Hexanone, 4-Methyl-2-pentanone and trans-1,3-Dichloropropene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported. The associated samples are impacted: EW-2-220411 (480-196687-1), EW-3-220411 (480-196687-2), EW-4-220411 (480-196687-3), EW-5-220411 (480-196687-4), EW-6-220411 (480-196687-5), 93-03(1)-220411 (480-196687-6) and TB-220411 (480-196687-8).

Method 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: EW-2-220411 (480-196687-1) and EW-3-220411 (480-196687-2). Elevated reporting limits (RLs) are provided.

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-621713 recovered above the upper control limit for Methyl Ethyl Ketone, 2-Hexanone, 4-Methyl-2-pentanone and trans-1,3-Dichloropropene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: EW-2-220411 (480-196687-1), EW-3-220411 (480-196687-2), EW-4-220411 (480-196687-3), EW-5-220411 (480-196687-4), EW-6-220411 (480-196687-5), 93-03(1)-220411 (480-196687-6) and TB-220411 (480-196687-8).

Method 8260C: Due to the coelution of Ethyl Acetate with 2-Butanone in the full spike solution, these analytes exceeded control limits in the laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) associated with batch 621713. The following samples were affected : EW-2-220411 (480-196687-1), EW-3-220411 (480-196687-2), EW-4-220411 (480-196687-3), EW-5-220411 (480-196687-4), EW-6-220411 (480-196687-5), 93-03(1)-220411 (480-196687-6) and TB-220411 (480-196687-8).

Method 8260C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 480-621713 were outside control limits. Sample matrix interference is suspected. The following samples were affected : 93-03(1)-220411 (480-196687-6[MS]) and 93-03(1)-220411 (480-196687-6[MSD]).

Method 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: EW-3-220411 (480-196687-2), (480-196687-B-2 MS) and (480-196687-B-2 MSD). Elevated reporting limits (RLs) are provided.

Method 8260C: The laboratory control sample (LCS) for analytical batch 480-621891 recovered outside control limits for the following analytes: 2-Hexanone, 4-Methyl-2-pentanone (MIBK) and 2-Butanone (MEK). These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-621891 recovered above the upper control limit for 2-Hexanone, 4-Methyl-2-pentanone (MIBK) and 2-Butanone (MEK). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: DUP-01 (480-196687-7).

Method 8260C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 480-621891 were outside control limits. Sample matrix interference is suspected.

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

Detection Summary

Client: Aptim Environmental & Infrastructure Inc
 Project/Site: Bell Aerospace Textron

Job ID: 480-196687-1

Client Sample ID: EW-2-220411

Lab Sample ID: 480-196687-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	2.1	J	5.0	1.9	ug/L	5		8260C	Total/NA
cis-1,2-Dichloroethene	29		5.0	4.1	ug/L	5		8260C	Total/NA
Trichloroethene	5.4		5.0	2.3	ug/L	5		8260C	Total/NA
Vinyl chloride	130		5.0	4.5	ug/L	5		8260C	Total/NA

Client Sample ID: EW-3-220411

Lab Sample ID: 480-196687-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	10		10	8.2	ug/L	10		8260C	Total/NA
1,1-Dichloroethane	14		10	3.8	ug/L	10		8260C	Total/NA
cis-1,2-Dichloroethene	470		10	8.1	ug/L	10		8260C	Total/NA
Trichloroethene	5.9	J	10	4.6	ug/L	10		8260C	Total/NA
Vinyl chloride - DL	1100	F1	20	18	ug/L	20		8260C	Total/NA

Client Sample ID: EW-4-220411

Lab Sample ID: 480-196687-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.49	J	1.0	0.38	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	5.1		1.0	0.81	ug/L	1		8260C	Total/NA
Vinyl chloride	10		1.0	0.90	ug/L	1		8260C	Total/NA

Client Sample ID: EW-5-220411

Lab Sample ID: 480-196687-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.87	J	1.0	0.38	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	27		1.0	0.81	ug/L	1		8260C	Total/NA
Vinyl chloride	29		1.0	0.90	ug/L	1		8260C	Total/NA

Client Sample ID: EW-6-220411

Lab Sample ID: 480-196687-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.82	J	1.0	0.38	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	28		1.0	0.81	ug/L	1		8260C	Total/NA
Vinyl chloride	20		1.0	0.90	ug/L	1		8260C	Total/NA

Client Sample ID: 93-03(1)-220411

Lab Sample ID: 480-196687-6

No Detections.

Client Sample ID: DUP-01

Lab Sample ID: 480-196687-7

No Detections.

Client Sample ID: TB-220411

Lab Sample ID: 480-196687-8

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Client Sample Results

Client: Optim Environmental & Infrastructure Inc
Project/Site: Bell Aerospace Textron

Job ID: 480-196687-1

Client Sample ID: EW-2-220411
Date Collected: 04/11/22 16:25
Date Received: 04/12/22 14:26

Lab Sample ID: 480-196687-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	4.1	ug/L			04/14/22 14:40	5
1,1,2,2-Tetrachloroethane	ND		5.0	1.1	ug/L			04/14/22 14:40	5
1,1,2-Trichloroethane	ND		5.0	1.2	ug/L			04/14/22 14:40	5
1,1-Dichloroethane	2.1	J	5.0	1.9	ug/L			04/14/22 14:40	5
1,1-Dichloroethene	ND		5.0	1.5	ug/L			04/14/22 14:40	5
1,2-Dichloroethane	ND		5.0	1.1	ug/L			04/14/22 14:40	5
1,2-Dichloropropane	ND		5.0	3.6	ug/L			04/14/22 14:40	5
2-Butanone (MEK)	ND	**+	50	6.6	ug/L			04/14/22 14:40	5
2-Hexanone	ND	**+	25	6.2	ug/L			04/14/22 14:40	5
4-Methyl-2-pentanone (MIBK)	ND	**+	25	11	ug/L			04/14/22 14:40	5
Acetone	ND		50	15	ug/L			04/14/22 14:40	5
Benzene	ND		5.0	2.1	ug/L			04/14/22 14:40	5
Bromodichloromethane	ND		5.0	2.0	ug/L			04/14/22 14:40	5
Bromoform	ND		5.0	1.3	ug/L			04/14/22 14:40	5
Bromomethane	ND		5.0	3.5	ug/L			04/14/22 14:40	5
Carbon disulfide	ND		5.0	0.95	ug/L			04/14/22 14:40	5
Carbon tetrachloride	ND		5.0	1.4	ug/L			04/14/22 14:40	5
Chlorobenzene	ND		5.0	3.8	ug/L			04/14/22 14:40	5
Chloroethane	ND		5.0	1.6	ug/L			04/14/22 14:40	5
Chloroform	ND		5.0	1.7	ug/L			04/14/22 14:40	5
Chloromethane	ND		5.0	1.8	ug/L			04/14/22 14:40	5
cis-1,2-Dichloroethene	29		5.0	4.1	ug/L			04/14/22 14:40	5
cis-1,3-Dichloropropene	ND		5.0	1.8	ug/L			04/14/22 14:40	5
Dibromochloromethane	ND		5.0	1.6	ug/L			04/14/22 14:40	5
Ethylbenzene	ND		5.0	3.7	ug/L			04/14/22 14:40	5
m,p-Xylene	ND		10	3.3	ug/L			04/14/22 14:40	5
Methylene Chloride	ND		5.0	2.2	ug/L			04/14/22 14:40	5
o-Xylene	ND		5.0	3.8	ug/L			04/14/22 14:40	5
Styrene	ND		5.0	3.7	ug/L			04/14/22 14:40	5
Tetrachloroethene	ND		5.0	1.8	ug/L			04/14/22 14:40	5
Toluene	ND		5.0	2.6	ug/L			04/14/22 14:40	5
trans-1,2-Dichloroethene	ND		5.0	4.5	ug/L			04/14/22 14:40	5
trans-1,3-Dichloropropene	ND	**+	5.0	1.9	ug/L			04/14/22 14:40	5
Trichloroethene	5.4		5.0	2.3	ug/L			04/14/22 14:40	5
Vinyl chloride	130		5.0	4.5	ug/L			04/14/22 14:40	5
Surrogate	%Recovery	Qualifier		Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106			77 - 120				04/14/22 14:40	5
4-Bromofluorobenzene (Surr)	97			73 - 120				04/14/22 14:40	5
Dibromofluoromethane (Surr)	93			75 - 123				04/14/22 14:40	5
Toluene-d8 (Surr)	96			80 - 120				04/14/22 14:40	5

Client Sample ID: EW-3-220411
Date Collected: 04/11/22 16:05
Date Received: 04/12/22 14:26

Lab Sample ID: 480-196687-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	10		10	8.2	ug/L			04/14/22 15:03	10
1,1,2,2-Tetrachloroethane	ND		10	2.1	ug/L			04/14/22 15:03	10

Eurofins Buffalo

Client Sample Results

Client: Aptim Environmental & Infrastructure Inc
 Project/Site: Bell Aerospace Textron

Job ID: 480-196687-1

Client Sample ID: EW-3-220411
Date Collected: 04/11/22 16:05
Date Received: 04/12/22 14:26

Lab Sample ID: 480-196687-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	ND		10	2.3	ug/L			04/14/22 15:03	10
1,1-Dichloroethane	14		10	3.8	ug/L			04/14/22 15:03	10
1,1-Dichloroethene	ND		10	2.9	ug/L			04/14/22 15:03	10
1,2-Dichloroethane	ND		10	2.1	ug/L			04/14/22 15:03	10
1,2-Dichloropropane	ND		10	7.2	ug/L			04/14/22 15:03	10
2-Butanone (MEK)	ND *+		100	13	ug/L			04/14/22 15:03	10
2-Hexanone	ND *+		50	12	ug/L			04/14/22 15:03	10
4-Methyl-2-pentanone (MIBK)	ND *+		50	21	ug/L			04/14/22 15:03	10
Acetone	ND		100	30	ug/L			04/14/22 15:03	10
Benzene	ND		10	4.1	ug/L			04/14/22 15:03	10
Bromodichloromethane	ND		10	3.9	ug/L			04/14/22 15:03	10
Bromoform	ND		10	2.6	ug/L			04/14/22 15:03	10
Bromomethane	ND		10	6.9	ug/L			04/14/22 15:03	10
Carbon disulfide	ND		10	1.9	ug/L			04/14/22 15:03	10
Carbon tetrachloride	ND		10	2.7	ug/L			04/14/22 15:03	10
Chlorobenzene	ND		10	7.5	ug/L			04/14/22 15:03	10
Chloroethane	ND		10	3.2	ug/L			04/14/22 15:03	10
Chloroform	ND		10	3.4	ug/L			04/14/22 15:03	10
Chloromethane	ND		10	3.5	ug/L			04/14/22 15:03	10
cis-1,2-Dichloroethene	470		10	8.1	ug/L			04/14/22 15:03	10
cis-1,3-Dichloropropene	ND		10	3.6	ug/L			04/14/22 15:03	10
Dibromochloromethane	ND		10	3.2	ug/L			04/14/22 15:03	10
Ethylbenzene	ND		10	7.4	ug/L			04/14/22 15:03	10
m,p-Xylene	ND		20	6.6	ug/L			04/14/22 15:03	10
Methylene Chloride	ND		10	4.4	ug/L			04/14/22 15:03	10
o-Xylene	ND		10	7.6	ug/L			04/14/22 15:03	10
Styrene	ND		10	7.3	ug/L			04/14/22 15:03	10
Tetrachloroethene	ND		10	3.6	ug/L			04/14/22 15:03	10
Toluene	ND		10	5.1	ug/L			04/14/22 15:03	10
trans-1,2-Dichloroethene	ND		10	9.0	ug/L			04/14/22 15:03	10
trans-1,3-Dichloropropene	ND *+		10	3.7	ug/L			04/14/22 15:03	10
Trichloroethene	5.9 J		10	4.6	ug/L			04/14/22 15:03	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		77 - 120		04/14/22 15:03	10
4-Bromofluorobenzene (Surr)	96		73 - 120		04/14/22 15:03	10
Dibromofluoromethane (Surr)	92		75 - 123		04/14/22 15:03	10
Toluene-d8 (Surr)	93		80 - 120		04/14/22 15:03	10

Method: 8260C - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1100	F1	20	18	ug/L			04/15/22 13:06	20
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
1,2-Dichloroethane-d4 (Surr)	102		77 - 120		04/15/22 13:06	20			
4-Bromofluorobenzene (Surr)	99		73 - 120		04/15/22 13:06	20			
Dibromofluoromethane (Surr)	88		75 - 123		04/15/22 13:06	20			
Toluene-d8 (Surr)	97		80 - 120		04/15/22 13:06	20			

Client Sample Results

Client: Optim Environmental & Infrastructure Inc
Project/Site: Bell Aerospace Textron

Job ID: 480-196687-1

Client Sample ID: EW-4-220411
Date Collected: 04/11/22 15:45
Date Received: 04/12/22 14:26

Lab Sample ID: 480-196687-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/14/22 15:26	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/14/22 15:26	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/14/22 15:26	1
1,1-Dichloroethane	0.49	J	1.0	0.38	ug/L			04/14/22 15:26	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/14/22 15:26	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/14/22 15:26	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/14/22 15:26	1
2-Butanone (MEK)	ND	*+	10	1.3	ug/L			04/14/22 15:26	1
2-Hexanone	ND	*+	5.0	1.2	ug/L			04/14/22 15:26	1
4-Methyl-2-pentanone (MIBK)	ND	*+	5.0	2.1	ug/L			04/14/22 15:26	1
Acetone	ND		10	3.0	ug/L			04/14/22 15:26	1
Benzene	ND		1.0	0.41	ug/L			04/14/22 15:26	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/14/22 15:26	1
Bromoform	ND		1.0	0.26	ug/L			04/14/22 15:26	1
Bromomethane	ND		1.0	0.69	ug/L			04/14/22 15:26	1
Carbon disulfide	ND		1.0	0.19	ug/L			04/14/22 15:26	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/14/22 15:26	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/14/22 15:26	1
Chloroethane	ND		1.0	0.32	ug/L			04/14/22 15:26	1
Chloroform	ND		1.0	0.34	ug/L			04/14/22 15:26	1
Chloromethane	ND		1.0	0.35	ug/L			04/14/22 15:26	1
cis-1,2-Dichloroethene	5.1		1.0	0.81	ug/L			04/14/22 15:26	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/14/22 15:26	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/14/22 15:26	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/14/22 15:26	1
m,p-Xylene	ND		2.0	0.66	ug/L			04/14/22 15:26	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/14/22 15:26	1
o-Xylene	ND		1.0	0.76	ug/L			04/14/22 15:26	1
Styrene	ND		1.0	0.73	ug/L			04/14/22 15:26	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/14/22 15:26	1
Toluene	ND		1.0	0.51	ug/L			04/14/22 15:26	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/14/22 15:26	1
trans-1,3-Dichloropropene	ND	*+	1.0	0.37	ug/L			04/14/22 15:26	1
Trichloroethene	ND		1.0	0.46	ug/L			04/14/22 15:26	1
Vinyl chloride	10		1.0	0.90	ug/L			04/14/22 15:26	1
Surrogate	%Recovery	Qualifier		Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109			77 - 120				04/14/22 15:26	1
4-Bromofluorobenzene (Surr)	94			73 - 120				04/14/22 15:26	1
Dibromofluoromethane (Surr)	92			75 - 123				04/14/22 15:26	1
Toluene-d8 (Surr)	96			80 - 120				04/14/22 15:26	1

Client Sample ID: EW-5-220411
Date Collected: 04/11/22 15:20
Date Received: 04/12/22 14:26

Lab Sample ID: 480-196687-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/14/22 15:49	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/14/22 15:49	1

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Client Sample Results

Client: Optim Environmental & Infrastructure Inc
Project/Site: Bell Aerospace Textron

Job ID: 480-196687-1

Client Sample ID: EW-5-220411
Date Collected: 04/11/22 15:20
Date Received: 04/12/22 14:26

Lab Sample ID: 480-196687-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L		04/14/22 15:49		1
1,1-Dichloroethane	0.87	J	1.0	0.38	ug/L		04/14/22 15:49		1
1,1-Dichloroethene	ND		1.0	0.29	ug/L		04/14/22 15:49		1
1,2-Dichloroethane	ND		1.0	0.21	ug/L		04/14/22 15:49		1
1,2-Dichloropropane	ND		1.0	0.72	ug/L		04/14/22 15:49		1
2-Butanone (MEK)	ND	*+	10	1.3	ug/L		04/14/22 15:49		1
2-Hexanone	ND	*+	5.0	1.2	ug/L		04/14/22 15:49		1
4-Methyl-2-pentanone (MIBK)	ND	*+	5.0	2.1	ug/L		04/14/22 15:49		1
Acetone	ND		10	3.0	ug/L		04/14/22 15:49		1
Benzene	ND		1.0	0.41	ug/L		04/14/22 15:49		1
Bromodichloromethane	ND		1.0	0.39	ug/L		04/14/22 15:49		1
Bromoform	ND		1.0	0.26	ug/L		04/14/22 15:49		1
Bromomethane	ND		1.0	0.69	ug/L		04/14/22 15:49		1
Carbon disulfide	ND		1.0	0.19	ug/L		04/14/22 15:49		1
Carbon tetrachloride	ND		1.0	0.27	ug/L		04/14/22 15:49		1
Chlorobenzene	ND		1.0	0.75	ug/L		04/14/22 15:49		1
Chloroethane	ND		1.0	0.32	ug/L		04/14/22 15:49		1
Chloroform	ND		1.0	0.34	ug/L		04/14/22 15:49		1
Chloromethane	ND		1.0	0.35	ug/L		04/14/22 15:49		1
cis-1,2-Dichloroethene	27		1.0	0.81	ug/L		04/14/22 15:49		1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L		04/14/22 15:49		1
Dibromochloromethane	ND		1.0	0.32	ug/L		04/14/22 15:49		1
Ethylbenzene	ND		1.0	0.74	ug/L		04/14/22 15:49		1
m,p-Xylene	ND		2.0	0.66	ug/L		04/14/22 15:49		1
Methylene Chloride	ND		1.0	0.44	ug/L		04/14/22 15:49		1
o-Xylene	ND		1.0	0.76	ug/L		04/14/22 15:49		1
Styrene	ND		1.0	0.73	ug/L		04/14/22 15:49		1
Tetrachloroethene	ND		1.0	0.36	ug/L		04/14/22 15:49		1
Toluene	ND		1.0	0.51	ug/L		04/14/22 15:49		1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L		04/14/22 15:49		1
trans-1,3-Dichloropropene	ND	*+	1.0	0.37	ug/L		04/14/22 15:49		1
Trichloroethene	ND		1.0	0.46	ug/L		04/14/22 15:49		1
Vinyl chloride	29		1.0	0.90	ug/L		04/14/22 15:49		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	107		77 - 120				04/14/22 15:49		1
4-Bromofluorobenzene (Surr)	96		73 - 120				04/14/22 15:49		1
Dibromofluoromethane (Surr)	92		75 - 123				04/14/22 15:49		1
Toluene-d8 (Surr)	97		80 - 120				04/14/22 15:49		1

Client Sample ID: EW-6-220411
Date Collected: 04/11/22 12:25
Date Received: 04/12/22 14:26

Lab Sample ID: 480-196687-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L		04/14/22 16:28		1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L		04/14/22 16:28		1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L		04/14/22 16:28		1
1,1-Dichloroethane	0.82	J	1.0	0.38	ug/L		04/14/22 16:28		1

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Client Sample Results

Client: Optim Environmental & Infrastructure Inc
Project/Site: Bell Aerospace Textron

Job ID: 480-196687-1

Client Sample ID: EW-6-220411
Date Collected: 04/11/22 12:25
Date Received: 04/12/22 14:26

Lab Sample ID: 480-196687-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/14/22 16:28	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/14/22 16:28	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/14/22 16:28	1
2-Butanone (MEK)	ND *+		10	1.3	ug/L			04/14/22 16:28	1
2-Hexanone	ND *+		5.0	1.2	ug/L			04/14/22 16:28	1
4-Methyl-2-pentanone (MIBK)	ND *+		5.0	2.1	ug/L			04/14/22 16:28	1
Acetone	ND		10	3.0	ug/L			04/14/22 16:28	1
Benzene	ND		1.0	0.41	ug/L			04/14/22 16:28	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/14/22 16:28	1
Bromoform	ND		1.0	0.26	ug/L			04/14/22 16:28	1
Bromomethane	ND		1.0	0.69	ug/L			04/14/22 16:28	1
Carbon disulfide	ND		1.0	0.19	ug/L			04/14/22 16:28	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/14/22 16:28	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/14/22 16:28	1
Chloroethane	ND		1.0	0.32	ug/L			04/14/22 16:28	1
Chloroform	ND		1.0	0.34	ug/L			04/14/22 16:28	1
Chloromethane	ND		1.0	0.35	ug/L			04/14/22 16:28	1
cis-1,2-Dichloroethene	28		1.0	0.81	ug/L			04/14/22 16:28	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/14/22 16:28	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/14/22 16:28	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/14/22 16:28	1
m,p-Xylene	ND		2.0	0.66	ug/L			04/14/22 16:28	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/14/22 16:28	1
o-Xylene	ND		1.0	0.76	ug/L			04/14/22 16:28	1
Styrene	ND		1.0	0.73	ug/L			04/14/22 16:28	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/14/22 16:28	1
Toluene	ND		1.0	0.51	ug/L			04/14/22 16:28	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/14/22 16:28	1
trans-1,3-Dichloropropene	ND *+		1.0	0.37	ug/L			04/14/22 16:28	1
Trichloroethene	ND		1.0	0.46	ug/L			04/14/22 16:28	1
Vinyl chloride	20		1.0	0.90	ug/L			04/14/22 16:28	1
Surrogate	%Recovery	Qualifier		Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103			77 - 120				04/14/22 16:28	1
4-Bromofluorobenzene (Surr)	95			73 - 120				04/14/22 16:28	1
Dibromofluoromethane (Surr)	88			75 - 123				04/14/22 16:28	1
Toluene-d8 (Surr)	97			80 - 120				04/14/22 16:28	1

Client Sample ID: 93-03(1)-220411

Lab Sample ID: 480-196687-6

Date Collected: 04/11/22 11:15
Date Received: 04/12/22 14:26

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/14/22 16:50	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/14/22 16:50	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/14/22 16:50	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/14/22 16:50	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/14/22 16:50	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/14/22 16:50	1

Eurofins Buffalo

Client Sample Results

Client: Optim Environmental & Infrastructure Inc
Project/Site: Bell Aerospace Textron

Job ID: 480-196687-1

Client Sample ID: 93-03(1)-220411

Lab Sample ID: 480-196687-6

Matrix: Water

Date Collected: 04/11/22 11:15
Date Received: 04/12/22 14:26

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/14/22 16:50	1
2-Butanone (MEK)	ND	*+ F1	10	1.3	ug/L			04/14/22 16:50	1
2-Hexanone	ND	*+ F1	5.0	1.2	ug/L			04/14/22 16:50	1
4-Methyl-2-pentanone (MIBK)	ND	*+ F1	5.0	2.1	ug/L			04/14/22 16:50	1
Acetone	ND		10	3.0	ug/L			04/14/22 16:50	1
Benzene	ND		1.0	0.41	ug/L			04/14/22 16:50	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/14/22 16:50	1
Bromoform	ND		1.0	0.26	ug/L			04/14/22 16:50	1
Bromomethane	ND		1.0	0.69	ug/L			04/14/22 16:50	1
Carbon disulfide	ND		1.0	0.19	ug/L			04/14/22 16:50	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/14/22 16:50	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/14/22 16:50	1
Chloroethane	ND		1.0	0.32	ug/L			04/14/22 16:50	1
Chloroform	ND		1.0	0.34	ug/L			04/14/22 16:50	1
Chloromethane	ND	F1	1.0	0.35	ug/L			04/14/22 16:50	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/14/22 16:50	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/14/22 16:50	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/14/22 16:50	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/14/22 16:50	1
m,p-Xylene	ND		2.0	0.66	ug/L			04/14/22 16:50	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/14/22 16:50	1
o-Xylene	ND		1.0	0.76	ug/L			04/14/22 16:50	1
Styrene	ND		1.0	0.73	ug/L			04/14/22 16:50	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/14/22 16:50	1
Toluene	ND		1.0	0.51	ug/L			04/14/22 16:50	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/14/22 16:50	1
trans-1,3-Dichloropropene	ND	*+	1.0	0.37	ug/L			04/14/22 16:50	1
Trichloroethene	ND		1.0	0.46	ug/L			04/14/22 16:50	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/14/22 16:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		77 - 120					04/14/22 16:50	1
4-Bromofluorobenzene (Surr)	95		73 - 120					04/14/22 16:50	1
Dibromofluoromethane (Surr)	91		75 - 123					04/14/22 16:50	1
Toluene-d8 (Surr)	98		80 - 120					04/14/22 16:50	1

Client Sample ID: DUP-01

Lab Sample ID: 480-196687-7

Matrix: Water

Date Collected: 04/11/22 00:00
Date Received: 04/12/22 14:26

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/15/22 13:29	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/15/22 13:29	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/15/22 13:29	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/15/22 13:29	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/15/22 13:29	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/15/22 13:29	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/15/22 13:29	1
2-Butanone (MEK)	ND	*+	10	1.3	ug/L			04/15/22 13:29	1

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Client Sample Results

Client: Optim Environmental & Infrastructure Inc
Project/Site: Bell Aerospace Textron

Job ID: 480-196687-1

Client Sample ID: DUP-01

Date Collected: 04/11/22 00:00
Date Received: 04/12/22 14:26

Lab Sample ID: 480-196687-7

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Hexanone	ND	*+	5.0	1.2	ug/L			04/15/22 13:29	1
4-Methyl-2-pentanone (MIBK)	ND	*+	5.0	2.1	ug/L			04/15/22 13:29	1
Acetone	ND		10	3.0	ug/L			04/15/22 13:29	1
Benzene	ND		1.0	0.41	ug/L			04/15/22 13:29	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/15/22 13:29	1
Bromoform	ND		1.0	0.26	ug/L			04/15/22 13:29	1
Bromomethane	ND		1.0	0.69	ug/L			04/15/22 13:29	1
Carbon disulfide	ND		1.0	0.19	ug/L			04/15/22 13:29	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/15/22 13:29	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/15/22 13:29	1
Chloroethane	ND		1.0	0.32	ug/L			04/15/22 13:29	1
Chloroform	ND		1.0	0.34	ug/L			04/15/22 13:29	1
Chloromethane	ND		1.0	0.35	ug/L			04/15/22 13:29	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/15/22 13:29	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/15/22 13:29	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/15/22 13:29	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/15/22 13:29	1
m,p-Xylene	ND		2.0	0.66	ug/L			04/15/22 13:29	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/15/22 13:29	1
o-Xylene	ND		1.0	0.76	ug/L			04/15/22 13:29	1
Styrene	ND		1.0	0.73	ug/L			04/15/22 13:29	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/15/22 13:29	1
Toluene	ND		1.0	0.51	ug/L			04/15/22 13:29	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/15/22 13:29	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			04/15/22 13:29	1
Trichloroethene	ND		1.0	0.46	ug/L			04/15/22 13:29	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/15/22 13:29	1
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107			77 - 120				04/15/22 13:29	1
4-Bromofluorobenzene (Surr)	96			73 - 120				04/15/22 13:29	1
Dibromofluoromethane (Surr)	92			75 - 123				04/15/22 13:29	1
Toluene-d8 (Surr)	98			80 - 120				04/15/22 13:29	1

Client Sample ID: TB-220411

Date Collected: 04/11/22 00:00
Date Received: 04/12/22 14:26

Lab Sample ID: 480-196687-8

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/14/22 17:35	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/14/22 17:35	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/14/22 17:35	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/14/22 17:35	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/14/22 17:35	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/14/22 17:35	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/14/22 17:35	1
2-Butanone (MEK)	ND	*+	10	1.3	ug/L			04/14/22 17:35	1
2-Hexanone	ND	*+	5.0	1.2	ug/L			04/14/22 17:35	1
4-Methyl-2-pentanone (MIBK)	ND	*+	5.0	2.1	ug/L			04/14/22 17:35	1

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Client Sample Results

Client: Optim Environmental & Infrastructure Inc
 Project/Site: Bell Aerospace Textron

Job ID: 480-196687-1

Client Sample ID: TB-220411

Lab Sample ID: 480-196687-8

Date Collected: 04/11/22 00:00

Matrix: Water

Date Received: 04/12/22 14:26

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	3.0	ug/L			04/14/22 17:35	1
Benzene	ND		1.0	0.41	ug/L			04/14/22 17:35	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/14/22 17:35	1
Bromoform	ND		1.0	0.26	ug/L			04/14/22 17:35	1
Bromomethane	ND		1.0	0.69	ug/L			04/14/22 17:35	1
Carbon disulfide	ND		1.0	0.19	ug/L			04/14/22 17:35	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/14/22 17:35	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/14/22 17:35	1
Chloroethane	ND		1.0	0.32	ug/L			04/14/22 17:35	1
Chloroform	ND		1.0	0.34	ug/L			04/14/22 17:35	1
Chloromethane	ND		1.0	0.35	ug/L			04/14/22 17:35	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/14/22 17:35	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/14/22 17:35	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/14/22 17:35	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/14/22 17:35	1
m,p-Xylene	ND		2.0	0.66	ug/L			04/14/22 17:35	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/14/22 17:35	1
o-Xylene	ND		1.0	0.76	ug/L			04/14/22 17:35	1
Styrene	ND		1.0	0.73	ug/L			04/14/22 17:35	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/14/22 17:35	1
Toluene	ND		1.0	0.51	ug/L			04/14/22 17:35	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/14/22 17:35	1
trans-1,3-Dichloropropene	ND *+		1.0	0.37	ug/L			04/14/22 17:35	1
Trichloroethene	ND		1.0	0.46	ug/L			04/14/22 17:35	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/14/22 17:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		77 - 120		04/14/22 17:35	1
4-Bromofluorobenzene (Surr)	97		73 - 120		04/14/22 17:35	1
Dibromofluoromethane (Surr)	95		75 - 123		04/14/22 17:35	1
Toluene-d8 (Surr)	96		80 - 120		04/14/22 17:35	1

Surrogate Summary

Client: Aptim Environmental & Infrastructure Inc
 Project/Site: Bell Aerospace Textron

Job ID: 480-196687-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (77-120)	BFB (73-120)	DBFM (75-123)	TOL (80-120)
480-196687-1	EW-2-220411	106	97	93	96
480-196687-2	EW-3-220411	108	96	92	93
480-196687-2 - DL	EW-3-220411	102	99	88	97
480-196687-2 MS	EW-3-220411	108	97	90	97
480-196687-2 MSD	EW-3-220411	106	97	92	97
480-196687-3	EW-4-220411	109	94	92	96
480-196687-4	EW-5-220411	107	96	92	97
480-196687-5	EW-6-220411	103	95	88	97
480-196687-6	93-03(1)-220411	110	95	91	98
480-196687-6 MS	93-03(1)-220411	106	99	90	98
480-196687-6 MSD	93-03(1)-220411	104	100	92	96
480-196687-7	DUP-01	107	96	92	98
480-196687-8	TB-220411	110	97	95	96
LCS 480-621713/5	Lab Control Sample	109	95	88	95
LCS 480-621891/5	Lab Control Sample	112	97	96	98
LCSD 480-621713/8	Lab Control Sample Dup	104	94	89	96
MB 480-621713/7	Method Blank	111	96	92	95
MB 480-621891/8	Method Blank	109	94	93	96

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

QC Sample Results

Client: Aptim Environmental & Infrastructure Inc
 Project/Site: Bell Aerospace Textron

Job ID: 480-196687-1

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

Lab Sample ID: MB 480-621713/7

Matrix: Water

Analysis Batch: 621713

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/14/22 12:35	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/14/22 12:35	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/14/22 12:35	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/14/22 12:35	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/14/22 12:35	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/14/22 12:35	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/14/22 12:35	1
2-Butanone (MEK)	ND		10	1.3	ug/L			04/14/22 12:35	1
2-Hexanone	ND		5.0	1.2	ug/L			04/14/22 12:35	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			04/14/22 12:35	1
Acetone	ND		10	3.0	ug/L			04/14/22 12:35	1
Benzene	ND		1.0	0.41	ug/L			04/14/22 12:35	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/14/22 12:35	1
Bromoform	ND		1.0	0.26	ug/L			04/14/22 12:35	1
Bromomethane	ND		1.0	0.69	ug/L			04/14/22 12:35	1
Carbon disulfide	ND		1.0	0.19	ug/L			04/14/22 12:35	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/14/22 12:35	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/14/22 12:35	1
Chloroethane	ND		1.0	0.32	ug/L			04/14/22 12:35	1
Chloroform	ND		1.0	0.34	ug/L			04/14/22 12:35	1
Chloromethane	ND		1.0	0.35	ug/L			04/14/22 12:35	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/14/22 12:35	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/14/22 12:35	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/14/22 12:35	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/14/22 12:35	1
m,p-Xylene	ND		2.0	0.66	ug/L			04/14/22 12:35	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/14/22 12:35	1
o-Xylene	ND		1.0	0.76	ug/L			04/14/22 12:35	1
Styrene	ND		1.0	0.73	ug/L			04/14/22 12:35	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/14/22 12:35	1
Toluene	ND		1.0	0.51	ug/L			04/14/22 12:35	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/14/22 12:35	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			04/14/22 12:35	1
Trichloroethene	ND		1.0	0.46	ug/L			04/14/22 12:35	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/14/22 12:35	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		77 - 120		04/14/22 12:35	1
4-Bromofluorobenzene (Surr)	96		73 - 120		04/14/22 12:35	1
Dibromofluoromethane (Surr)	92		75 - 123		04/14/22 12:35	1
Toluene-d8 (Surr)	95		80 - 120		04/14/22 12:35	1

Lab Sample ID: LCS 480-621713/5

Matrix: Water

Analysis Batch: 621713

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,1,1-Trichloroethane	25.0	22.8		ug/L	91	73 - 126	

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QC Sample Results

Client: Aptim Environmental & Infrastructure Inc
 Project/Site: Bell Aerospace Textron

Job ID: 480-196687-1

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

Lab Sample ID: LCS 480-621713/5

Matrix: Water

Analysis Batch: 621713

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,2,2-Tetrachloroethane	25.0	28.6		ug/L	114	76 - 120	
1,1,2-Trichloroethane	25.0	28.6		ug/L	114	76 - 122	
1,1-Dichloroethane	25.0	24.6		ug/L	98	77 - 120	
1,1-Dichloroethene	25.0	23.5		ug/L	94	66 - 127	
1,2-Dichloroethane	25.0	28.7		ug/L	115	75 - 120	
1,2-Dichloropropane	25.0	27.5		ug/L	110	76 - 120	
2-Butanone (MEK)	125	336 *+		ug/L	269	57 - 140	
2-Hexanone	125	237 *+		ug/L	189	65 - 127	
4-Methyl-2-pentanone (MIBK)	125	196 *+		ug/L	157	71 - 125	
Acetone	125	159		ug/L	127	56 - 142	
Benzene	25.0	25.4		ug/L	102	71 - 124	
Bromodichloromethane	25.0	28.9		ug/L	116	80 - 122	
Bromoform	25.0	26.7		ug/L	107	61 - 132	
Bromomethane	25.0	19.4		ug/L	78	55 - 144	
Carbon disulfide	25.0	23.2		ug/L	93	59 - 134	
Carbon tetrachloride	25.0	22.8		ug/L	91	72 - 134	
Chlorobenzene	25.0	26.0		ug/L	104	80 - 120	
Chloroethane	25.0	22.2		ug/L	89	69 - 136	
Chloroform	25.0	25.4		ug/L	102	73 - 127	
Chloromethane	25.0	27.2		ug/L	109	68 - 124	
cis-1,2-Dichloroethene	25.0	22.8		ug/L	91	74 - 124	
cis-1,3-Dichloropropene	25.0	29.4		ug/L	118	74 - 124	
Dibromochloromethane	25.0	27.3		ug/L	109	75 - 125	
Ethylbenzene	25.0	27.2		ug/L	109	77 - 123	
m,p-Xylene	25.0	26.0		ug/L	104	76 - 122	
Methylene Chloride	25.0	22.0		ug/L	88	75 - 124	
o-Xylene	25.0	24.5		ug/L	98	76 - 122	
Styrene	25.0	27.9		ug/L	112	80 - 120	
Tetrachloroethene	25.0	24.6		ug/L	99	74 - 122	
Toluene	25.0	26.1		ug/L	104	80 - 122	
trans-1,2-Dichloroethene	25.0	20.9		ug/L	84	73 - 127	
trans-1,3-Dichloropropene	25.0	30.4 *+		ug/L	121	80 - 120	
Trichloroethene	25.0	26.2		ug/L	105	74 - 123	
Vinyl chloride	25.0	24.0		ug/L	96	65 - 133	

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	109		77 - 120
4-Bromofluorobenzene (Surr)	95		73 - 120
Dibromofluoromethane (Surr)	88		75 - 123
Toluene-d8 (Surr)	95		80 - 120

Lab Sample ID: LCSD 480-621713/8

Matrix: Water

Analysis Batch: 621713

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane	25.0	22.5		ug/L	90	73 - 126		2	15
1,1,2,2-Tetrachloroethane	25.0	29.3		ug/L	117	76 - 120		3	15

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QC Sample Results

Client: Optim Environmental & Infrastructure Inc
 Project/Site: Bell Aerospace Textron

Job ID: 480-196687-1

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

Lab Sample ID: LCSD 480-621713/8

Matrix: Water

Analysis Batch: 621713

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec	RPD	RPD	Limit
	Added	Result	Qualifier				Limits			
1,1,2-Trichloroethane	25.0	28.3		ug/L	113	76 - 122	1	15		
1,1-Dichloroethane	25.0	24.3		ug/L	97	77 - 120	1	20		
1,1-Dichloroethene	25.0	22.4		ug/L	90	66 - 127	5	16		
1,2-Dichloroethane	25.0	28.1		ug/L	112	75 - 120	2	20		
1,2-Dichloropropane	25.0	27.3		ug/L	109	76 - 120	1	20		
2-Butanone (MEK)	125	326 *+		ug/L	261	57 - 140	3	20		
2-Hexanone	125	208 *+		ug/L	166	65 - 127	13	15		
4-Methyl-2-pentanone (MIBK)	125	184 *+		ug/L	147	71 - 125	6	35		
Acetone	125	156		ug/L	125	56 - 142	1	15		
Benzene	25.0	24.4		ug/L	98	71 - 124	4	13		
Bromodichloromethane	25.0	28.4		ug/L	114	80 - 122	2	15		
Bromoform	25.0	26.9		ug/L	108	61 - 132	1	15		
Bromomethane	25.0	19.1		ug/L	76	55 - 144	2	15		
Carbon disulfide	25.0	22.4		ug/L	90	59 - 134	4	15		
Carbon tetrachloride	25.0	22.1		ug/L	89	72 - 134	3	15		
Chlorobenzene	25.0	25.2		ug/L	101	80 - 120	3	25		
Chloroethane	25.0	22.0		ug/L	88	69 - 136	1	15		
Chloroform	25.0	24.3		ug/L	97	73 - 127	5	20		
Chloromethane	25.0	26.5		ug/L	106	68 - 124	2	15		
cis-1,2-Dichloroethene	25.0	23.1		ug/L	93	74 - 124	2	15		
cis-1,3-Dichloropropene	25.0	29.1		ug/L	117	74 - 124	1	15		
Dibromochloromethane	25.0	27.5		ug/L	110	75 - 125	1	15		
Ethylbenzene	25.0	25.8		ug/L	103	77 - 123	5	15		
m,p-Xylene	25.0	24.7		ug/L	99	76 - 122	5	16		
Methylene Chloride	25.0	21.8		ug/L	87	75 - 124	1	15		
o-Xylene	25.0	24.1		ug/L	97	76 - 122	2	16		
Styrene	25.0	26.5		ug/L	106	80 - 120	5	20		
Tetrachloroethene	25.0	25.2		ug/L	101	74 - 122	2	20		
Toluene	25.0	24.8		ug/L	99	80 - 122	5	15		
trans-1,2-Dichloroethene	25.0	20.6		ug/L	83	73 - 127	1	20		
trans-1,3-Dichloropropene	25.0	30.5 *+		ug/L	122	80 - 120	1	15		
Trichloroethene	25.0	24.9		ug/L	99	74 - 123	5	16		
Vinyl chloride	25.0	23.8		ug/L	95	65 - 133	1	15		

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	104		77 - 120
4-Bromofluorobenzene (Surr)	94		73 - 120
Dibromofluoromethane (Surr)	89		75 - 123
Toluene-d8 (Surr)	96		80 - 120

Lab Sample ID: 480-196687-6 MS

Matrix: Water

Analysis Batch: 621713

Client Sample ID: 93-03(1)-220411

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier	Added	Result	Qualifier				Limits
1,1,1-Trichloroethane	ND		25.0	24.2		ug/L		97	73 - 126
1,1,2,2-Tetrachloroethane	ND		25.0	29.9		ug/L		120	76 - 120
1,1,2-Trichloroethane	ND		25.0	29.4		ug/L		118	76 - 122

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QC Sample Results

Client: Optim Environmental & Infrastructure Inc
Project/Site: Bell Aerospace Textron

Job ID: 480-196687-1

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

Lab Sample ID: 480-196687-6 MS

Client Sample ID: 93-03(1)-220411

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 621713

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier	Added	Result	Qualifier				Limits
1,1-Dichloroethane	ND		25.0	25.9		ug/L		104	77 - 120
1,1-Dichloroethene	ND		25.0	25.0		ug/L		100	66 - 127
1,2-Dichloroethane	ND		25.0	29.4		ug/L		118	75 - 120
1,2-Dichloropropane	ND		25.0	29.3		ug/L		117	76 - 120
2-Butanone (MEK)	ND	*+ F1	125	213	F1	ug/L		170	57 - 140
2-Hexanone	ND	*+ F1	125	244	F1	ug/L		195	65 - 127
4-Methyl-2-pentanone (MIBK)	ND	*+ F1	125	209	F1	ug/L		167	71 - 125
Acetone	ND		125	150		ug/L		120	56 - 142
Benzene	ND		25.0	27.4		ug/L		110	71 - 124
Bromodichloromethane	ND		25.0	29.6		ug/L		118	80 - 122
Bromoform	ND		25.0	27.1		ug/L		108	61 - 132
Bromomethane	ND		25.0	23.4		ug/L		93	55 - 144
Carbon disulfide	ND		25.0	26.4		ug/L		106	59 - 134
Carbon tetrachloride	ND		25.0	24.4		ug/L		98	72 - 134
Chlorobenzene	ND		25.0	27.2		ug/L		109	80 - 120
Chloroethane	ND		25.0	27.5		ug/L		110	69 - 136
Chloroform	ND		25.0	26.1		ug/L		104	73 - 127
Chloromethane	ND	F1	25.0	28.0		ug/L		112	68 - 124
cis-1,2-Dichloroethene	ND		25.0	24.6		ug/L		98	74 - 124
cis-1,3-Dichloropropene	ND		25.0	28.8		ug/L		115	74 - 124
Dibromochloromethane	ND		25.0	27.6		ug/L		110	75 - 125
Ethylbenzene	ND		25.0	29.3		ug/L		117	77 - 123
m,p-Xylene	ND		25.0	27.4		ug/L		109	76 - 122
Methylene Chloride	ND		25.0	23.0		ug/L		92	75 - 124
o-Xylene	ND		25.0	25.9		ug/L		104	76 - 122
Styrene	ND		25.0	28.4		ug/L		114	80 - 120
Tetrachloroethene	ND		25.0	26.4		ug/L		106	74 - 122
Toluene	ND		25.0	27.4		ug/L		110	80 - 122
trans-1,2-Dichloroethene	ND		25.0	23.2		ug/L		93	73 - 127
trans-1,3-Dichloropropene	ND	*+	25.0	28.7		ug/L		115	80 - 120
Trichloroethene	ND		25.0	28.0		ug/L		112	74 - 123
Vinyl chloride	ND		25.0	27.5		ug/L		110	65 - 133
Surrogate									
	MS	MS							
	%Recovery	Qualifier							
1,2-Dichloroethane-d4 (Surr)	106			77 - 120					
4-Bromofluorobenzene (Surr)	99			73 - 120					
Dibromofluoromethane (Surr)	90			75 - 123					
Toluene-d8 (Surr)	98			80 - 120					

Lab Sample ID: 480-196687-6 MSD

Client Sample ID: 93-03(1)-220411

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 621713

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec
	Result	Qualifier	Added	Result	Qualifier				RPD
1,1,1-Trichloroethane	ND		25.0	23.6		ug/L		95	73 - 126
1,1,2,2-Tetrachloroethane	ND		25.0	28.9		ug/L		116	76 - 120
1,1,2-Trichloroethane	ND		25.0	28.2		ug/L		113	76 - 122
1,1-Dichloroethane	ND		25.0	25.3		ug/L		101	77 - 120

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QC Sample Results

Client: Aptim Environmental & Infrastructure Inc
 Project/Site: Bell Aerospace Textron

Job ID: 480-196687-1

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

Lab Sample ID: 480-196687-6 MSD

Matrix: Water

Analysis Batch: 621713

Client Sample ID: 93-03(1)-220411

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
1,1-Dichloroethene	ND		25.0	23.9		ug/L		96	66 - 127	5	16
1,2-Dichloroethane	ND		25.0	29.4		ug/L		118	75 - 120	0	20
1,2-Dichloropropane	ND		25.0	28.7		ug/L		115	76 - 120	2	20
2-Butanone (MEK)	ND	*+ F1	125	199	F1	ug/L		159	57 - 140	7	20
2-Hexanone	ND	*+ F1	125	235	F1	ug/L		188	65 - 127	4	15
4-Methyl-2-pentanone (MIBK)	ND	*+ F1	125	201	F1	ug/L		161	71 - 125	4	35
Acetone	ND		125	143		ug/L		114	56 - 142	5	15
Benzene	ND		25.0	26.3		ug/L		105	71 - 124	4	13
Bromodichlormethane	ND		25.0	29.3		ug/L		117	80 - 122	1	15
Bromoform	ND		25.0	26.9		ug/L		108	61 - 132	1	15
Bromomethane	ND		25.0	26.1		ug/L		105	55 - 144	11	15
Carbon disulfide	ND		25.0	25.2		ug/L		101	59 - 134	5	15
Carbon tetrachloride	ND		25.0	23.8		ug/L		95	72 - 134	2	15
Chlorobenzene	ND		25.0	26.5		ug/L		106	80 - 120	3	25
Chloroethane	ND		25.0	29.5		ug/L		118	69 - 136	7	15
Chloroform	ND		25.0	25.5		ug/L		102	73 - 127	2	20
Chloromethane	ND	F1	25.0	31.4	F1	ug/L		126	68 - 124	11	15
cis-1,2-Dichloroethene	ND		25.0	23.5		ug/L		94	74 - 124	5	15
cis-1,3-Dichloropropene	ND		25.0	27.2		ug/L		109	74 - 124	6	15
Dibromochlormethane	ND		25.0	26.3		ug/L		105	75 - 125	5	15
Ethylbenzene	ND		25.0	28.5		ug/L		114	77 - 123	3	15
m,p-Xylene	ND		25.0	26.2		ug/L		105	76 - 122	4	16
Methylene Chloride	ND		25.0	22.6		ug/L		91	75 - 124	2	15
o-Xylene	ND		25.0	25.1		ug/L		101	76 - 122	3	16
Styrene	ND		25.0	26.6		ug/L		106	80 - 120	7	20
Tetrachloroethene	ND		25.0	25.1		ug/L		100	74 - 122	5	20
Toluene	ND		25.0	26.9		ug/L		108	80 - 122	2	15
trans-1,2-Dichloroethene	ND		25.0	22.1		ug/L		88	73 - 127	5	20
trans-1,3-Dichloropropene	ND	*+	25.0	28.2		ug/L		113	80 - 120	2	15
Trichloroethene	ND		25.0	26.5		ug/L		106	74 - 123	5	16
Vinyl chloride	ND		25.0	30.0		ug/L		120	65 - 133	9	15

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	104		77 - 120
4-Bromofluorobenzene (Surr)	100		73 - 120
Dibromofluoromethane (Surr)	92		75 - 123
Toluene-d8 (Surr)	96		80 - 120

Lab Sample ID: MB 480-621891/8

Matrix: Water

Analysis Batch: 621891

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/15/22 12:30	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/15/22 12:30	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/15/22 12:30	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/15/22 12:30	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/15/22 12:30	1

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QC Sample Results

Client: Aptim Environmental & Infrastructure Inc
 Project/Site: Bell Aerospace Textron

Job ID: 480-196687-1

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

Lab Sample ID: MB 480-621891/8

Client Sample ID: Method Blank
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 621891

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND				1.0	0.21	ug/L			04/15/22 12:30	1
1,2-Dichloropropane	ND				1.0	0.72	ug/L			04/15/22 12:30	1
2-Butanone (MEK)	ND				10	1.3	ug/L			04/15/22 12:30	1
2-Hexanone	ND				5.0	1.2	ug/L			04/15/22 12:30	1
4-Methyl-2-pentanone (MIBK)	ND				5.0	2.1	ug/L			04/15/22 12:30	1
Acetone	ND				10	3.0	ug/L			04/15/22 12:30	1
Benzene	ND				1.0	0.41	ug/L			04/15/22 12:30	1
Bromodichloromethane	ND				1.0	0.39	ug/L			04/15/22 12:30	1
Bromoform	ND				1.0	0.26	ug/L			04/15/22 12:30	1
Bromomethane	ND				1.0	0.69	ug/L			04/15/22 12:30	1
Carbon disulfide	ND				1.0	0.19	ug/L			04/15/22 12:30	1
Carbon tetrachloride	ND				1.0	0.27	ug/L			04/15/22 12:30	1
Chlorobenzene	ND				1.0	0.75	ug/L			04/15/22 12:30	1
Chloroethane	ND				1.0	0.32	ug/L			04/15/22 12:30	1
Chloroform	ND				1.0	0.34	ug/L			04/15/22 12:30	1
Chloromethane	ND				1.0	0.35	ug/L			04/15/22 12:30	1
cis-1,2-Dichloroethene	ND				1.0	0.81	ug/L			04/15/22 12:30	1
cis-1,3-Dichloropropene	ND				1.0	0.36	ug/L			04/15/22 12:30	1
Dibromochloromethane	ND				1.0	0.32	ug/L			04/15/22 12:30	1
Ethylbenzene	ND				1.0	0.74	ug/L			04/15/22 12:30	1
m,p-Xylene	ND				2.0	0.66	ug/L			04/15/22 12:30	1
Methylene Chloride	ND				1.0	0.44	ug/L			04/15/22 12:30	1
o-Xylene	ND				1.0	0.76	ug/L			04/15/22 12:30	1
Styrene	ND				1.0	0.73	ug/L			04/15/22 12:30	1
Tetrachloroethene	ND				1.0	0.36	ug/L			04/15/22 12:30	1
Toluene	ND				1.0	0.51	ug/L			04/15/22 12:30	1
trans-1,2-Dichloroethene	ND				1.0	0.90	ug/L			04/15/22 12:30	1
trans-1,3-Dichloropropene	ND				1.0	0.37	ug/L			04/15/22 12:30	1
Trichloroethene	ND				1.0	0.46	ug/L			04/15/22 12:30	1
Vinyl chloride	ND				1.0	0.90	ug/L			04/15/22 12:30	1

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		109		77 - 120			1
4-Bromofluorobenzene (Surr)	94		94		73 - 120			1
Dibromofluoromethane (Surr)	93		93		75 - 123			1
Toluene-d8 (Surr)	96		96		80 - 120			1

Lab Sample ID: LCS 480-621891/5

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 621891

Analyte	Added	Spike	LCS	LCS	Unit	D	%Rec	Limits	%Rec
			Result	Qualifier					
1,1,1-Trichloroethane	25.0		24.4		ug/L		98	73 - 126	
1,1,2,2-Tetrachloroethane	25.0		27.4		ug/L		109	76 - 120	
1,1,2-Trichloroethane	25.0		27.6		ug/L		110	76 - 122	
1,1-Dichloroethane	25.0		26.0		ug/L		104	77 - 120	
1,1-Dichloroethene	25.0		25.4		ug/L		102	66 - 127	
1,2-Dichloroethane	25.0		29.5		ug/L		118	75 - 120	

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QC Sample Results

Client: Aptim Environmental & Infrastructure Inc
 Project/Site: Bell Aerospace Textron

Job ID: 480-196687-1

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

Lab Sample ID: LCS 480-621891/5

Matrix: Water

Analysis Batch: 621891

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec
	Added	Result	Qualifier				Limits
1,2-Dichloropropane	25.0	29.9		ug/L	119	76 - 120	
2-Butanone (MEK)	125	191	*+	ug/L	153	57 - 140	
2-Hexanone	125	192	*+	ug/L	154	65 - 127	
4-Methyl-2-pentanone (MIBK)	125	174	*+	ug/L	139	71 - 125	
Acetone	125	156		ug/L	125	56 - 142	
Benzene	25.0	27.1		ug/L	108	71 - 124	
Bromodichloromethane	25.0	30.5		ug/L	122	80 - 122	
Bromoform	25.0	25.1		ug/L	101	61 - 132	
Bromomethane	25.0	22.9		ug/L	92	55 - 144	
Carbon disulfide	25.0	26.3		ug/L	105	59 - 134	
Carbon tetrachloride	25.0	24.8		ug/L	99	72 - 134	
Chlorobenzene	25.0	25.4		ug/L	102	80 - 120	
Chloroethane	25.0	28.4		ug/L	114	69 - 136	
Chloroform	25.0	26.0		ug/L	104	73 - 127	
Chloromethane	25.0	30.1		ug/L	121	68 - 124	
cis-1,2-Dichloroethene	25.0	24.6		ug/L	98	74 - 124	
cis-1,3-Dichloropropene	25.0	29.8		ug/L	119	74 - 124	
Dibromochloromethane	25.0	25.6		ug/L	102	75 - 125	
Ethylbenzene	25.0	27.3		ug/L	109	77 - 123	
m,p-Xylene	25.0	26.1		ug/L	104	76 - 122	
Methylene Chloride	25.0	23.7		ug/L	95	75 - 124	
o-Xylene	25.0	24.5		ug/L	98	76 - 122	
Styrene	25.0	26.6		ug/L	107	80 - 120	
Tetrachloroethene	25.0	24.1		ug/L	97	74 - 122	
Toluene	25.0	25.4		ug/L	102	80 - 122	
trans-1,2-Dichloroethene	25.0	23.2		ug/L	93	73 - 127	
trans-1,3-Dichloropropene	25.0	27.9		ug/L	112	80 - 120	
Trichloroethene	25.0	27.4		ug/L	110	74 - 123	
Vinyl chloride	25.0	27.1		ug/L	108	65 - 133	

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	112		77 - 120
4-Bromofluorobenzene (Surr)	97		73 - 120
Dibromofluoromethane (Surr)	96		75 - 123
Toluene-d8 (Surr)	98		80 - 120

Lab Sample ID: 480-196687-2 MS

Matrix: Water

Analysis Batch: 621891

Client Sample ID: EW-3-220411

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
1,1,1-Trichloroethane	ND		500	447		ug/L		89	73 - 126
1,1,2,2-Tetrachloroethane	ND		500	588		ug/L		118	76 - 120
1,1,2-Trichloroethane	ND		500	557		ug/L		111	76 - 122
1,1-Dichloroethane	14	J	500	498		ug/L		97	77 - 120
1,1-Dichloroethene	ND		500	463		ug/L		93	66 - 127
1,2-Dichloroethane	ND		500	559		ug/L		112	75 - 120
1,2-Dichloropropane	ND		500	559		ug/L		112	76 - 120

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QC Sample Results

Client: Optim Environmental & Infrastructure Inc
Project/Site: Bell Aerospace Textron

Job ID: 480-196687-1

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

Lab Sample ID: 480-196687-2 MS

Client Sample ID: EW-3-220411

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 621891

Analyte	Sample Result	Sample Qualifier	Spike Added	MS			D	%Rec	Limits
				Result	Qualifier	Unit			
2-Butanone (MEK)	ND	F1 *+	2500	3790	F1	ug/L	151	57 - 140	
2-Hexanone	ND	F1 *+	2500	4060	F1	ug/L	162	65 - 127	
4-Methyl-2-pentanone (MIBK)	ND	F1 *+	2500	3720	F1	ug/L	149	71 - 125	
Acetone	ND		2500	2800		ug/L	112	56 - 142	
Benzene	ND		500	512		ug/L	102	71 - 124	
Bromodichloromethane	ND		500	564		ug/L	113	80 - 122	
Bromoform	ND		500	459		ug/L	92	61 - 132	
Bromomethane	ND		500	408		ug/L	82	55 - 144	
Carbon disulfide	ND		500	485		ug/L	97	59 - 134	
Carbon tetrachloride	ND		500	435		ug/L	87	72 - 134	
Chlorobenzene	ND		500	513		ug/L	103	80 - 120	
Chloroethane	ND		500	541		ug/L	108	69 - 136	
Chloroform	ND		500	503		ug/L	101	73 - 127	
Chloromethane	ND		500	490		ug/L	98	68 - 124	
cis-1,2-Dichloroethene	480	F1	500	882		ug/L	81	74 - 124	
cis-1,3-Dichloropropene	ND		500	519		ug/L	104	74 - 124	
Dibromochloromethane	ND		500	495		ug/L	99	75 - 125	
Ethylbenzene	ND		500	536		ug/L	107	77 - 123	
m,p-Xylene	ND		500	517		ug/L	103	76 - 122	
Methylene Chloride	ND		500	444		ug/L	89	75 - 124	
o-Xylene	ND		500	480		ug/L	96	76 - 122	
Styrene	ND		500	533		ug/L	107	80 - 120	
Tetrachloroethene	ND		500	462		ug/L	92	74 - 122	
Toluene	ND		500	505		ug/L	101	80 - 122	
trans-1,2-Dichloroethene	ND		500	428		ug/L	86	73 - 127	
trans-1,3-Dichloropropene	ND		500	532		ug/L	106	80 - 120	
Trichloroethene	ND		500	529		ug/L	106	74 - 123	
Vinyl chloride	1100	F1	500	1330	F1	ug/L	55	65 - 133	
MS									
Surrogate	%Recovery	Qualifier		MS					
1,2-Dichloroethane-d4 (Surr)	108			77 - 120					
4-Bromofluorobenzene (Surr)	97			73 - 120					
Dibromofluoromethane (Surr)	90			75 - 123					
Toluene-d8 (Surr)	97			80 - 120					

Lab Sample ID: 480-196687-2 MSD

Client Sample ID: EW-3-220411

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 621891

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD			D	%Rec	Limits	RPD	Limit
				Result	Qualifier	Unit					
1,1,1-Trichloroethane	ND		500	423		ug/L	85	73 - 126	6	15	
1,1,2,2-Tetrachloroethane	ND		500	580		ug/L	116	76 - 120	1	15	
1,1,2-Trichloroethane	ND		500	567		ug/L	113	76 - 122	2	15	
1,1-Dichloroethane	14	J	500	470		ug/L	91	77 - 120	6	20	
1,1-Dichloroethene	ND		500	435		ug/L	87	66 - 127	6	16	
1,2-Dichloroethane	ND		500	550		ug/L	110	75 - 120	2	20	
1,2-Dichloropropane	ND		500	546		ug/L	109	76 - 120	2	20	
2-Butanone (MEK)	ND	F1 *+	2500	3790	F1	ug/L	152	57 - 140	0	20	

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QC Sample Results

Client: Aptim Environmental & Infrastructure Inc
 Project/Site: Bell Aerospace Textron

Job ID: 480-196687-1

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

Lab Sample ID: 480-196687-2 MSD

Client Sample ID: EW-3-220411

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 621891

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits			
2-Hexanone	ND	F1 *+	2500	4400	F1	ug/L	176	65 - 127	8	15		
4-Methyl-2-pentanone (MIBK)	ND	F1 *+	2500	3800	F1	ug/L	152	71 - 125	2	35		
Acetone	ND		2500	2690		ug/L	107	56 - 142	4	15		
Benzene	ND		500	486		ug/L	97	71 - 124	5	13		
Bromodichloromethane	ND		500	555		ug/L	111	80 - 122	2	15		
Bromoform	ND		500	502		ug/L	100	61 - 132	9	15		
Bromomethane	ND		500	387		ug/L	77	55 - 144	5	15		
Carbon disulfide	ND		500	447		ug/L	89	59 - 134	8	15		
Carbon tetrachloride	ND		500	415		ug/L	83	72 - 134	5	15		
Chlorobenzene	ND		500	496		ug/L	99	80 - 120	3	25		
Chloroethane	ND		500	481		ug/L	96	69 - 136	12	15		
Chloroform	ND		500	478		ug/L	96	73 - 127	5	20		
Chloromethane	ND		500	491		ug/L	98	68 - 124	0	15		
cis-1,2-Dichloroethene	480	F1	500	832	F1	ug/L	71	74 - 124	6	15		
cis-1,3-Dichloropropene	ND		500	515		ug/L	103	74 - 124	1	15		
Dibromochloromethane	ND		500	509		ug/L	102	75 - 125	3	15		
Ethylbenzene	ND		500	524		ug/L	105	77 - 123	2	15		
m,p-Xylene	ND		500	486		ug/L	97	76 - 122	6	16		
Methylene Chloride	ND		500	422		ug/L	84	75 - 124	5	15		
o-Xylene	ND		500	467		ug/L	93	76 - 122	3	16		
Styrene	ND		500	535		ug/L	107	80 - 120	0	20		
Tetrachloroethene	ND		500	451		ug/L	90	74 - 122	2	20		
Toluene	ND		500	499		ug/L	100	80 - 122	1	15		
trans-1,2-Dichloroethene	ND		500	409		ug/L	82	73 - 127	5	20		
trans-1,3-Dichloropropene	ND		500	547		ug/L	109	80 - 120	3	15		
Trichloroethene	ND		500	496		ug/L	99	74 - 123	6	16		
Vinyl chloride	1100	F1	500	1250	F1	ug/L	39	65 - 133	7	15		
Surrogate												
MSD												
Surrogate												
%Recovery												
Qualifier												
Limits												
1,2-Dichloroethane-d4 (Surr)	106			77 - 120								
4-Bromofluorobenzene (Surr)	97			73 - 120								
Dibromofluoromethane (Surr)	92			75 - 123								
Toluene-d8 (Surr)	97			80 - 120								

QC Association Summary

Client: Aptim Environmental & Infrastructure Inc
Project/Site: Bell Aerospace Textron

Job ID: 480-196687-1

GC/MS VOA

Analysis Batch: 621713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-196687-1	EW-2-220411	Total/NA	Water	8260C	1
480-196687-2	EW-3-220411	Total/NA	Water	8260C	2
480-196687-3	EW-4-220411	Total/NA	Water	8260C	3
480-196687-4	EW-5-220411	Total/NA	Water	8260C	4
480-196687-5	EW-6-220411	Total/NA	Water	8260C	5
480-196687-6	93-03(1)-220411	Total/NA	Water	8260C	6
480-196687-8	TB-220411	Total/NA	Water	8260C	7
MB 480-621713/7	Method Blank	Total/NA	Water	8260C	8
LCS 480-621713/5	Lab Control Sample	Total/NA	Water	8260C	9
LCSD 480-621713/8	Lab Control Sample Dup	Total/NA	Water	8260C	10
480-196687-6 MS	93-03(1)-220411	Total/NA	Water	8260C	11
480-196687-6 MSD	93-03(1)-220411	Total/NA	Water	8260C	12

Analysis Batch: 621891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-196687-2 - DL	EW-3-220411	Total/NA	Water	8260C	11
480-196687-7	DUP-01	Total/NA	Water	8260C	12
MB 480-621891/8	Method Blank	Total/NA	Water	8260C	13
LCS 480-621891/5	Lab Control Sample	Total/NA	Water	8260C	14
480-196687-2 MS	EW-3-220411	Total/NA	Water	8260C	15
480-196687-2 MSD	EW-3-220411	Total/NA	Water	8260C	

Lab Chronicle

Client: Optim Environmental & Infrastructure Inc
 Project/Site: Bell Aerospace Textron

Job ID: 480-196687-1

Client Sample ID: EW-2-220411

Date Collected: 04/11/22 16:25

Date Received: 04/12/22 14:26

Lab Sample ID: 480-196687-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	621713	04/14/22 14:40	CR	TAL BUF

Client Sample ID: EW-3-220411

Date Collected: 04/11/22 16:05

Date Received: 04/12/22 14:26

Lab Sample ID: 480-196687-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	621713	04/14/22 15:03	CR	TAL BUF
Total/NA	Analysis	8260C	DL	20	621891	04/15/22 13:06	CRL	TAL BUF

Client Sample ID: EW-4-220411

Date Collected: 04/11/22 15:45

Date Received: 04/12/22 14:26

Lab Sample ID: 480-196687-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	621713	04/14/22 15:26	CR	TAL BUF

Client Sample ID: EW-5-220411

Date Collected: 04/11/22 15:20

Date Received: 04/12/22 14:26

Lab Sample ID: 480-196687-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	621713	04/14/22 15:49	CR	TAL BUF

Client Sample ID: EW-6-220411

Date Collected: 04/11/22 12:25

Date Received: 04/12/22 14:26

Lab Sample ID: 480-196687-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	621713	04/14/22 16:28	CR	TAL BUF

Client Sample ID: 93-03(1)-220411

Date Collected: 04/11/22 11:15

Date Received: 04/12/22 14:26

Lab Sample ID: 480-196687-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	621713	04/14/22 16:50	CR	TAL BUF

Client Sample ID: DUP-01

Date Collected: 04/11/22 00:00

Date Received: 04/12/22 14:26

Lab Sample ID: 480-196687-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	621891	04/15/22 13:29	CRL	TAL BUF

Eurofins Buffalo

Lab Chronicle

Client: Aptim Environmental & Infrastructure Inc
Project/Site: Bell Aerospace Textron

Job ID: 480-196687-1

Client Sample ID: TB-220411

Lab Sample ID: 480-196687-8

Date Collected: 04/11/22 00:00

Matrix: Water

Date Received: 04/12/22 14:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	621713	04/14/22 17:35	CR	TAL BUF

Laboratory References:

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

Accreditation/Certification Summary

Client: Aptim Environmental & Infrastructure Inc
Project/Site: Bell Aerospace Textron

Job ID: 480-196687-1

Laboratory: Eurofins Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NEILAP	10026	03-31-23

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Eurofins Buffalo

Method Summary

Client: Aptim Environmental & Infrastructure Inc
Project/Site: Bell Aerospace Textron

Job ID: 480-196687-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
5030C	Purge and Trap	SW846	TAL BUF

Protocol References:

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

Laboratory References:

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

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Sample Summary

Client: Aptim Environmental & Infrastructure Inc
Project/Site: Bell Aerospace Textron

Job ID: 480-196687-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-196687-1	EW-2-220411	Water	04/11/22 16:25	04/12/22 14:26
480-196687-2	EW-3-220411	Water	04/11/22 16:05	04/12/22 14:26
480-196687-3	EW-4-220411	Water	04/11/22 15:45	04/12/22 14:26
480-196687-4	EW-5-220411	Water	04/11/22 15:20	04/12/22 14:26
480-196687-5	EW-6-220411	Water	04/11/22 12:25	04/12/22 14:26
480-196687-6	93-03(1)-220411	Water	04/11/22 11:15	04/12/22 14:26
480-196687-7	DUP-01	Water	04/11/22 00:00	04/12/22 14:26
480-196687-8	TB-220411	Water	04/11/22 00:00	04/12/22 14:26

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2223
phone 716.691.2600 fax 716.691.7991

Chain of Custody Record

eurofins Environment Testing
TestAmerica

Regulatory Program: <input type="checkbox"/> DW <input type="checkbox"/> NPDES <input type="checkbox"/> RCRA <input type="checkbox"/> Other:		Project Manager: Paul Bauer Email: paul.bauer@aptim.com Tel/Fax: 412-736-1462		Site Contact: Kevin Cronin Lab Contact: Brian Fischer Date: Carrier:	TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica COC No. <input type="text"/> of <input type="text"/> COCs TALS Project #: <input type="text"/>	
Client Contact		Analysis Turnaround Time		For Lab Use Only: Walk-in Client: <input type="text"/> Lab Sampling: <input type="text"/> Job / SDG No.: <input type="text"/>	Sampler: <input type="text"/>	
APTM Environmental & Infrastructure, LLC 500 Penn Center Blvd, Suite 1000 Pittsburgh, PA 15235 (412) 736-1462 (xxx) xxx-xxxx Project Name: Textron Off-Site Performance Wells Site: Textron Wheatfield PO # OS 217985		CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below 2 weeks <input checked="" type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day <input type="checkbox"/>		8260C (MOD) Client Specific List  Performance MS / MSD (Y / N) <input type="checkbox"/> Filtered Sample (Y / N) <input type="checkbox"/>		
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp. G=Grab)	Matrix	# of cont.	Sample Specific Notes:
EW-2 - 220411	4/11/22	1625	G	W	3	N X
EW-3 - 220411		1605	G	W	3	N X
EW-4 - 220411		1545	G	W	3	N X
EW-5 - 220411		1520	G	W	3	N X
EW-6 - 220411	4/11/22	1225	G	W	3	N X
93-03(1) - 220411	4/11/22	1115	G	W	3	N X
93-03(1) MS - 220411			G	W	3	N Y X
93-03(1) MSD - 220411			G	W	3	N Y X
DUP - 01	4/11/22	-	G	W	3	N X
TB - 220411			G	W	3	N X
			G	W	2	X KSC
			G	W	1	
Preservation Used: 1=Ice, 2=HCl, 3=H ₂ SO ₄ , 4=HNO ₃ , 5=NaOH; 6=Other						
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.						
<input type="checkbox"/> Non-Hazardous <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison A <input type="checkbox"/> Unknown <input type="checkbox"/> Poison B						
Special Instructions/QC Requirements & Comments:						
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.: <input type="text"/>		Cooler Temp (°C): <input type="text"/> Received by <input type="text"/>	Corr'd <input type="text"/>	Therm ID No.: <input type="text"/>
Relinquished by: <input type="text"/>		Company: APTIM		Date/Time: <input type="text"/> Received by: <input type="text"/>	Company: <input type="text"/>	Date/Time: <input type="text"/>
		Company: <input type="text"/>		Date/Time: <input type="text"/>	Company: <input type="text"/>	Date/Time: <input type="text"/>
Relinquished by: <input type="text"/>		Company: <input type="text"/>		Date/Time: <input type="text"/>	Company: <input type="text"/>	Date/Time: <input type="text"/>
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)						
<input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for <input type="text"/> Months						

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Login Sample Receipt Checklist

Client: Aptim Environmental & Infrastructure Inc

Job Number: 480-196687-1

Login Number: 196687

List Source: Eurofins Buffalo

List Number: 1

Creator: Sabuda, Brendan D

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	6.6 #1 ice
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	

Attachment B

Field Sampling Sheets

Aptim Environmental & Infrastructure, Inc.
Groundwater Sample Event Field Data Sheet



Project Name: 2022 Offsite Performance Sampling

Project No.: 631017563.00221320

Water Level Data

Date: 04/ 11 /2022

Start Time: 0940

Well ID: MW 93 - 03(1)

*Volume Factors:

2-inch well = 0.163 gal / ft

Initial Total Casing Length: ~ 46.95 (feet)

Depth to Water (from top of casing): ~ 9.72 (feet)

a) Height of Water Column: 37.23 (feet)

Well Volume ([a] x volume factor *) = 37.23 (feet) x 0.163 gallons / foot = 6.0 gallons

Purge Data

Date: 04/ 11 /2022

Time: 0945 (start) _____ (finish)

Method (Waterra, bailer, submersible pump, etc.): Low Flow (Peristaltic Pump & Dedicated Tubing)

Purge Volume (if applicable): _____

Time	0946	1000	1040	1050	1100	1105	
Volume	<0.1	~ 0.8	~ 3.0	~ 3.5	~ 4.0	~ 4.2	
Specific Conductivity	1,919	1,914	1,528	1,577	1,631	1,640	
pH	5.59	6.89	6.91	6.91	6.91	6.91	
Temperature	9.5	10.6	10.6	10.5	10.5	10.6	
ORP	-19.0	-190.6	-236.2	-242.8	-243.8	-245.3	
DO	17.21	3.91	1.37	1.15	1.07	0.99	
Turbidity	1.17	0.82	0.16	0.68	0.72	1.38	
Water Level	~ 9.80	~ 9.80	~ 9.80	~ 9.79	~ 9.78	~ 9.80	

Did well dry out? (If yes, how many times?) NO

Actual Volume Removed: ~ 4.7 (gal.)

Sampling Data

Sample ID: 93 - 03(1)-2104 11

Sample Time: 1115

Sample Date: 04/ 11 /2022

Color: CIGAR

PID (ppmv): 0.0

Odor: Y/N

Sampling Method: Low Flow

Constituents Samples	Container Description	Preservative
VOCs	3 x 40 mL VOA vials	HCL - no headspace

Comments: TRIED TO ASSIST EVAN S. w/ FREEING HIS TRUCK FROM DITCH.
MS/MSD AND DUP-01 COLLECTED HERE

TEXTRON, INC.
FIELD SAMPLING DATA SHEET
WELL PURGE – WATER QUALITY MEASUREMENTS

Site Name: Textron, Wheatfield, NY
 Project Number: 631017563
 Well Number: MW- 93-03(1)
 Date: 04/ 11 /2022
 Field Personnel: K. Cronin
 Physical Condition of Well: Good
 Well Diameter: 2"
 Air Monitoring Results: 0.0 ppmv ✓
 Depth to Product: -
 Depth to Water: ~ 9.72
 Depth to Bottom: ~ 46.95
 Purge Volume: ~ 6.0
 Volume Removed: ~ 4.7

*Volume Factors: (circle one)

1.25-inch well = 0.064 gal/ft
 2-inch well = 0.163 gal/ft
 4-inch well = 0.653 gal/ft

Purge Method: circle one

<u>Stainless Steel Bailer</u>	<u>Dedicated Poly Tubing from Sampling Port</u>	<u>Whale Pump with ET Tubing</u>	<u>Polyethylene Bailer</u>	<u>Grundfos Submersible Pump</u>
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Purge Water Disposal: In Plant for shipping offsite treatment

*GEO PUMP w/
Dedicated
BAILER
TUBING*

PARAMETERS Units	pH s.u.	Spec. Cond. ms/cm	Temp. °C	Sample Description
Initial Purge	<u>5.59</u>	<u>1.919</u>	<u>9.5</u>	clear
Final Purge	<u>6.91</u>	<u>1.660</u>	<u>10.6</u>	clear

Sampling Method: circle one

<u>Stainless Steel Bailer</u>	<u>Dedicated Poly Tubing from Sampling Port</u>	<u>Whale Pump with ET Tubing</u>	<u>Polyethylene Bailer</u>	<u>Grundfos Submersible Pump</u>
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*GEO PUMP w/
Dedicated
TUBING*

Sample Number: 93-03(1)-2204 11

Sample Collection Date/Time: 04/ 11 /2022 1115

Analysis Requested: EPA Method 8260

Notes: MS/MSD + DUP-1 COLLECTED HERE

Sampler Signature: _____

TEXTRON, INC.
FIELD SAMPLING DATA SHEET
WELL PURGE – WATER QUALITY MEASUREMENTS

Site Name: Textron, Wheatfield, NY
 Project Number: 631017563
 Well Number: EW- 2
 Date: 04/ 11 /2022
 Field Personnel: K. Cronin, Evan Schlegel
 Physical Condition of Well: Good
 Well Diameter: ~ 6"
 Air Monitoring Results: 0.0 ppmv ✓
 Depth to Product: —
 Depth to Water: 7.92
 Depth to Bottom: —
 Purge Volume: —
 Volume Removed: ~ 1 Gal

*Volume Factors: (circle one)

1.25-inch well = 0.064 gal/ft
 2-inch well = 0.163 gal/ft
 4-inch well = 0.653 gal/ft

Purge Method: circle one

Stainless Steel Bailer	Dedicated Poly Tubing from Sampling Port	Whale Pump with ET Tubing	Polyethylene Bailer	Grundfos Submerisble Pump
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Purge Water Disposal: In Plant for shipping offsite treatment

PARAMETERS Units	pH s.u.	Spec. Cond. ms/cm	Temp. °C	Sample Description
Initial Purge	<u>7.19</u>	<u>1.444</u>	<u>12.6</u>	clear
Final Purge	<u>7.14</u>	<u>1.434</u>	<u>12.7</u>	clear

Sampling Method: circle one

Stainless Steel Bailer	Dedicated Poly Tubing from Sampling Port	Whale Pump with ET Tubing	Polyethylene Bailer	Grundfos Submerisble Pump
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Sample Number: EW- 2 -2204 11

Sample Collection Date/Time: 04/ 11 /2022 1625

Analysis Requested: EPA Method 8260

Notes:

Sampler Signature: _____

TEXTRON, INC.
FIELD SAMPLING DATA SHEET
WELL PURGE – WATER QUALITY MEASUREMENTS

Site Name: Textron, Wheatfield, NY
 Project Number: 631017563
 Well Number: EW- 3
 Date: 04/ 11 /2022
 Field Personnel: K. Cronin, Evan Schlegel
 Physical Condition of Well: Good
 Well Diameter: ~ 6"
 Air Monitoring Results: 0.0 ppmv ✓
 Depth to Product: ~
 Depth to Water: 18.20
 Depth to Bottom: -
 Purge Volume: _____
 Volume Removed: ~ 5 GAL

*Volume Factors: (circle one)

1.25-inch well = 0.064 gal/ft

2-inch well = 0.163 gal/ft

4-inch well = 0.653 gal/ft

Purge Method: circle one

Stainless Steel Bailer	Dedicated Poly Tubing from Sampling Port	Whale Pump with ET Tubing	Polyethylene Bailer	Grundfos Submerisble Pump
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Purge Water Disposal: In Plant for shipping offsite treatment

PARAMETERS Units	pH s.u.	Spec. Cond. ms/cm	Temp. °C	Sample Description
Initial Purge	<u>7.16</u>	<u>2.502</u>	<u>12.1</u>	clear
Final Purge	<u>7.09</u>	<u>2.606</u>	<u>12.4</u>	clear

Sampling Method: circle one

Stainless Steel Bailer	Dedicated Poly Tubing from Sampling Port	Whale Pump with ET Tubing	Polyethylene Bailer	Grundfos Submerisble Pump
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Sample Number: EW- 3 -220411 1605

Sample Collection Date/Time: 04/ 11 /2022

Analysis Requested: EPA Method 8260

Notes:

Sampler Signature:

TEXTRON, INC.
FIELD SAMPLING DATA SHEET
WELL PURGE – WATER QUALITY MEASUREMENTS

Site Name: Textron, Wheatfield, NY
 Project Number: 631017563
 Well Number: EW- 4
 Date: 04/ 11 /2022
 Field Personnel: K. Cronin, Evan Schlegel
 Physical Condition of Well: Good
 Well Diameter: ~ 6"
 Air Monitoring Results: 0.0 ppmv ✓
 Depth to Product: —
 Depth to Water: 31.25
 Depth to Bottom: NM
 Purge Volume: _____
 Volume Removed: ~ 1.0 Gal

*Volume Factors: (circle one)

1.25-inch well = 0.064 gal/ft
 2-inch well = 0.163 gal/ft
 4-inch well = 0.653 gal/ft

Purge Method: circle one

Stainless Steel Bailer	<u>Dedicated Poly Tubing from Sampling Port</u>	Whale Pump with ET Tubing	Polyethylene Bailer	Grundfos Submersible Pump
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Purge Water Disposal: In Plant for shipping offsite treatment

PARAMETERS Units	pH s.u.	Spec. Cond. ms/cm	Temp. °C	Sample Description
Initial Purge	<u>7.23</u>	<u>1.564</u>	<u>11.7</u>	clear
Final Purge	<u>7.14</u>	<u>1.542</u>	<u>11.8</u>	clear

Sampling Method: circle one

Stainless Steel Bailer	<u>Dedicated Poly Tubing from Sampling Port</u>	Whale Pump with ET Tubing	Polyethylene Bailer	Grundfos Submersible Pump
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Sample Number: EW- 4 -2204 11

Sample Collection Date/Time: 04/ 11 /2022 1545

Analysis Requested: EPA Method 8260

Notes:

Sampler Signature: _____

TEXTRON, INC.
FIELD SAMPLING DATA SHEET
WELL PURGE – WATER QUALITY MEASUREMENTS

Site Name: Textron, Wheatfield, NY
Project Number: 631017563
Well Number: EW- 5
Date: 04/ 11 /2022
Field Personnel: K. Cronin, Evan Schlegel
Physical Condition of Well: Good
Well Diameter: ~ 6"
Air Monitoring Results: 0.0 ppmv ✓
Depth to Product: ~
Depth to Water: 28.31
Depth to Bottom: NM
Purge Volume: _____
Volume Removed: ~ 6.5 GAL

*Volume Factors: (circle one)

1.25-inch well = 0.064 gal/ft
2-inch well = 0.163 gal/ft
4-inch well = 0.653 gal/ft

Purge Method: circle one

Stainless Steel Bailer	<u>Dedicated Poly Tubing from Sampling Port</u>	Whale Pump with ET Tubing	Polyethylene Bailer	<u>Grundfos Submersible Pump</u>
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Purge Water Disposal: In Plant for shipping offsite treatment

PARAMETERS Units	pH s.u.	Spec. Cond. ms/cm	Temp. °C	Sample Description
Initial Purge	<u>7.09</u>	<u>1,510</u>	<u>11.1</u>	clear
Final Purge	<u>7.10</u>	<u>1,523</u>	<u>11.1</u>	clear

Sampling Method: circle one

Stainless Steel Bailer	<u>Dedicated Poly Tubing from Sampling Port</u>	Whale Pump with ET Tubing	Polyethylene Bailer	<u>Grundfos Submersible Pump</u>
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Sample Number: EW- 5 -220411

Sample Collection Date/Time: 04/ 11 /2022 1520

Analysis Requested: EPA Method 8260

Notes:

Sampler Signature: _____

TEXTRON, INC.
FIELD SAMPLING DATA SHEET
WELL PURGE – WATER QUALITY MEASUREMENTS

Site Name: Textron, Wheatfield, NY
 Project Number: 631017563
 Well Number: EW- 6
 Date: 04/ 11 /2022
 Field Personnel: K. Cronin, Evan Schlegel
 Physical Condition of Well: Good
 Well Diameter: ~ 6"
 Air Monitoring Results: 0.200 ppmv
 Depth to Product: ~
 Depth to Water: ~8.85
 Depth to Bottom: NM
 Purge Volume: _____
 Volume Removed: ~ 2.0

*Volume Factors: (circle one)

1.25-inch well = 0.064 gal/ft
 2-inch well = 0.163 gal/ft
 4-inch well = 0.653 gal/ft

Purge Method: circle one

<input type="radio"/> Stainless Steel Bailer	<input type="radio"/> Dedicated Poly Tubing from Sampling Port	<input type="radio"/> Whale Pump with ET Tubing	<input type="radio"/> Polyethylene Bailer	<input type="radio"/> Grundfos Submersible Pump
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Purge Water Disposal: In Plant for shipping offsite treatment

*GEOPump w/
Dedicated
TUBING*

PARAMETERS Units	pH s.u.	Spec. Cond. ms/cm	Temp. °C	Sample Description
Initial Purge	<u>7.27</u>	<u>1.186</u>	<u>11.8</u>	clear
Final Purge	<u>7.10</u>	<u>1.100</u>	<u>11.1</u>	clear

Sampling Method: circle one

<input type="radio"/> Stainless Steel Bailer	<input type="radio"/> Dedicated Poly Tubing from Sampling Port	<input type="radio"/> Whale Pump with ET Tubing	<input type="radio"/> Polyethylene Bailer	<input type="radio"/> Grundfos Submersible Pump
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Sample Number: EW- 6 -220411

Sample Collection Date/Time: 04/ 11 /2022

Analysis Requested: EPA Method 8260

*GEOPump w/
Dedicated
TUBING*

Notes: _____

*t 11 11g @ 1225
→ COLLECTED 4/12/22 @ 0825*

Sampler Signature: _____