# Operation, Maintenance and Monitoring Report February 2020

## NOW Corporation NYSDEC Site No. 3-14-008

## Work Assignment No. D007626-25

## Prepared for:

SUPERFUND STANDBY PROGRAM
New York State
Department of Environmental Conservation
625 Broadway
Albany, New York 12233

## Prepared by:

AECOM Technical Services Northeast, Inc. 40 British American Boulevard Latham, New York 12110

March 2020



March 28, 2020

Mr. Payson Long NYSDEC Division of Environmental Remediation 625 Broadway, 12<sup>th</sup> Floor Albany, New York 12233-7013

Re: NOW Corporation - Site No. 3-14-008 O&M Summary Report: February 2020

Dear Mr. Long:

This monthly summary report describes the operation, maintenance and monitoring (OM&M) of the remedial system at the NOW Corporation site in the Town of Clinton, New York, for a 27-day period (January 22, 2020 – February 18, 2020).

With the exceptions noted below, if any, the pump and treat system was online and operational throughout the reporting period. Approximately 252,000 gallons of water were treated. Discharge from the treatment system averaged approximately 9,300 gallons per day (gpd).

As of the last day of the reporting period, a total of 118,440,695 gallons of groundwater had been recovered and treated by the system since it became operational in February 1998.

Table 1 summarizes influent and effluent analytical data for water samples collected on February 18, 2020. **There were no exceedances of effluent limitations.** A copy of the analytical laboratory report is attached. Total VOCs in the most contaminated extraction well (TW-2A) was 655  $\mu$ g/L; last month's value was 1,648  $\mu$ g/L.

Table 2 presents operational data recorded on the sampling date.

Table 3 presents quarterly water levels measured in selected monitoring wells.

There was no downtime during the reporting period. Pumps in recovery wells were operational throughout the period.

AECOM made one site visit to conduct the required system inspection, perform scheduled maintenance, and to collect water samples. Details for the current period follow:

<u>February 18</u> – Performed monthly system inspection and influent and effluent sampling. Collected well water level measurements.

The VFD regulating the stripper blower remained at 55 Hz upon departure.

Page 2 Mr. Payson Long NYSDEC

Please feel free to contact me at (518) 951-2373, or at <a href="mailto:lindsay.mitchell@aecom.com">lindsay.mitchell@aecom.com</a> if you have any questions or comments regarding this report or the operation of the treatment system.

Sincerely,

AECOM Technical Services Northeast, Inc.

Lindsay Mitchell, P.E.

Lindsay Mitchell

Project Manager

## Table 1 Summary of Influent and Effluent Data Sampling Date: February 18, 2020 NOW Corporation Site NYSDEC Site No. 3-14-008

**Town of Clinton, New York** 

Analytes/	Total		Recovery Wells			Effluent		
Parameters	Influent	<b>Effluent</b>	TW-1	TW-2A	TW-3	Lim	itations	
							(units)	
Quantity treated, avg per day		9,323				Monitor	gallons	
pH	6.9	7.2				6.5 to 8.5	standard units	
Oil and Grease	<5	<5	NA	NA	NA	15	mg/L	
Total Cyanide	< 0.01	< 0.01	NA	NA	NA	0.01	mg/L	
TDS	260	230	NA	NA	NA	1000	mg/L	
TSS	5	<2.5	NA	NA	NA	50	mg/L	
Aluminum, Total	<25	<25	NA	NA	NA	Monitor	µg/L	
Arsenic, Total	<30	<30	NA	NA	NA	100	µg/L	
Barium, Total	62.9	76.8	NA	NA	NA	Monitor	µg/L	
Chromium	2.1 J	<15	NA	NA	NA	400	µg/L	
Copper	<20	<20	NA	NA	NA	24	µg/L	
Iron	148 J	< 200	NA	NA	NA	600	µg/L	
Mercury	< 0.2	< 0.2	NA	NA	NA	0.8	µg/L	
Manganese	70.4	35.5	NA	NA	NA	Monitor	µg/L	
Nickel	<10	2.1 J	NA	NA	NA	200	µg/L	
Zinc	<20	<20	NA	NA	NA	150	µg/L	
1,1,1-Trichloroethane	150	<1	1	250	2	10	µg/L	
1,1,2-Trichloroethane	<1	<1	<1	<1	<1	1.2	µg/L	
1,1-Dichloroethane	61	<1	25	95	5	10	µg/L	
1,1-Dichloroethene	8	<1	9	9	0.7 J	0.5	µg/L	
1,2-Dichloroethane	<1	<1	<1	<1	<1	1.6	µg/L	
2-Butanone	<10	<10	<10	<10	<10	NL	µg/L	
Benzene	<1	<1	<1	<1	<1	1.4	µg/L	
Chlorobenzene	<1	<1	<1	<1	<1	10	µg/L	
Chloroethane	<1	<1	<1	0.2 J	<1	10	µg/L	
cis-1,2-Dichloroethene	7	<1	4	10	<1	5	µg/L	
Ethylbenzene	<1	<1	<1	<1	<1	10	µg/L	
o-Xylene	<1	<1	<1	<1	<1	5	µg/L	
m,p-Xylene	<5	<5	<5	<5	<5	10	µg/L	
Tetrachloroethene	<1	<1	<1	<1	<1	1.4	µg/L	
Tetrahydrofuran	<10	1 J	<10	<10	<10	NL	µg/L	
Toluene	<1	<1	<1	<1	<1	10	µg/L	
Trichloroethene	170	<1	41	290	16	6	µg/L	
Vinyl Chloride	<1	<1	<1	0.4 J	<1	0.6	µg/L	

## Notes:

- 1) Detected concentrations are presented in **bold** typeface, and are expressed in the units shown in far right column.
- 2) Effluent concentration boxed in **bold** denotes exceedance of effluent limitations.
- 3) NA indicates not analyzed.
- 4) "J" indicates an estimated concentration below the reporting limit (RL).
- 5) "B" denotes metal detected in method blank at concentration below the RL, but above the method detection limit.
- 6) " $\boldsymbol{D}$ " indicates result from a diluted sample.
- 7) NL indicates no effluent limitations specified.
- 8) "B" indicates analyte is found in the associated blank as well as in the sample.

Tables February 2020\_LMM.xls 3/28/2020

## Table 2 Summary of February 2020 O&M Data

## NOW Corporation Site Town of Clinton, New York

Instrumentati	on/Readings:	2/18/20	Units
TW-1			
	Pumping Rate	0	GPM
	Water Level Above Transducer	14.82	feet
	Flow Meter Reading	9,356,900	gallons
	Pump Pressure	0	psi
TW-2A			
	Pumping Rate	14	GPM
	Water Level Above Transducer	25.41	feet
	Flow Meter Reading	21,217,300	gallons
	Pump Pressure	0	psi
TW-3			
	Pumping Rate	1	GPM
	Water Level Above Transducer	78.42	feet
	Flow Meter Reading	16,982,700	gallons
	Pump Pressure	0	psi
VFD Setting	Arrival	55	Hz
	Departure	55	Hz
Air Stripper			
	Stripper Blower Pressure	13.5	inches H <sub>2</sub> O
	Air Temperature in Stripper	52	°F
Effluent Flow			
	Effluent Flow this period	251,712	gallons
	Total Effluent Flow	118,440,695	gallons

Tables February 2020.xls 3/9/2020

Table 3 Groundwater Levels NOW Corporation Site NYSDEC Site No. 3-14-008 Town of Clinton, New York

	MP	2/18/20	
Well ID	Elevation	Depth to Water (Ft below MP)	<b>GW Elevation</b>
MW-1	289.50	9.55	279.95
MW-2	332.51	24.10	308.41
MW-3	312.83	22.13	290.70
MW-3S	312.51	19.78	292.73
MW-4S	298.29	21.28	277.01
MW-4D	298.16	20.18	277.98
MW-5	285.48	17.88	267.60
MW-6S	287.90	3.59	284.31
MW-6D	287.25	6.40	280.85
MW-7S	292.12	12.98	279.14
MW-7D	292.54	32.20	260.34
OW-1	307.75	41.38	266.37
OW-2	305.96	63.41	242.55
OW-3	NA		NA
OW-4	NA		NA
OW-5	NA		NA
OW-6	294.81	4.10	290.71
IW-1	312.46	24.33	288.13
IW-2	304.56	34.25	270.31
MW-8	283.65		NA
MW-9	275.37		NA
MW-10	280.92		NA
MW-11	283.72		NA
MW-12S	NA		NA
MW-12D	NA		NA

Note: NA indicates data are not available.

MP denotes measuring point.

<sup>--</sup> denotes that measurements were not collected.



V	Final Report
	Revised Report

Report Date: 25-Feb-20 16:28

## Laboratory Report SC57537

AECOM Environment 40 British American Boulevard Latham, NY 12110 Attn: Lindsay Mitchell

Project: Now Corp - Staatsburg, NY

Project #: 60276639-1

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.

All applicable NELAC requirements have been met.

New York # 11393 USDA # P330-15-00375

Authorized by:

Agnes Huntley Project Manager

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Eurofins Environment Testing New Englandl holds primary NELAC certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.

Please note that this report contains 30 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Eurofins Environment Testing New England.

Eurofins Environment Testing New England is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Eurofins Environment Testing New England is currently accredited for the specific method or analyte indicated. Please refer to our "Quality" web page at www.eurofinsus.com/Spectrum for a full listing of our current certifications and fields of accreditation.

Please contact the Laboratory or Technical Director at 413-789-9018 with any questions regarding the data contained in this laboratory report.

## **Sample Summary**

Work Order: SC57537

**Project:** Now Corp - Staatsburg, NY

**Project Number:** 60276639-1

<b>Laboratory ID</b>	Client Sample ID	<u>Matrix</u>	<b>Date Sampled</b>	<b>Date Received</b>
SC57537-01	EFF55 021820	Ground Water	18-Feb-20 12:45	19-Feb-20 10:00
SC57537-02	INF 021820	Ground Water	18-Feb-20 12:30	19-Feb-20 10:00
SC57537-03	TW-1 021820	Ground Water	18-Feb-20 12:25	19-Feb-20 10:00
SC57537-04	TW-2A 021820	Ground Water	18-Feb-20 12:40	19-Feb-20 10:00
SC57537-05	TW-3 021820	Ground Water	18-Feb-20 12:35	19-Feb-20 10:00
SC57537-06	TB	Trip Blank	18-Feb-20 00:00	19-Feb-20 10:00

#### **CASE NARRATIVE:**

Data has been reported to the RDL. This report excludes estimated concentrations detected below the RDL and above the MDL (J-Flag).

All non-detects and all results below the reporting limit are reported as "<" (less than) the reporting limit in this report.

The samples were received 3.6 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of  $\pm$ 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group. If method or program required MS/MSD/Dup were not performed, sufficient sample was not provided to the laboratory.

Sample	Sample Collection	ELLE#
SC57537-01	02/18/2020 12:45	1263372
SC57537-02	02/18/2020 12:30	1263373
SC57537-03	02/18/2020 12:25	1263374
SC57537-04	02/18/2020 12:40	1263375
SC57537-05	02/18/2020 12:35	1263376
SC57537-06	02/18/2020	1263377

#### SW-846 6010C, Metals

Batch #: 200511404403 (Sample number(s): 1263372-1263373 UNSPK: 1263372 BKG: 1263372)

The duplicate RPD for the following analyte(s) exceeded the acceptance window: Nickel

See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.

### SW-846 6010C

#### Samples:

SC57537-01	EFF55 021820
Estimated value	
Nickel	
SC57537-02	INF 021820
Estimated value	
Iron	
SC57537-02RE01	INF 021820
Estimated value	
Chromium	

### SW-846 8260C

### Samples:

SC57537-01	EFF55 021820
Estimated value	
Acetone Tetrahydrofuran	
SC57537-04	TW-2A 021820

## SW-846 8260C

### Samples:

SC57537-04 TW-2A 021820

Estimated value

Chloroethane Vinyl Chloride

SC57537-05 TW-3 021820

Estimated value

1,1-Dichloroethene

SC57537-06 TB

Estimated value

Acetone

Methylene Chloride

## SW9010C/SW9012B

#### Blanks:

## CF34116-BLK

Cyanide blank spike recory was 105 %.

Total Cyanide

### **Laboratory Control Samples:**

### CF34116-LCS

Cyanide blank spike recory was 105 %.

Total Cyanide

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## **Sample Acceptance Check Form**

Client:	AECOM Environment - Latham, NY
Project:	Now Corp - Staatsburg, NY / 60276639-1
Work Order	SC57537

Sample(s) received on: 2/19/2020

## The following outlines the condition of samples for the attached Chain of Custody upon receipt.

	Yes	No	N/A
Were custody seals present?	$\checkmark$		
Were custody seals intact?	<b>✓</b>		
Were samples received at a temperature of $\leq 6^{\circ}$ C?	<b>✓</b>		
Were samples cooled on ice upon transfer to laboratory representative?	$\checkmark$		
Were sample containers received intact?	$\checkmark$		
Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?	$\checkmark$		
Were samples accompanied by a Chain of Custody document?	<b>✓</b>		
Does Chain of Custody document include proper, full, and complete documentation, which shall include sample ID, site location, and/or project number, date and time of collection, collector's name, preservation type, sample matrix and any special remarks concerning the sample?			
Did sample container labels agree with Chain of Custody document?	$\checkmark$		
Were samples received within method-specific holding times?	$\checkmark$		

## **Summary of Hits**

Lab ID:	SC57537-01	Client ID:	EFF55 021820

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Total Suspended Solids	< 2.5		2.5	mg/l	SM 2540D-11
Tot. Diss. Solids	230		10	mg/l	SM2540C-11
Barium	0.0768		0.0050	mg/l	SW-846 6010C
Manganese	0.0355		0.0100	mg/l	SW-846 6010C
Nickel	0.0021	J.	0.0100	mg/l	SW-846 6010C
Acetone	1	J.	20	ug/l	SW-846 8260C
Tetrahydrofuran	1	J.	10	ug/l	SW-846 8260C
Total Cyanide	< 0.010		0.010	mg/l	SW9010C/SW9012B
<b>Lab ID:</b> SC57537-02			Client ID: INF 021	820	
Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Total Suspended Solids	5.0		2.5	mg/l	SM 2540D-11
Tot. Diss. Solids	260		10	mg/l	SM2540C-11
Barium	0.0629		0.0050	mg/l	SW-846 6010C
Iron	0.148	J.	0.200	mg/l	SW-846 6010C
Manganese	0.0704		0.0100	mg/l	SW-846 6010C
1,1,1-Trichloroethane	150		1	ug/l	SW-846 8260C
1,1-Dichloroethane	61		1	ug/l	SW-846 8260C
1,1-Dichloroethene	8		1	ug/l	SW-846 8260C
cis-1,2-Dichloroethene	7		1	ug/l	SW-846 8260C
Trichloroethene	170		1	ug/l	SW-846 8260C
Total Cyanide	< 0.010		0.010	mg/l	SW9010C/SW9012B
<b>Lab ID:</b> SC57537-02RE01			Client ID: INF 021	820	
Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Chromium	0.0021	J.	0.0150	mg/l	SW-846 6010C
<b>Lab ID:</b> SC57537-03			Client ID: TW-1 02	21820	
Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
1,1,1-Trichloroethane	1		1	ug/l	SW-846 8260C
1,1-Dichloroethane	25		1	ug/l	SW-846 8260C
1,1-Dichloroethene	9		1	ug/l	SW-846 8260C
cis-1,2-Dichloroethene	4		1	ug/l	SW-846 8260C
Trichloroethene	41		1	ug/l	SW-846 8260C

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**Lab ID:** SC57537-04 **Client ID:** TW-2A 021820

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
1,1,1-Trichloroethane	250		1	ug/l	SW-846 8260C
1,1-Dichloroethane	95		1	ug/l	SW-846 8260C
1,1-Dichloroethene	9		1	ug/l	SW-846 8260C
Chloroethane	0.2	J.	1	ug/l	SW-846 8260C
cis-1,2-Dichloroethene	10		1	ug/l	SW-846 8260C
Trichloroethene	290		1	ug/l	SW-846 8260C
Vinyl Chloride	0.4	J.	1	ug/l	SW-846 8260C
<b>Lab ID:</b> SC57537-05			Client ID: TW-3 0218	320	
Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
1,1,1-Trichloroethane	2		1	ug/l	SW-846 8260C
1,1-Dichloroethane	5		1	ug/l	SW-846 8260C
1,1-Dichloroethene	0.7	J.	1	ug/l	SW-846 8260C
Trichloroethene	16		1	ug/l	SW-846 8260C
<b>Lab ID:</b> SC57537-06			Client ID: TB		
Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Acetone	2	J.	20	ug/l	SW-846 8260C
Methylene Chloride	0.3	J.	1	ug/l	SW-846 8260C

Please note that because there are no reporting limits associated with hazardous waste characterizations or micro analyses, this summary does not include hits from these analyses if included in this work order.

EFF55 02 SC57537					Project # 6639-1	(	<u>Matrix</u> Ground W		ection Date 3-Feb-20 12			Feb-20	
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert
	acted Analyses												
	by method General Prepar		г .	. 1 1067	0								
Anaiysis pe	erformed by Eurofins Lancast HEM (oil & grease)	er Laboratorie. < 5.0	s Environme	mg/l	5.0	1.4	1	EPA 1664B	21-Feb-20 07:48	21-Feb-20 07:48	10670	0528079	0
	acted Analyses by method SW-846 3005A	<u>.</u>											
Analysis p	erformed by Eurofins Lancast	er Laboratorie:	s Environme	ental - 1067	0								
7440-38-2	Arsenic	< 0.0300		mg/l	0.0300	0.0160	1	SW-846 6010C	21-Feb-20 05:30	21-Feb-20 13:48	10670	0511404	4
7440-39-3	Barium	0.0768		mg/l	0.0050	0.0010	1	"	"	"	"	"	
7440-50-8	Copper	< 0.0200		mg/l	0.0200	0.0120	1	"	"	"	"	"	
7439-89-6	Iron	< 0.200		mg/l	0.200	0.0400	1	"	"	"	"	"	
7439-96-5	Manganese	0.0355		mg/l	0.0100	0.0030	1	"	"	"	"	"	
7440-02-0	Nickel	0.0021	J.	mg/l	0.0100	0.0021	1	"	"	"	"	"	
7440-66-6	Zinc	< 0.0200		mg/l	0.0200	0.0037	1	"	"	"	"	"	
	sis of Subcontracted Analys by method SW-846 3005A												
7440-47-3	Chromium	< 0.0150		mg/l	0.0150	0.0016	1	SW-846 6010C	21-Feb-20 05:30	21-Feb-20 17:19	10670	0511404	4
<u>Prepared</u>	by method SW-846 3020A	<u>.</u>											
Analysis pe	erformed by Eurofins Lancast	er Laboratorie:	s Environme	ental - 1067	0								
7429-90-5	Aluminum	< 0.0250		mg/l	0.0250	0.0197	1	SW-846 6020A	24-Feb-20 14:20	24-Feb-20 20:33	10670	5514047	ľ
Prepared	by method METHOD								14.20	20.55			
Analysis p	erformed by Eurofins Lancast	er Laboratorie:	s Environme	ental - 1067	0								
7439-97-6	Mercury	< 0.00020		mg/l	0.00020	0.000050	1	SW-846 7470A	21-Feb-20 07:35	24-Feb-20 08:02	10670	0510571	3
	acted Analyses by method SW-846 50300	;											
Analysis p	erformed by Eurofins Lancast	er Laboratorie:	s Environme	ental - 1067	0								
630-20-6	1,1,1,2-Tetrachloroethane	< 1		ug/l	1	0.2	1	SW-846 8260C	23-Feb-20 20:32	23-Feb-20 20:33	10670	′200541 <i>A</i>	V
71-55-6	1,1,1-Trichloroethane	< 1		ug/l	1	0.3	1	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 1		ug/l	1	0.2	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 1		ug/l	1	0.2	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 1		ug/l	1	0.2	1	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 1		ug/l	1	0.2	1	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 5		ug/l	5	0.2	1	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 5		ug/l	5	0.4	1	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 5		ug/l	5	0.2	1	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 5		ug/l	5	0.3	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 5		ug/l	5	1	1	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloroprop ane	< 5		ug/l	5	0.3	1	n	II	"	"	"	
106-93-4	1,2-Dibromoethane	< 1		ug/l	1	0.2	1	n .	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 5		ug/l	5	0.2	1	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 1		ug/l	1	0.3	1	n .	u u	"	"	"	
78-87-5	1,2-Dichloropropane	< 1		ug/l	1	0.2	1	n n	u	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 5		ug/l	5	0.2	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 5		ug/l	5	0.3	1	"	u u	u	"	"	

EFF55 02 SC57537-				<u>Client F</u> 60276	Project # 6639-1		<u>Matrix</u> Ground W		ection Date 3-Feb-20 12			received Feb-20	
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Subcontrac	cted Analyses												
Subcontra	icted Analyses												
Analysis pe	erformed by Eurofins Lancast	er Laborator	ies Environme	ental - 1067	0								
541-73-1	1,3-Dichlorobenzene	< 5		ug/l	5	0.2	1	SW-846 8260C	23-Feb-20 20:32	23-Feb-20 20:33	10670	′200541A	u
142-28-9	1,3-Dichloropropane	< 1		ug/l	1	0.2	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 5		ug/l	5	0.2	1	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 250		ug/l	250	29	1	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 1		ug/l	1	0.3	1	"	"	"	"	"	
78-93-3	2-Butanone	< 10		ug/l	10	0.3	1	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 5		ug/l	5	0.2	1	"	"	"	"	"	
591-78-6	2-Hexanone	< 10		ug/l	10	0.3	1		u	"	"	"	
106-43-4	4-Chlorotoluene	< 5		ug/l	5	0.2	1		u	"	"	"	
108-10-1	4-Methyl-2-pentanone	< 10		ug/l	10	0.5	1	"	"	"	"	"	
67-64-1	Acetone	1	J.	ug/l	20	0.7	1	"	"	"	"	"	
107-13-1	Acrylonitrile	< 20		ug/l	20	0.3	1	"	"	"	"	"	
71-43-2	Benzene	< 1		ug/l	1	0.2	1	"	"	"	"	"	
108-86-1	Bromobenzene	< 5		ug/l	5	0.2	1	"	"	"	"	"	
74-97-5	Bromochloromethane	< 5		ug/l	5	0.2	1	"	"	"	"		
75-27-4	Bromodichloromethane	< 1		ug/l	1	0.2	1	"	"	"	"		
75-25-2	Bromoform	< 4		ug/l	4	1	1	"	"	"	"		
74-83-9	Bromomethane	< 1		ug/l	1	0.3	1	"	"	"	"		
75-15-0	Carbon Disulfide	< 5		ug/l	5	0.2	1	"	"	"	"	"	
56-23-5	Carbon Tetrachloride	< 1		ug/l	1	0.2	1	"	"	"	"	"	
108-90-7	Chlorobenzene	< 1		ug/l	1	0.2	1	"	"	"	"	"	
75-00-3	Chloroethane	< 1		ug/l	1	0.2	1	"	u	"	"	"	
67-66-3	Chloroform	< 1		ug/l	1	0.2	1	"	u	"	"	"	
74-87-3	Chloromethane	< 1		ug/l	1	0.2	1	"	u	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 1		ug/l	1	0.2	1	"	u	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 1		ug/l	1	0.2	1		"	"	"	"	
108-20-3	di-Isopropyl ether	< 1		ug/l	1	0.2	1		"	"	"	"	
124-48-1	Dibromochloromethane	< 1		ug/l	1	0.2	1		"	"	"	"	
74-95-3	Dibromomethane	< 1		ug/l	1	0.2	1		"	"	"	"	
75-71-8	Dichlorodifluoromethane	< 1		ug/l	1	0.2	1		"	"	"	"	
64-17-5	Ethanol	< 750		ug/l	750	280	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 5		ug/l	5	0.2	1	"	"	"	"	"	
637-92-3	Ethyl t-butyl ether	< 1		ug/l	1	0.2	1	"	"	"	"		
100-41-4	Ethylbenzene	< 1		ug/l	1	0.4	1	"		"	"	"	
76-13-1	Freon 113	< 10		ug/l	10	0.2	1	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 5		ug/l	5	2	1	"	"	"	"	"	
98-82-8	Isopropylbenzene	< 5		ug/l	5	0.2	1		"	"	"	"	
179601-23-1		< 5		ug/l	5	1	1	"	"	"	"	"	
1634-04-4	Methyl Tertiary Butyl Ether	< 1		ug/l	1	0.2	1		"	"	"	"	
75-09-2	Methylene Chloride	< 1		ug/l	1	0.3	1	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 5		ug/l	5	0.2	1	"	"	"			
103-65-1	n-Propylbenzene	< 5		ug/l	5	0.2	1	"	"	"			
91-20-3	Naphthalene	< 5		ug/l	5	1	1	"	"	"			
95-47-6	o-Xylene	< 1		ug/l	1	0.4	1				"		

EFF55 02 SC57537-				Client F 60276	Project # 6639-1		<u>Matrix</u> Ground W		ection Date Feb-20 12			received Feb-20	
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Subcontra	cted Analyses												
Subcontra	acted Analyses												
Analysis pe	erformed by Eurofins Lancast	er Laborator	ries Environme	ental - 1067	0								
99-87-6	p-Isopropyltoluene	< 5		ug/l	5	0.2	1	SW-846 8260C	23-Feb-20 20:32	23-Feb-20 20:33	10670	′200541A	ı.
135-98-8	sec-Butylbenzene	< 5		ug/l	5	0.2	1	"	"	"	"	"	
100-42-5	Styrene	< 5		ug/l	5	0.2	1	"	"	"	"	"	
994-05-8	t-Amyl methyl ether	< 5		ug/l	5	8.0	1	"	"	"	"	"	
75-65-0	t-Butyl alcohol	< 50		ug/l	50	12	1	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 5		ug/l	5	0.3	1	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 1		ug/l	1	0.2	1	"	"	"	"	"	
109-99-9	Tetrahydrofuran	1	J.	ug/l	10	0.7	1	"	"	"	"	"	
108-88-3	Toluene	< 1		ug/l	1	0.2	1	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 1		ug/l	1	0.2	1	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 1		ug/l	1	0.2	1	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-buten e	< 50		ug/l	50	6	1	"	"	"	"	"	
79-01-6	Trichloroethene	< 1		ug/l	1	0.2	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane	< 1		ug/l	1	0.2	1	"	"	"	"	"	
75-01-4	Vinyl Chloride	< 1		ug/l	1	0.2	1	"	n n	"	"	"	
Surrogate r	recoveries:												
17060-07-0	1,2-Dichloroethane-d4	101			80-12	0 %		"	"	"	"	"	
460-00-4	4-Bromofluorobenzene	97			80-12	0 %		"	n n	"	"	"	
1868-53-7	Dibromofluoromethane	96			80-12	0 %		u u	"	"	"	"	
2037-26-5	Toluene-d8	102			80-12	0 %		"	"	"			

Analysis performed by Phoenix Environmental Labs, Inc. \* - CT007

Total Suspended Solids < 2.5 mg/l 2.5 2.5 0.5 SM 2540D-11 20-Feb-20 20-Feb-20 11301 519222A 08:01 08:01

### Prepared by method SM2540C-11

Analysis performed by Phoenix Environmental Labs, Inc. \* - CT007

Tot. Diss. Solids 230 10 SM2540C-11 20-Feb-20 20-Feb-20 11301 519230A mg/l 10 09:47 09:47

## Prepared by method SM 4500 CN

Analysis performed by Phoenix Environmental Labs, Inc. \* - CT007 57-12-5 Total Cyanide < 0.010 SW9010C/SW9 19-Feb-20 24-Feb-20 11301 519154A 0.010 0.010 mg/l 012B 13:18

INF 0218					Project # 6639-1	(	<u>Matrix</u> Ground W		ection Date 3-Feb-20 12			Feb-20	
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert
	acted Analyses												
	by method General Prepa		г .	. 1 1067	0								
Analysis pe	erformed by Eurofins Lancast HEM (oil & grease)	er Laboratorio < 5.0	es Environme	mg/l	5.0	1.4	1	EPA 1664B	21-Feb-20 07:48	21-Feb-20 07:48	10670	0528079	)
	acted Analyses by method SW-846 3005A	<u>.</u>											
Analysis p	erformed by Eurofins Lancast	er Laboratori	es Environme	ental - 1067	0								
7440-38-2	Arsenic	< 0.0300		mg/l	0.0300	0.0160	1	SW-846 6010C	21-Feb-20 05:30	21-Feb-20 14:07	10670	0511404	4
7440-39-3	Barium	0.0629		mg/l	0.0050	0.0010	1	"	"	"	"	"	
7440-50-8	Copper	< 0.0200		mg/l	0.0200	0.0120	1	"	"	"	"	"	
7439-89-6	Iron	0.148	J.	mg/l	0.200	0.0400	1	"	"	"	"	"	
7439-96-5	Manganese	0.0704		mg/l	0.0100	0.0030	1	"	"	"	"	"	
7440-02-0	Nickel	< 0.0100		mg/l	0.0100	0.0021	1	"	"	"	"	"	
7440-66-6	Zinc	< 0.0200		mg/l	0.0200	0.0037	1	"	"	"	"	"	
	sis of Subcontracted Analysby method SW-846 3005A												
7440-47-3	Chromium	0.0021	J.	mg/l	0.0150	0.0016	1	SW-846 6010C	21-Feb-20 05:30	21-Feb-20 17:38	10670	0511404	4
Prepared	by method SW-846 3020A	<u> </u>											
Analysis pe	erformed by Eurofins Lancast	er Laboratori	es Environme	ental - 1067	0								
7429-90-5	Aluminum	< 0.0250		mg/l	0.0250	0.0197	1	SW-846 6020A		24-Feb-20	10670	5514047	ľ
Prepared	by method METHOD								14:20	20:42			
	erformed by Eurofins Lancast	er Laboratorio	es Environme	ental - 1067	0								
7439-97-6	Mercury	< 0.00020		mg/l		0.000050	1	SW-846 7470A	21-Feb-20 07:35	24-Feb-20 08:04	10670	0510571	3
	acted Analyses by method SW-846 50300	<u>:</u>											
	erformed by Eurofins Lancast		es Environme	ental - 1067	0								
630-20-6	1,1,1,2-Tetrachloroethane	< 1	25 2	ug/l	1	0.2	1	SW-846 8260C	23-Feb-20 20:53	23-Feb-20 20:54	10670	′200541A	v
71-55-6	1,1,1-Trichloroethane	150		ug/l	1	0.3	1	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 1		ug/l	1	0.2	1	"	"	"	"		
79-00-5	1,1,2-Trichloroethane	< 1		ug/l	1	0.2	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	61		ug/l	1	0.2	1	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	8		ug/l	1	0.2	1	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 5		ug/l	5	0.2	1	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 5		ug/l	5	0.4	1	"	"	"	"		
96-18-4	1,2,3-Trichloropropane	< 5		ug/l	5	0.2	1	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 5		ug/l	5	0.3	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 5		ug/l	5	1	1	п	"	"		"	
96-12-8	1,2-Dibromo-3-chloroprop ane	< 5		ug/l	5	0.3	1	n	"	"	"	"	
106-93-4	1,2-Dibromoethane	< 1		ug/l	1	0.2	1	"	u	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 5		ug/l	5	0.2	1	п	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 1		ug/l	1	0.3	1	п	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 1		ug/l	1	0.2	1	n .	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 5		ug/l	5	0.2	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 5		ug/l	5	0.3	1	"	"	"	"		

INF 02182 SC57537-				Client F 60276	Project # 6639-1		<u>Matrix</u> Ground W	·	ection Date 3-Feb-20 12			Feb-20	
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Subcontrac	cted Analyses												
Subcontra	icted Analyses												
Analysis pe	erformed by Eurofins Lancast	er Laboratorie	es Environme	ental - 1067	9								
541-73-1	1,3-Dichlorobenzene	< 5		ug/l	5	0.2	1	SW-846 8260C	23-Feb-20 20:53	23-Feb-20 20:54	10670	'200541A	u
142-28-9	1,3-Dichloropropane	< 1		ug/l	1	0.2	1	"	"	·	"	"	
106-46-7	1,4-Dichlorobenzene	< 5		ug/l	5	0.2	1	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 250		ug/l	250	29	1		"	u	"	"	
594-20-7	2,2-Dichloropropane	< 1		ug/l	1	0.3	1		"	u	"	"	
78-93-3	2-Butanone	< 10		ug/l	10	0.3	1	"	"	·	"	"	
95-49-8	2-Chlorotoluene	< 5		ug/l	5	0.2	1	"	"	"	"	"	
591-78-6	2-Hexanone	< 10		ug/l	10	0.3	1	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 5		ug/l	5	0.2	1	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone	< 10		ug/l	10	0.5	1	"	"	"	"	"	
67-64-1	Acetone	< 20		ug/l	20	0.7	1	"	"	"	"		
107-13-1	Acrylonitrile	< 20		ug/l	20	0.3	1	"	"	"	"		
71-43-2	Benzene	< 1		ug/l	1	0.2	1	"	"	"	"		
108-86-1	Bromobenzene	< 5		ug/l	5	0.2	1	"	"	"	"		
74-97-5	Bromochloromethane	< 5		ug/l	5	0.2	1	"	"	u	"	"	
75-27-4	Bromodichloromethane	< 1		ug/l	1	0.2	1	"	"	u	"	"	
75-25-2	Bromoform	< 4		ug/l	4	1	1		"	"	"	"	
74-83-9	Bromomethane	< 1		ug/l	1	0.3	1	"	"	u	"	"	
75-15-0	Carbon Disulfide	< 5		ug/l	5	0.2	1		"	"	"	"	
56-23-5	Carbon Tetrachloride	< 1		ug/l	1	0.2	1		"	"	"	"	
108-90-7	Chlorobenzene	< 1		ug/l	1	0.2	1		"	"	"	"	
75-00-3	Chloroethane	< 1		ug/l	1	0.2	1		"	"	"	"	
67-66-3	Chloroform	< 1		ug/l	1	0.2	1		"	"	"	"	
74-87-3	Chloromethane	< 1		ug/l	1	0.2	1	"	"	u	"	"	
156-59-2	cis-1,2-Dichloroethene	7		ug/l	1	0.2	1		"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 1		ug/l	1	0.2	1		"	"	"	"	
108-20-3	di-Isopropyl ether	< 1		ug/l	1	0.2	1		"	"	"	"	
124-48-1	Dibromochloromethane	< 1		ug/l	1	0.2	1		"	"	"	"	
74-95-3	Dibromomethane	< 1		ug/l	1	0.2	1		"	"	"	"	
75-71-8	Dichlorodifluoromethane	< 1		ug/l	1	0.2	1		"	"	"	"	
64-17-5	Ethanol	< 750		ug/l	750	280	1		"	"	"	"	
60-29-7	Ethyl ether	< 5		ug/l	5	0.2	1		"	"	"	"	
637-92-3	Ethyl t-butyl ether	< 1		ug/l	1	0.2	1	"	"	"			
100-41-4	Ethylbenzene	< 1		ug/l	1	0.4	1	"	"		"	"	
76-13-1	Freon 113	< 10		ug/l	10	0.2	1	"	"				
87-68-3	Hexachlorobutadiene	< 5		ug/l	5	2	1	"	"		"		
98-82-8	Isopropylbenzene	< 5		ug/l	5	0.2	1		"		"	"	
179601-23-1		< 5		ug/l	5	1	1	"	"		"	"	
1634-04-4	Methyl Tertiary Butyl Ether	< 1		ug/l	1	0.2	1		"		"	"	
75-09-2	Methylene Chloride	< 1		ug/l	1	0.3	1	"	"		"	"	
104-51-8	n-Butylbenzene	< 5		ug/l	5	0.2	1	"					
103-65-1	n-Propylbenzene	< 5		ug/l	5	0.2	1	"		"			
91-20-3	Naphthalene	< 5		ug/l	5	1	1	"		"			
95-47-6	o-Xylene	< 1		ug/l	1	0.4	1	"					

Sample Id	lentification 20			Client F 60276			<u>Matrix</u> Ground W	· · · · · · · · · · · · · · · · · · ·	ection Date 3-Feb-20 12		· ·	received Feb-20	
SC57537-	-02			00270	1039-1		Giouna w	atei 16	-reb-20 12	2.30	19-	·reb-20	
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert
Subcontra	cted Analyses												
Subcontra	acted Analyses												
Analysis pe	erformed by Eurofins Lancast	er Laboratories E	Invironme	ntal - 1067	9								
99-87-6	p-Isopropyltoluene	< 5		ug/l	5	0.2	1	SW-846 8260C	23-Feb-20 20:53	23-Feb-20 20:54	10670	'200541A	j
135-98-8	sec-Butylbenzene	< 5		ug/l	5	0.2	1	"	"	"	"	"	
100-42-5	Styrene	< 5		ug/l	5	0.2	1	"	"	"	"	"	
994-05-8	t-Amyl methyl ether	< 5		ug/l	5	0.8	1	"	"	"	"		
75-65-0	t-Butyl alcohol	< 50		ug/l	50	12	1	"	"	"	"		
98-06-6	tert-Butylbenzene	< 5		ug/l	5	0.3	1	"	"	"	"		
127-18-4	Tetrachloroethene	< 1		ug/l	1	0.2	1	"	"	u u	"	"	
109-99-9	Tetrahydrofuran	< 10		ug/l	10	0.7	1	"	"	u u	"	"	
108-88-3	Toluene	< 1		ug/l	1	0.2	1	"	"	u u	"	"	
156-60-5	trans-1,2-Dichloroethene	< 1		ug/l	1	0.2	1	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 1		ug/l	1	0.2	1	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-buten e	< 50		ug/l	50	6	1	"	"	"	ıı	"	
79-01-6	Trichloroethene	170		ug/l	1	0.2	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane	< 1		ug/l	1	0.2	1	"	"	"	"	"	
75-01-4	Vinyl Chloride	< 1		ug/l	1	0.2	1	n	"	"	"	"	
Surrogate r	recoveries:												
17060-07-0	1,2-Dichloroethane-d4	100			80-12	0 %		"	"	"	"	"	
460-00-4	4-Bromofluorobenzene	97			80-12	0 %		"	"	"	"	"	
1868-53-7	Dibromofluoromethane	101			80-12	0 %		"	"	"	"	"	
2037-26-5	Toluene-d8	102			80-12	0 %		II .	"	"	"	"	
	cted Analyses by method SM 2540D-11												
Analysis pe	erformed by Phoenix Environ	nental Labs, Inc.	* - CT007	7									
	Total Suspended Solids	5.0		mg/l	2.5	2.5	0.5	SM 2540D-11	20-Feb-20 08:01	20-Feb-20 08:01	11301	519222A	
Prepared	by method SM2540C-11												
Analysis pe	erformed by Phoenix Environ	nental Labs, Inc.	* - CT007	7									
	Tot. Diss. Solids	260		mg/l	10	10	1	SM2540C-11	20-Feb-20 09:47	20-Feb-20 09:47	11301	519230A	

SW9010C/SW9 19-Feb-20 24-Feb-20 11301 519154A

13:19

012B

25-Feb-20 16:28 Page 13 of 30

0.010

mg/l

0.010

Prepared by method SM 4500 CN

Total Cyanide

57-12-5

Analysis performed by Phoenix Environmental Labs, Inc. \* - CT007

< 0.010

2037-26-5

Toluene-d8

80-120 %

1868-53-7

2037-26-5

Dibromofluoromethane

Toluene-d8

104

80-120 %

1868-53-7

2037-26-5

Dibromofluoromethane

Toluene-d8

97

80-120 %

1868-53-7

2037-26-5

Dibromofluoromethane

Toluene-d8

97

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPE Limi
EPA 1664B										
Batch 20052807901A - General Preparation										
Blank (B052101B)					Pre	epared & Ar	nalyzed: 21-	-Feb-20		
HEM (oil & grease)	< 5.0		mg/l	5.0				-		
LCS (L052101Q)					Pre	epared & Ar	nalyzed: 21	-Feb-20		
HEM (oil & grease)	39.7		mg/l	5.0	40.0		99	78-114		
LCS Dup (L052101Y)					Pre	epared & Ar	nalyzed: 21-	-Feb-20		
HEM (oil & grease)	37.6		mg/l	5.0	40.0		94	78-114	5	13
W-846 6010C										
atch 200511404403 - SW-846 3005A										
Blank (P05104CBB)					Pre	epared & Ar	nalyzed: 21-	-Feb-20		
Zinc	< 0.0200		mg/l	0.0200				-		
Nickel	< 0.0100		mg/l	0.0100				-		
Manganese	< 0.0100		mg/l	0.0100				-		
Iron	< 0.200		mg/l	0.200				-		
Copper	< 0.0200		mg/l	0.0200				-		
Barium	< 0.0050		mg/l	0.0050				-		
Arsenic	< 0.0300		mg/l	0.0300				-		
Blank (P05104CBC)					Pre	epared & Ar	nalyzed: 21	-Feb-20		
Chromium	< 0.0150		mg/l	0.0150				-		
LCS (P05104CQQ)					Pre	epared & Ar	nalyzed: 21	-Feb-20		
Arsenic	0.0600		mg/l	0.0300	0.0600		100	80-120		
Zinc	0.436		mg/l	0.0200	0.440		99	80-120		
Nickel	2.21		mg/l	0.0100	2.02		109	80-120		
Manganese	0.0204		mg/l	0.0100	0.0200		102	80-120		
Iron	0.417		mg/l	0.200	0.400		104	80-120		
Copper	0.0402		mg/l	0.0200	0.0400		101	80-120		
Barium	0.0100		mg/l	0.0050	0.0100		100	80-120		
LCS (P05104CQR)					Pre	epared & Ar	nalyzed: 21	-Feb-20		
Chromium	0.0302		mg/l	0.0150	0.0300		101	80-120		
<u>Duplicate (P263372D221354)</u>			Source: SO	C57537-01	Pre	epared & Ar	nalyzed: 21	-Feb-20		
Nickel	< 0.0100		mg/l	0.0100		0.0021		-	200	20
Zinc	< 0.0200		mg/l	0.0200		BDL		-	0	20
Manganese	0.0349		mg/l	0.0100		0.0355		-	2	20
Iron	< 0.200		mg/l	0.200		BDL		-	0	20
Copper	< 0.0200		mg/l	0.0200		BDL		-	0	20
Barium	0.0742		mg/l	0.0050		0.0768		-	4	20
Arsenic	< 0.0300		mg/l	0.0300		BDL		-	0	20
<u>Duplicate (P263372D221725)</u>			Source: SC	C57537-01	Pre	epared & Ar	nalyzed: 21	-Feb-20		
Chromium	< 0.0150		mg/l	0.0150		BRL		-	0	20
Matrix Spike Dup (P263372M221401)			Source: SO	57537-01	Pre	epared & Ar	nalyzed: 21	-Feb-20		
Arsenic	0.0680		mg/l	0.0300	0.0600	BDL	113	75-125	3	20
Copper	0.0422		mg/l	0.0200	0.0400	BDL	106	75-125	1	20
Zinc	0.433		mg/l	0.0200	0.440	BDL	98	75-125	3	20
Nickel	2.07		mg/l	0.0100	2.02	0.0021	103	75-125	1	20
Iron	0.417		mg/l	0.200	0.400	BDL	104	75-125	0	20
Chromium	0.0352		mg/l	0.0150	0.0300	BRL	117	75-125	0	20
Barium	0.0851		mg/l	0.0050	0.0100	0.0768	83	75-125	0	20
Manganese	0.0565		mg/l	0.0100	0.0200	0.0355	105	75-125	0	20
Matrix Spike (P263372R221358)			Source: SC	57537-01	Pre		nalyzed: 21-	- <u>Feb-2</u> 0		
Nickel	2.10		mg/l	0.0100	2.02	0.0021	104	75-125		
Manganese	0.0563		mg/l	0.0100	0.0200	0.0355	104	75-125		

A nalyta(s)	Pagult	Floo	Unita	*RDL	Spike	Source	%REC	%REC	RPD	RPD
Analyte(s)	Result	Flag	Units	KDL	Level	Result	70KEC	Limits	KPD	Limi
SW-846 6010C										
Batch 200511404403 - SW-846 3005A										
Matrix Spike (P263372R221358)			Source: SO	C57537-01	Pre	epared & Ar	nalyzed: 21	-Feb-20		
Iron	0.418		mg/l	0.200	0.400	BDL	105	75-125		
Arsenic	0.0662		mg/l	0.0300	0.0600	BDL	110	75-125		
Copper	0.0419		mg/l	0.0200	0.0400	BDL	105	75-125		
Chromium	0.0351		mg/l	0.0150	0.0300	0.00070	117	75-125		
Barium	0.0850		mg/l	0.0050	0.0100	0.0768	82	75-125		
Zinc	0.447		mg/l	0.0200	0.440	BDL	102	75-125		
SW-846 6020A										
Batch 200551404704A - SW-846 3020A										
Blank (P05504DBB)					Pre	epared & Ar	nalvzed: 24	-Feh-20		
Aluminum	< 0.0250		mg/l	0.0250	<u></u>	<del></del>	10.,200.2.	-		
LCS (P05504DQQ)	0.0200		9	0.0200	Dra	epared & Ar	nalvzed: 24.	-Fah-20		
Aluminum	0.213		mg/l	0.0250	0.200	sparca & Al	106	88-114		
Duplicate (P263372D222036A)	0.213		Source: SO			epared & Ar				
Aluminum	< 0.0250		mg/l	0.0250	<u>P16</u>	BDL	iaiyzeu. 24	<u>-reb-zu</u>	0	20
	< 0.0230		· ·		Б.		l l - 0.4	- -	U	20
Matrix Spike Dup (P263372M222039A) Aluminum	0.404		Source: SO			epared & Ar BDL			0	20
	0.194		mg/l	0.0250	0.200		97	75-125	8	20
Matrix Spike (P263372R222038A)			Source: SO			epared & Ar				
Aluminum	0.180		mg/l	0.0250	0.200	BDL	90	75-125		
<u>SW-846 7470A</u>										
Batch 200510571310 - METHOD										
Blank (P05171JBB)					Pre	epared: 21-	Feb-20 An	alyzed: 24-F	eb-20	
Mercury	< 0.00020		mg/l	0.00020				-		
LCS (P05171JQQ)					Pre	epared: 21-	Feb-20 An	alyzed: 24-F	eb-20	
Mercury	0.0010		mg/l	0.00020	0.0010		104	80-110		
SW-846 8260C										
Batch Y200541AA - SW-846 5030C										
LCS (LCSY02Q)					Dra	epared & Ar	nalyzed: 23	-Feh-20		
cis-1,2-Dichloroethene	21							1 00 20		
			ua/l	1		<del>5pai 0a a 7 ii</del>		80-125		
Bromodichloromethane			ug/l	1	20	<u> </u>	107	80-125 71-120		
Bromodichloromethane Bromoform	20		ug/l	1	20 20	sparoa a 7 ii	107 98	71-120		
Bromoform	20 18		ug/l ug/l	1 4	20 20 20	sparoa a 7 ii	107 98 89	71-120 51-120		
	20 18 21		ug/l ug/l ug/l	1 4 1	20 20 20 20	sparou a ru	107 98 89 104	71-120 51-120 53-128		
Bromoform Bromomethane Carbon Disulfide	20 18 21 16		ug/l ug/l ug/l ug/l	1 4 1 5	20 20 20 20 20 20	sparou o ru	107 98 89 104 81	71-120 51-120 53-128 65-128		
Bromoform Bromomethane	20 18 21 16 21		ug/l ug/l ug/l ug/l ug/l	1 4 1 5	20 20 20 20 20 20 20	<b>.</b>	107 98 89 104 81 103	71-120 51-120 53-128 65-128 64-134		
Bromoform Bromomethane Carbon Disulfide Carbon Tetrachloride Freon 113	20 18 21 16 21 23		ug/l ug/l ug/l ug/l ug/l	1 4 1 5 1	20 20 20 20 20 20 20 20	<b>90.60 4</b> 7.0	107 98 89 104 81 103 114	71-120 51-120 53-128 65-128 64-134 73-139		
Bromoform Bromomethane Carbon Disulfide Carbon Tetrachloride Freon 113 Chlorobenzene	20 18 21 16 21 23 21		ug/l ug/l ug/l ug/l ug/l ug/l	1 4 1 5 1 10	20 20 20 20 20 20 20 20 20		107 98 89 104 81 103 114 104	71-120 51-120 53-128 65-128 64-134 73-139 80-120		
Bromoform Bromomethane Carbon Disulfide Carbon Tetrachloride Freon 113 Chlorobenzene Bromochloromethane	20 18 21 16 21 23 21 20		ug/l ug/l ug/l ug/l ug/l ug/l ug/l	1 4 1 5 1 10 1 5	20 20 20 20 20 20 20 20 20 20 20		107 98 89 104 81 103 114 104 99	71-120 51-120 53-128 65-128 64-134 73-139 80-120 80-120		
Bromoform Bromomethane Carbon Disulfide Carbon Tetrachloride Freon 113 Chlorobenzene Bromochloromethane Chloroethane	20 18 21 16 21 23 21 20 21		ug/l ug/l ug/l ug/l ug/l ug/l ug/l	1 4 1 5 1 10 1 5	20 20 20 20 20 20 20 20 20 20 20		107 98 89 104 81 103 114 104 99	71-120 51-120 53-128 65-128 64-134 73-139 80-120 80-120 55-123		
Bromoform Bromomethane Carbon Disulfide Carbon Tetrachloride Freon 113 Chlorobenzene Bromochloromethane Chloroethane Chloroform	20 18 21 16 21 23 21 20 21		ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l	1 4 1 5 1 10 1 5 1	20 20 20 20 20 20 20 20 20 20 20 20		107 98 89 104 81 103 114 104 99 103 103	71-120 51-120 53-128 65-128 64-134 73-139 80-120 80-120 55-123 80-120		
Bromoform Bromomethane Carbon Disulfide Carbon Tetrachloride Freon 113 Chlorobenzene Bromochloromethane Chloroethane Chloroform Bromobenzene	20 18 21 16 21 23 21 20 21 21 20		ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l	1 4 1 5 1 10 1 5 1 1	20 20 20 20 20 20 20 20 20 20 20 20 20		107 98 89 104 81 103 114 104 99 103 103 98	71-120 51-120 53-128 65-128 64-134 73-139 80-120 80-120 55-123 80-120 80-120		
Bromoform Bromomethane Carbon Disulfide Carbon Tetrachloride Freon 113 Chlorobenzene Bromochloromethane Chloroethane Chloroform Bromobenzene Chloromethane	20 18 21 16 21 23 21 20 21 21 20 18		ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l	1 4 1 5 1 10 1 5 1 1 5	20 20 20 20 20 20 20 20 20 20 20 20 20 2		107 98 89 104 81 103 114 104 99 103 103 98 91	71-120 51-120 53-128 65-128 64-134 73-139 80-120 80-120 55-123 80-120 80-120 56-121		
Bromoform Bromomethane Carbon Disulfide Carbon Tetrachloride Freon 113 Chlorobenzene Bromochloromethane Chloroethane Chloroform Bromobenzene Chloromethane Chloromethane Chloromethane	20 18 21 16 21 23 21 20 21 21 20 18 20		ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l	1 4 1 5 1 10 1 5 1 1 5	20 20 20 20 20 20 20 20 20 20 20 20 20 2		107 98 89 104 81 103 114 104 99 103 103 98 91 98	71-120 51-120 53-128 65-128 64-134 73-139 80-120 80-120 55-123 80-120 80-120 56-121 75-120		
Bromoform Bromomethane Carbon Disulfide Carbon Tetrachloride Freon 113 Chlorobenzene Bromochloromethane Chloroethane Chloroform Bromobenzene Chloromethane cis-1,3-Dichloropropene Dibromochloromethane	20 18 21 16 21 23 21 20 21 21 20 18 20 20		ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l	1 4 1 5 1 10 1 5 1 1 5 1	20 20 20 20 20 20 20 20 20 20 20 20 20 2		107 98 89 104 81 103 114 104 99 103 103 98 91 98 101	71-120 51-120 53-128 65-128 64-134 73-139 80-120 80-120 55-123 80-120 80-120 56-121 75-120 71-120		
Bromoform Bromomethane Carbon Disulfide Carbon Tetrachloride Freon 113 Chlorobenzene Bromochloromethane Chloroethane Chloroform Bromobenzene Chloromethane cis-1,3-Dichloropropene Dibromochloromethane Dibromomethane	20 18 21 16 21 23 21 20 21 21 20 18 20 20 20 20		ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l	1 4 1 5 1 10 1 5 1 1 5 1 1	20 20 20 20 20 20 20 20 20 20 20 20 20 2		107 98 89 104 81 103 114 104 99 103 103 98 91 98 101 100	71-120 51-120 53-128 65-128 64-134 73-139 80-120 80-120 55-123 80-120 80-120 56-121 75-120 71-120 80-120		
Bromoform Bromomethane Carbon Disulfide Carbon Tetrachloride Freon 113 Chlorobenzene Bromochloromethane Chloroethane Chloroform Bromobenzene Chloromethane cis-1,3-Dichloropropene Dibromochloromethane Dibromomethane Dichlorodifluoromethane	20 18 21 16 21 23 21 20 21 21 20 18 20 20 20 20		ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l	1 4 1 5 1 10 1 5 1 1 5 1 1 1 1	20 20 20 20 20 20 20 20 20 20 20 20 20 2		107 98 89 104 81 103 114 104 99 103 103 98 91 98 101 100 81	71-120 51-120 53-128 65-128 64-134 73-139 80-120 80-120 55-123 80-120 80-120 56-121 75-120 71-120 80-120 41-127		
Bromoform Bromomethane Carbon Disulfide Carbon Tetrachloride Freon 113 Chlorobenzene Bromochloromethane Chloroethane Chloroform Bromobenzene Chloromethane cis-1,3-Dichloropropene Dibromochloromethane Dibromomethane Dichlorodifluoromethane di-Isopropyl ether	20 18 21 16 21 23 21 20 21 21 20 18 20 20 20 20 16 20		ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l	1 4 1 5 1 10 1 5 1 1 5 1 1 1 1 1	20 20 20 20 20 20 20 20 20 20 20 20 20 2		107 98 89 104 81 103 114 104 99 103 103 98 91 98 101 100 81 98	71-120 51-120 53-128 65-128 64-134 73-139 80-120 80-120 55-123 80-120 80-120 56-121 75-120 71-120 80-120 41-127 70-124		
Bromoform Bromomethane Carbon Disulfide Carbon Tetrachloride Freon 113 Chlorobenzene Bromochloromethane Chloroethane Chloroform Bromobenzene Chloromethane Chloromethane Cis-1,3-Dichloropropene Dibromochloromethane Dibromomethane Dichlorodifluoromethane di-Isopropyl ether Ethyl ether	20 18 21 16 21 23 21 20 21 21 20 18 20 20 20 20 20 20 20 22		ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l	1 4 1 5 1 10 1 5 1 1 5 1 1 1 1 1 1 1 5	20 20 20 20 20 20 20 20 20 20 20 20 20 2		107 98 89 104 81 103 114 104 99 103 103 98 91 98 101 100 81 98 116	71-120 51-120 53-128 65-128 64-134 73-139 80-120 80-120 55-123 80-120 80-120 56-121 75-120 71-120 80-120 41-127 70-124 59-141		
Bromoform Bromomethane Carbon Disulfide Carbon Tetrachloride Freon 113 Chlorobenzene Bromochloromethane Chloroethane Chloroform Bromobenzene Chloromethane Chloromethane Cis-1,3-Dichloropropene Dibromochloromethane Dibromomethane Dichlorodifluoromethane di-Isopropyl ether	20 18 21 16 21 23 21 20 21 21 20 18 20 20 20 20 16 20		ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l	1 4 1 5 1 10 1 5 1 1 5 1 1 1 1 1	20 20 20 20 20 20 20 20 20 20 20 20 20 2		107 98 89 104 81 103 114 104 99 103 103 98 91 98 101 100 81 98	71-120 51-120 53-128 65-128 64-134 73-139 80-120 80-120 55-123 80-120 80-120 56-121 75-120 71-120 80-120 41-127 70-124		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limi
Analyte(s)	Result	riag	Omis	·KDL	Level	Resuit	/0KEC	Limits	KFD	LIIIII
<u>SW-846 8260C</u>										
Batch Y200541AA - SW-846 5030C										
LCS (LCSY02Q)					Pre	epared & Ar	nalyzed: 23	-Feb-20		
m+p-Xylene	42		ug/l	5	40		104	80-120		
Methyl Tertiary Butyl Ether	20		ug/l	1	20		99	69-122		
Methylene Chloride	21		ug/l	1	20		103	80-120		
Benzene	20		ug/l	1	20		102	80-120		
1,1,2,2-Tetrachloroethane	20		ug/l	1	20		100	72-120		
Ethyl t-butyl ether	19		ug/l	1	20		97	68-121		
1,2-Dichloroethane	20		ug/l	1	20		99	73-124		
1,1,1,2-Tetrachloroethane	20		ug/l	1	20		99	78-120		
1,1,1-Trichloroethane	20		ug/l	1	20		99	67-126		
1,3-Dichlorobenzene	20		ug/l	5	20		101	80-120		
1,1,2-Trichloroethane	21		ug/l	1	20		104	80-120		
Naphthalene	21		ug/l	5	20		105	53-124		
1,1-Dichloroethene	20		ug/l	1	20		98	80-131		
1,1-Dichloropropene	20		ug/l	5	20		102	78-120		
1,2,3-Trichlorobenzene	21		ug/l	5	20		103	66-120		
1,2,3-Trichloropropane	20		ug/l	5	20		101	75-124		
1,2,4-Trichlorobenzene	21		ug/l	5	20		103	63-120		
1,2,4-Trimethylbenzene	20		ug/l	5	20		102	75-120		
1,2-Dibromo-3-chloropropane	20		ug/l	5	20		100	47-131		
1,1-Dichloroethane	20		ug/l	1	20		101	80-120		
1,2-Dichlorobenzene	20		ug/l	5	20		102	80-120		
Acrylonitrile	100		ug/l	20	100		101	60-129		
1,2-Dichloropropane	20		ug/l	1	20		101	80-120		
1,3,5-Trimethylbenzene	21		ug/l	5	20		105	75-120		
1,3-Dichloropropane	20		ug/l	1	20		101	80-120		
1,4-Dichlorobenzene	21		ug/l	5	20		103	80-120		
1,4-Dioxane	550		ug/l	250	500		109	63-146		
2,2-Dichloropropane	20		ug/l	1	20		98	55-142		
2-Butanone	150			10	150		100	59-135		
2-Chlorotoluene			ug/l	5	20		100	80-120		
	20		ug/l					56-135		
2-Hexanone	110		ug/l	10	100 20		105 100	80-133		
4-Chlorotoluene	20		ug/l	5						
4-Methyl-2-pentanone	100		ug/l	10	100		103	62-133		
Acetone	160		ug/l	20	150		105	54-157		
1,2-Dibromoethane	20		ug/l	1	20		101	77-120		
trans-1,2-Dichloroethene	20		ug/l	1	20		101	80-126		
1,3,5-Trichlorobenzene	21		ug/l	5	20		103	66-123		
n-Butylbenzene	21		ug/l	5	20		104	76-120		
Vinyl Chloride	18		ug/l	1	20		91	56-120		
Trichlorofluoromethane	23		ug/l	1	20		115	55-135		
Trichloroethene	21		ug/l	1	20		104	80-120		
trans-1,3-Dichloropropene	19		ug/l	1	20		94	67-120		
Toluene	21		ug/l	1	20		103	80-120		
Tetrahydrofuran	110		ug/l	10	100		107	54-144		
p-Isopropyltoluene	21		ug/l	5	20		106	76-120		
n-Propylbenzene	22		ug/l	5	20		109	79-121		
trans-1,4-Dichloro-2-butene	97		ug/l	50	100		97	33-143		
o-Xylene	20		ug/l	1	20		102	80-120		
Tetrachloroethene	21		ug/l	1	20		106	80-120		
sec-Butylbenzene	22		ug/l	5	20		109	77-120		

Analyte(s)	Result	Floo	Units	*RDL	Spike Level	Source	%REC	%REC Limits	RPD	RPD Limit
	Kesuit	Flag	Omts	· KDL	Level	Result	/0KEC	LIMITS	KľD	Limii
<u>SW-846 8260C</u>										
Batch Y200541AA - SW-846 5030C										
LCS (LCSY02Q)						epared & Ar	nalyzed: 23	-Feb-20		
Styrene	20		ug/l	5	20		102	80-120		
t-Amyl methyl ether	20		ug/l	5	20		99	66-120		
t-Butyl alcohol	230		ug/l	50	200		116	60-130		
tert-Butylbenzene	20		ug/l	5	20		101	78-120		
Surrogate: Dibromofluoromethane	50		ug/l		50		99	80-120		
Surrogate: Toluene-d8	51		ug/l		50		102	80-120		
Surrogate: 1,2-Dichloroethane-d4	50		ug/l		50		101	80-120		
Surrogate: 4-Bromofluorobenzene	50		ug/l		50		100	80-120		
LCS Dup (LCSY02Y)						epared & Ar				
p-Isopropyltoluene	21		ug/l	5	20		107	76-120	1	30
trans-1,4-Dichloro-2-butene	99		ug/l	50	100		99	33-143	2	30
Methylene Chloride	21		ug/l	1	20		104	80-120	1	30
Naphthalene	21		ug/l	5	20		106	53-124	1	30
n-Butylbenzene	21		ug/l	5	20		105	76-120	1	30
n-Propylbenzene	22		ug/l	5	20		110	79-121	1	30
o-Xylene	21		ug/l	1	20		104	80-120	1	30
Methyl Tertiary Butyl Ether	20		ug/l	1	20		101	69-122	2	30
sec-Butylbenzene	22		ug/l	5	20		110	77-120	1	30
Styrene	21		ug/l	5	20		104	80-120	2	30
t-Amyl methyl ether	20		ug/l	5	20		100	66-120	1	30
t-Butyl alcohol	230		ug/l	50	200		115	60-130	1	30
tert-Butylbenzene	20		ug/l	5	20		102	78-120	1	30
Tetrachloroethene	22		ug/l	1	20		108	80-120	2	30
Tetrahydrofuran	110		ug/l	10	100		105	54-144	2	30
Toluene	21		ug/l	1	20		105	80-120	1	30
m+p-Xylene	43		ug/l	5	40		106	80-120	2	30
trans-1,3-Dichloropropene	19		ug/l	1	20		97	67-120	2	30
trans-1,2-Dichloroethene	20		ug/l	1	20		102	80-126	1	30
Dibromochloromethane	20		ug/l	1	20		102	71-120	1	30
Bromomethane	20		ug/l	1	20		102	53-128	1	30
Carbon Disulfide	17		ug/l	5	20		83	65-128	3	30
Carbon Tetrachloride	21		ug/l	1	20		104	64-134	1	30
Chlorobenzene	21		ug/l	1	20		106	80-120	1	30
Chloroethane	21		ug/l	1	20		103	55-123	0	30
Chloroform	21		ug/l	1	20		104	80-120	1	30
Chloromethane	18		ug/l	1	20		90	56-121	0	30
cis-1,2-Dichloroethene	22		ug/l	1	20		109	80-125	1	30
Dibromomethane	20		ug/l	1	20		102	80-120	1	30
Bromoform	18		ug/l	4	20		90	51-120	1	30
Isopropylbenzene	22		ug/l	5	20		111	80-120	1	30
Trichloroethene	21		ug/l	1	20		105	80-120	1	30
Dichlorodifluoromethane	16		ug/l	1	20		81	41-127	0	30
di-Isopropyl ether	20		ug/l	1	20		101	70-124	3	30
Ethyl ether	21		ug/l	5	20		103	59-141	12	30
Ethyl t-butyl ether	20		ug/l	1	20		100	68-121	2	30
Ethylbenzene	21		ug/l	1	20		107	80-120	1	30
Freon 113	23		ug/l	10	20		114	73-139	1	30
Hexachlorobutadiene	21		ug/l	5	20		105	63-120	1	30
cis-1,3-Dichloropropene	20		ug/l	1	20		101	75-120	2	30
1,2,3-Trichloropropane	20		ug/l	5	20		101	75-124	0	30

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW-846 8260C										
Batch Y200541AA - SW-846 5030C										
LCS Dup (LCSY02Y)					Pre	epared & A	nalyzed: 23-	-Feb-20		
1,3,5-Trimethylbenzene	21		ug/l	5	20		106	75-120	1	30
1,3,5-Trichlorobenzene	21		ug/l	5	20		105	66-123	2	30
1,2-Dichloropropane	21		ug/l	1	20		103	80-120	2	30
1,2-Dichloroethane	20		ug/l	1	20		101	73-124	2	30
1,2-Dichlorobenzene	21		ug/l	5	20		104	80-120	2	30
1,2-Dibromoethane	20		ug/l	1	20		102	77-120	0	30
1,2,4-Trimethylbenzene	21		ug/l	5	20		103	75-120	1	30
1,3-Dichlorobenzene	20		ug/l	5	20		102	80-120	0	30
1,2,4-Trichlorobenzene	21		ug/l	5	20		104	63-120	1	30
1,2-Dibromo-3-chloropropane	20		ug/l	5	20		100	47-131	0	30
1,2,3-Trichlorobenzene	21		ug/l	5	20		105	66-120	1	30
1,1-Dichloropropene	21		ug/l	5	20		103	78-120	1	30
1,1-Dichloroethene	20		ug/l	1	20		100	80-131	2	30
1,1-Dichloroethane	20		ug/l	1	20		102	80-120	2	30
1,1,2-Trichloroethane	21		ug/l	1	20		105	80-120	1	30
1,1,2,2-Tetrachloroethane	20		ug/l	1	20		101	72-120	0	30
1,1,1-Trichloroethane	20		ug/l	1	20		102	67-126	2	30
1,1,1,2-Tetrachloroethane	20		ug/l	1	20		100	78-120	1	30
Trichlorofluoromethane	23		ug/l	1	20		115	55-135	0	30
Bromodichloromethane	20		ug/l	1	20		100	71-120	2	30
Vinyl Chloride	18		ug/l	1	20		92	56-120	2	30
1,3-Dichloropropane	20		ug/l	1	20		102	80-120	1	30
Bromochloromethane	20		ug/l	5	20		98	80-120	1	30
Bromobenzene	20		-	5	20		100	80-120	2	30
Benzene	21		ug/l ug/l	1	20		103	80-120	2	30
Acrylonitrile	100		ug/l	20	100		103	60-129	1	30
Acetone	160		-	20	150		104	54-157	1	30
4-Methyl-2-pentanone			ug/l	10	100		104	62-133	0	30
4-Chlorotoluene	100		ug/l							
1.4-Dichlorobenzene	20		ug/l	5 5	20 20		101 104	80-120	1 1	30 30
,	21		ug/l					80-120		
2-Hexanone	110		ug/l	10	100		105	56-135	0	30
2-Chlorotoluene	21		ug/l	5	20		104	80-120	3	30
2-Butanone	150		ug/l	10	150		101	59-135 55-143	1	30
2,2-Dichloropropane	20		ug/l	1	20		99	55-142	1	30
1,4-Dioxane	540		ug/l	250	500		109	63-146	1	30
Surrogate: 4-Bromofluorobenzene	50		ug/l		50		101	80-120		
Surrogate: Dibromofluoromethane	50		ug/l		50		100	80-120		
Surrogate: Toluene-d8	51		ug/l		50		102	80-120		
Surrogate: 1,2-Dichloroethane-d4	52		ug/l		50		105	80-120		
LCS (LCSY03Q)					Pre	epared & A	nalyzed: 23-	-Feb-20		
Ethanol	590		ug/l	750	500		118	31-180		
LCS Dup (LCSY03Y)					Pre	epared & A	nalyzed: 23-	-Feb-20		
Ethanol	590		ug/l	750	500		118	31-180	0	30
Blank (VBLKY02B)					Pre	epared & A	nalyzed: 23-	-Feb-20		
1,1,1-Trichloroethane	< 1		ug/l	1				-		
1,2,3-Trichloropropane	< 5		ug/l	5				_		
1,2-Dichloroethane	< 1		ug/l	1				_		
1,2-Dichloropropane	< 1		ug/l	1				_		
1,2-Dichlorobenzene	< 5		ug/l	5				_		
1,2-Dibromoethane	< 1		ug/l	1				-		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limi
SW-846 8260C										
Batch Y200541AA - SW-846 5030C										
Blank (VBLKY02B)					Pre	epared & A	nalyzed: 23	-Feb-20		
1,2-Dibromo-3-chloropropane	< 5		ug/l	5			<u> </u>			
1,2,4-Trimethylbenzene	< 5		ug/l	5				-		
1,2,4-Trichlorobenzene	< 5		ug/l	5				-		
1,2,3-Trichlorobenzene	< 5		ug/l	5				-		
1,1-Dichloropropene	< 5		ug/l	5				-		
1,1-Dichloroethene	< 1		ug/l	1				-		
1,1-Dichloroethane	< 1		ug/l	1				-		
Dibromochloromethane	< 1		ug/l	1				-		
1,1,2,2-Tetrachloroethane	< 1		ug/l	1				-		
1,1,1,2-Tetrachloroethane	< 1		ug/l	1				_		
1,3,5-Trichlorobenzene	< 5		ug/l	5				_		
1,1,2-Trichloroethane	< 1		ug/l	1				_		
sec-Butylbenzene	· < 5		ug/l	5				_		
Ethanol	< 750		ug/l	750				_		
1,3,5-Trimethylbenzene	< 5		ug/l	5				_		
Ethyl t-butyl ether	< 1		ug/l	1				_		
cis-1,2-Dichloroethene	< 1		ug/l	1				_		
Freon 113	< 10		ug/l	10				_		
Hexachlorobutadiene	< 5		ug/l	5				_		
Isopropylbenzene	< 5		ug/l	5				_		
m+p-Xylene	< 5		ug/l	5				-		
Methyl Tertiary Butyl Ether	< 1		-	1				-		
Methylene Chloride	< 1		ug/l	1				-		
	< 5		ug/l	5				-		
Naphthalene			ug/l					-		
n-Butylbenzene	< 5		ug/l	5				-		
n-Propylbenzene	< 5		ug/l	5				-		
di-Isopropyl ether	< 1		ug/l	1				-		
Tetrahydrofuran	< 10		ug/l	10				-		
Vinyl Chloride	< 1		ug/l	1				-		
Trichlorofluoromethane	< 1		ug/l	1				-		
Trichloroethene	< 1		ug/l	1				-		
trans-1,4-Dichloro-2-butene	< 50		ug/l	50				-		
trans-1,3-Dichloropropene	< 1		ug/l	1				-		
o-Xylene	< 1		ug/l	1				-		
Toluene	< 1		ug/l	1				-		
p-Isopropyltoluene	< 5		ug/l	5				-		
Tetrachloroethene	< 1		ug/l	1				-		
tert-Butylbenzene	< 5		ug/l	5				-		
t-Butyl alcohol	< 50		ug/l	50				-		
t-Amyl methyl ether	< 5		ug/l	5				-		
Styrene	< 5		ug/l	5				-		
Ethyl ether	< 5		ug/l	5				-		
trans-1,2-Dichloroethene	< 1		ug/l	1				-		
4-Methyl-2-pentanone	< 10		ug/l	10				-		
1,3-Dichlorobenzene	< 5		ug/l	5				-		
1,3-Dichloropropane	< 1		ug/l	1				-		
1,4-Dichlorobenzene	< 5		ug/l	5				-		
1,4-Dioxane	< 250		ug/l	250				-		
2,2-Dichloropropane	< 1		ug/l	1				-		
2-Butanone	< 10		ug/l	10				-		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limi
SW-846 8260C										
Batch Y200541AA - SW-846 5030C										
Blank (VBLKY02B)					Pre	epared & A	nalyzed: 23-	-Feb-20		
2-Chlorotoluene	< 5		ug/l	5				-		
2-Hexanone	< 10		ug/l	10				-		
Ethylbenzene	< 1		ug/l	1				-		
4-Chlorotoluene	< 5		ug/l	5				-		
Dichlorodifluoromethane	< 1		ug/l	1				-		
Acetone	< 20		ug/l	20				-		
Acrylonitrile	< 20		ug/l	20				-		
Benzene	< 1		ug/l	1				-		
Chloroform	< 1		ug/l	1				-		
Dibromomethane	< 1		ug/l	1				-		
Chloromethane	< 1		ug/l	1				-		
Bromobenzene	< 5		ug/l	5	-					
Chloroethane	< 1		ug/l	1						
Chlorobenzene	< 1		ug/l	1				-		
Bromochloromethane	< 5		ug/l	5				-		
Carbon Disulfide	< 5		ug/l	5				-		
Bromomethane	< 1		ug/l	1				-		
cis-1,3-Dichloropropene	< 1		ug/l	1				-		
Bromoform	< 4		ug/l	4				-		
Bromodichloromethane	< 1		ug/l	1				-		
Carbon Tetrachloride	< 1		ug/l	1				-		
Surrogate: 1,2-Dichloroethane-d4	51		ug/l		50		101	80-120		
Surrogate: 4-Bromofluorobenzene	49		ug/l		50		98	80-120		
Surrogate: Toluene-d8	52		ug/l		50		103	80-120		
Surrogate: Dibromofluoromethane	48		ug/l		50		96	80-120		

	<b>7</b> 0 1.	771	** *.	de la constanta de la constant	Spike	Source	A/DEG	%REC	n nn	RPD	
Analyte(s)	Result	Flag	Units	*RDL	Level	Result	%REC	Limits	RPD	Limit	
SM 2540D-11											
Batch 519222A - SM 2540D-11											
Blank (CF34322-BLK)	Prepared & Analyzed: 20-Feb-20										
Total Suspended Solids	< 2.5		mg/l	2.5	68.2		BRL	-			
LCS (CF34322-LCS)					Pro	epared & Aı	nalyzed: 20	-Feb-20			
Total Suspended Solids	64.00		mg/l	2.5	68.2		94	85-115		20	
<u>SM2540C-11</u>											
Batch 519230A - SM2540C-11											
Blank (CF33791-BLK)					Pro	epared & Aı	nalyzed: 20	-Feb-20			
Tot. Diss. Solids	< 10		mg/l	10	259		BRL	-			
LCS (CF33791-LCS)					Pro	epared & Aı	nalyzed: 20	-Feb-20			
Tot. Diss. Solids	241.0		mg/l	10	259		93	85-115		20	
SW9010C/SW9012B											
Batch 519154A - SM 4500 CN											
Blank (CF34116-BLK)					Pro	epared: 19-	Feb-20 Ar	nalyzed: 24-F	eb-20		
Total Cyanide	< 0.010	c1	mg/l	0.010			BRL	-			
LCS (CF34116-LCS)					Pro	epared: 19-	Feb-20 Ar	nalyzed: 24-F	eb-20		
Total Cyanide	0.4090	c1	mg/l	0.010	0.438		93.4	90-110		20	

#### **Notes and Definitions**

c1 Cyanide blank spike recory was 105 %.

J. Estimated value

dry Sample results reported on a dry weight basis

NR Not Reported

RPD Relative Percent Difference

OG The required Matrix Spike and Matrix Spike Duplicate (MS/MSD) for Oil & Grease method 1664B can only be analyzed when the client has submitted sufficient sample volume. An extra liter per MS/MSD is required to fulfill the method QC criteria. Please refer to Chain of Custody and QC Summary (MS/MSD) of the Laboratory Report to verify ample sample volume was submitted to fulfill the requirement.

<u>Laboratory Control Sample (LCS)</u>: A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

<u>Matrix Spike</u>: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

<u>Method Blank</u>: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

<u>Method Detection Limit (MDL)</u>: The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

<u>Surrogate</u>: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

<u>Continuing Calibration Verification:</u> The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

25-Feb-20 16:28 Page 30 of 30



Environment Testing New England

	30	
Invoice To: Same	CHAIN OF CUSTODY RECORD	Fed Ex # 8139 4282 5292
Project No: 60276639 - 1	Special Handling:  Rush TAT - 7 to 10 business days  All TATs subject to laboratory approval Min. 24-hr notification needed for rushes  Samples disposed after 30 days unless otherwise instructed.	92 SUSTS37 Pr

		Con la	Mrs m	Relinquished by:			8	16 TB 021820	05 TW-3 021820	028120 V2-ML HO.	ez 7w-1021820	2 INF 021820	(57537 e) EFF55 021820	Lab ID: Sample ID:	G= Grab	X1=X2=	O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air	DW=Drinking Water GW=Groundwater SW=St	*	F=Field Filtered 1=Na <sub>2</sub> S2O <sub>3</sub> 2=HCl 3=H <sub>2</sub> SO <sub>4</sub> 7=CH3OH 8=NaHSO <sub>4</sub> 9=Deionized Water 10=H <sub>3</sub> PO <sub>4</sub>	Project Mgr. Lindsay M: +chell		Latham NY 1211	Report To: AECOM
	We I . I .	11	red 60 . 2/1	Received by:		1,41			1235	1240	1225	1230	2/18/20 1245 G GW		C=Compsite pe	X3=	ient Air SG=Soil Gas	SW=Surface Water WW=Waste Water		D <sub>4</sub> 4=HNO <sub>3</sub> 5=NaOH 6=Ascorbic Acid 11= <b>hohe</b> 12=	P.O No.:		O Sluce.	Invoice To: Same
IR ID#	Compieted 3, 6	9/20 10 00 Correction	8/20 1626 3:	Date: Time: Ter				~				7	-	# of 2 # of 0	Clear Plastic	Glass		Containers	2		Quote #:			(0)
Ambient Alced Refi	Condition upon receipt:	Corection Factor	3 ( E-mail to:	Temp °C								× × ×	× × ×	NTS	s/ S/ S+	als 7D: G	* s	Analysis	4 11 3 5	List Preservative Code below:	SEG		Site Name: Now C	Project No: 602
Refrigerated DI VOA Frozen Soil Jar Frozen	Custody Seals: Aresent Antact Broken											Mn, Ha	-*Al, As, Ba, Cr, Co,	Cher: State-specific reporting standards:	the III*  Tier II*  Tier IV*	] ]		M Report?	" additional charges may appply	QA/QC Reporting Notes:		Staats burg State: NY	orp / 3-14-008	60276639 - 1

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## **Batch Summary**

#### 200510571310

Subcontracted Analyses

P05171JBB P05171JQQ

SC57537-01 (EFF55 021820)

SC57537-02 (INF 021820)

#### 200511404403

Subcontracted Analyses

P05104CBB P05104CBC P05104CQQ P05104CQR P263372D221354

P263372D221725 P263372M221401

P263372R221358

SC57537-01 (EFF55 021820) SC57537-01RE01 (EFF55 021820)

SC57537-02 (INF 021820) SC57537-02RE01 (INF 021820)

#### 20052807901A

Subcontracted Analyses

B052101B L052101Q L052101Y

SC57537-01 (EFF55 021820)

SC57537-02 (INF 021820)

#### 200551404704A

Subcontracted Analyses

P05504DBB

P05504DQQ P263372D222036A

P263372M222039A

P263372R222038A

SC57537-01 (EFF55 021820)

SC57537-02 (INF 021820)

#### 519154A

Subcontracted Analyses

CF34116-BLK

CF34116-LCS

SC57537-01 (EFF55 021820)

SC57537-02 (INF 021820)

#### 519222A

Subcontracted Analyses

CF34322-BLK

CF34322-LCS

SC57537-01 (EFF55 021820)

SC57537-02 (INF 021820)

#### 519230A

Subcontracted Analyses

CF33791-BLK CF33791-LCS

SC57537-01 (EFF55 021820)

SC57537-02 (INF 021820)

#### Y200541AA

Subcontracted Analyses

LCSY02Q LCSY02Y LCSY03Q LCSY03Y

SC57537-01 (EFF55 021820) SC57537-02 (INF 021820) SC57537-03 (TW-1 021820) SC57537-04 (TW-2A 021820) SC57537-05 (TW-3 021820)

SC57537-06 (TB) VBLKY02B