AECOM

Operation, Maintenance and Monitoring Report
June 1, 2018 – May 31, 2019

Northeast Alloys and Metals, Inc.
Site 633045

Work Assignment No.
D007626-28

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

January 2020

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Latham, NY 12110

January 20, 2020

Mr. Payson Long
Project Manager, Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway, Albany, NY 12233-7011

Subject: Northeast Alloys & Metals, 2145 Dwyer Ave, Utica, NY – Site #633045
2018-2019 Annual O&M Summary Report

Dear Mr. Long,

This summary report describes the operation, monitoring and maintenance (OM&M) of the remedial system at the subject site in the City of Utica, New York, for the period **June 1, 2018 – May 31, 2019**.

AECOM has provided the NYSDEC with electronic copies of reports submitted to the Oneida County Sewer District (OCSD). The reports presented discharge quantities for two 6-month periods ending in November 2018 and May 2019, and provided analytical results for effluent water samples representing each of those periods.

Included in this document are the Eurofins Spectrum Analytical laboratory reports for the two sampling events, conducted on October 30, 2018 and April 30, 2019. Total VOCs in the influent were 147.58 µg/L and 30.59 µg/L, respectively; the effluent contained 21.8 µg/L and 16.4 µg/L of total volatile organic compounds (VOCs), respectively. The dominant contaminant in the influent and effluent samples was cis-1,2-dichloroethene (DCE). Compounds present at lower concentrations included: trichloroethene (TCE), 1,1-dichloroethane (DCA), 1,1-dichloroethene (DCE), benzene, trans-1,2-DCE, vinyl chloride and nickel. As reported to the OCSD, all effluent limitations were met in both sampling events for VOCs as well as for metals.

Below is a list of total VOCs in the influent and effluent water for samples collected on the dates shown:

Date	Total VOC Result (µg/L)		Date	Total VOC Result (µg/L)	
	Influent	Effluent		Influent	Effluent
5/3/05	175	25	10/12/05	323	69
4/6/06	84	21	10/5/06	83	15
4/7/07	45	17	10/8/07	110	5.5
4/8/08	96	34.8	10/13/08	237	16
4/13/09	80	26	10/29/09	233	77.5
4/27/10	69.6	32.2	10/14/10	84	22
4/13/11	142.8	30.7	10/12/11	97.5	28.3
5/3/12	63.8	20	9/25/12	154.4	94.7
4/22/13	114.3	43.5	11/4/13	88.2	15
4/9/14	111.1	34.3	10/30/14	59.4	19
4/23/15	51.7	18	10/20/15	83.9	21

Date	Total VOC Result (µg/L)		Date	Total VOC Result (µg/L)	
	Influent	Effluent		Influent	Effluent
5/19/16	136.7	78.5	11/9/16	87.4	81.6
4/18/17	31.7	11	10/12/17	66.4	7.5
5/1/18	38.8	24.5	10/30/18	147.6	21.8
4/30/19	30.6	16.4			

AECOM performed five site inspections in the reporting period, including the semi-annual sampling events on October 30, 2018 and April 30, 2019. Notable maintenance activities included:

- **June 15, 2018** – On-site to remove ProControl unit for repairs (system not operational, perhaps due to electrical surge)
- **June 21, 2018** – On-site to re-install ProControl unit
- **October 29-30, 2018** – On-site to collect semi-annual samples, perform brush removal around the enclosure and wells, winterize the system (turned on remediation building heater and added insulation to vents), and perform O&M including cleaning of the pumps and flow meters
- **January 11, 2019** – On-site for site walk with new NYSDEC PM and other NYSDEC personnel
- **April 30, 2019** – On-site to collect semi-annual samples and de-winterize the system

Additionally, groundwater samples were collected and analyzed for VOCs, 1,4-dioxane and per- and polyfluorinated alkyl substances (PFAS) in December 2018.

Since system performance can be monitored on a daily basis, flow data has become more accurate, and is reported on a monthly basis below:

Period	Discharge (gallons)
June 2018	14,607
July 2018	72,905
August 2018	98,994
September 2018	121,959
October 2018	98,428
November 2018	287,128
December 2018	240,932
January 2019	184,671
February 2019	161,415
March 2019	208,705
April 2019	211,262
May 2019	318,243
Total Discharge 6/1/18 - 5/31/19	2,019,249

During the 12-month reporting period, 2,019,249 gallons of water were discharged to the OCSD over approximately 95 drawdown/recovery cycles – averaging one cycle every 3.8 days. Periods of drawdown generally ranged from 6.0-8.0 hours, with flows around 20-30 gallons per minute (gpm).

Since 11/29/04, the aeration manhole has treated and discharged more than 26.2 million gallons of water.

AECOM annual reports will continue to cover the period of June 1 through May 31, consistent with the designated Oneida County reporting period.

Please feel free to contact me at (518) 951-2373 if you have any questions regarding this report or the operation of the treatment system.

Sincerely,

AECOM Technical Services Northeast, Inc.

Lindsay Mitchell, P.E.
Project Manager
lindsay.mitchell@aecom.com

eurofins | Spectrum Analytical

☑ Final Report
☐ Revised Report

Report Date:
16-Nov-18 11:21

Laboratory Report
SC51592

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

Project: NEAM - Utica, NY
Project #: 60284002-1

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.

Massachusetts # M-MA138/MA1110
Connecticut # PH-0777
Florida # E87936
Maine # MA138
New Hampshire # 2972/2538
New Jersey # MA011
New York # 11393
Pennsylvania # 68-04426/68-02924
Rhode Island # LAO00348
USDA # P330-15-00375
Vermont # VT-11393

Authorized by:

Dawn Wojcik
Laboratory Director

Dawn E Wojcik

Eurofins Spectrum Analytical 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 20 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 Spectrum Analytical, Inc.

Eurofins Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Eurofins Spectrum Analytical, Inc. is currently accredited for the specific method or analyte indicated. Please refer to our 'Quality' web page at www.spectrum-analytical.com for a full listing of our current certifications and fields of accreditation. States in which Eurofins Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey, Pennsylvania and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (PA-68-04426).

Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.

Sample Summary

Work Order: SC51592

Project: NEAM - Utica, NY

Project Number: 60284002-1

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SC51592-01	NE-EFF103018	Ground Water	30-Oct-18 13:00	31-Oct-18 10:54
SC51592-02	NE-INF103018	Ground Water	30-Oct-18 13:10	31-Oct-18 10:54
SC51592-03	TB 103018	Trip Blank	30-Oct-18 00:00	31-Oct-18 10:54

CASE NARRATIVE:

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

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

The samples were received 1.1 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 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.

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

E624.1

Samples:

SC51592-01 *NE-EFF103018*

Estimated Values

1,1-Dichloroethane

SC51592-02 *NE-INF103018*

Estimated Values

1,1-Dichloroethene
Benzene

Sample Acceptance Check Form

Client:	AECOM Environment - Latham, NY
Project:	NEAM - Utica, NY / 60284002-1
Work Order:	SC51592
Sample(s) received on:	10/31/2018

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

	Yes	No	N/A
Were custody seals present?	☐	☑	☐
Were custody seals intact?	☐	☐	☑
Were samples received at a temperature of ≤ 6°C?	☑	☐	☐
Were samples cooled on ice upon transfer to laboratory representative?	☑	☐	☐
Were sample containers received intact?	☑	☐	☐
Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?	☑	☐	☐
Were samples accompanied by a Chain of Custody document?	☑	☐	☐
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?	☑	☐	☐
Were samples received within method-specific holding times?	☑	☐	☐

Summary of Hits

Lab ID: SC51592-01 **Client ID:** NE-EFF103018

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
1,1-Dichloroethane	0.26	J.	0.50	ug/L	E624.1
cis-1,2-Dichloroethene	20		0.50	ug/L	E624.1
Trichloroethene	1.0		0.50	ug/L	E624.1
Vinyl chloride	0.54		0.50	ug/L	E624.1
Nickel	0.0016	J	0.0050	mg/l	SW846 6010C

Lab ID: SC51592-02 **Client ID:** NE-INF103018

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
1,1-Dichloroethane	1.1		0.50	ug/L	E624.1
1,1-Dichloroethene	0.30	J.	0.50	ug/L	E624.1
Benzene	0.28	J.	0.50	ug/L	E624.1
cis-1,2-Dichloroethene	110		10	ug/L	E624.1
trans-1,2-Dichloroethene	1.1		0.50	ug/L	E624.1
Trichloroethene	5.8		0.50	ug/L	E624.1
Vinyl chloride	29		0.50	ug/L	E624.1

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.

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
NE-EFF103018 SC51592-01	60284002-1	Ground Water	30-Oct-18 13:00	31-Oct-18

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Total Metals by EPA 200/6000 Series Methods													
Prepared by method General Prep-Metal													
	Preservation	**Field Preserved; pH<2 confirmed**		N/A			1	EPA 200/6000 methods	01-Nov-18		KT	1814510	
Total Metals by EPA 6000/7000 Series Methods													
Prepared by method SW846 3005A													
7440-02-0	Nickel	**0.0016**	J	mg/l	0.0050	0.0009	1	SW846 6010C	07-Nov-18	08-Nov-18	EDT	1814643	X
Total Metals by EPA 200 Series Methods													
7439-97-6	Mercury	< 0.00020	U	mg/l	0.00020	0.00014	1	EPA 245.1/7470A	07-Nov-18	09-Nov-18	ABW	1814644	X
Subcontracted Analyses													
Subcontracted Analyses													
*Analysis performed by Phoenix Environmental Labs, Inc. * - CT007*													
71-55-6	1,1,1-Trichloroethane	< 0.50		ug/L	0.50	0.25	1	E624.1	30-Oct-18 13:00	07-Nov-18 03:56	11301	455280A	
79-34-5	1,1,2,2-tetrachloroethane	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	**0.26**	J.	ug/L	0.50	0.25	1	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
71-43-2	Benzene	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
75-25-2	Bromoform	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
74-83-9	Bromomethane	< 0.50		ug/L	0.50	0.50	1	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
108-90-7	Chlorobenzene	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
75-00-3	Chloroethane	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
67-66-3	Chloroform	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
74-87-3	Chloromethane	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	**20**		ug/L	0.50	0.25	1	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 0.40		ug/L	0.40	0.25	1	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
100-41-4	Ethylbenzene	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
179601-23-1	m&p-Xylene	< 0.50		ug/L	0.50	0.42	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether (MTBE)	< 1.0		ug/L	1.0	0.50	1	"	"	"	"	"	
75-09-2	Methylene chloride	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
95-47-6	o-Xylene	< 0.50		ug/L	0.50	0.45	1	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
108-88-3	Toluene	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 0.40		ug/L	0.40	0.25	1	"	"	"	"	"	
79-01-6	Trichloroethene	**1.0**		ug/L	0.50	0.25	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
NE-EFF103018 SC51592-01	60284002-1	Ground Water	30-Oct-18 13:00	31-Oct-18

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Subcontracted Analyses													
Subcontracted Analyses													
*Analysis performed by Phoenix Environmental Labs, Inc. * - CT007*													
75-01-4	Vinyl chloride	**0.54**		ug/L	0.50	0.25	1	E624.1	30-Oct-18 13:00	07-Nov-18 03:56	11301	455280A	
Surrogate recoveries:													
2199-69-1	*% 1,2-dichlorobenzene-d4*	*107*			*70-130 %*			"	"	"	"	"	
460-00-4	*% Bromofluorobenzene*	*76*			*70-130 %*			"	"	"	"	"	
1868-53-7	*% Dibromofluoromethane*	*98*			*70-130 %*			"	"	"	"	"	
2037-26-5	*% Toluene-d8*	*103*			*70-130 %*			"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
NE-INF103018	60284002-1	Ground Water	30-Oct-18 13:10	31-Oct-18
SC51592-02				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Subcontracted Analyses													
Subcontracted Analyses													
*Analysis performed by Phoenix Environmental Labs, Inc. * - CT007*													
71-55-6	1,1,1-Trichloroethane	< 0.50		ug/L	0.50	0.25	1	E624.1	30-Oct-18 13:10	07-Nov-18 11:11	11301	455377A	
79-34-5	1,1,2,2-tetrachloroethane	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	**1.1**		ug/L	0.50	0.25	1	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	**0.30**	J.	ug/L	0.50	0.25	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
71-43-2	Benzene	**0.28**	J.	ug/L	0.50	0.25	1	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
75-25-2	Bromoform	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
74-83-9	Bromomethane	< 0.50		ug/L	0.50	0.50	1	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
108-90-7	Chlorobenzene	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
75-00-3	Chloroethane	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
67-66-3	Chloroform	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
74-87-3	Chloromethane	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	**110**		ug/L	10	5.0	20	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 0.40		ug/L	0.40	0.25	1	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
100-41-4	Ethylbenzene	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
179601-23-1	m&p-Xylene	< 0.50		ug/L	0.50	0.42	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether (MTBE)	< 1.0		ug/L	1.0	0.50	1	"	"	"	"	"	
75-09-2	Methylene chloride	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
95-47-6	o-Xylene	< 0.50		ug/L	0.50	0.45	1	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
108-88-3	Toluene	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	**1.1**		ug/L	0.50	0.25	1	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 0.40		ug/L	0.40	0.25	1	"	"	"	"	"	
79-01-6	Trichloroethene	**5.8**		ug/L	0.50	0.25	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
75-01-4	Vinyl chloride	**29**		ug/L	0.50	0.25	1	"	"	"	"	"	
Surrogate recoveries:													
2199-69-1	*% 1,2-dichlorobenzene-d4*	*105*			*70-130 %*			"	"	"	"	"	
460-00-4	*% Bromofluorobenzene*	*88*			*70-130 %*			"	"	"	"	"	
1868-53-7	*% Dibromofluoromethane*	*101*			*70-130 %*			"	"	"	"	"	
2037-26-5	*% Toluene-d8*	*101*			*70-130 %*			"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
TB 103018	60284002-1	Trip Blank	30-Oct-18 00:00	31-Oct-18
SC51592-03				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Subcontracted Analyses													
Subcontracted Analyses													
*Analysis performed by Phoenix Environmental Labs, Inc. * - CT007*													
71-55-6	1,1,1-Trichloroethane	< 0.50		ug/L	0.50	0.25	1	E624.1	30-Oct-18	07-Nov-18 01:04	11301	455280A	
79-34-5	1,1,2,2-tetrachloroethane	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
71-43-2	Benzene	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
75-25-2	Bromoform	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
74-83-9	Bromomethane	< 0.50		ug/L	0.50	0.50	1	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
108-90-7	Chlorobenzene	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
75-00-3	Chloroethane	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
67-66-3	Chloroform	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
74-87-3	Chloromethane	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 0.40		ug/L	0.40	0.25	1	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
100-41-4	Ethylbenzene	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
179601-23-1	m&p-Xylene	< 0.50		ug/L	0.50	0.42	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether (MTBE)	< 1.0		ug/L	1.0	0.50	1	"	"	"	"	"	
75-09-2	Methylene chloride	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
95-47-6	o-Xylene	< 0.50		ug/L	0.50	0.45	1	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
108-88-3	Toluene	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 0.40		ug/L	0.40	0.25	1	"	"	"	"	"	
79-01-6	Trichloroethene	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
75-01-4	Vinyl chloride	< 0.50		ug/L	0.50	0.25	1	"	"	"	"	"	
Surrogate recoveries:													
2199-69-1	*% 1,2-dichlorobenzene-d4*	*107*			*70-130 %*			"	"	"	"	"	
460-00-4	*% Bromofluorobenzene*	*79*			*70-130 %*			"	"	"	"	"	
1868-53-7	*% Dibromofluoromethane*	*107*			*70-130 %*			"	"	"	"	"	
2037-26-5	*% Toluene-d8*	*102*			*70-130 %*			"	"	"	"	"	

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 6010C										
Batch 1814643 - SW846 3005A										
Blank (1814643-BLK1)					Prepared: 07-Nov-18 Analyzed: 08-Nov-18					
Nickel	< 0.0050	U	mg/l	0.0050						
LCS (1814643-BS1)					Prepared: 07-Nov-18 Analyzed: 08-Nov-18					
Nickel	**1.30**		mg/l	0.0050	1.25		104	85-115		
LCS Dup (1814643-BSD1)					Prepared: 07-Nov-18 Analyzed: 08-Nov-18					
Nickel	**1.30**		mg/l	0.0050	1.25		104	85-115	0.1	20

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
EPA 245.1/7470A										
Batch 1814644 - EPA200/SW7000 Series										
Blank (1814644-BLK1)						Prepared: 07-Nov-18 Analyzed: 09-Nov-18				
Mercury	< 0.00020	U	mg/l	0.00020						
LCS (1814644-BS1)						Prepared: 07-Nov-18 Analyzed: 09-Nov-18				
Mercury	**0.00505**		mg/l	0.00020	0.00500		101	85-115		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
E624.1										
Batch 455280A - E624.1										
BLK (CB88901-BLK)						Prepared: Analyzed: 06-Nov-18				
trans-1,2-Dichloroethene	**ND**		ug/L	1.0			ND	-		
Chloroethane	**ND**		ug/L	1.0			ND	-		
Chloroform	**ND**		ug/L	1.0			ND	-		
Chloromethane	**ND**		ug/L	1.0			ND	-		
cis-1,2-Dichloroethene	**ND**		ug/L	1.0			ND	-		
cis-1,3-Dichloropropene	**ND**		ug/L	0.40			ND	-		
Ethylbenzene	**ND**		ug/L	1.0			ND	-		
Methyl tert-butyl ether (MTBE)	**ND**		ug/L	1.0			ND	-		
Methylene chloride	**ND**		ug/L	1.0			ND	-		
o-Xylene	**ND**		ug/L	1.0			ND	-		
Chlorobenzene	**ND**		ug/L	1.0			ND	-		
Toluene	**ND**		ug/L	1.0			ND	-		
Dibromochloromethane	**ND**		ug/L	0.50			ND	-		
trans-1,3-Dichloropropene	**ND**		ug/L	0.40			ND	-		
Trichloroethene	**ND**		ug/L	1.0			ND	-		
Trichlorofluoromethane	**ND**		ug/L	1.0			ND	-		
Vinyl chloride	**ND**		ug/L	1.0			ND	-		
Tetrachloroethene	**ND**		ug/L	1.0			ND	-		
1,2-Dichloropropane	**ND**		ug/L	1.0			ND	-		
1,1,1-Trichloroethane	**ND**		ug/L	1.0			ND	-		
1,1,2,2-tetrachloroethane	**ND**		ug/L	0.50			ND	-		
1,1,2-Trichloroethane	**ND**		ug/L	1.0			ND	-		
1,1-Dichloroethane	**ND**		ug/L	1.0			ND	-		
1,1-Dichloroethene	**ND**		ug/L	1.0			ND	-		
1,2-Dichlorobenzene	**ND**		ug/L	1.0			ND	-		
Carbon tetrachloride	**ND**		ug/L	1.0			ND	-		
1,2-Dichloroethane	**ND**		ug/L	1.0			ND	-		
m&p-Xylene	**ND**		ug/L	1.0			ND	-		
1,3-Dichlorobenzene	**ND**		ug/L	1.0			ND	-		
1,4-Dichlorobenzene	**ND**		ug/L	1.0			ND	-		
Benzene	**ND**		ug/L	0.70			ND	-		
Bromodichloromethane	**ND**		ug/L	0.50			ND	-		
Bromoform	**ND**		ug/L	1.0			ND	-		
Bromomethane	**ND**		ug/L	1.0			ND	-		
Surrogate: % Dibromofluoromethane	*107*		ug/L		*30*		*107*	*70-130*		
Surrogate: % Bromofluorobenzene	*78*		ug/L		*30*		*78*	*70-130*		
Surrogate: % Toluene-d8	*102*		ug/L		*30*		*102*	*70-130*		
Surrogate: % 1,2-dichlorobenzene-d4	*105*		ug/L		*30*		*105*	*70-130*		
LCS (CB88901-LCS)						Prepared: Analyzed: 06-Nov-18				
Tetrachloroethene	**19.95**		ug/L	1.0	20		100	73-127		20
Chloroform	**20.02**		ug/L	1.0	20		100	67-133		20
Chloromethane	**19.51**		ug/L	1.0	20		98	40-160		20
cis-1,2-Dichloroethene	**20.18**		ug/L	1.0	20		101	69-131		20
cis-1,3-Dichloropropene	**18.52**		ug/L	0.40	20		93	40-160		20
Dibromochloromethane	**20.37**		ug/L	0.50	20		102	67-133		20
Ethylbenzene	**20.17**		ug/L	1.0	20		101	59-141		20
m&p-Xylene	**42.90**		ug/L	1.0	40		107	70-130		30
Methyl tert-butyl ether (MTBE)	**16.30**		ug/L	1.0	20		81	70-130		30
o-Xylene	**22.22**		ug/L	1.0	20		111	70-130		30
Toluene	**20.02**		ug/L	1.0	20		100	74-126		20

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
E624.1										
Batch 455280A - E624.1										
LCS (CB88901-LCS)					Prepared:	Analyzed: 06-Nov-18				
trans-1,2-Dichloroethene	**20.51**		ug/L	1.0	20		103	69-131		20
trans-1,3-Dichloropropene	**16.97**		ug/L	0.40	20		85	50-150		20
Trichloroethene	**19.10**		ug/L	1.0	20		95	66-134		20
Trichlorofluoromethane	**19.31**		ug/L	1.0	20		97	48-152		20
Vinyl chloride	**21.19**		ug/L	1.0	20		106	40-160		20
1,4-Dichlorobenzene	**21.20**		ug/L	1.0	20		106	63-137		20
Chloroethane	**21.95**		ug/L	1.0	20		110	40-160		20
Methylene chloride	**20.58**		ug/L	1.0	20		103	60-140		20
1,3-Dichlorobenzene	**21.33**		ug/L	1.0	20		107	73-127		20
1,1,1-Trichloroethane	**19.20**		ug/L	1.0	20		96	75-125		20
1,1,2,2-tetrachloroethane	**18.38**		ug/L	0.50	20		92	60-140		20
1,1,2-Trichloroethane	**19.09**		ug/L	1.0	20		95	71-129		20
1,1-Dichloroethane	**20.24**		ug/L	1.0	20		101	72-128		20
1,1-Dichloroethene	**19.20**		ug/L	1.0	20		96	50-150		20
1,2-Dichlorobenzene	**20.79**		ug/L	1.0	20		104	63-137		20
1,2-Dichloropropane	**20.20**		ug/L	1.0	20		101	40-160		20
Chlorobenzene	**20.35**		ug/L	1.0	20		102	66-134		20
Benzene	**20.09**		ug/L	0.70	20		100	64-136		20
Bromodichloromethane	**20.73**		ug/L	0.50	20		104	65-135		20
Bromoform	**17.36**		ug/L	1.0	20		87	71-129		20
Bromomethane	**20.67**		ug/L	1.0	20		103	40-160		20
Carbon tetrachloride	**18.38**		ug/L	1.0	20		92	73-127		20
1,2-Dichloroethane	**19.06**		ug/L	1.0	20		95	68-132		20
Surrogate: % Toluene-d8	*30.56*		ug/L		*30*		*102*	*70-130*		
Surrogate: % 1,2-dichlorobenzene-d4	*29.43*		ug/L		*30*		*98*	*70-130*		
Surrogate: % Bromofluorobenzene	*26.99*		ug/L		*30*		*90*	*70-130*		
Surrogate: % Dibromofluoromethane	*32.22*		ug/L		*30*		*107*	*70-130*		
LCSD (CB88901-LCSD)					Prepared:	Analyzed: 06-Nov-18				
trans-1,3-Dichloropropene	**17.08**		ug/L	0.40	20		85	50-150	0.0	20
Chloroform	**20.23**		ug/L	1.0	20		101	67-133	1.0	20
Chloromethane	**20.75**		ug/L	1.0	20		104	40-160	5.9	20
cis-1,2-Dichloroethene	**20.18**		ug/L	1.0	20		101	69-131	0.0	20
cis-1,3-Dichloropropene	**19.01**		ug/L	0.40	20		95	40-160	2.1	20
Dibromochloromethane	**19.18**		ug/L	0.50	20		96	67-133	6.1	20
Ethylbenzene	**20.10**		ug/L	1.0	20		100	59-141	1.0	20
m&p-Xylene	**41.93**		ug/L	1.0	40		105	70-130	1.9	30
Methyl tert-butyl ether (MTBE)	**16.51**		ug/L	1.0	20		83	70-130	2.4	30
Methylene chloride	**20.67**		ug/L	1.0	20		103	60-140	0.0	20
o-Xylene	**20.87**		ug/L	1.0	20		104	70-130	6.5	30
Tetrachloroethene	**20.40**		ug/L	1.0	20		102	73-127	2.0	20
Toluene	**20.47**		ug/L	1.0	20		102	74-126	2.0	20
1,2-Dichloroethane	**18.57**		ug/L	1.0	20		93	68-132	2.1	20
Chloroethane	**22.09**		ug/L	1.0	20		110	40-160	0.0	20
Trichlorofluoromethane	**19.83**		ug/L	1.0	20		99	48-152	2.0	20
1,2-Dichloropropane	**20.54**		ug/L	1.0	20		103	40-160	2.0	20
Vinyl chloride	**21.50**		ug/L	1.0	20		108	40-160	1.9	20
Trichloroethene	**19.40**		ug/L	1.0	20		97	66-134	2.1	20
1,1,1-Trichloroethane	**19.08**		ug/L	1.0	20		95	75-125	1.0	20
1,1,2,2-tetrachloroethane	**18.17**		ug/L	0.50	20		91	60-140	1.1	20
1,1,2-Trichloroethane	**18.67**		ug/L	1.0	20		93	71-129	2.1	20

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
E624.1										
Batch 455280A - E624.1										
LCSD (CB88901-LCSD)					Prepared: Analyzed: 06-Nov-18					
1,1-Dichloroethane	**19.89**		ug/L	1.0	20		99	72-128	2.0	20
1,3-Dichlorobenzene	**21.24**		ug/L	1.0	20		106	73-127	0.9	20
1,2-Dichlorobenzene	**20.14**		ug/L	1.0	20		101	63-137	2.9	20
Chlorobenzene	**20.32**		ug/L	1.0	20		102	66-134	0.0	20
1,4-Dichlorobenzene	**21.23**		ug/L	1.0	20		106	63-137	0.0	20
Benzene	**20.27**		ug/L	0.70	20		101	64-136	1.0	20
Bromodichloromethane	**19.95**		ug/L	0.50	20		100	65-135	3.9	20
Bromoform	**16.50**		ug/L	1.0	20		83	71-129	4.7	20
Bromomethane	**21.83**		ug/L	1.0	20		109	40-160	5.7	20
Carbon tetrachloride	**18.12**		ug/L	1.0	20		91	73-127	1.1	20
1,1-Dichloroethene	**19.00**		ug/L	1.0	20		95	50-150	1.0	20
trans-1,2-Dichloroethene	**20.97**		ug/L	1.0	20		105	69-131	1.9	20
Surrogate: % Toluene-d8	*30.51*		ug/L		*30*		*102*	*70-130*		
Surrogate: % Dibromofluoromethane	*31.47*		ug/L		*30*		*105*	*70-130*		
Surrogate: % Bromofluorobenzene	*27.34*		ug/L		*30*		*91*	*70-130*		
Surrogate: % 1,2-dichlorobenzene-d4	*29.26*		ug/L		*30*		*98*	*70-130*		
MS (CB88901-MS)			**Source: CB88901**		Prepared: Analyzed: 07-Nov-18					
1,1,2,2-tetrachloroethane	**17.70**		ug/L	0.50	20		89	60-140		20
Benzene	**20.22**		ug/L	0.70	20		101	64-136		20
1,4-Dichlorobenzene	**20.63**		ug/L	1.0	20		103	63-137		20
1,3-Dichlorobenzene	**20.77**		ug/L	1.0	20		104	73-127		20
1,2-Dichloropropane	**19.45**		ug/L	1.0	20		97	40-160		20
1,2-Dichloroethane	**19.16**		ug/L	1.0	20		96	68-132		20
1,2-Dichlorobenzene	**20.19**		ug/L	1.0	20		101	63-137		20
1,1-Dichloroethene	**18.80**		ug/L	1.0	20		94	50-150		20
Bromodichloromethane	**20.27**		ug/L	0.50	20		101	65-135		20
Trichloroethene	**19.29**		ug/L	1.0	20		96	66-134		20
1,1,2-Trichloroethane	**18.46**		ug/L	1.0	20		92	71-129		20
Vinyl chloride	**20.07**		ug/L	1.0	20		100	40-160		20
Trichlorofluoromethane	**20.23**		ug/L	1.0	20		101	48-152		20
1,1-Dichloroethane	**20.24**		ug/L	1.0	20		101	72-128		20
Dibromochloromethane	**19.01**		ug/L	0.50	20		95	67-133		20
1,1,1-Trichloroethane	**19.64**		ug/L	1.0	20		98	75-125		20
Methyl tert-butyl ether (MTBE)	**15.34**		ug/L	1.0	20		77	70-130		30
Methylene chloride	**20.07**		ug/L	1.0	20		100	60-140		20
Tetrachloroethene	**20.46**		ug/L	1.0	20		102	73-127		20
o-Xylene	**20.20**		ug/L	1.0	20		101	70-130		30
trans-1,3-Dichloropropene	**17.06**		ug/L	0.40	20		85	50-150		20
trans-1,2-Dichloroethene	**20.52**		ug/L	1.0	20		103	69-131		20
Toluene	**19.62**		ug/L	1.0	20		98	74-126		20
Bromoform	**16.73**		ug/L	1.0	20		84	71-129		20
Ethylbenzene	**19.91**		ug/L	1.0	20		100	59-141		20
cis-1,3-Dichloropropene	**18.32**		ug/L	0.40	20		92	40-160		20
cis-1,2-Dichloroethene	**19.77**		ug/L	1.0	20		99	69-131		20
Chloromethane	**18.58**		ug/L	1.0	20		93	40-160		20
Chloroform	**20.39**		ug/L	1.0	20		102	67-133		20
Chloroethane	**21.20**		ug/L	1.0	20		106	40-160		20
Chlorobenzene	**19.98**		ug/L	1.0	20		100	66-134		20
Carbon tetrachloride	**18.76**		ug/L	1.0	20		94	73-127		20
Bromomethane	**19.02**		ug/L	1.0	20		94	40-160		20

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
E624.1										
Batch 455280A - E624.1										
MS (CB88901-MS)			**Source: CB88901**			Prepared: Analyzed: 07-Nov-18				
m&p-Xylene	**41.15**		ug/L	1.0	40		103	70-130		30
Surrogate: % Dibromofluoromethane	*31.74*		ug/L		*20*		*106*	*70-130*		
Surrogate: % Bromofluorobenzene	*27.68*		ug/L		*20*		*92*	*70-130*		
Surrogate: % Toluene-d8	*30.70*		ug/L		*20*		*102*	*70-130*		
Surrogate: % 1,2-dichlorobenzene-d4	*30.07*		ug/L		*20*		*100*	*70-130*		
MSD (CB88901-MSD)			**Source: CB88901**			Prepared: Analyzed: 07-Nov-18				
Carbon tetrachloride	**17.87**		ug/L	1.0	20		89	73-127	5.5	20
Bromomethane	**20.05**		ug/L	1.0	20		99	40-160	5.2	20
Bromoform	**16.87**		ug/L	1.0	20		84	71-129	0.0	20
Bromodichloromethane	**19.74**		ug/L	0.50	20		99	65-135	2.0	20
Chlorobenzene	**20.26**		ug/L	1.0	20		101	66-134	1.0	20
m&p-Xylene	**42.11**		ug/L	1.0	40		105	70-130	1.9	30
Benzene	**19.11**		ug/L	0.70	20		96	64-136	5.1	20
Chloroethane	**21.31**		ug/L	1.0	20		107	40-160	0.9	20
Chloroform	**19.90**		ug/L	1.0	20		100	67-133	2.0	20
Chloromethane	**18.28**		ug/L	1.0	20		91	40-160	2.2	20
cis-1,2-Dichloroethene	**19.06**		ug/L	1.0	20		95	69-131	4.1	20
cis-1,3-Dichloropropene	**18.22**		ug/L	0.40	20		91	40-160	1.1	20
Ethylbenzene	**20.19**		ug/L	1.0	20		101	59-141	1.0	20
Methyl tert-butyl ether (MTBE)	**16.27**		ug/L	1.0	20		81	70-130	5.1	30
Methylene chloride	**19.50**		ug/L	1.0	20		97	60-140	3.0	20
o-Xylene	**21.44**		ug/L	1.0	20		107	70-130	5.8	30
1,4-Dichlorobenzene	**20.68**		ug/L	1.0	20		103	63-137	0.0	20
Dibromochloromethane	**20.32**		ug/L	0.50	20		102	67-133	7.1	20
1,1,2,2-tetrachloroethane	**17.16**		ug/L	0.50	20		86	60-140	3.4	20
Trichloroethene	**17.88**		ug/L	1.0	20		89	66-134	7.6	20
trans-1,2-Dichloroethene	**20.03**		ug/L	1.0	20		100	69-131	3.0	20
Tetrachloroethene	**19.48**		ug/L	1.0	20		97	73-127	5.0	20
Trichlorofluoromethane	**19.69**		ug/L	1.0	20		98	48-152	3.0	20
Toluene	**18.98**		ug/L	1.0	20		95	74-126	3.1	20
Vinyl chloride	**20.56**		ug/L	1.0	20		103	40-160	3.0	20
trans-1,3-Dichloropropene	**16.74**		ug/L	0.40	20		84	50-150	1.2	20
1,1,1-Trichloroethane	**18.99**		ug/L	1.0	20		95	75-125	3.1	20
1,1,2-Trichloroethane	**18.27**		ug/L	1.0	20		91	71-129	1.1	20
1,1-Dichloroethane	**19.45**		ug/L	1.0	20		97	72-128	4.0	20
1,1-Dichloroethene	**19.29**		ug/L	1.0	20		96	50-150	2.1	20
1,2-Dichlorobenzene	**20.03**		ug/L	1.0	20		100	63-137	1.0	20
1,2-Dichloroethane	**18.54**		ug/L	1.0	20		93	68-132	3.2	20
1,2-Dichloropropane	**19.25**		ug/L	1.0	20		96	40-160	1.0	20
1,3-Dichlorobenzene	**20.56**		ug/L	1.0	20		103	73-127	1.0	20
Surrogate: % Toluene-d8	*30.26*		ug/L		*20*		*101*	*70-130*		
Surrogate: % 1,2-dichlorobenzene-d4	*29.84*		ug/L		*20*		*99*	*70-130*		
Surrogate: % Dibromofluoromethane	*31.29*		ug/L		*20*		*104*	*70-130*		
Surrogate: % Bromofluorobenzene	*29.24*		ug/L		*20*		*97*	*70-130*		
Batch 455377A - E624.1										
BLK (CB89062-BLK)						Prepared: Analyzed: 07-Nov-18				
Chloromethane	**ND**		ug/L	1.0			ND	-		
1,2-Dichloroethane	**ND**		ug/L	1.0			ND	-		
Carbon tetrachloride	**ND**		ug/L	1.0			ND	-		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
E624.1										
Batch 455377A - E624.1										
BLK (CB89062-BLK)						Prepared: Analyzed: 07-Nov-18				
Bromomethane	**ND**		ug/L	1.0			ND	-		
Bromoform	**ND**		ug/L	1.0			ND	-		
Bromodichloromethane	**ND**		ug/L	0.50			ND	-		
Benzene	**ND**		ug/L	0.70			ND	-		
Vinyl chloride	**ND**		ug/L	1.0			ND	-		
Chlorobenzene	**ND**		ug/L	1.0			ND	-		
Dibromochloromethane	**ND**		ug/L	0.50			ND	-		
1,4-Dichlorobenzene	**ND**		ug/L	1.0			ND	-		
1,2-Dichlorobenzene	**ND**		ug/L	1.0			ND	-		
1,1-Dichloroethene	**ND**		ug/L	1.0			ND	-		
1,1-Dichloroethane	**ND**		ug/L	1.0			ND	-		
1,1,2-Trichloroethane	**ND**		ug/L	1.0			ND	-		
1,1,2,2-tetrachloroethane	**ND**		ug/L	0.50			ND	-		
1,1,1-Trichloroethane	**ND**		ug/L	1.0			ND	-		
1,3-Dichlorobenzene	**ND**		ug/L	1.0			ND	-		
Trichloroethene	**ND**		ug/L	1.0			ND	-		
1,2-Dichloropropane	**ND**		ug/L	1.0			ND	-		
Trichlorofluoromethane	**ND**		ug/L	1.0			ND	-		
Chloroethane	**ND**		ug/L	1.0			ND	-		
trans-1,3-Dichloropropene	**ND**		ug/L	0.40			ND	-		
trans-1,2-Dichloroethene	**ND**		ug/L	1.0			ND	-		
Toluene	**ND**		ug/L	1.0			ND	-		
Tetrachloroethene	**ND**		ug/L	1.0			ND	-		
o-Xylene	**ND**		ug/L	1.0			ND	-		
Methyl tert-butyl ether (MTBE)	**ND**		ug/L	1.0			ND	-		
m&p-Xylene	**ND**		ug/L	1.0			ND	-		
Ethylbenzene	**ND**		ug/L	1.0			ND	-		
cis-1,3-Dichloropropene	**ND**		ug/L	0.40			ND	-		
Chloroform	**ND**		ug/L	1.0			ND	-		
Methylene chloride	**ND**		ug/L	1.0			ND	-		
Surrogate: % 1,2-dichlorobenzene-d4	*110*		ug/L		*30*		*110*	*70-130*		
Surrogate: % Dibromofluoromethane	*104*		ug/L		*30*		*104*	*70-130*		
Surrogate: % Bromofluorobenzene	*86*		ug/L		*30*		*86*	*70-130*		
Surrogate: % Toluene-d8	*101*		ug/L		*30*		*101*	*70-130*		
LCS (CB89062-LCS)						Prepared: Analyzed: 07-Nov-18				
1,1,2,2-tetrachloroethane	**18.45**		ug/L	0.50	20		92	60-140		20
Benzene	**18.98**		ug/L	0.70	20		95	64-136		20
1,3-Dichlorobenzene	**20.44**		ug/L	1.0	20		102	73-127		20
1,2-Dichloropropane	**19.12**		ug/L	1.0	20		96	40-160		20
1,2-Dichloroethane	**17.95**		ug/L	1.0	20		90	68-132		20
1,2-Dichlorobenzene	**20.00**		ug/L	1.0	20		100	63-137		20
1,1-Dichloroethene	**16.90**		ug/L	1.0	20		84	50-150		20
1,1,2-Trichloroethane	**18.41**		ug/L	1.0	20		92	71-129		20
1,1,1-Trichloroethane	**17.51**		ug/L	1.0	20		88	75-125		20
Bromodichloromethane	**18.64**		ug/L	0.50	20		93	65-135		20
Bromoform	**18.41**		ug/L	1.0	20		92	71-129		20
1,1-Dichloroethane	**18.09**		ug/L	1.0	20		90	72-128		20
Trichloroethene	**17.67**		ug/L	1.0	20		88	66-134		20
Bromomethane	**20.04**		ug/L	1.0	20		100	40-160		20
1,4-Dichlorobenzene	**20.34**		ug/L	1.0	20		102	63-137		20

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
E624.1										
Batch 455377A - E624.1										
LCS (CB89062-LCS)					Prepared:	Analyzed: 07-Nov-18				
Trichlorofluoromethane	**17.80**		ug/L	1.0	20		89	48-152		20
trans-1,3-Dichloropropene	**17.73**		ug/L	0.40	20		89	50-150		20
trans-1,2-Dichloroethene	**19.31**		ug/L	1.0	20		97	69-131		20
Toluene	**18.99**		ug/L	1.0	20		95	74-126		20
Tetrachloroethene	**19.10**		ug/L	1.0	20		95	73-127		20
o-Xylene	**21.26**		ug/L	1.0	20		106	70-130		30
Methylene chloride	**18.70**		ug/L	1.0	20		94	60-140		20
cis-1,3-Dichloropropene	**18.57**		ug/L	0.40	20		93	40-160		20
Vinyl chloride	**20.19**		ug/L	1.0	20		101	40-160		20
Methyl tert-butyl ether (MTBE)	**16.52**		ug/L	1.0	20		83	70-130		30
Chloroethane	**20.01**		ug/L	1.0	20		100	40-160		20
Chloromethane	**19.31**		ug/L	1.0	20		97	40-160		20
Chlorobenzene	**19.42**		ug/L	1.0	20		97	66-134		20
Carbon tetrachloride	**16.56**		ug/L	1.0	20		83	73-127		20
Dibromochloromethane	**20.47**		ug/L	0.50	20		102	67-133		20
m&p-Xylene	**41.29**		ug/L	1.0	40		103	70-130		30
Ethylbenzene	**19.42**		ug/L	1.0	20		97	59-141		20
Chloroform	**18.22**		ug/L	1.0	20		91	67-133		20
Surrogate: % Bromofluorobenzene	*29.05*		ug/L		*30*		*97*	*70-130*		
Surrogate: % Dibromofluoromethane	*31.52*		ug/L		*30*		*105*	*70-130*		
Surrogate: % Toluene-d8	*30.48*		ug/L		*30*		*102*	*70-130*		
Surrogate: % 1,2-dichlorobenzene-d4	*29.39*		ug/L		*30*		*98*	*70-130*		
LCSD (CB89062-LCSD)					Prepared:	Analyzed: 07-Nov-18				
Chlorobenzene	**20.15**		ug/L	1.0	20		101	66-134	4.0	20
Carbon tetrachloride	**16.90**		ug/L	1.0	20		85	73-127	2.4	20
Bromomethane	**20.47**		ug/L	1.0	20		102	40-160	2.0	20
Bromoform	**18.42**		ug/L	1.0	20		92	71-129	0.0	20
Bromodichloromethane	**18.56**		ug/L	0.50	20		93	65-135	0.0	20
Benzene	**19.07**		ug/L	0.70	20		95	64-136	0.0	20
1,4-Dichlorobenzene	**20.51**		ug/L	1.0	20		103	63-137	1.0	20
1,2-Dichloropropane	**18.99**		ug/L	1.0	20		95	40-160	1.0	20
Chloroethane	**21.21**		ug/L	1.0	20		106	40-160	5.8	20
Methylene chloride	**19.92**		ug/L	1.0	20		100	60-140	6.2	20
1,2-Dichloroethane	**17.83**		ug/L	1.0	20		89	68-132	1.1	20
1,2-Dichlorobenzene	**20.03**		ug/L	1.0	20		100	63-137	0.0	20
1,1-Dichloroethene	**18.24**		ug/L	1.0	20		91	50-150	8.0	20
1,1,2-Trichloroethane	**18.12**		ug/L	1.0	20		91	71-129	1.1	20
1,3-Dichlorobenzene	**20.69**		ug/L	1.0	20		103	73-127	1.0	20
Tetrachloroethene	**19.40**		ug/L	1.0	20		97	73-127	2.1	20
Vinyl chloride	**21.32**		ug/L	1.0	20		107	40-160	5.8	20
Trichlorofluoromethane	**18.56**		ug/L	1.0	20		93	48-152	4.4	20
Trichloroethene	**18.27**		ug/L	1.0	20		91	66-134	3.4	20
trans-1,3-Dichloropropene	**17.23**		ug/L	0.40	20		86	50-150	3.4	20
trans-1,2-Dichloroethene	**19.55**		ug/L	1.0	20		98	69-131	1.0	20
Toluene	**19.28**		ug/L	1.0	20		96	74-126	1.0	20
m&p-Xylene	**42.51**		ug/L	1.0	40		106	70-130	2.9	30
1,1,1-Trichloroethane	**17.79**		ug/L	1.0	20		89	75-125	1.1	20
Chloroform	**18.71**		ug/L	1.0	20		94	67-133	3.2	20
o-Xylene	**21.44**		ug/L	1.0	20		107	70-130	0.9	30
Methyl tert-butyl ether (MTBE)	**17.08**		ug/L	1.0	20		85	70-130	2.4	30

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
E624.1										
Batch 455377A - E624.1										
LCSD (CB89062-LCSD)					Prepared: Analyzed: 07-Nov-18					
Ethylbenzene	**20.14**		ug/L	1.0	20		101	59-141	4.0	20
Dibromochloromethane	**20.24**		ug/L	0.50	20		101	67-133	1.0	20
cis-1,3-Dichloropropene	**18.50**		ug/L	0.40	20		93	40-160	0.0	20
Chloromethane	**19.97**		ug/L	1.0	20		100	40-160	3.0	20
1,1,2,2-tetrachloroethane	**18.74**		ug/L	0.50	20		94	60-140	2.2	20
1,1-Dichloroethane	**19.16**		ug/L	1.0	20		96	72-128	6.5	20
Surrogate: % 1,2-dichlorobenzene-d4	*29.93*		ug/L		*30*		*100*	*70-130*		
Surrogate: % Bromofluorobenzene	*29.22*		ug/L		*30*		*97*	*70-130*		
Surrogate: % Dibromofluoromethane	*32.36*		ug/L		*30*		*108*	*70-130*		
Surrogate: % Toluene-d8	*30.51*		ug/L		*30*		*102*	*70-130*		
MS (CB89062-MS)			**Source: CB89062**			Prepared: Analyzed: 07-Nov-18				
Tetrachloroethene	**18.10**		ug/L	1.0	20		91	73-127		20
Chlorobenzene	**18.56**		ug/L	1.0	20		93	66-134		20
Chloroethane	**18.85**		ug/L	1.0	20		94	40-160		20
Chloroform	**17.89**		ug/L	1.0	20		89	67-133		20
Chloromethane	**18.66**		ug/L	1.0	20		93	40-160		20
cis-1,3-Dichloropropene	**16.99**		ug/L	0.40	20		85	40-160		20
Dibromochloromethane	**19.54**		ug/L	0.50	20		98	67-133		20
Ethylbenzene	**18.82**		ug/L	1.0	20		94	59-141		20
m&p-Xylene	**39.49**		ug/L	1.0	40		99	70-130		30
Methyl tert-butyl ether (MTBE)	**17.24**		ug/L	1.0	20		86	70-130		30
Carbon tetrachloride	**15.43**		ug/L	1.0	20		77	73-127		20
o-Xylene	**20.42**		ug/L	1.0	20		102	70-130		30
Trichloroethene	**17.48**		ug/L	1.0	20		87	66-134		20
Vinyl chloride	**20.15**		ug/L	1.0	20		101	40-160		20
Trichlorofluoromethane	**16.92**		ug/L	1.0	20		85	48-152		20
trans-1,3-Dichloropropene	**16.08**		ug/L	0.40	20		80	50-150		20
Toluene	**18.38**		ug/L	1.0	20		92	74-126		20
Methylene chloride	**18.71**		ug/L	1.0	20		94	60-140		20
1,2-Dichloroethane	**17.22**		ug/L	1.0	20		86	68-132		20
Bromomethane	**18.52**		ug/L	1.0	20		93	40-160		20
trans-1,2-Dichloroethene	**17.96**		ug/L	1.0	20		90	69-131		20
1,1,1-Trichloroethane	**16.93**		ug/L	1.0	20		85	75-125		20
1,1,2,2-tetrachloroethane	**21.03**		ug/L	0.50	20		105	60-140		20
1,1,2-Trichloroethane	**18.56**		ug/L	1.0	20		93	71-129		20
1,1-Dichloroethane	**18.08**		ug/L	1.0	20		90	72-128		20
1,2-Dichlorobenzene	**19.73**		ug/L	1.0	20		99	63-137		20
1,2-Dichloropropane	**18.40**		ug/L	1.0	20		92	40-160		20
1,3-Dichlorobenzene	**20.03**		ug/L	1.0	20		100	73-127		20
1,4-Dichlorobenzene	**19.87**		ug/L	1.0	20		99	63-137		20
Benzene	**18.31**		ug/L	0.70	20		92	64-136		20
Bromodichloromethane	**17.71**		ug/L	0.50	20		89	65-135		20
Bromoform	**19.21**		ug/L	1.0	20		96	71-129		20
1,1-Dichloroethene	**16.85**		ug/L	1.0	20		84	50-150		20
Surrogate: % Bromofluorobenzene	*29.44*		ug/L		*20*		*98*	*70-130*		
Surrogate: % Dibromofluoromethane	*30.72*		ug/L		*20*		*102*	*70-130*		
Surrogate: % Toluene-d8	*30.15*		ug/L		*20*		*100*	*70-130*		
Surrogate: % 1,2-dichlorobenzene-d4	*30.11*		ug/L		*20*		*100*	*70-130*		
MSD (CB89062-MSD)			**Source: CB89062**			Prepared: Analyzed: 07-Nov-18				
Chloroethane	**20.68**		ug/L	1.0	20		103	40-160	9.1	20

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
E624.1										
Batch 455377A - E624.1										
MSD (CB89062-MSD)			**Source: CB89062**			Prepared: Analyzed: 07-Nov-18				
Chloroform	**18.18**		ug/L	1.0	20		91	67-133	2.2	20
Chloromethane	**19.30**		ug/L	1.0	20		96	40-160	3.2	20
cis-1,3-Dichloropropene	**17.41**		ug/L	0.40	20		87	40-160	2.3	20
Dibromochloromethane	**19.58**		ug/L	0.50	20		98	67-133	0.0	20
Ethylbenzene	**19.54**		ug/L	1.0	20		98	59-141	4.2	20
Trichlorofluoromethane	**17.64**		ug/L	1.0	20		88	48-152	3.5	20
Trichloroethene	**18.31**		ug/L	1.0	20		92	66-134	5.6	20
Methyl tert-butyl ether (MTBE)	**17.56**		ug/L	1.0	20		88	70-130	2.3	30
1,1-Dichloroethene	**17.52**		ug/L	1.0	20		88	50-150	4.7	20
Methylene chloride	**19.08**		ug/L	1.0	20		95	60-140	1.1	20
o-Xylene	**20.65**		ug/L	1.0	20		103	70-130	1.0	30
Tetrachloroethene	**19.07**		ug/L	1.0	20		95	73-127	4.3	20
Toluene	**19.32**		ug/L	1.0	20		97	74-126	5.3	20
trans-1,2-Dichloroethene	**19.65**		ug/L	1.0	20		98	69-131	8.5	20
trans-1,3-Dichloropropene	**16.47**		ug/L	0.40	20		82	50-150	2.5	20
Chlorobenzene	**19.88**		ug/L	1.0	20		99	66-134	6.3	20
m&p-Xylene	**40.74**		ug/L	1.0	40		102	70-130	3.0	30
1,2-Dichlorobenzene	**20.01**		ug/L	1.0	20		100	63-137	1.0	20
Vinyl chloride	**20.43**		ug/L	1.0	20		102	40-160	1.0	20
1,1,1-Trichloroethane	**17.37**		ug/L	1.0	20		87	75-125	2.3	20
1,1,2,2-tetrachloroethane	**21.16**		ug/L	0.50	20		106	60-140	0.9	20
1,2-Dichloroethane	**17.89**		ug/L	1.0	20		89	68-132	3.4	20
1,1-Dichloroethane	**18.95**		ug/L	1.0	20		95	72-128	5.4	20
Carbon tetrachloride	**16.65**		ug/L	1.0	20		83	73-127	7.5	20
1,2-Dichloropropane	**19.22**		ug/L	1.0	20		96	40-160	4.3	20
1,3-Dichlorobenzene	**20.61**		ug/L	1.0	20		103	73-127	3.0	20
1,4-Dichlorobenzene	**20.45**		ug/L	1.0	20		102	63-137	3.0	20
Benzene	**19.11**		ug/L	0.70	20		96	64-136	4.3	20
Bromodichloromethane	**18.51**		ug/L	0.50	20		93	65-135	4.4	20
Bromoform	**19.37**		ug/L	1.0	20		97	71-129	1.0	20
Bromomethane	**19.48**		ug/L	1.0	20		97	40-160	4.2	20
1,1,2-Trichloroethane	**18.88**		ug/L	1.0	20		94	71-129	1.1	20
Surrogate: % Toluene-d8	*30.51*		ug/L		*20*		*102*	*70-130*		
Surrogate: % Dibromofluoromethane	*30.59*		ug/L		*20*		*102*	*70-130*		
Surrogate: % Bromofluorobenzene	*29.11*		ug/L		*20*		*97*	*70-130*		
Surrogate: % 1,2-dichlorobenzene-d4	*30.27*		ug/L		*20*		*101*	*70-130*		

Notes and Definitions

J	Detected above the Method Detection Limit but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
J.	Estimated Values
U	Analyte included in the analysis, but not detected at or above the MDL.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

Laboratory Control Sample (LCS): 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.

Matrix Spike: 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.

Method Blank: 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.

Method Detection Limit (MDL): 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.

Surrogate: 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.

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

Fed Ex # 8113 0089 4378 SC51592

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CHAIN OF CUSTODY RECORD

Page 1 of 1

Special Handling:
- [x] Standard TAT - 7 to 10 business days
- [ ] Rush TAT - Date Needed: _____

All TATs subject to laboratory approval
Min. 24-hr notification needed for rushes
Samples disposed after 30 days unless otherwise instructed.

Report To: AECOM
40 British American Blvd.
Latham NY 12110

Telephone #: 518-951-2200
Project Mgr: Lindsay Mitchell

Invoice To: Same

P.O No.: _____ Quote #: _____

Project No: 60284002 - 1
Site Name: N.E. Alloy 1633-045
Location: Utica State: NY
Sampler(s): SRG

F=Field Filtered 1=Na_2S2O_3 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH3OH 8=$NaHSO_4$ 9=Deionized Water 10=H_3PO_4 11=_____ 12=_____

DW=Drinking Water GW=Groundwater SW=Surface Water WW=Waste Water
O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas
X1=_____ X2=_____ X3=_____

G= Grab C=Compsite

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	List Preservative Code below: 2	4	Analysis: 624	Metals	Check if chlorinated
SC51592 01	NE-EFF 103018	10/30/18	1300	G	GW	3			1			X	X	☐
02	NE-INF 103018	10/30/18	1310	G	GW	3						X		☐
03	TB 103018	—	—	—	—	2						X		☐
														☐
														☐
														☐
														☐
														☐
														☐
														☐

QA/QC Reporting Notes:
* additional charges may appply

MA DEP MCP CAM Report? ☐ Yes ☐ No
CT DPH RCP Report? ☐ Yes ☐ No
☐ Standard ☐ No QC ☐ DQA*
☐ ASP A* ☐ ASP B*
☐ NJ Reduced* ☐ NJ Full*
☐ Tier II* ☐ Tier IV*
☐ Other: _____
State-specific reporting standards:

Relinquished by:	Received by:	Date:	Time:	Temp °C
[signature]	[signature]	10/30/18	1345	Observed 1.1
Fedex	[signature]	10/31/18	1054	Correction Factor 0
				Corrected 1.1
				IR ID # 01

☐ EDD format: _____
☐ E-mail to: _____

Condition upon receipt: Custody Seals: ☐ Present ☐ Intact ☐ Broken
☐ Ambient ☐ Iced ☐ Refrigerated ☐ DI VOA Frozen ☐ Soil Jar Frozen

Fed Ex # 8113 0089 4378 SC51592

eurofins | Spectrum Analytical

CHAIN OF CUSTODY RECORD

Page 1 of 1

Special Handling:

- [x] Standard TAT - 7 to 10 business days
- [ ] Rush TAT - Date Needed: _____

All TATs subject to laboratory approval
Min. 24-hr notification needed for rushes
Samples disposed after 30 days unless otherwise instructed.

Report To: AECOM
40 British American Blvd.
Latham NY 12110

Telephone #: 518-951-2200
Project Mgr: Lindsay Mitchell

Invoice To: Same

P.O No.: _____ Quote #: _____

Project No: 60284002 - 1
Site Name: N.E. Alloy 1633-045
Location: Utica State: NY
Sampler(s): SRG

F=Field Filtered 1=$Na_2S_2O_3$ 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH3OH 8=$NaHSO_4$ 9=Deionized Water 10=H_3PO_4 11=_____ 12=_____

DW=Drinking Water GW=Groundwater SW=Surface Water WW=Waste Water
O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas
X1=_____ X2=_____ X3=_____

G= Grab C=Compsite

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	List Preservative Code below: 2 4	Analysis: 624	Analysis: Metals *	Check if chlorinated
SC51592-01	NE-EFF 103018	10/30/18	1300	G	GW	3			1		X	X	☐
-02	NE-INF 103018	10/30/18	1310	G	GW	3					X		☐
-03	TB 103018	—	—	—	—	2					X		☐
													☐
													☐
													☐
													☐
													☐
													☐
													☐
													☐

QA/QC Reporting Notes:
* additional charges may appply

MA DEP MCP CAM Report? ☐ Yes ☐ No
CT DPH RCP Report? ☐ Yes ☐ No
☐ Standard ☐ No QC ☐ DQA*
☐ ASP A* ☐ ASP B*
☐ NJ Reduced* ☐ NJ Full*
☐ Tier II* ☐ Tier IV*
☐ Other: _____
State-specific reporting standards:

* Ni and Hg per project history

BM 11/1

Relinquished by:	Received by:	Date:	Time:
[signature]		10/30/18	1345
Fedex	[signature]	10/31/18	1054

Temp °C: Observed 1.1; Correction Factor 0; Corrected 1.1; IR ID # 01

☐ EDD format: _____
☐ E-mail to: _____

Condition upon receipt: Custody Seals: ☐ Present ☐ Intact ☐ Broken
☐ Ambient ☐ Iced ☐ Refrigerated ☐ DI VOA Frozen ☐ Soil Jar Frozen

00039

00076

17682

06440036

fedex.com 1.800.GoFedEx 1.800.463.3339

FedEx Express **Package US Airbill**

FedEx Tracking Number 8113 0089 4378

Form ID No. 0215

Recipient's Copy

1 From

Date 10/30/18

Sender's Name Steve Gray Phone 518 951-2200

Company AECOM TECHNICAL SERVICES

Address 40 BRITISH AMERICAN BLVD Dept./Floor/Suite/Room

City LATHAM State NY ZIP 12110-1421

2 Your Internal Billing Reference 60284002-1

3 To

Recipient's Name Attn: Sample Receipt Phone 413 789-9018

Company Eurofins Spectrum Analytical

Address 11 Almgren Dr. Dept./Floor/Suite/Room

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address

Use this line for the HOLD location address or for continuation of your shipping address.

City Agawam State MA ZIP 01001

Hold Weekday
FedEx location address REQUIRED. **NOT available for** FedEx First Overnight.

Hold Saturday
FedEx location address REQUIRED. **Available ONLY for** FedEx Priority Overnight and FedEx 2Day to select locations.

0126479001

8113 0089 4378

4 Express Package Service * To most locations.

Packages up to 150 lbs.
For packages over 150 lbs., use the FedEx Express Freight US Airbill.

Next Business Day

- ☐ FedEx First Overnight — Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.
- ☒ FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless Saturday Delivery is selected.
- ☐ FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.

2 or 3 Business Days

- ☐ FedEx 2Day A.M. — Second business morning.* Saturday Delivery NOT available.
- ☐ FedEx 2Day — Second business afternoon.* Thursday shipments will be delivered on Monday unless Saturday Delivery is selected.
- ☐ FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

5 Packaging * Declared value limit $500.

☐ FedEx Envelope* ☐ FedEx Pak* ☐ FedEx Box ☐ FedEx Tube ☒ Other

6 Special Handling and Delivery Signature Options Fees may apply. See the FedEx Service Guide.

☐ Saturday Delivery — **NOT available for** FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.

☐ No Signature Required — Package may be left without obtaining a signature for delivery.
☐ Direct Signature — Someone at recipient's address may sign for delivery.
☐ Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only.

Does this shipment contain dangerous goods?
One box must be checked.

☒ No ☐ Yes As per attached Shipper's Declaration. ☐ Yes Shipper's Declaration not required. ☐ Dry Ice Dry Ice, 9, UN 1845 ____ x ____ kg

Restrictions apply for dangerous goods — see the current FedEx Service Guide. ☐ Cargo Aircraft Only

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below. Obtain recip. Acct. No. ☐

☒ Sender Acct. No. in Section 1 will be billed. ☐ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check

Total Packages ____ Total Weight ____ lbs. Credit Card Auth. ____

†Our liability is limited to US$100 unless you declare a higher value. See the current FedEx Service Guide for details.

611

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fedex.com 1.800.GoFedEx 1.800.463.3339

Batch Summary

1814510

Total Metals by EPA 200/6000 Series Methods

SC51592-01 (NE-EFF103018)

1814643

Total Metals by EPA 6000/7000 Series Methods

1814643-BLK1
1814643-BS1
1814643-BSD1
SC51592-01 (NE-EFF103018)

1814644

Total Metals by EPA 200 Series Methods

1814644-BLK1
1814644-BS1
SC51592-01 (NE-EFF103018)

455280A

Subcontracted Analyses

CB88901-BLK
CB88901-LCS
CB88901-LCSD
CB88901-MS
CB88901-MSD
SC51592-01 (NE-EFF103018)
SC51592-03 (TB 103018)

455377A

Subcontracted Analyses

CB89062-BLK
CB89062-LCS
CB89062-LCSD
CB89062-MS
CB89062-MSD
SC51592-02 (NE-INF103018)

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☑ Final Report
☐ Revised Report

Report Date:
14-May-19 17:24

Laboratory Report
SC54606

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

Project: NEAM - Utica, NY
Project #: 60284002-1

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.

Massachusetts # M-MA138/MA1110
Connecticut # PH-0777
Florida # E87936
Maine # MA138
New Hampshire # 2972/2538
New Jersey # MA011
New York # 11393
Pennsylvania # 68-04426/68-02924
Rhode Island # LAO00348
USDA # P330-15-00375
Vermont # VT-11393

Authorized by:

Dawn Wojcik
Laboratory Director

Dawn E Wojcik

Eurofins Spectrum Analytical 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 15 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 Spectrum Analytical, Inc.

Eurofins Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Eurofins Spectrum Analytical, Inc. is currently accredited for the specific method or analyte indicated. Please refer to our 'Quality' web page at www.spectrum-analytical.com for a full listing of our current certifications and fields of accreditation. States in which Eurofins Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey, Pennsylvania and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (PA-68-04426).

Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.

Sample Summary

Work Order: SC54606

Project: NEAM - Utica, NY

Project Number: 60284002-1

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SC54606-01	NE-EFF 043019	Ground Water	30-Apr-19 11:00	01-May-19 10:30
SC54606-02	NE-INF 043019	Ground Water	30-Apr-19 11:35	01-May-19 10:30
SC54606-03	TB 043019	Trip Blank	30-Apr-19 00:00	01-May-19 10:30

CASE NARRATIVE:

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

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

The samples were received 3.1 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 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.

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

E624.1

Spikes:

CD05182-MS *Source: SC54606-03*

This parameter is outside laboratory rpd specified recovery limits.

Bromomethane

CD05182-MSD *Source: SC54606-03*

This parameter is outside laboratory rpd specified recovery limits.

Bromomethane

Sample Acceptance Check Form

Client:	AECOM Environment - Latham, NY
Project:	NEAM - Utica, NY / 60284002-1
Work Order:	SC54606
Sample(s) received on:	5/1/2019

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

	Yes	No	N/A
Were custody seals present?	☑	☐	☐
Were custody seals intact?	☑	☐	☐
Were samples received at a temperature of ≤ 6°C?	☑	☐	☐
Were samples cooled on ice upon transfer to laboratory representative?	☑	☐	☐
Were sample containers received intact?	☑	☐	☐
Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?	☑	☐	☐
Were samples accompanied by a Chain of Custody document?	☑	☐	☐
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?	☑	☐	☐
Were samples received within method-specific holding times?	☑	☐	☐

Summary of Hits

Lab ID: SC54606-01 **Client ID:** NE-EFF 043019

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
cis-1,2-Dichloroethene	15		0.50	ug/l	E624.1
Trichloroethene	1.4		0.50	ug/l	E624.1
Nickel	0.001		0.001	mg/l	SW6010D

Lab ID: SC54606-02 **Client ID:** NE-INF 043019

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
1,1-Dichloroethane	0.29	J	0.50	ug/l	E624.1
cis-1,2-Dichloroethene	24		0.50	ug/l	E624.1
Trichloroethene	3.6		0.50	ug/l	E624.1
Vinyl chloride	2.7		0.50	ug/l	E624.1

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.

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
NE-EFF 043019	60284002-1	Ground Water	30-Apr-19 11:00	01-May-19
SC54606-01				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Subcontracted Analyses													
Subcontracted Analyses													
*Analysis performed by Phoenix Environmental Labs, Inc. * - CT007*													
71-55-6	1,1,1-Trichloroethane	< 0.50		ug/l	0.50	0.50	1	E624.1	01-May-19 22:20	02-May-19 16:34	11301	477498A	
79-34-5	1,1,2,2-tetrachloroethane	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
71-43-2	Benzene	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
75-25-2	Bromoform	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
74-83-9	Bromomethane	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
108-90-7	Chlorobenzene	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
75-00-3	Chloroethane	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
67-66-3	Chloroform	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
74-87-3	Chloromethane	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	**15**		ug/l	0.50	0.50	1	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 0.40		ug/l	0.40	0.40	1	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
100-41-4	Ethylbenzene	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
179601-23-1	m&p-Xylene	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether (MTBE)	< 1.0		ug/l	1.0	1.0	1	"	"	"	"	"	
75-09-2	Methylene chloride	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
95-47-6	o-Xylene	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
108-88-3	Toluene	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 0.40		ug/l	0.40	0.40	1	"	"	"	"	"	
79-01-6	Trichloroethene	**1.4**		ug/l	0.50	0.50	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
75-01-4	Vinyl chloride	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
Surrogate recoveries:													
2199-69-1	*% 1,2-dichlorobenzene-d4*	*100*			*70-130 %*			"	"	"	"	"	
460-00-4	*% Bromofluorobenzene*	*92*			*70-130 %*			"	"	"	"	"	
1868-53-7	*% Dibromofluoromethane*	*94*			*70-130 %*			"	"	"	"	"	
2037-26-5	*% Toluene-d8*	*101*			*70-130 %*			"	"	"	"	"	
Prepared by method SW3005A/SW3010A													
*Analysis performed by Phoenix Environmental Labs, Inc. * - CT007*													
7440-02-0	Nickel	**0.001**		mg/l	0.001	0.001	1	SW6010D	01-May-19	02-May-19 21:47	11301	477208A	
Prepared by method SW7470A													

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
NE-EFF 043019 SC54606-01	60284002-1	Ground Water	30-Apr-19 11:00	01-May-19

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Subcontracted Analyses													
Prepared by method SW7470A													
*Analysis performed by Phoenix Environmental Labs, Inc. * - CT007*													
7439-97-6	Mercury	< 0.0002		mg/l	0.0002	0.0002	1	SW7470A	02-May-19	03-May-19 09:32	11301	477275A	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
NE-INF 043019	60284002-1	Ground Water	30-Apr-19 11:35	01-May-19
SC54606-02				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Subcontracted Analyses													
Subcontracted Analyses													
*Analysis performed by Phoenix Environmental Labs, Inc. * - CT007*													
71-55-6	1,1,1-Trichloroethane	< 0.50		ug/l	0.50	0.50	1	E624.1	01-May-19 22:20	02-May-19 16:56	11301	477498A	
79-34-5	1,1,2,2-tetrachloroethane	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	**0.29**	J	ug/l	0.50	0.50	1	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
71-43-2	Benzene	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
75-25-2	Bromoform	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
74-83-9	Bromomethane	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
108-90-7	Chlorobenzene	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
75-00-3	Chloroethane	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
67-66-3	Chloroform	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
74-87-3	Chloromethane	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	**24**		ug/l	0.50	0.50	1	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 0.40		ug/l	0.40	0.40	1	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
100-41-4	Ethylbenzene	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
179601-23-1	m&p-Xylene	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether (MTBE)	< 1.0		ug/l	1.0	1.0	1	"	"	"	"	"	
75-09-2	Methylene chloride	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
95-47-6	o-Xylene	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
108-88-3	Toluene	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 0.40		ug/l	0.40	0.40	1	"	"	"	"	"	
79-01-6	Trichloroethene	**3.6**		ug/l	0.50	0.50	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
75-01-4	Vinyl chloride	**2.7**		ug/l	0.50	0.50	1	"	"	"	"	"	
Surrogate recoveries:													
2199-69-1	*% 1,2-dichlorobenzene-d4*	*99*			*70-130 %*			"	"	"	"	"	
460-00-4	*% Bromofluorobenzene*	*94*			*70-130 %*			"	"	"	"	"	
1868-53-7	*% Dibromofluoromethane*	*102*			*70-130 %*			"	"	"	"	"	
2037-26-5	*% Toluene-d8*	*101*			*70-130 %*			"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
TB 043019 SC54606-03	60284002-1	Trip Blank	30-Apr-19 00:00	01-May-19

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Subcontracted Analyses													
Subcontracted Analyses													
*Analysis performed by Phoenix Environmental Labs, Inc. * - CT007*													
71-55-6	1,1,1-Trichloroethane	< 0.50		ug/l	0.50	0.50	1	E624.1	01-May-19 19:41	02-May-19 15:52	11301	477498A	
79-34-5	1,1,2,2-tetrachloroethane	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
71-43-2	Benzene	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
75-25-2	Bromoform	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
74-83-9	Bromomethane	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
108-90-7	Chlorobenzene	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
75-00-3	Chloroethane	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
67-66-3	Chloroform	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
74-87-3	Chloromethane	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 0.40		ug/l	0.40	0.40	1	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
100-41-4	Ethylbenzene	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
179601-23-1	m&p-Xylene	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether (MTBE)	< 1.0		ug/l	1.0	1.0	1	"	"	"	"	"	
75-09-2	Methylene chloride	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
95-47-6	o-Xylene	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
108-88-3	Toluene	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 0.40		ug/l	0.40	0.40	1	"	"	"	"	"	
79-01-6	Trichloroethene	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
75-01-4	Vinyl chloride	< 0.50		ug/l	0.50	0.50	1	"	"	"	"	"	
Surrogate recoveries:													
2199-69-1	*% 1,2-dichlorobenzene-d4*	*100*			*70-130 %*			"	"	"	"	"	
460-00-4	*% Bromofluorobenzene*	*91*			*70-130 %*			"	"	"	"	"	
1868-53-7	*% Dibromofluoromethane*	*102*			*70-130 %*			"	"	"	"	"	
2037-26-5	*% Toluene-d8*	*100*			*70-130 %*			"	"	"	"	"	

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
E624.1										
Batch 477498A - E624.1										
Blank (CD05182-BLK)						Prepared & Analyzed: 02-May-19				
o-Xylene	**ND**		ug/l	1.0			ND	-		
Chloroethane	**ND**		ug/l	1.0			ND	-		
Chloroform	**ND**		ug/l	1.0			ND	-		
Chloromethane	**ND**		ug/l	1.0			ND	-		
cis-1,2-Dichloroethene	**ND**		ug/l	1.0			ND	-		
cis-1,3-Dichloropropene	**ND**		ug/l	0.40			ND	-		
Dibromochloromethane	**ND**		ug/l	0.50			ND	-		
Chlorobenzene	**ND**		ug/l	1.0			ND	-		
Methyl tert-butyl ether (MTBE)	**ND**		ug/l	1.0			ND	-		
m&p-Xylene	**ND**		ug/l	1.0			ND	-		
Tetrachloroethene	**ND**		ug/l	1.0			ND	-		
Toluene	**ND**		ug/l	1.0			ND	-		
trans-1,2-Dichloroethene	**ND**		ug/l	1.0			ND	-		
trans-1,3-Dichloropropene	**ND**		ug/l	0.40			ND	-		
Trichloroethene	**ND**		ug/l	1.0			ND	-		
Trichlorofluoromethane	**ND**		ug/l	1.0			ND	-		
Vinyl chloride	**ND**		ug/l	1.0			ND	-		
Ethylbenzene	**ND**		ug/l	1.0			ND	-		
1,2-Dichloroethane	**ND**		ug/l	1.0			ND	-		
1,1,1-Trichloroethane	**ND**		ug/l	1.0			ND	-		
1,1,2,2-tetrachloroethane	**ND**		ug/l	0.50			ND	-		
1,1,2-Trichloroethane	**ND**		ug/l	1.0			ND	-		
1,1-Dichloroethane	**ND**		ug/l	1.0			ND	-		
1,1-Dichloroethene	**ND**		ug/l	1.0			ND	-		
Carbon tetrachloride	**ND**		ug/l	1.0			ND	-		
Methylene chloride	**ND**		ug/l	1.0			ND	-		
1,2-Dichloropropane	**ND**		ug/l	1.0			ND	-		
1,3-Dichlorobenzene	**ND**		ug/l	1.0			ND	-		
1,4-Dichlorobenzene	**ND**		ug/l	1.0			ND	-		
Benzene	**ND**		ug/l	0.70			ND	-		
Bromodichloromethane	**ND**		ug/l	0.50			ND	-		
Bromoform	**ND**		ug/l	1.0			ND	-		
Bromomethane	**ND**		ug/l	1.0			ND	-		
1,2-Dichlorobenzene	**ND**		ug/l	1.0			ND	-		
Surrogate: % Dibromofluoromethane	*96*		ug/l		*30*		*96*	*70-130*		
Surrogate: % Bromofluorobenzene	*93*		ug/l		*30*		*93*	*70-130*		
Surrogate: % Toluene-d8	*100*		ug/l		*30*		*100*	*70-130*		
Surrogate: % 1,2-dichlorobenzene-d4	*99*		ug/l		*30*		*99*	*70-130*		
LCS (CD05182-LCS)						Prepared & Analyzed: 02-May-19				
Tetrachloroethene	**18.98**		ug/l	1.0	20		95	73-127		20
Chloroform	**18.64**		ug/l	1.0	20		93	67-133		20
Chloromethane	**16.50**		ug/l	1.0	20		83	40-160		20
cis-1,2-Dichloroethene	**18.37**		ug/l	1.0	20		92	69-131		20
cis-1,3-Dichloropropene	**18.38**		ug/l	0.40	20		92	40-160		20
Dibromochloromethane	**19.60**		ug/l	0.50	20		98	67-133		20
Ethylbenzene	**18.26**		ug/l	1.0	20		91	59-141		20
m&p-Xylene	**37.07**		ug/l	1.0	40		93	70-130		30
Methyl tert-butyl ether (MTBE)	**19.24**		ug/l	1.0	20		96	70-130		30
o-Xylene	**19.13**		ug/l	1.0	20		96	70-130		30
Toluene	**18.67**		ug/l	1.0	20		93	74-126		20

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
E624.1										
Batch 477498A - E624.1										
LCS (CD05182-LCS)					Prepared & Analyzed: 02-May-19					
trans-1,2-Dichloroethene	**18.72**		ug/l	1.0	20		94	69-131		20
trans-1,3-Dichloropropene	**17.81**		ug/l	0.40	20		89	50-150		20
Trichloroethene	**18.65**		ug/l	1.0	20		93	66-134		20
Trichlorofluoromethane	**17.81**		ug/l	1.0	20		89	48-152		20
Vinyl chloride	**18.32**		ug/l	1.0	20		92	40-160		20
1,1-Dichloroethene	**18.86**		ug/l	1.0	20		94	50-150		20
Chloroethane	**19.12**		ug/l	1.0	20		96	40-160		20
Methylene chloride	**21.41**		ug/l	1.0	20		107	60-140		20
1,2-Dichloropropane	**19.02**		ug/l	1.0	20		95	40-160		20
1,1,1-Trichloroethane	**18.47**		ug/l	1.0	20		92	75-125		20
1,1,2,2-tetrachloroethane	**19.13**		ug/l	0.50	20		96	60-140		20
1,1,2-Trichloroethane	**17.94**		ug/l	1.0	20		90	71-129		20
1,1-Dichloroethane	**18.58**		ug/l	1.0	20		93	72-128		20
1,2-Dichloroethane	**18.69**		ug/l	1.0	20		93	68-132		20
Chlorobenzene	**18.58**		ug/l	1.0	20		93	66-134		20
1,2-Dichlorobenzene	**18.50**		ug/l	1.0	20		93	63-137		20
1,3-Dichlorobenzene	**18.66**		ug/l	1.0	20		93	73-127		20
1,4-Dichlorobenzene	**18.41**		ug/l	1.0	20		92	63-137		20
Benzene	**18.71**		ug/l	0.70	20		94	64-136		20
Bromodichloromethane	**19.45**		ug/l	0.50	20		97	65-135		20
Bromoform	**18.97**		ug/l	1.0	20		95	71-129		20
Bromomethane	**18.73**		ug/l	1.0	20		94	40-160		20
Carbon tetrachloride	**19.09**		ug/l	1.0	20		95	73-127		20
Surrogate: % Dibromofluoromethane	*29.38*		ug/l		*30*		*98*	*70-130*		
Surrogate: % Bromofluorobenzene	*30.17*		ug/l		*30*		*101*	*70-130*		
Surrogate: % 1,2-dichlorobenzene-d4	*30.52*		ug/l		*30*		*102*	*70-130*		
Surrogate: % Toluene-d8	*30.15*		ug/l		*30*		*100*	*70-130*		
LCS Dup (CD05182-LCSD)			**Source: CD05182-LCS**		Prepared & Analyzed: 02-May-19					
1,2-Dichloropropane	**19.14**		ug/l	1.0	20		96	40-160	1.0	20
Chloroethane	**19.17**		ug/l	1.0	20		96	40-160	0.0	20
Chloromethane	**16.59**		ug/l	1.0	20		83	40-160	0.0	20
Carbon tetrachloride	**19.08**		ug/l	1.0	20		95	73-127	0.0	20
Bromomethane	**19.20**		ug/l	1.0	20		96	40-160	2.1	20
Bromoform	**19.80**		ug/l	1.0	20		99	71-129	4.1	20
Bromodichloromethane	**19.34**		ug/l	0.50	20		97	65-135	0.0	20
Benzene	**18.72**		ug/l	0.70	20		94	64-136	0.0	20
1,1,1-Trichloroethane	**18.64**		ug/l	1.0	20		93	75-125	1.1	20
1,3-Dichlorobenzene	**18.44**		ug/l	1.0	20		92	73-127	1.1	20
1,2-Dichloroethane	**19.18**		ug/l	1.0	20		96	68-132	3.2	20
1,2-Dichlorobenzene	**18.32**		ug/l	1.0	20		92	63-137	1.1	20
1,1-Dichloroethene	**18.46**		ug/l	1.0	20		92	50-150	2.2	20
1,1-Dichloroethane	**18.65**		ug/l	1.0	20		93	72-128	0.0	20
1,1,2-Trichloroethane	**18.47**		ug/l	1.0	20		92	71-129	2.2	20
1,1,2,2-tetrachloroethane	**19.38**		ug/l	0.50	20		97	60-140	1.0	20
Chloroform	**18.31**		ug/l	1.0	20		92	67-133	1.1	20
1,4-Dichlorobenzene	**18.38**		ug/l	1.0	20		92	63-137	0.0	20
Trichloroethene	**18.63**		ug/l	1.0	20		93	66-134	0.0	20
Chlorobenzene	**18.57**		ug/l	1.0	20		93	66-134	0.0	20
cis-1,2-Dichloroethene	**19.08**		ug/l	1.0	20		95	69-131	3.2	20
Trichlorofluoromethane	**17.65**		ug/l	1.0	20		88	48-152	1.1	20

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
E624.1										
Batch 477498A - E624.1										
LCS Dup (CD05182-LCSD)			**Source: CD05182-LCS**		Prepared & Analyzed: 02-May-19					
trans-1,3-Dichloropropene	**17.98**		ug/l	0.40	20		90	50-150	1.1	20
trans-1,2-Dichloroethene	**18.96**		ug/l	1.0	20		95	69-131	1.1	20
Toluene	**18.68**		ug/l	1.0	20		93	74-126	0.0	20
Tetrachloroethene	**18.84**		ug/l	1.0	20		94	73-127	1.1	20
Methylene chloride	**21.18**		ug/l	1.0	20		106	60-140	0.9	20
Methyl tert-butyl ether (MTBE)	**19.73**		ug/l	1.0	20		99	70-130	3.1	30
m&p-Xylene	**37.66**		ug/l	1.0	40		94	70-130	1.1	30
Ethylbenzene	**18.74**		ug/l	1.0	20		94	59-141	3.2	20
Dibromochloromethane	**20.65**		ug/l	0.50	20		103	67-133	5.0	20
cis-1,3-Dichloropropene	**18.48**		ug/l	0.40	20		92	40-160	0.0	20
o-Xylene	**19.27**		ug/l	1.0	20		96	70-130	0.0	30
Vinyl chloride	**18.28**		ug/l	1.0	20		91	40-160	1.1	20
Surrogate: % Toluene-d8	*29.94*		ug/l		*30*		*100*	*70-130*		
Surrogate: % 1,2-dichlorobenzene-d4	*29.59*		ug/l		*30*		*99*	*70-130*		
Surrogate: % Dibromofluoromethane	*30.22*		ug/l		*30*		*101*	*70-130*		
Surrogate: % Bromofluorobenzene	*30.33*		ug/l		*30*		*101*	*70-130*		
Matrix Spike (CD05182-MS)			**Source: SC54606-03**		Prepared & Analyzed: 02-May-19					
Chloromethane	**15.41**		ug/l	1.0	20	BRL	77	40-160		20
m&p-Xylene	**38.70**		ug/l	1.0	40	BRL	97	70-130		30
Ethylbenzene	**18.82**		ug/l	1.0	20	BRL	94	59-141		20
Dibromochloromethane	**20.57**		ug/l	0.50	20	BRL	103	67-133		20
cis-1,2-Dichloroethene	**18.98**		ug/l	1.0	20	BRL	95	69-131		20
Chloroform	**20.09**		ug/l	1.0	20	BRL	100	67-133		20
Chloroethane	**19.98**		ug/l	1.0	20	BRL	100	40-160		20
cis-1,3-Dichloropropene	**17.79**		ug/l	0.40	20	BRL	89	40-160		20
Methyl tert-butyl ether (MTBE)	**18.91**		ug/l	1.0	20	BRL	95	70-130		30
o-Xylene	**19.68**		ug/l	1.0	20	BRL	98	70-130		30
Toluene	**18.79**		ug/l	1.0	20	BRL	94	74-126		20
Chlorobenzene	**18.73**		ug/l	1.0	20	BRL	94	66-134		20
trans-1,3-Dichloropropene	**17.36**		ug/l	0.40	20	BRL	87	50-150		20
Methylene chloride	**22.05**		ug/l	1.0	20	BRL	110	60-140		20
Trichloroethene	**19.01**		ug/l	1.0	20	BRL	95	66-134		20
Trichlorofluoromethane	**20.05**		ug/l	1.0	20	BRL	100	48-152		20
Vinyl chloride	**17.22**		ug/l	1.0	20	BRL	86	40-160		20
trans-1,2-Dichloroethene	**18.91**		ug/l	1.0	20	BRL	95	69-131		20
1,1,2,2-tetrachloroethane	**17.76**		ug/l	0.50	20	BRL	89	60-140		20
Carbon tetrachloride	**20.03**		ug/l	1.0	20	BRL	100	73-127		20
Tetrachloroethene	**18.77**		ug/l	1.0	20	BRL	94	73-127		20
1,1,1-Trichloroethane	**20.67**		ug/l	1.0	20	BRL	103	75-125		20
1,1,2-Trichloroethane	**17.65**		ug/l	1.0	20	BRL	88	71-129		20
1,1-Dichloroethane	**19.16**		ug/l	1.0	20	BRL	96	72-128		20
1,1-Dichloroethene	**18.64**		ug/l	1.0	20	BRL	93	50-150		20
1,2-Dichlorobenzene	**18.56**		ug/l	1.0	20	BRL	93	63-137		20
1,2-Dichloropropane	**18.79**		ug/l	1.0	20	BRL	94	40-160		20
1,3-Dichlorobenzene	**18.45**		ug/l	1.0	20	BRL	92	73-127		20
1,4-Dichlorobenzene	**18.11**		ug/l	1.0	20	BRL	91	63-137		20
Benzene	**18.91**		ug/l	0.70	20	BRL	95	64-136		20
Bromodichloromethane	**20.54**		ug/l	0.50	20	BRL	103	65-135		20
1,2-Dichloroethane	**20.82**		ug/l	1.0	20	BRL	104	68-132		20
Bromomethane	**13.99**	r	ug/l	1.0	20	BRL	70	40-160		20

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
E624.1										
Batch 477498A - E624.1										
Matrix Spike (CD05182-MS)			**Source: SC54606-03**			Prepared & Analyzed: 02-May-19				
Bromoform	**19.33**		ug/l	1.0	20	BRL	97	71-129		20
Surrogate: % Bromofluorobenzene	*32.14*		ug/l		*20*		*107*	*70-130*		
Surrogate: % 1,2-dichlorobenzene-d4	*30.10*		ug/l		*20*		*100*	*70-130*		
Surrogate: % Dibromofluoromethane	*30.14*		ug/l		*20*		*100*	*70-130*		
Surrogate: % Toluene-d8	*30.06*		ug/l		*20*		*100*	*70-130*		
Matrix Spike Dup (CD05182-MSD)			**Source: SC54606-03**			Prepared & Analyzed: 02-May-19				
m&p-Xylene	**39.52**		ug/l	1.0	40	BRL	99	70-130	2.0	30
Ethylbenzene	**19.40**		ug/l	1.0	20	BRL	97	59-141	3.1	20
Dibromochloromethane	**21.23**		ug/l	0.50	20	BRL	106	67-133	2.9	20
cis-1,3-Dichloropropene	**18.81**		ug/l	0.40	20	BRL	94	40-160	5.5	20
cis-1,2-Dichloroethene	**19.55**		ug/l	1.0	20	BRL	98	69-131	3.1	20
Chloroform	**20.65**		ug/l	1.0	20	BRL	103	67-133	3.0	20
Methyl tert-butyl ether (MTBE)	**19.52**		ug/l	1.0	20	BRL	98	70-130	3.1	30
Chloromethane	**18.22**		ug/l	1.0	20	BRL	91	40-160	16.7	20
Methylene chloride	**19.26**		ug/l	1.0	20	BRL	96	60-140	13.6	20
o-Xylene	**20.32**		ug/l	1.0	20	BRL	102	70-130	4.0	30
Tetrachloroethene	**20.19**		ug/l	1.0	20	BRL	101	73-127	7.2	20
Toluene	**19.33**		ug/l	1.0	20	BRL	97	74-126	3.1	20
trans-1,2-Dichloroethene	**20.09**		ug/l	1.0	20	BRL	100	69-131	5.1	20
trans-1,3-Dichloropropene	**17.80**		ug/l	0.40	20	BRL	89	50-150	2.3	20
Trichloroethene	**20.27**		ug/l	1.0	20	BRL	101	66-134	6.1	20
Chloroethane	**21.94**		ug/l	1.0	20	BRL	110	40-160	9.5	20
Vinyl chloride	**20.69**		ug/l	1.0	20	BRL	103	40-160	18.0	20
1,2-Dichloroethane	**20.64**		ug/l	1.0	20	BRL	103	68-132	1.0	20
Trichlorofluoromethane	**22.73**		ug/l	1.0	20	BRL	114	48-152	13.1	20
1,1-Dichloroethane	**20.25**		ug/l	1.0	20	BRL	101	72-128	5.1	20
1,1,1-Trichloroethane	**21.59**		ug/l	1.0	20	BRL	108	75-125	4.7	20
1,3-Dichlorobenzene	**19.45**		ug/l	1.0	20	BRL	97	73-127	5.3	20
1,1,2-Trichloroethane	**17.96**		ug/l	1.0	20	BRL	90	71-129	2.2	20
Chlorobenzene	**19.63**		ug/l	1.0	20	BRL	98	66-134	4.2	20
1,1-Dichloroethene	**20.81**		ug/l	1.0	20	BRL	104	50-150	11.2	20
1,2-Dichlorobenzene	**19.08**		ug/l	1.0	20	BRL	95	63-137	2.1	20
1,4-Dichlorobenzene	**19.07**		ug/l	1.0	20	BRL	95	63-137	4.3	20
Benzene	**19.40**		ug/l	0.70	20	BRL	97	64-136	2.1	20
Bromodichloromethane	**20.60**		ug/l	0.50	20	BRL	103	65-135	0.0	20
Bromoform	**19.42**		ug/l	1.0	20	BRL	97	71-129	0.0	20
Bromomethane	**18.27**	r	ug/l	1.0	20	BRL	91	40-160	26.1	20
Carbon tetrachloride	**21.37**		ug/l	1.0	20	BRL	107	73-127	6.8	20
1,2-Dichloropropane	**19.25**		ug/l	1.0	20	BRL	96	40-160	2.1	20
1,1,2,2-tetrachloroethane	**18.26**		ug/l	0.50	20	BRL	91	60-140	2.2	20
Surrogate: % Toluene-d8	*29.68*		ug/l		*20*		*99*	*70-130*		
Surrogate: % 1,2-dichlorobenzene-d4	*30.02*		ug/l		*20*		*100*	*70-130*		
Surrogate: % Dibromofluoromethane	*31.02*		ug/l		*20*		*103*	*70-130*		
Surrogate: % Bromofluorobenzene	*32.02*		ug/l		*20*		*107*	*70-130*		
SW6010D										
Batch 477208A - SW3005A/SW3010A										
Blank (CD04790-BLK)						Prepared: 01-May-19 Analyzed: 02-May-19				
Nickel	< 0.001		mg/l	0.001			BRL	-		
LCS (CD04790-LCS)						Prepared: 01-May-19 Analyzed: 02-May-19				

Subcontracted Analyses - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW6010D										
Batch 477208A - SW3005A/SW3010A										
LCS (CD04790-LCS)					Prepared: 01-May-19 Analyzed: 02-May-19					
Nickel	**1.038**		mg/l	0.001	1		104	75-125		20
SW7470A										
Batch 477275A - SW7470A										
Blank (CD04770-BLK)					Prepared: 02-May-19 Analyzed: 03-May-19					
Mercury	< 0.0002		mg/l	0.0002			BRL	-		
LCS (CD04770-LCS)					Prepared: 02-May-19 Analyzed: 03-May-19					
Mercury	**0.002417**		mg/l	0.0002	0.0025		96.7	80-120		20

Notes and Definitions

J	J=Estimated Below RL
r	This parameter is outside laboratory rpd specified recovery limits.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

Laboratory Control Sample (LCS): 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.

Matrix Spike: 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.

Method Blank: 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.

Method Detection Limit (MDL): 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.

Surrogate: 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.

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

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CHAIN OF CUSTODY RECORD

Page 1 of 1

Special Handling:

- [X] Standard TAT - 7 to 10 business days
- [ ] Rush TAT - Date Needed: _____

All TATs subject to laboratory approval
Min. 24-hr notification needed for rushes
Samples disposed after 30 days unless otherwise instructed.

Report To: AECOM
40 British American Blvd.
Latham NY 12110

Telephone #: 518-951-2200
Project Mgr: Lindsay Mitchell

Invoice To: Same

P.O No.: _____ Quote #: _____

Project No: 60284002-1
Site Name: NE Alloy
Location: Utica State: NY
Sampler(s): SRG

F=Field Filtered 1=Na_2S2O_3 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH3OH 8=$NaHSO_4$ 9=Deionized Water 10=H_3PO_4 11=_____ 12=_____

DW=Drinking Water GW=Groundwater SW=Surface Water WW=Waste Water
O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas
X1=_____ X2=_____ X3=_____

G= Grab C=Composite

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Analysis: 624	Metals	Check if chlorinated
SC54606 -01	NE-EFF 043019	4/30/19	1100	G	GW	3			1	X	X	
-02	NE-INF 043019	4/30/19	1135			3				X		
-03	TB 043019	—	—	—	—	2				X		

List Preservative Code below: 2 4

QA/QC Reporting Notes:
* additional charges may appply

MA DEP MCP CAM Report? [ ] Yes [ ] No
CT DPH RCP Report? [ ] Yes [ ] No
[ ] Standard [ ] No QC [ ] DQA*
[ ] ASP A* [ ] ASP B*
[ ] NJ Reduced* [ ] NJ Full*
[ ] Tier II* [ ] Tier IV*
[ ] Other: _____
State-specific reporting standards:

Relinquished by:	Received by:	Date:	Time:
[signature]	FedEx	4/30/19	1310
FedEx	[signature]	5/1/19	10:30

Temp °C: Observed 3.1; Correction Factor 0; Corrected 3.1; IR ID # 1

[ ] EDD format: _____
[ ] E-mail to: _____

Condition upon receipt: Custody Seals: [ ] Present [✓] Intact [ ] Broken
[ ] Ambient [✓] Iced [ ] Refrigerated [ ] DI VOA Frozen [ ] Soil Jar Frozen

FedEx # 8139 4282 5237 SC54606 PN

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CHAIN OF CUSTODY RECORD

Page 1 of 1

Special Handling:
- [x] Standard TAT - 7 to 10 business days
- [ ] Rush TAT - Date Needed: _____

All TATs subject to laboratory approval
Min. 24-hr notification needed for rushes
Samples disposed after 30 days unless otherwise instructed.

Report To: AECOM
40 British American Blvd.
Latham NY 12110

Telephone #: 518-951-2200
Project Mgr: Lindsay Mitchell

Invoice To: Same

P.O No.: _____ Quote #: _____

Project No: 60284002-1
Site Name: NE Alloy
Location: Utica State: NY
Sampler(s): SRG

F=Field Filtered 1=Na_2S2O_3 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH3OH 8=$NaHSO_4$ 9=Deionized Water 10=H_3PO_4 11=_____ 12=_____

DW=Drinking Water GW=Groundwater SW=Surface Water WW=Waste Water
O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas
X1=_____ X2=_____ X3=_____

G= Grab C=Compsite

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Analysis: 624	Metals *	Check if chlorinated
SC54606-01	NE-EFF 043019	4/30/19	1100	G	GW	3			1	X	X	
-02	NE-INF 043019	4/30/19	1135			3				X		
-03	TB 043019	—	—	—	—	2				X		

List Preservative Code below: 2 4

QA/QC Reporting Notes:
* additional charges may appply

MA DEP MCP CAM Report? [ ] Yes [ ] No
CT DPH RCP Report? [ ] Yes [ ] No
[ ] Standard [ ] No QC [ ] DQA*
[ ] ASP A* [ ] ASP B*
[ ] NJ Reduced* [ ] NJ Full*
[ ] Tier II* [ ] Tier IV*
[ ] Other: _____
State-specific reporting standards:

* NJ and Mg per client
Dm 5/6

Relinquished by:	Received by:	Date:	Time:
[signature]	FedEx	4/30/19	1310
FedEx	[signature]	5/1/19	10:30

Temp °C: Observed 3.1; Correction Factor 0; Corrected 3.1; IR ID # 1

[ ] EDD format: _____
[ ] E-mail to: _____

Condition upon receipt: Custody Seals: [ ] Present [x] Intact [ ] Broken
[ ] Ambient [x] Iced [ ] Refrigerated [ ] DI VOA Frozen [ ] Soil Jar Frozen

FedEx Express Package US Airbill

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Form ID No. 0215

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1 From

Phone 518 951-2200

AECOM TECHNICAL SERVICES

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Dept./Floor/Suite/Room

City LATHAM State NY ZIP 12110-1421

2 Your Internal Billing Reference

3 To

Recipient's Name Attn: Sample Receipt Phone 413 789-9018

Company Eurofins Spectrum Analytical

Address 11 Algren Dr.

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Dept./Floor/Suite/Room

Address

Use this line for the HOLD location address or for continuation of your shipping address.

City Agawam State MA ZIP 01001

Hold Weekday — FedEx location address REQUIRED. **NOT available for** FedEx First Overnight.

Hold Saturday — FedEx location address REQUIRED. **Available ONLY for** FedEx Priority Overnight and FedEx 2Day to select locations.

0132325350

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4 Express Package Service * To most locations.

Packages up to 150 lbs.
For packages over 150 lbs., use the FedEx Express Freight US Airbill.

Next Business Day

- ☐ FedEx First Overnight — Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.
- ☒ FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless Saturday Delivery is selected.
- ☐ FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.

2 or 3 Business Days

- ☐ FedEx 2Day A.M. — Second business morning.* Saturday Delivery NOT available.
- ☐ FedEx 2Day — Second business afternoon.* Thursday shipments will be delivered on Monday unless Saturday Delivery is selected.
- ☐ FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

5 Packaging * Declared value limit $500.

☐ FedEx Envelope* ☐ FedEx Pak* ☐ FedEx Box ☐ FedEx Tube ☒ Other

6 Special Handling and Delivery Signature Options Fees may apply. See the FedEx Service Guide.

☐ Saturday Delivery — **NOT available for** FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.

☐ No Signature Required — Package may be left without obtaining a signature for delivery.
☐ Direct Signature — Someone at recipient's address may sign for delivery.
☐ Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only.

Does this shipment contain dangerous goods?

One box must be checked.

☒ No ☐ Yes — As per attached Shipper's Declaration. ☐ Yes — Shipper's Declaration not required. ☐ Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg

Restrictions apply for dangerous goods — see the current FedEx Service Guide. ☐ Cargo Aircraft Only

7 Payment *Bill to:*

Enter FedEx Acct. No. or Credit Card No. below. Obtain recip. Acct. No. ☐

☒ Sender — Acct. No. in Section 1 will be billed. ☐ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check

Total Packages ____ Total Weight ____ lbs. Credit Card Auth. ____

†Our liability is limited to US$100 unless you declare a higher value. See the current FedEx Service Guide for details.

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Batch Summary

477208A

Subcontracted Analyses

CD04790-BLK
CD04790-LCS
SC54606-01 (NE-EFF 043019)

477275A

Subcontracted Analyses

CD04770-BLK
CD04770-LCS
SC54606-01 (NE-EFF 043019)

477498A

Subcontracted Analyses

CD05182-BLK
CD05182-LCS
CD05182-LCSD
CD05182-MS
CD05182-MSD
SC54606-01 (NE-EFF 043019)
SC54606-02 (NE-INF 043019)
SC54606-03 (TB 043019)