REGION 1

NEW ENGLAND REGIONAL LABORATORY
NORTH CHELMSFORD, MA 01863

Date: 04/02/2024

Subject: Inspection Report
Compliance Sampling Inspection
Burndy, LLC

From: Nafisah Ali, Inspector
Field Services Branch (FSB)
Laboratory Services and Applied Science Division (LSASD)

Ali, Nafisah Digitally signed by Ali, Nafisah Date: 2024.04.26 15:18:33 -04'00'

Reviewed By: Jerome Keefe, Field Team Leader
FSB-LSASD

JEROME KEEFE Digitally signed by JEROME KEEFE Date: 2024.04.26 16:44:36 -04'00'

To: Newton Tedder, Acting Manager
Water Compliance Section 1
Enforcement and Compliance Assurance Division (ECAD)

CC: Damian Bednarz, Inspector
ECAD-EWC

I. Facility Information

A. Facility Name: Burndy LLC
B. Facility Location: 34 Bern Dibner Drive Lincoln, NH 03251
C. Facility Contact(s): James Bailey, Plant Health and Safety Manager
JBailey3@hubbell.com (603) 647-5218
Mike Sung: msung@hubbell.com
James Knight: jknights@hubbell.com
D. NPDES ID Number: Industrial Pretreatment (NHPIU0013)

II. Background Information

A. Date and time of inspection: 02/21/2024
Facility entrance: 0800
Facility exit: 1030
Date and time of inspection: 02/22/2024
Facility entrance: 0930
Facility exit: 1405
B. Weather Conditions: Cloudy, 17 °F

C. US EPA Representative(s): Nafisah Ali, William Sommer, Anna Hatke, Ryan Leo
D. State/Local Representative(s): None
E. Federally Enforceable Requirements Covered During the Inspection: 40 CFR Part 403 and 40 CFR Part 433.15
F. Previous Enforcement Actions: None

III. Disclaimer

Unless otherwise noted, this report describes conditions at the facility/property as observed by EPA inspector(s), and/or through records provided to and/or information reported to EPA inspector(s) by facility representatives and as understood by the inspector(s). This report may not capture all operations or activities ongoing at the time of the inspection. This report does not make final determinations on potential areas of concern. Nothing in this report affects EPA's authorities under federal statutes and regulations to pursue further investigation or action.

IV. Type and Purpose of Inspection

The purpose of the compliance sampling inspection (CSI) was to collect wastewater (effluent) samples to evaluate compliance with the applicable EPA general pretreatment standards in 40 CFR Part 403 and EPA categorical pretreatment standards in 40 CFR Part 433.15 Subpart A – Metal Finishing Subcategory. The inspection would also include the industrial local limits in the facility's industrial discharge permit (IDP). This is a two (2) day CSI inspection.

V. Facility Description

I collected the facility information below from the Notice of Intent, IDP, company's website and Mr. Bailey. Burndy LLC, (the "facility") manufactures electrical connectors for the electric utility industry. The facility is a 102,000-square foot, single-story manufacturing building that includes a wastewater treatment plant, metal finishing operations, hazardous waste and material storage areas, loading docks, groundwater treatment plant, parking and landscaped areas. The facility is located at 34 Bern Dibner Drive Lincoln, NH 03251. The facility employs approximately 233 employees and operates three shifts per day, five days per week plus a fourth shift on the weekends.

The Standard Industrial Classification (SIC) codes are 3643: Current-Carrying Wiring Devices and SIC code: 3678-Electronic Connectors. Production processes include, but are not limited to, metal cutting, tampering, annealing, and flattening, vibratory deburring, electroplating and chemical etching. Certain processes generate wastewaters which require treatment. The facility has been in operation and introducing federally regulated categorical metal finishing wastewaters into the Town of Lincoln's Publicly Owned Treatment Works ("POTW") prior to July 1983.

The facility has annual capacity to process approximately 1.2 million pounds of aluminum and 4.2 million pounds of copper. The facility has an average discharge flow of 33,000 gallons per day to the POTW. The facility periodically reports to EPA effluent flow volume and total copper amounts, and results for other metal finishing standards, i.e., total chromium, lead, zinc, cyanide etc. Flow and copper amounts are submitted monthly whereas results for other metal finishing standards are submitted twice per year.

VI. Inspection

On February 7th, 2024, EPA (Nafisah Ali) contacted Brian Donovan, Director of Environmental Health and Safety for Burndy LLC via email to announce an EPA compliance sampling inspection planned to occur on February 21st, 2024. At approximately 0800 on February 21st, 2024, EPA inspectors Nafisah Ali, William Sommer, Anna Hatke and Ryan Leo ("EPA Inspection Team") arrived at the facility and checked in at the front desk. James Bailey, Mike Sung and James Knight ("Facility Representatives") greeted and led the EPA inspection team to the conference room.

VI.A. Opening Conference

CSI Day 1: 02/21/2024

EPA inspectors presented their credentials and a sign in sheet. I explained to the Facility Representatives the compliance sampling inspection is a follow up to EPA's inspection that was done on October 23rd, 2023. I asked the Facility Representatives for an overview of the pretreatment process of the facility. Mr. Knight explained the pretreatment in accordance with the wastewater treatment system flow diagram.

I asked Facility Representatives about the ISCO composite sampler, and the issues observed on EPA's last inspection. Mr. Bailey said that they are trying to get a new refrigerated ISCO sampler unit and have requested a quote. I asked Mr. Bailey if the sample tubing have been replaced on the current ISCO. Mr. Bailey said the tubing has been replaced and the weir and probe are cleaned every two weeks with deionized water to prevent buildup of copper.

I asked if the ISCO has been calibrated. Mr. Bailey said the ISCO was calibrated in December 2023 and January 2024, but calibration records for January 2024 are not available. I requested that Mr. Bailey email the calibration records for January 2024. I asked if the ISCO sampler is time composite or flow composite. Mr. Bailey said the ISCO is time composite, collecting a total of 48 samples in 24 hours set at 300 milliliters (ml) every 30 minutes. Mr. Bailey noted that when they are collecting samples, they use ice for the 24-hour composite. I asked Mr. Bailey if there are specific times of the day when discharge occurs. Mr. Bailey said there is a constant discharge and flow throughout the day.

I asked Facility Representatives for a description of the cyanide destruct system and where samples are taken. Mr. Knight explained that cyanide destruct happens in two stages. The first stage is adding sodium hypochlorite, which is sodium hydroxide and chlorine bleach. The second stage is adding sulfuric acid. Mr. Knight noted that pH reading and colorimetric analysis for cyanide is taken at second stage, which is done in house. Mr. Bailey said that grab samples for cyanide for laboratory analysis is taken at outfall 001 as stated in the IDP from the Town of Lincoln (POTW).

I explained that under 40 C.F.R. § 433.12(c), self-monitoring for cyanide must be conducted after cyanide treatment and before dilution with other streams. Mr. Bailey said he became aware of this on EPA's last inspection and grab samples for cyanide would be collected following second stage destruct. Mr. Bailey said that the facility would address this with the Town of Lincoln POTW, a permit renewal is due on June 30th, 2024. I asked facility representatives if it's possible to collect cyanide samples right after second stage destruct. Mr. Knight said it was possible to collect samples at the second stage of cyanide destruct.

I asked Facility Representatives why they changed to analytical method ASTM D7511-09 for cyanide analysis. Mr. Bailey said that since EPA's last visit this test method was updated for sample collection of cyanide. Mr. Bailey explained that semi- annual and daily samples are placed in refrigerator for pick up by

Eastern Analytical Laboratory. Mr. Bailey said that Eastern Analytical Laboratory picks up samples from the refrigerator once a month.

I asked if there is a thermometer in the refrigerator. Mr. Bailey said that there is no thermometer in the refrigerator. I explained that different analysis samples must be stored at specific temperatures to preserve integrity. Mr. Bailey said that he would add a thermometer in the refrigerator. I explained that holding times for analytical samples varies by the analytical test method and preservatives added to samples. Mr. Bailey said he would check with Eastern Analytical Laboratory to get information on holding times for samples.

I informed the facility that the EPA Inspection Team is going to set up an ISCO sampler for composite samples for total metals. The ISCO would be a 24-hour time composite, and we would return tomorrow (February 22nd, 2024) to retrieve samples. Upon retrieval of the ISCO samples the EPA Inspection Team would proceed to collect grab samples for total cyanide, VOAs, BNAs, and pesticides/PCBs. I asked the facility if they wanted split samples. Mr. Bailey said he wants split samples but doesn't have the correct sample bottles. Mr. Bailey said he would reach out to Eastern Analytical Laboratory to get bottles but have some sample bottles that can be used for split samples. Split samples were collected in bottles that were provided, Mr. Bailey said he would transfer the samples later to bottles received from Eastern Analytical.

The EPA Inspection Team proceeded to outfall 001 to set up ISCO for composite sampling.

VI.D. Closing Conference

At approximately 10:20 the EPA Inspection Team and the Facility Representatives returned to the conference room for a closing conference. I informed the Facility Representatives the EPA Inspection Team would return tomorrow (February 22nd, 2024) at 0930 to retrieve ISCO, collect grab and split samples. I asked the Facility Representatives if they had any questions. There were no questions from the facility. I informed the Facility Representatives they should receive an inspection report in 60 days. I requested the following from the Facility Representatives via email following the inspection.

- ISCO flow meter calibration and records from January 2024.
- Photo of the thermometer placed in the sample collection refrigerator.
- Check with Eastern Analytical on holding times for samples.

The EPA Inspection Team departed the facility at approximately 10:30.

VI.A. Opening Conference

CSI Day 2: 02/22/2024

The EPA Inspection Team arrived at the facility at 0930 and checked in at the front desk. Mr. Bailey greeted the EPA Inspection Team and lead us to the conference room. I told Mr. Bailey the EPA Inspection Team is going retrieve our ISCO and collect grab samples. Mr. Bailey said that Eastern Analytical laboratory had not yet processed his request for sample bottles, but he will use the sample bottles he already has for split samples. Inspector Sommer informed Mr. Bailey that split samples for VOAs would not be collected due

to incorrect sample bottle. I informed Mr. Bailey that certain analysis requires preservation. Mr. Bailey said that he would drive to Eastern Analytical and get the appropriate bottles and transfer the samples later. Mr. Bailey presented a picture of a thermometer he placed in the sample refrigerator. I asked Mr. Bailey to email me the picture. The EPA Inspection Team proceeded to retrieve the ISCO and collect grab samples.

- Following the retrieval of the ISCO at 1010, the EPA Inspection Team was informed but a facility employee the pretreatment system was down and there's no flow of wastewater to collect grab samples. Inspector Sommer asked what caused the pretreatment system failure. A facility employee said that repairs are being done and that they are cleaning the tanks. The EPA Inspection Team returned to the conference room with Mr. Bailey. Mr. Bailey said the pretreatment system should be up and running in approximately two (2) hours. Mr. Bailey granted the EPA Inspection Team permission to wait in the conference room until the pretreatment system was working. Mr. Bailey left at 11:15 to get sample bottles from Eastern Analytical Laboratory. The EPA Inspection Team was notified at 11:37 the pretreatment system was back online and there was wastewater flow. The EPA Inspection Team proceeded to collect grab samples at approximately 1217.

VI.D. Closing Conference

At approximately 13:52 Mr. Bailey joined the EPA Inspection Team in the conference room for a closing conference. I asked Mr. Bailey to explain why the pretreatment system had a failure. Mr. Bailey said that they have been having issues with the system since 1930 the night before (02/21/2024) and have been working on resolving since then. Mr. Bailey explained that because of the system failure, the facility performed an unplanned maintenance tank cleaning. I informed Mr. Bailey the spilt samples collected in the bottles he provided may not contain preservatives. The EPA Inspection Team did not add preservatives to split samples. I asked Mr. Bailey if he had any other questions, he said no. I informed Mr. Bailey the facility should receive an inspection report in 60 days.

The EPA Inspection Team departed at approximately 1405.

VII. Wastewater Sampling

The sampling activities were conducted in accordance with the Standard Operating Procedure for the Collection of Chemical and Biological NPDES Water and Wastewater Samples FSBSOP-NPDES Water Revision 2, 2020. The EPA Inspection Team collected composite samples ("BLLC01-C") for the analysis of total metals. The EPA sampling team collected grab samples ("BLLC01-G") for total cyanide, VOAs, BNAs, pesticides, and PCBs. Duplicate samples ("Dup01-C, "Dup01-G") were collected for each analysis during the sampling inspection. Split samples were collected for total cyanide, VOAs, BNAs, pesticides, and PCBs for the facility.

At 0953 on February 21st, 2024, the EPA Inspection Team deployed an ISCO model 6712 automatic sampling device with twenty-four (24) aliquot containers inside. The purpose of the automatic sampler deployment was to collect a representative time composited sample of the facility's discharge for the analysis of metals from the compliance monitoring point (outfall 001). The EPA Inspection Team

programmed the ISCO to pump 150mL of sample every 30 minutes for 24 hours into each of the 24 aliquot bottles. A tamper proof seal was placed on the ISCO providing a secure collection of samples.

At 1015 on February 22nd, 2024, the EPA Inspection Team returned to collect the automatic sampler. Upon retrieving the automatic sampler, the EPA Inspection Team was instructed by to move the sampler to a clear location due to tank cleaning being done near outfall 001. All 24 aliquot containers were transferred into a 5 gallon "cube-pack" container and homogenized. The sample and a duplicate were transferred from the homogenized "cube-pack" container into sample bottles. The total metals samples were collected in 250-mL HDPE containers and preserved with nitric acid to a pH of less than 2 standard units (S.U).

The EPA Inspection Team was not able to collect grab samples until the pretreatment system was fixed. At approximately 1137 the EPA Inspection Team was notified that the pretreatment system was fixed and there was wastewater discharge. An instantaneous grab sample was collected for pH and Total Residual Chlorine (TRC) for in-situ screening. The sample was field tested for pH using an Oakton "pHtestr" pH meter and TRC using a HACH "DR300" colorimeter. The pH was 8.19 S.U. and the TRC was 0.12 mg/L.

The VOA samples were collected in 40-mL amber vials and preserved with hydrochloric acid to a pH of less than 2 S.U. The pesticides/PCBs samples were collected in 1-liter amber jars with no preservative added. The BNA samples were collected in 1-liter amber jars with no preservative added. The total cyanide samples were collected in 250mL HDPE containers and preserved with sodium hydroxide to attain a pH of above 12 S.U. All samples were split with facility. The EPA Inspection Team samples were then placed in coolers with ice to maintain an internal temperature of less than 4 degrees Celsius and delivered to the to the EPA New England Regional Laboratory in North Chelmsford, MA to be analyzed.

VIII. EPA Sampling and Analytical Results

The table below provides a summary of the laboratory analytical results and field parameters collected during the inspection. For a full list of compounds analyzed for each parameter and their results, refer to the laboratory reports that are attached to this inspection report (Appendices B).

Table 1: Summary of Burndy LLC, February 21st-22nd 2024 Inspection.

Sample #	Sample Date and Time	Sample Type	pH (S.U.)	TRC (mg/L)	EPA Analytical Results[1] (mg/L unless otherwise noted)		Pretreatment Standards for 40 CFR 433.15	
							Daily Maximum (mg/L)	Monthly Average (mg/L)
BLLC01-G	2/22/2024 12:17	Grab	8.9	0.12	**VOCs[1]** Carbon Disulfide	0.45	2.13	N/A
					BNAs [1] N-nitrosodimethylamine	0.065	2.13	N/A
					Pesticides/ PCBs[1]	ND	2.13	N/A
BLLC02-G	2/22/2024 12:17	Grab	N/A	N/A	**Total Cyanide[2]**	0.044	1.20	0.65

BLLC01-C	2/22/2024 10:10	Composite	N/A	N/A	**Total Metals[1, 2,3]** Cadmium	ND	0.69	0.26
					Chromium	ND	2.77	1.71
					Copper	0.25	3.38	2.07
					Lead	ND	0.69	0.43
					Nickel	ND	3.98	2.38
					Silver	ND	0.43	0.24
					Zinc	ND	2.61	1.48
DUP01-G	2/22/2024 12:17	Grab	N/A	N/A	**VOCs[1]** Carbon Disulfide	0.47	2.13	N/A
					BNAs[1,] N-nitrosodimethylamine	0.082	2.13	N/A
					Pesticides/ PCBs[1]	ND	2.13	N/A
DUP02-G	2/22/2024 12:17	Grab	N/A	N/A	**Total Cyanide[2]**	0.043	1.20	0.65
DUP02-C	2/22/2024 10:10	Composite	N/A	N/A	**Total Metals[1, 2,3]** Cadmium	ND	0.69	0.26
					Chromium	ND	2.77	1.71
					Copper	0.25	3.38	2.07
					Lead	ND	0.69	0.43
					Nickel	ND	3.98	2.38
					Silver	ND	0.43	0.24
					Zinc	ND	2.61	1.48

Footnotes:
1: Compounds that were analyzed but not listed in this table are Not Detected above Reporting Limit (ND).
2: Total metals within the pollutants of concern under the [40 CFR 433.15].
3: Additional compounds not subject to the standard were detected but are not listed in this table.
4: ND analytes reporting levels are below categorical pretreatment standards.

IX. Appendices
A – Photography log

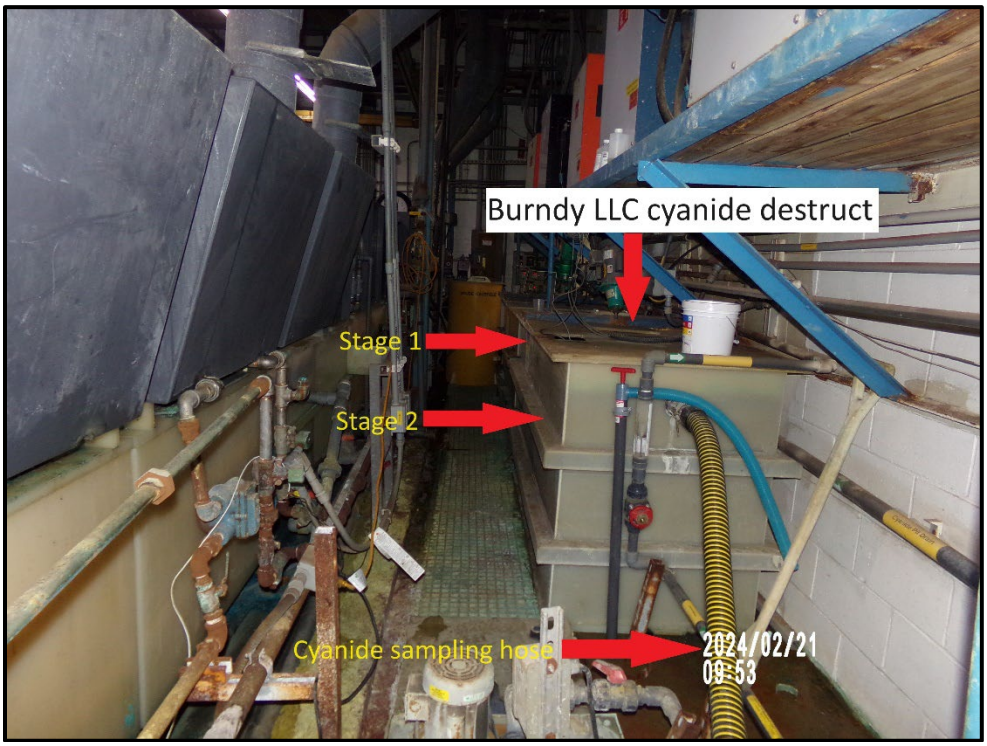

Photo 1. Facility cyanide destruct system, showing stage 1 and stage 2 of destruct.

Photo 2. Facility cyanide sampling hose where samples are collected for laboratory analysis.

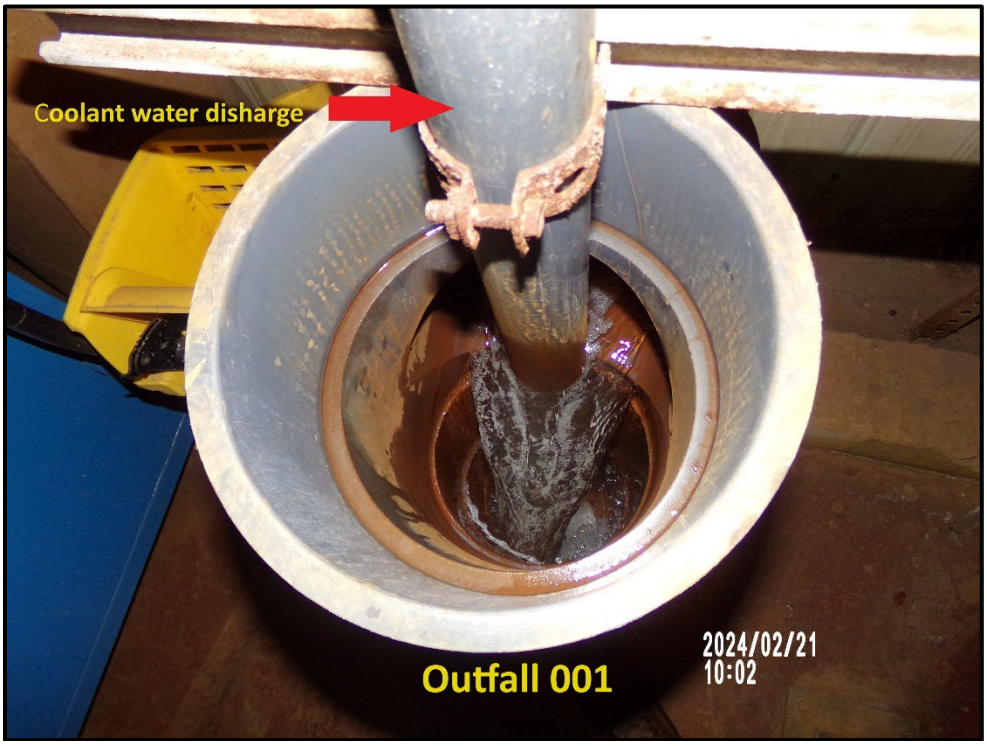

Photo 3. Facility outfall 001 leading to Lincoln POTW.

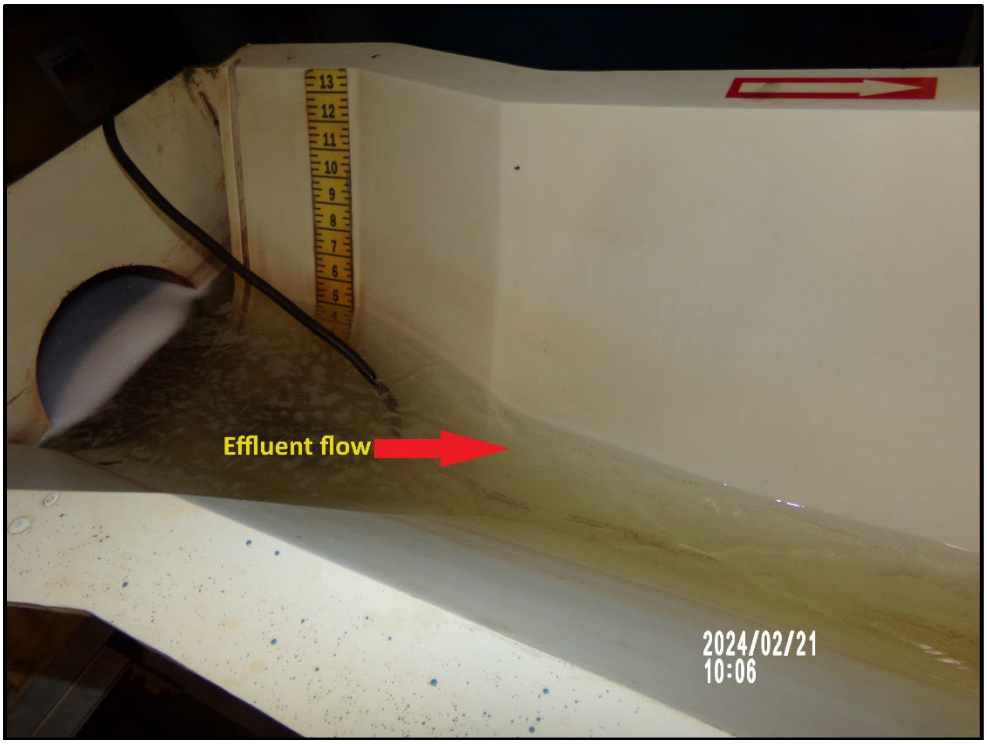

Photo 4. Facility weir, showing flow of discharge. Grab samples were collected here.

B- Laboratory Analysis Report

United States Environmental Protection Agency
Laboratory Services and Applied Science Division
11 Technology Drive
North Chelmsford, MA 01863-2431

Laboratory Report

March 18, 2024

Nafisah Ali
US EPA Region 1

Project Number: 24020025
Project: Burndy LLC IU Lincoln, NH
Analysis: VOAs in Water
EPA Chemist: Allison Connors

Date Samples Received by the Laboratory: 02/23/2024

Analytical Procedure:

All samples were received and logged in by the laboratory according to the USEPA New England Laboratory SOP for Sample Log-in.

Sample preparation and analysis was done following the EPA Region I SOP, LSBSOP-VOAGCMS12.

Samples were analyzed by GC/MS. Samples were introduced to the GC via an autosampler and purge and trap preconcentrator system.. The analysis SOP is based on US EPA Method 8260D SW846 update VI, rev 4, 2018, method 5030B, rev 2.0 SW-846, Rev 2.0,1996. Method 624.1, 40CFR Part 136 Appendix A, December, 2014, and USEPA CLP SOW for Organic Analysis OLM04.2, 1999.

Data were reviewed in accordance with the internal verification procedures described in the EPA New England Quality Manual for NERL.

Results relate only to the items tested or to the samples as received by the Laboratory. This analytical report shall not be reproduced except in full, without written approval of the laboratory.

If you have any questions please call me at 617-918-8340 .

Sincerely,

Qualifiers:

RL = Reporting limit
ND = Not Detected above Reporting limit
NA = Not Applicable due to high sample dilutions or sample interferences
NC = Not calculated since analyte concentration is ND.
J = Estimated value
J1 = Estimated value due to MS recovery outside accceptance criteria
J2 = Estimated value due to LFB result outside acceptance criteria
J3 = Estimated value due to RPD result outside acceptance criteria
J4 = Estimated value due to LCS result outside acceptance criteria
E = Estimated value exceeds the calibration range
L = Estimated value is below the calibration range
B = Analyte is associated with the lab blank or trip blank contamination. Values are qualified when the observed concentration of the contamination in the sample extract is less than 10 times the concentration in the blank.
R = No recovery was calculated since the analyte concentration is greater than four times the spike level.
P = The confirmation value exceeded 35% difference and is less than 100%. The lower value is reported.
C = The identification has been confirmed by GC/MS.
A = Suspected Aldol condensation product.
N = Tentatively identified compound.
ANR = Analysis not required.

Burndy LLC IU Lincoln, NH

VOAs in Water

Client Sample ID:	Trip Blank	Lab Sample ID:	AC11465
Date of Collection:	2/20/2024	Matrix:	Wastewater
Date of Preparation:	2/27/2024	Amount Prepared:	5 mL
Date of Analysis:	2/27/2024	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	1
Wet Weight Prepared:	N/A	pH:	<2
Volume Extracted:	5 mL	GPC Factor:	N/A
Final Volume:	N/A		

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
74-87-3	Chloromethane	ND	1.0	
75-01-4	Vinyl Chloride	ND	1.0	
74-83-9	Bromomethane	ND	1.0	
75-00-3	Chloroethane	ND	1.0	
75-69-4	Trichlorofluoromethane	ND	1.0	
60-29-7	Ethyl Ether	ND	1.0	
67-64-1	2-Propanone (acetone)	ND	5.0	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha	ND	1.0	
75-35-4	1,1-Dichloroethylene	ND	1.0	
75-15-0	Carbon Disulfide	ND	1.0	
75-71-8	Dichlorodifluoromethane	ND	1.0	
75-09-2	Methylene Chloride	ND	1.0	
107-13-1	Acrylonitrile	ND	1.0	
1634-04-4	Methyl-t-Butyl Ether	ND	1.0	
156-60-5	Trans-1,2-Dichloroethylene	ND	1.0	
75-34-3	1,1-dichloroethane	ND	1.0	
108-05-4	Vinyl Acetate	ND	1.0	
78-93-3	2-Butanone (MEK)	ND	5.0	
594-20-7	2,2-Dichloropropane	ND	1.0	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	
67-66-3	Chloroform	ND	1.0	
74-97-5	Bromochloromethane	ND	1.0	
109-99-9	Tetrahydrofuran	ND	1.0	
71-55-6	1,1,1-Trichloroethane	ND	1.0	
107-06-2	1,2-Dichloroethane	ND	1.0	
56-23-5	Carbon tetrachloride	ND	1.0	
71-43-2	Benzene	ND	1.0	
10061-01-5	c-1,3-dichloropropene	ND	1.0	
108-88-3	Toluene	ND	1.0	
10061-02-6	t-1,3-Dichloropropene	ND	1.0	
79-00-5	1,1,2-Trichloroethane	ND	1.0	
124-48-1	Dibromochloromethane	ND	1.0	
108-90-7	Chlorobenzene	ND	1.0	
563-58-6	1,1-Dichloropropene	ND	1.0	
79-01-6	Trichloroethylene	ND	1.0	
78-87-5	1,2-Dichloropropane	ND	1.0	
75-27-4	Bromodichloromethane	ND	1.0	
74-95-3	Dibromomethane	ND	1.0	
108-10-1	4-Methyl-2-Pentanone(MIBK)	ND	1.0	
142-28-9	1,3-Dichloropropane	ND	1.0	
127-18-4	Tetrachloroethylene	ND	1.0	
106-93-4	1,2-Dibromoethane	ND	1.0	
591-78-6	2-Hexanone	ND	1.0	

Burndy LLC IU Lincoln, NH

VOAs in Water

Client Sample ID:	Trip Blank	Lab Sample ID:	AC11465
Date of Collection:	2/20/2024	Matrix:	Wastewater
Date of Preparation:	2/27/2024	Amount Prepared:	5 mL
Date of Analysis:	2/27/2024	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	1
Wet Weight Prepared:	N/A	pH:	<2
Volume Extracted:	5 mL	GPC Factor:	N/A
Final Volume:	N/A		

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	
100-41-4	Ethylbenzene	ND	1.0	
108-38-3/106-42-3	M/P Xylene	ND	2.0	
95-47-6	Ortho Xylene	ND	1.0	
100-42-5	Styrene	ND	1.0	
75-25-2	Bromoform	ND	1.0	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	
98-82-8	Isopropylbenzene	ND	1.0	
108-86-1	Bromobenzene	ND	1.0	
96-18-4	1,2,3-Trichloropropane	ND	1.0	
103-65-1	N-Propylbenzene	ND	1.0	
95-49-8	2-Chlorotoluene	ND	1.0	
106-43-4	4-Chlorotoluene	ND	1.0	
98-06-6	Tert-Butylbenzene	ND	1.0	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	
135-98-8	Sec-Butylbenzene	ND	1.0	
541-73-1	1,3-Dichlorobenzene	ND	1.0	
99-87-6	Para-Isopropyltoluene	ND	1.0	
106-46-7	1,4-Dichlorobenzene	ND	1.0	
95-50-1	1,2-Dichlorobenzene	ND	1.0	
104-51-8	N-Butylbenzene	ND	1.0	
96-12-8	1,2-Dibromo-3-Chloropropane	ND	1.0	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	
87-68-3	Hexachlorobutadiene	ND	1.0	
91-20-3	Naphthalene	ND	1.0	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	

Surrogate Compounds	Recoveries (%)	QC Ranges
1,2-Dichloroethane-D4	103	86 - 123
Toluene-D8	96	94 - 104
1,4-Bromofluorobenzene	90	92 - 106

Burndy LLC IU Lincoln, NH

VOAs in Water

Client Sample ID:	BLLC01-G	Lab Sample ID:	AC11466
Date of Collection:	2/22/2024	Matrix:	Wastewater
Date of Preparation:	2/27/2024	Amount Prepared:	5 mL
Date of Analysis:	2/27/2024	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	10
Wet Weight Prepared:	N/A	pH:	<2
Volume Extracted:	5 mL	GPC Factor:	N/A
Final Volume:	N/A		

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
74-87-3	Chloromethane	ND	10	
75-01-4	Vinyl Chloride	ND	10	
74-83-9	Bromomethane	ND	10	
75-00-3	Chloroethane	ND	10	
75-69-4	Trichlorofluoromethane	ND	10	
60-29-7	Ethyl Ether	ND	10	
67-64-1	2-Propanone (acetone)	ND	50	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha	ND	10	
75-35-4	1,1-Dichloroethylene	ND	10	
75-15-0	Carbon Disulfide	**450**	10	
75-71-8	Dichlorodifluoromethane	ND	10	
75-09-2	Methylene Chloride	ND	10	
107-13-1	Acrylonitrile	ND	10	
1634-04-4	Methyl-t-Butyl Ether	ND	10	
156-60-5	Trans-1,2-Dichloroethylene	ND	10	
75-34-3	1,1-dichloroethane	ND	10	
108-05-4	Vinyl Acetate	ND	10	
78-93-3	2-Butanone (MEK)	ND	50	
594-20-7	2,2-Dichloropropane	ND	10	
156-59-2	cis-1,2-Dichloroethylene	ND	10	
67-66-3	Chloroform	ND	10	
74-97-5	Bromochloromethane	ND	10	
109-99-9	Tetrahydrofuran	ND	10	
71-55-6	1,1,1-Trichloroethane	ND	10	
107-06-2	1,2-Dichloroethane	ND	10	
56-23-5	Carbon tetrachloride	ND	10	
71-43-2	Benzene	ND	10	
10061-01-5	c-1,3-dichloropropene	ND	10	
108-88-3	Toluene	ND	10	
10061-02-6	t-1,3-Dichloropropene	ND	10	
79-00-5	1,1,2-Trichloroethane	ND	10	
124-48-1	Dibromochloromethane	ND	10	
108-90-7	Chlorobenzene	ND	10	
563-58-6	1,1-Dichloropropene	ND	10	
79-01-6	Trichloroethylene	ND	10	
78-87-5	1,2-Dichloropropane	ND	10	
75-27-4	Bromodichloromethane	ND	10	
74-95-3	Dibromomethane	ND	10	
108-10-1	4-Methyl-2-Pentanone(MIBK)	ND	10	
142-28-9	1,3-Dichloropropane	ND	10	
127-18-4	Tetrachloroethylene	ND	10	
106-93-4	1,2-Dibromoethane	ND	10	
591-78-6	2-Hexanone	ND	10	

Burndy LLC IU Lincoln, NH

VOAs in Water

Client Sample ID:	BLLC01-G	Lab Sample ID:	AC11466
Date of Collection:	2/22/2024	Matrix:	Wastewater
Date of Preparation:	2/27/2024	Amount Prepared:	5 mL
Date of Analysis:	2/27/2024	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	10
Wet Weight Prepared:	N/A	pH:	<2
Volume Extracted:	5 mL	GPC Factor:	N/A
Final Volume:	N/A		

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
630-20-6	1,1,1,2-Tetrachloroethane	ND	10	
100-41-4	Ethylbenzene	ND	10	
108-38-3/106-42-3	M/P Xylene	ND	20	
95-47-6	Ortho Xylene	ND	10	
100-42-5	Styrene	ND	10	
75-25-2	Bromoform	ND	10	
79-34-5	1,1,2,2-Tetrachloroethane	ND	10	
98-82-8	Isopropylbenzene	ND	10	
108-86-1	Bromobenzene	ND	10	
96-18-4	1,2,3-Trichloropropane	ND	10	
103-65-1	N-Propylbenzene	ND	10	
95-49-8	2-Chlorotoluene	ND	10	
106-43-4	4-Chlorotoluene	ND	10	
98-06-6	Tert-Butylbenzene	ND	10	
108-67-8	1,3,5-Trimethylbenzene	ND	10	
95-63-6	1,2,4-Trimethylbenzene	ND	10	
135-98-8	Sec-Butylbenzene	ND	10	
541-73-1	1,3-Dichlorobenzene	ND	10	
99-87-6	Para-Isopropyltoluene	ND	10	
106-46-7	1,4-Dichlorobenzene	ND	10	
95-50-1	1,2-Dichlorobenzene	ND	10	
104-51-8	N-Butylbenzene	ND	10	
96-12-8	1,2-Dibromo-3-Chloropropane	ND	10	
120-82-1	1,2,4-Trichlorobenzene	ND	10	
87-68-3	Hexachlorobutadiene	ND	10	
91-20-3	Naphthalene	ND	10	
87-61-6	1,2,3-Trichlorobenzene	ND	10	

Surrogate Compounds	Recoveries (%)	QC Ranges
1,2-Dichloroethane-D4	104	86 - 123
Toluene-D8	97	94 - 104
1,4-Bromofluorobenzene	92	92 - 106

Comments: Tentatively Identified Compound(s):

Sulfur Dioxide 17000 ppb, J

Burndy LLC IU Lincoln, NH

Laboratory Blank for $VOAMW

Client Sample ID:	N/A	Lab Sample ID:	N/A
Date of Collection:	N/A	Matrix:	Wastewater
Date of Preparation:	2/27/2024	Amount Prepared:	5.0 mL
Date of Analysis:	2/27/2024	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	1
Wet Weight Prepared:	N/A	pH:	<2
Volume Extracted:	5.0 mL	GPC Factor:	N/A
Final Volume:	N/A		

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
74-87-3	Chloromethane	ND	1.0	
75-01-4	Vinyl Chloride	ND	1.0	
74-83-9	Bromomethane	ND	1.0	
75-00-3	Chloroethane	ND	1.0	
75-69-4	Trichlorofluoromethane	ND	1.0	
60-29-7	Ethyl Ether	ND	1.0	
67-64-1	2-Propanone (acetone)	ND	5.0	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha	ND	1.0	
75-35-4	1,1-Dichloroethylene	ND	1.0	
75-15-0	Carbon Disulfide	ND	1.0	
75-71-8	Dichlorodifluoromethane	ND	1.0	
75-09-2	Methylene Chloride	ND	1.0	
107-13-1	Acrylonitrile	ND	1.0	
1634-04-4	Methyl-t-Butyl Ether	ND	1.0	
156-60-5	Trans-1,2-Dichloroethylene	ND	1.0	
75-34-3	1,1-dichloroethane	ND	1.0	
108-05-4	Vinyl Acetate	ND	1.0	
78-93-3	2-Butanone (MEK)	ND	5.0	
594-20-7	2,2-Dichloropropane	ND	1.0	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	
67-66-3	Chloroform	ND	1.0	
74-97-5	Bromochloromethane	ND	1.0	
109-99-9	Tetrahydrofuran	ND	1.0	
71-55-6	1,1,1-Trichloroethane	ND	1.0	
107-06-2	1,2-Dichloroethane	ND	1.0	
56-23-5	Carbon tetrachloride	ND	1.0	
71-43-2	Benzene	ND	1.0	
10061-01-5	c-1,3-dichloropropene	ND	1.0	
108-88-3	Toluene	ND	1.0	
10061-02-6	t-1,3-Dichloropropene	ND	1.0	
79-00-5	1,1,2-Trichloroethane	ND	1.0	
124-48-1	Dibromochloromethane	ND	1.0	
108-90-7	Chlorobenzene	ND	1.0	
563-58-6	1,1-Dichloropropene	ND	1.0	
79-01-6	Trichloroethylene	ND	1.0	
78-87-5	1,2-Dichloropropane	ND	1.0	
75-27-4	Bromodichloromethane	ND	1.0	
74-95-3	Dibromomethane	ND	1.0	
108-10-1	4-Methyl-2-Pentanone(MIBK)	ND	1.0	
142-28-9	1,3-Dichloropropane	ND	1.0	
127-18-4	Tetrachloroethylene	ND	1.0	
106-93-4	1,2-Dibromoethane	ND	1.0	
591-78-6	2-Hexanone	ND	1.0	

Burndy LLC IU Lincoln, NH

Laboratory Blank for $VOAMW

Client Sample ID:	N/A	Lab Sample ID:	N/A
Date of Collection:	N/A	Matrix:	Wastewater
Date of Preparation:	2/27/2024	Amount Prepared:	5.0 mL
Date of Analysis:	2/27/2024	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	1
Wet Weight Prepared:	N/A	pH:	<2
Volume Extracted:	5.0 mL	GPC Factor:	N/A
Final Volume:	N/A		

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	
100-41-4	Ethylbenzene	ND	1.0	
108-38-3/106-42-3	M/P Xylene	ND	2.0	
95-47-6	Ortho Xylene	ND	1.0	
100-42-5	Styrene	ND	1.0	
75-25-2	Bromoform	ND	1.0	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	
98-82-8	Isopropylbenzene	ND	1.0	
108-86-1	Bromobenzene	ND	1.0	
96-18-4	1,2,3-Trichloropropane	ND	1.0	
103-65-1	N-Propylbenzene	ND	1.0	
95-49-8	2-Chlorotoluene	ND	1.0	
106-43-4	4-Chlorotoluene	ND	1.0	
98-06-6	Tert-Butylbenzene	ND	1.0	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	
135-98-8	Sec-Butylbenzene	ND	1.0	
541-73-1	1,3-Dichlorobenzene	ND	1.0	
99-87-6	Para-Isopropyltoluene	ND	1.0	
106-46-7	1,4-Dichlorobenzene	ND	1.0	
95-50-1	1,2-Dichlorobenzene	ND	1.0	
104-51-8	N-Butylbenzene	ND	1.0	
96-12-8	1,2-Dibromo-3-Chloropropane	ND	1.0	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	
87-68-3	Hexachlorobutadiene	ND	1.0	
91-20-3	Naphthalene	ND	1.0	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	

Surrogate Compounds	Recoveries (%)	QC Ranges
1,2-Dichloroethane-D4	110	86 - 123
Toluene-D8	96	94 - 104
1,4-Bromofluorobenzene	90	92 - 106

Burndy LLC IU Lincoln, NH

VOAs in Water

Client Sample ID:	DUP01-G	Lab Sample ID:	AC11468
Date of Collection:	2/22/2024	Matrix:	Wastewater
Date of Preparation:	2/27/2024	Amount Prepared:	5 mL
Date of Analysis:	2/27/2024	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	100
Wet Weight Prepared:	N/A	pH:	~2
Volume Extracted:	5 mL	GPC Factor:	N/A
Final Volume:	N/A		

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
74-87-3	Chloromethane	ND	100	
75-01-4	Vinyl Chloride	ND	100	
74-83-9	Bromomethane	ND	100	
75-00-3	Chloroethane	ND	100	
75-69-4	Trichlorofluoromethane	ND	100	
60-29-7	Ethyl Ether	ND	100	
67-64-1	2-Propanone (acetone)	ND	500	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha	ND	100	
75-35-4	1,1-Dichloroethylene	ND	100	
75-15-0	Carbon Disulfide	**470**	100	
75-71-8	Dichlorodifluoromethane	ND	100	
75-09-2	Methylene Chloride	ND	100	
107-13-1	Acrylonitrile	ND	100	
1634-04-4	Methyl-t-Butyl Ether	ND	100	
156-60-5	Trans-1,2-Dichloroethylene	ND	100	
75-34-3	1,1-dichloroethane	ND	100	
108-05-4	Vinyl Acetate	ND	100	
78-93-3	2-Butanone (MEK)	ND	500	
594-20-7	2,2-Dichloropropane	ND	100	
156-59-2	cis-1,2-Dichloroethylene	ND	100	
67-66-3	Chloroform	ND	100	
74-97-5	Bromochloromethane	ND	100	
109-99-9	Tetrahydrofuran	ND	100	
71-55-6	1,1,1-Trichloroethane	ND	100	
107-06-2	1,2-Dichloroethane	ND	100	
56-23-5	Carbon tetrachloride	ND	100	
71-43-2	Benzene	ND	100	
10061-01-5	c-1,3-dichloropropene	ND	100	
108-88-3	Toluene	ND	100	
10061-02-6	t-1,3-Dichloropropene	ND	100	
79-00-5	1,1,2-Trichloroethane	ND	100	
124-48-1	Dibromochloromethane	ND	100	
108-90-7	Chlorobenzene	ND	100	
563-58-6	1,1-Dichloropropene	ND	100	
79-01-6	Trichloroethylene	ND	100	
78-87-5	1,2-Dichloropropane	ND	100	
75-27-4	Bromodichloromethane	ND	100	
74-95-3	Dibromomethane	ND	100	
108-10-1	4-Methyl-2-Pentanone(MIBK)	ND	100	
142-28-9	1,3-Dichloropropane	ND	100	
127-18-4	Tetrachloroethylene	ND	100	
106-93-4	1,2-Dibromoethane	ND	100	
591-78-6	2-Hexanone	ND	100	

Burndy LLC IU Lincoln, NH

VOAs in Water

Client Sample ID:	DUP01-G	Lab Sample ID:	AC11468
Date of Collection:	2/22/2024	Matrix:	Wastewater
Date of Preparation:	2/27/2024	Amount Prepared:	5 mL
Date of Analysis:	2/27/2024	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	100
Wet Weight Prepared:	N/A	pH:	~2
Volume Extracted:	5 mL	GPC Factor:	N/A
Final Volume:	N/A		

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
630-20-6	1,1,1,2-Tetrachloroethane	ND	100	
100-41-4	Ethylbenzene	ND	100	
108-38-3/106-42-3	M/P Xylene	ND	200	
95-47-6	Ortho Xylene	ND	100	
100-42-5	Styrene	ND	100	
75-25-2	Bromoform	ND	100	
79-34-5	1,1,2,2-Tetrachloroethane	ND	100	
98-82-8	Isopropylbenzene	ND	100	
108-86-1	Bromobenzene	ND	100	
96-18-4	1,2,3-Trichloropropane	ND	100	
103-65-1	N-Propylbenzene	ND	100	
95-49-8	2-Chlorotoluene	ND	100	
106-43-4	4-Chlorotoluene	ND	100	
98-06-6	Tert-Butylbenzene	ND	100	
108-67-8	1,3,5-Trimethylbenzene	ND	100	
95-63-6	1,2,4-Trimethylbenzene	ND	100	
135-98-8	Sec-Butylbenzene	ND	100	
541-73-1	1,3-Dichlorobenzene	ND	100	
99-87-6	Para-Isopropyltoluene	ND	100	
106-46-7	1,4-Dichlorobenzene	ND	100	
95-50-1	1,2-Dichlorobenzene	ND	100	
104-51-8	N-Butylbenzene	ND	100	
96-12-8	1,2-Dibromo-3-Chloropropane	ND	100	
120-82-1	1,2,4-Trichlorobenzene	ND	100	
87-68-3	Hexachlorobutadiene	ND	100	
91-20-3	Naphthalene	ND	100	
87-61-6	1,2,3-Trichlorobenzene	ND	100	

Surrogate Compounds	Recoveries (%)	QC Ranges
1,2-Dichloroethane-D4	110	86 - 123
Toluene-D8	97	94 - 104
1,4-Bromofluorobenzene	90	92 - 106

Comments: Tentatively Identified Compound(s):

Sulfur Dioxide 37,0000 ppb, J

Burndy LLC IU Lincoln, NH

MATRIX SPIKE (MS) RECOVERY

Sample ID: AC11466

PARAMETER	SPIKE ADDED ug/L	SAMPLE CONCENTRATION ug/L	MS CONCENTRATION ug/L	MS % REC	QC LIMITS (% REC)
1,1,1,2-Tetrachloroethane	2000	ND	2160	108	79 - 128
1,1,1-Trichloroethane	2000	ND	1990	100	68 - 140
1,1,2,2-Tetrachloroethane	2000	ND	2250	112	67 - 130
1,1,2-Trichloro-1,2,2-Trifluoroetha	2000	ND	2030	102	60 - 145
1,1,2-Trichloroethane	2000	ND	1940	97	72 - 129
1,1-Dichloroethylene	2000	ND	1960	98	57 - 137
1,1-Dichloropropene	2000	ND	2300	115	74 - 132
1,1-dichloroethane	2000	ND	2010	100	66 - 135
1,2,3-Trichlorobenzene	2000	ND	2270	114	45 - 133
1,2,3-Trichloropropane	2000	ND	2480	124	46 - 139
1,2,4-Trichlorobenzene	2000	ND	2360	118	49 - 131
1,2,4-Trimethylbenzene	2000	ND	2530	126	74 - 132
1,2-Dibromo-3-Chloropropane	2000	ND	2700	135	42 - 132
1,2-Dibromoethane	2000	ND	2180	109	66 - 128
1,2-Dichlorobenzene	2000	ND	2350	118	70 - 124
1,2-Dichloroethane	2000	ND	1920	96	70 - 134
1,2-Dichloropropane	2000	ND	2250	112	75 - 124
1,3,5-Trimethylbenzene	2000	ND	2450	122	67 - 129
1,3-Dichlorobenzene	2000	ND	2370	118	69 - 127
1,3-Dichloropropane	2000	ND	2170	108	68 - 129
1,4-Dichlorobenzene	2000	ND	2350	118	70 - 123
2,2-Dichloropropane	2000	ND	1990	100	58 - 139
2-Butanone (MEK)	2000	ND	2050	102	19 - 109
2-Chlorotoluene	2000	ND	2430	122	65 - 127
2-Hexanone	2000	ND	2570	128	21 - 124
2-Propanone (acetone)	2000	ND	1980	99	29 - 164
4-Chlorotoluene	2000	ND	2390	120	69 - 129
4-Methyl-2-Pentanone(MIBK)	2000	ND	2510	126	31 - 149
Acrylonitrile	2000	ND	2290	114	40 - 145
Benzene	2000	ND	1900	95	71 - 125
Bromobenzene	2000	ND	2360	118	66 - 125
Bromochloromethane	2000	ND	1930	97	64 - 136
Bromodichloromethane	2000	ND	2150	108	74 - 132
Bromoform	2000	ND	2290	114	61 - 133
Bromomethane	2000	ND	2120	106	50 - 162
Carbon Disulfide	2000	450	2300	93	56 - 138
Carbon tetrachloride	2000	ND	2040	102	73 - 133
Chlorobenzene	2000	ND	1870	94	72 - 127
Chloroethane	2000	ND	2160	108	62 - 150
Chloroform	2000	ND	1970	99	65 - 147
Chloromethane	2000	ND	5290	264	64 - 166
Dibromochloromethane	2000	ND	1880	94	71 - 130
Dibromomethane	2000	ND	2240	112	71 - 130
Dichlorodifluoromethane	2000	ND	2340	117	30 - 132
Ethyl Ether	2000	ND	1980	99	60 - 145
Ethylbenzene	2000	ND	2220	111	80 - 125
Hexachlorobutadiene	2000	ND	2340	117	57 - 120
Isopropylbenzene	2000	ND	2310	116	65 - 131

Burndy LLC IU Lincoln, NH

MATRIX SPIKE (MS) RECOVERY

Sample ID: AC11466

PARAMETER	SPIKE ADDED ug/L	SAMPLE CONCENTRATION ug/L	MS CONCENTRATION ug/L	MS % REC	QC LIMITS (% REC)
M/P Xylene	4000	ND	4450	111	83 - 121
Methyl-t-Butyl Ether	2000	ND	1910	96	50 - 124
Methylene Chloride	2000	ND	1990	100	55 - 151
N-Butylbenzene	2000	ND	2670	134	67 - 133
N-Propylbenzene	2000	ND	2490	124	62 - 132
Naphthalene	2000	ND	2480	124	33 - 134
Ortho Xylene	2000	ND	2210	110	76 - 126
Para-Isopropyltoluene	2000	ND	2500	125	70 - 134
Sec-Butylbenzene	2000	ND	2500	125	66 - 132
Styrene	2000	ND	2190	110	54 - 148
Tert-Butylbenzene	2000	ND	2440	122	63 - 134
Tetrachloroethylene	2000	ND	2130	106	65 - 124
Tetrahydrofuran	2000	ND	2310	116	37 - 139
Toluene	2000	ND	1890	95	72 - 128
Trans-1,2-Dichloroethylene	2000	ND	1950	98	66 - 131
Trichloroethylene	2000	ND	2250	112	72 - 129
Trichlorofluoromethane	2000	ND	2160	108	67 - 151
Vinyl Acetate	2000	ND	2090	104	32 - 147
Vinyl Chloride	2000	ND	2170	108	65 - 151
c-1,3-dichloropropene	2000	ND	1880	94	68 - 126
cis-1,2-Dichloroethylene	2000	ND	1920	96	54 - 141
t-1,3-Dichloropropene	2000	ND	1890	95	68 - 130

Burndy LLC IU Lincoln, NH

MATRIX SPIKE DUPLICATE (MSD) RECOVERY

Sample ID:AC11466

PARAMETER	MSD SPIKE ADDED	MSD CONCENTRATION ug/L	MSD % REC	RPD %	QC LIMITS RPD
1,1,1,2-Tetrachloroethane	2000	2100	105	2.82	40
1,1,1-Trichloroethane	2000	1900	95	4.63	40
1,1,2,2-Tetrachloroethane	2000	2200	110	1.80	40
1,1,2-Trichloro-1,2,2-Trifluoroetha	2000	2000	100	1.98	40
1,1,2-Trichloroethane	2000	1900	95	2.08	40
1,1-Dichloroethylene	2000	1900	95	3.11	40
1,1-Dichloropropene	2000	2200	110	4.44	40
1,1-dichloroethane	2000	2000	100	0.00	40
1,2,3-Trichlorobenzene	2000	2300	115	0.873	40
1,2,3-Trichloropropane	2000	2400	120	3.28	40
1,2,4-Trichlorobenzene	2000	2300	115	2.58	40
1,2,4-Trimethylbenzene	2000	2500	125	0.797	40
1,2-Dibromo-3-Chloropropane	2000	2700	135	0.00	40
1,2-Dibromoethane	2000	2100	105	3.74	40
1,2-Dichlorobenzene	2000	2300	115	2.58	40
1,2-Dichloroethane	2000	1900	95	1.05	40
1,2-Dichloropropane	2000	2200	110	1.80	40
1,3,5-Trimethylbenzene	2000	2400	120	1.65	40
1,3-Dichlorobenzene	2000	2300	115	2.58	40
1,3-Dichloropropane	2000	2100	105	2.82	40
1,4-Dichlorobenzene	2000	2300	115	2.58	40
2,2-Dichloropropane	2000	1900	95	4.63	40
2-Butanone (MEK)	2000	2100	105	2.90	40
2-Chlorotoluene	2000	2400	120	1.65	40
2-Hexanone	2000	2600	130	1.55	40
2-Propanone (acetone)	2000	2000	100	1.00	40
4-Chlorotoluene	2000	2400	120	0.00	40
4-Methyl-2-Pentanone(MIBK)	2000	2500	125	0.797	40
Acrylonitrile	2000	2200	110	3.57	40
Benzene	2000	1900	95	0.00	40
Bromobenzene	2000	2300	115	2.58	40
Bromochloromethane	2000	1900	95	1.57	40
Bromodichloromethane	2000	2100	105	2.82	40
Bromoform	2000	2200	110	3.57	40
Bromomethane	2000	2000	100	5.83	40
Carbon Disulfide	2000	2200	88	5.56	40
Carbon tetrachloride	2000	2000	100	1.98	40
Chlorobenzene	2000	1800	90	3.81	40
Chloroethane	2000	2200	110	1.83	40
Chloroform	2000	1900	95	3.62	40
Chloromethane	2000	5300	265	0.378	40
Dibromochloromethane	2000	1900	95	1.06	40
Dibromomethane	2000	2200	110	1.80	40
Dichlorodifluoromethane	2000	2400	120	2.53	40
Ethyl Ether	2000	2000	100	1.00	40
Ethylbenzene	2000	2200	110	0.905	40
Hexachlorobutadiene	2000	2200	110	6.17	40
Isopropylbenzene	2000	2300	115	0.866	40
M/P Xylene	4000	4300	108	2.74	40

Burndy LLC IU Lincoln, NH

MATRIX SPIKE DUPLICATE (MSD) RECOVERY

Sample ID:AC11466

PARAMETER	MSD SPIKE ADDED	MSD CONCENTRATION ug/L	MSD % REC	RPD %	QC LIMITS RPD
Methyl-t-Butyl Ether	2000	1900	95	0.525	40
Methylene Chloride	2000	2000	100	0.501	40
N-Butylbenzene	2000	2600	130	3.03	40
N-Propylbenzene	2000	2400	120	3.28	40
Naphthalene	2000	2400	120	3.28	40
Ortho Xylene	2000	2200	110	0.00	40
Para-Isopropyltoluene	2000	2400	120	4.08	40
Sec-Butylbenzene	2000	2400	120	4.08	40
Styrene	2000	2100	105	4.65	40
Tert-Butylbenzene	2000	2400	120	1.65	40
Tetrachloroethylene	2000	2000	100	5.83	40
Tetrahydrofuran	2000	2300	115	0.866	40
Toluene	2000	1900	95	0.528	40
Trans-1,2-Dichloroethylene	2000	1900	95	2.60	40
Trichloroethylene	2000	2200	110	1.80	40
Trichlorofluoromethane	2000	2200	110	1.83	40
Vinyl Acetate	2000	2000	100	3.92	40
Vinyl Chloride	2000	2100	105	2.82	40
c-1,3-dichloropropene	2000	1800	90	4.35	40
cis-1,2-Dichloroethylene	2000	1900	95	1.05	40
t-1,3-Dichloropropene	2000	1900	95	0.528	40

Burndy LLC IU Lincoln, NH

Laboratory Duplicate Results

Sample ID: AC11466

PARAMETER	SAMPLE RESULT ug/L	SAMPLE DUPLICATE RESULT ug/L	PRECISION RPD %	QC LIMITS
1,1,1,2-Tetrachloroethane	ND	ND	NC	30
1,1,1-Trichloroethane	ND	ND	NC	30
1,1,2,2-Tetrachloroethane	ND	ND	NC	30
1,1,2-Trichloro-1,2,2-Trifluoroetha	ND	ND	NC	30
1,1,2-Trichloroethane	ND	ND	NC	30
1,1-Dichloroethylene	ND	ND	NC	30
1,1-Dichloropropene	ND	ND	NC	30
1,1-dichloroethane	ND	ND	NC	30
1,2,3-Trichlorobenzene	ND	ND	NC	30
1,2,3-Trichloropropane	ND	ND	NC	30
1,2,4-Trichlorobenzene	ND	ND	NC	30
1,2,4-Trimethylbenzene	ND	ND	NC	30
1,2-Dibromo-3-Chloropropane	ND	ND	NC	30
1,2-Dibromoethane	ND	ND	NC	30
1,2-Dichlorobenzene	ND	ND	NC	30
1,2-Dichloroethane	ND	ND	NC	30
1,2-Dichloropropane	ND	ND	NC	30
1,3,5-Trimethylbenzene	ND	ND	NC	30
1,3-Dichlorobenzene	ND	ND	NC	30
1,3-Dichloropropane	ND	ND	NC	30
1,4-Dichlorobenzene	ND	ND	NC	30
2,2-Dichloropropane	ND	ND	NC	30
2-Butanone (MEK)	ND	ND	NC	30
2-Chlorotoluene	ND	ND	NC	30
2-Hexanone	ND	ND	NC	30
2-Propanone (acetone)	ND	ND	NC	30
4-Chlorotoluene	ND	ND	NC	30
4-Methyl-2-Pentanone(MIBK)	ND	ND	NC	30
Acrylonitrile	ND	ND	NC	30
Benzene	ND	ND	NC	30
Bromobenzene	ND	ND	NC	30
Bromochloromethane	ND	ND	NC	30
Bromodichloromethane	ND	ND	NC	30
Bromoform	ND	ND	NC	30
Bromomethane	ND	ND	NC	30
Carbon Disulfide	450	336	29.0	30
Carbon tetrachloride	ND	ND	NC	30
Chlorobenzene	ND	ND	NC	30
Chloroethane	ND	ND	NC	30
Chloroform	ND	ND	NC	30
Chloromethane	ND	ND	NC	30
Dibromochloromethane	ND	ND	NC	30
Dibromomethane	ND	ND	NC	30
Dichlorodifluoromethane	ND	ND	NC	30
Ethyl Ether	ND	ND	NC	30
Ethylbenzene	ND	ND	NC	30
Hexachlorobutadiene	ND	ND	NC	30
Isopropylbenzene	ND	ND	NC	30
M/P Xylene	ND	ND	NC	30
Methyl-t-Butyl Ether	ND	ND	NC	30
Methylene Chloride	ND	ND	NC	30
N-Butylbenzene	ND	ND	NC	30

Burndy LLC IU Lincoln, NH

Laboratory Duplicate Results

Sample ID: AC11466

PARAMETER	SAMPLE RESULT ug/L	SAMPLE DUPLICATE RESULT ug/L	PRECISION RPD %	QC LIMITS
N-Propylbenzene	ND	ND	NC	30
Naphthalene	ND	ND	NC	30
Ortho Xylene	ND	ND	NC	30
Para-Isopropyltoluene	ND	ND	NC	30
Sec-Butylbenzene	ND	ND	NC	30
Styrene	ND	ND	NC	30
Tert-Butylbenzene	ND	ND	NC	30
Tetrachloroethylene	ND	ND	NC	30
Tetrahydrofuran	ND	ND	NC	30
Toluene	ND	ND	NC	30
Trans-1,2-Dichloroethylene	ND	ND	NC	30
Trichloroethylene	ND	ND	NC	30
Trichlorofluoromethane	ND	ND	NC	30
Vinyl Acetate	ND	ND	NC	30
Vinyl Chloride	ND	ND	NC	30
c-1,3-dichloropropene	ND	ND	NC	30
cis-1,2-Dichloroethylene	ND	ND	NC	30
t-1,3-Dichloropropene	ND	ND	NC	30

Burndy LLC IU Lincoln, NH

Laboratory Fortified Blank (LFB) Results

PARAMETER	LFB AMOUNT SPIKED ug/mL	LFB RESULT ug/mL	LFB RECOVERY %	QC LIMITS %
1,1,1,2-Tetrachloroethane	20	22.0	110	80 - 128
1,1,1-Trichloroethane	20	21.0	102	72 - 140
1,1,2,2-Tetrachloroethane	20	22.0	108	77 - 120
1,1,2-Trichloro-1,2,2-Trifluoroetha	20	22.0	111	53 - 153
1,1,2-Trichloroethane	20	19.0	94	79 - 121
1,1-Dichloroethylene	20	21.0	104	59 - 137
1,1-Dichloropropene	20	23.0	116	80 - 132
1,1-dichloroethane	20	21.0	103	74 - 127
1,2,3-Trichlorobenzene	20	23.0	116	58 - 125
1,2,3-Trichloropropane	20	23.0	116	66 - 119
1,2,4-Trichlorobenzene	20	24.0	122	64 - 123
1,2,4-Trimethylbenzene	20	26.0	128	79 - 131
1,2-Dibromo-3-Chloropropane	20	26.0	130	57 - 118
1,2-Dibromoethane	20	21.0	106	74 - 121
1,2-Dichlorobenzene	20	24.0	118	77 - 120
1,2-Dichloroethane	20	19.0	96	80 - 120
1,2-Dichloropropane	20	23.0	112	78 - 122
1,3,5-Trimethylbenzene	20	25.0	125	77 - 127
1,3-Dichlorobenzene	20	24.0	120	76 - 119
1,3-Dichloropropane	20	22.0	108	79 - 117
1,4-Dichlorobenzene	20	24.0	119	75 - 119
2,2-Dichloropropane	20	22.0	108	69 - 143
2-Butanone (MEK)	20	21.0	104	27 - 105
2-Chlorotoluene	20	25.0	123	75 - 122
2-Hexanone	20	24.0	120	34 - 114
2-Propanone (acetone)	20	24.0	118	12 - 209
4-Chlorotoluene	20	24.0	122	77 - 123
4-Methyl-2-Pentanone(MIBK)	20	24.0	118	45 - 142
Acrylonitrile	20	22.0	111	64 - 125
Benzene	20	19.0	97	78 - 120
Bromobenzene	20	24.0	118	73 - 119
Bromochloromethane	20	20.0	99	67 - 135
Bromodichloromethane	20	21.0	107	81 - 123
Bromoform	20	22.0	110	63 - 137
Bromomethane	20	23.0	116	54 - 162
Carbon Disulfide	20	20.0	102	55 - 141
Carbon tetrachloride	20	20.0	102	75 - 134
Chlorobenzene	20	19.0	96	76 - 122
Chloroethane	20	23.0	117	63 - 145
Chloroform	20	20.0	102	73 - 135
Chloromethane	20	24.0	120	59 - 168
Dibromochloromethane	20	19.0	93	79 - 128
Dibromomethane	20	22.0	110	80 - 121
Dichlorodifluoromethane	20	25.0	127	39 - 154
Ethyl Ether	20	21.0	102	69 - 127
Ethylbenzene	20	23.0	112	85 - 118
Hexachlorobutadiene	20	25.0	122	67 - 121
Isopropylbenzene	20	23.0	117	75 - 127
M/P Xylene	40	46.0	114	85 - 121
Methyl-t-Butyl Ether	20	19.0	97	68 - 129
Methylene Chloride	20	21.0	103	70 - 134
N-Butylbenzene	20	27.0	136	75 - 133
N-Propylbenzene	20	25.0	126	76 - 124
Naphthalene	20	24.0	120	45 - 129

Burndy LLC IU Lincoln, NH

Laboratory Fortified Blank (LFB) Results

PARAMETER	LFB AMOUNT SPIKED ug/mL	LFB RESULT ug/mL	LFB RECOVERY %	QC LIMITS %
Ortho Xylene	20	23.0	112	77 - 127
Para-Isopropyltoluene	20	26.0	128	72 - 138
Sec-Butylbenzene	20	25.0	126	74 - 131
Styrene	20	23.0	116	81 - 131
Tert-Butylbenzene	20	25.0	124	73 - 130
Tetrachloroethylene	20	23.0	114	72 - 118
Tetrahydrofuran	20	22.0	108	62 - 121
Toluene	20	19.0	97	77 - 124
Trans-1,2-Dichloroethylene	20	20.0	102	66 - 135
Trichloroethylene	20	23.0	115	78 - 122
Trichlorofluoromethane	20	23.0	116	65 - 149
Vinyl Acetate	20	21.0	102	61 - 125
Vinyl Chloride	20	23.0	116	57 - 157
c-1,3-dichloropropene	20	20.0	99	75 - 128
cis-1,2-Dichloroethylene	20	20.0	100	67 - 137
t-1,3-Dichloropropene	20	19.0	97	79 - 125

Comments:

Burndy LLC IU Lincoln, NH

LABORATORY FORTIFIED DUPLICATE (LFB Dup) RECOVERY

COMPOUND	LFB Dup CONCENTRATION ug/L	LFB Dup RECOVERY %	RPD %	QC LIMITS RPD
1,1,1,2-Tetrachloroethane	21.0	105	5	50
1,1,1-Trichloroethane	19.9	100	2	50
1,1,2,2-Tetrachloroethane	21.1	106	2	50
1,1,2-Trichloro-1,2,2-Trifluoroetha	20.9	104	7	50
1,1,2-Trichloroethane	19.0	95	1	50
1,1-Dichloroethylene	19.6	98	6	52
1,1-Dichloropropene	22.2	111	4	50
1,1-dichloroethane	19.7	99	4	50
1,2,3-Trichlorobenzene	22.5	112	4	50
1,2,3-Trichloropropane	22.9	114	2	50
1,2,4-Trichlorobenzene	23.0	115	6	50
1,2,4-Trimethylbenzene	24.2	121	6	50
1,2-Dibromo-3-Chloropropane	25.1	126	3	50
1,2-Dibromoethane	21.3	106	0	50
1,2-Dichlorobenzene	22.7	114	3	50
1,2-Dichloroethane	19.0	95	1	50
1,2-Dichloropropane	21.7	108	4	50
1,3,5-Trimethylbenzene	23.4	117	7	50
1,3-Dichlorobenzene	23.0	115	4	50
1,3-Dichloropropane	21.1	106	2	50
1,4-Dichlorobenzene	22.7	114	4	50
2,2-Dichloropropane	20.4	102	6	50
2-Butanone (MEK)	21.1	106	2	50
2-Chlorotoluene	23.2	116	6	50
2-Hexanone	24.4	122	2	50
2-Propanone (acetone)	24.0	120	2	50
4-Chlorotoluene	23.0	115	6	50
4-Methyl-2-Pentanone(MIBK)	23.8	119	1	50
Acrylonitrile	21.9	110	1	50
Benzene	18.9	95	3	50
Bromobenzene	22.8	114	3	50
Bromochloromethane	19.2	96	3	50
Bromodichloromethane	20.7	104	3	50
Bromoform	21.6	108	2	50
Bromomethane	22.6	113	3	50
Carbon Disulfide	19.3	97	6	50
Carbon tetrachloride	19.7	99	3	50
Chlorobenzene	18.5	93	3	50
Chloroethane	22.0	110	6	50
Chloroform	19.7	99	3	50
Chloromethane	22.3	112	7	50
Dibromochloromethane	18.4	92	1	50
Dibromomethane	21.6	108	2	50
Dichlorodifluoromethane	24.0	120	6	50
Ethyl Ether	20.2	101	1	50
Ethylbenzene	21.5	108	4	50
Hexachlorobutadiene	22.8	114	7	50
Isopropylbenzene	22.2	111	5	50
M/P Xylene	42.7	107	6	50
Methyl-t-Butyl Ether	19.2	96	1	50
Methylene Chloride	19.5	98	5	50
N-Butylbenzene	25.4	127	7	50

Burndy LLC IU Lincoln, NH

LABORATORY FORTIFIED DUPLICATE (LFB Dup) RECOVERY

COMPOUND	LFB Dup CONCENTRATION ug/L	LFB Dup RECOVERY %	RPD %	QC LIMITS RPD
N-Propylbenzene	23.8	119	6	50
Naphthalene	23.5	118	2	50
Ortho Xylene	21.5	108	4	50
Para-Isopropyltoluene	24.1	120	6	50
Sec-Butylbenzene	23.7	118	7	50
Styrene	21.9	110	5	50
Tert-Butylbenzene	23.6	118	5	50
Tetrachloroethylene	21.4	107	6	50
Tetrahydrofuran	22.0	110	2	50
Toluene	18.8	94	3	50
Trans-1,2-Dichloroethylene	19.5	98	5	50
Trichloroethylene	21.6	108	6	50
Trichlorofluoromethane	22.0	110	5	50
Vinyl Acetate	20.1	100	2	50
Vinyl Chloride	21.5	108	7	50
c-1,3-dichloropropene	19.5	98	1	50
cis-1,2-Dichloroethylene	19.3	97	4	50
t-1,3-Dichloropropene	19.1	96	2	50

Samples in Batch: AC11465, AC11466, AC11468

United States Environmental Protection Agency
Laboratory Services and Applied Science Division
11 Technology Drive
North Chelmsford, MA 01863-2431

Laboratory Report

March 18, 2024

Nafisah Ali
US EPA Region 1

Project Number: 24020025
Project: Burndy LLC IU Lincoln, NH
Analysis: BNAs in Water
EPA Chemist: Caitlin Brown

Date Samples Received by the Laboratory: 02/23/2024

Analytical Procedure:

All samples were received and logged in by the laboratory according to the USEPA New England Laboratory SOP for Sample Log-in.

Sample preparation and analysis was done following the EPA Region I SOP, LSBSOP-BNAW7.

Samples were prepared using separatory funnel liquid-liquid extraction. The samples were analyzed using high resolution capillary column chromatography and quadrapole mass spectrometry (GC/MS). The SOP for this method is based on the US EPA SW-846 Methods 3510C, 8270E, Method 625.1, and LSBSOP-BNAGCMS11

Data were reviewed in accordance with the internal verification procedures described in the EPA New England Quality Manual for NERL.

If you have any questions please call me at 617-918-8340 .

Sincerely,

Qualifiers:

RL = Reporting limit
ND = Not Detected above Reporting limit
NA = Not Applicable due to high sample dilutions or sample interferences
NC = Not calculated since analyte concentration is ND.
J = Estimated value
J1 = Estimated value due to MS recovery outside accceptance criteria
J2 = Estimated value due to LFB result outside acceptance criteria
J3 = Estimated value due to RPD result outside acceptance criteria
J4 = Estimated value due to LCS result outside acceptance criteria
E = Estimated value exceeds the calibration range
L = Estimated value is below the calibration range
B = Analyte is associated with the lab blank or trip blank contamination. Values are qualified when the observed concentration of the contamination in the sample extract is less than 10 times the concentration in the blank.
R = No recovery was calculated since the analyte concentration is greater than four times the spike level.
P = The confirmation value exceeded 35% difference and is less than 100%. The lower value is reported.
C = The identification has been confirmed by GC/MS.
A = Suspected Aldol condensation product.
N = Tentatively identified compound.
ANR = Analysis not required.

Burndy LLC IU Lincoln, NH

BNAs in Water

Client Sample ID:	BLLC01-G	Lab Sample ID:	AC11466
Date of Collection:	2/22/2024	Matrix:	Wastewater
Date of Preparation:	2/26/2024	Amount Prepared:	1000 mL
Date of Analysis:	3/06/2024	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	10
Wet Weight Prepared:	N/A	pH:	N/A
Volume Extracted:	1000 mL	GPC Factor:	N/A
Final Volume:	1.0 mL		

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
62-75-9	N-nitrosodimethylamine	**65**	25	
110-86-1	Pyridine	ND	25	
66-27-3	Methyl methanesulfonate	ND	25	
62-50-0	Ethyl methanesulfonate	ND	50	
108-95-2	Phenol	ND	25	
62-53-3	Aniline	ND	50	
111-44-4	Bis(2-Chloroethyl)ether	ND	25	
95-57-8	2-Chlorophenol	ND	25	
541-73-1	1,3-Dichlorobenzene	ND	25	
106-46-7	1,4-Dichlorobenzene	ND	25	
100-51-6	Benzyl alcohol	ND	50	
95-50-1	1,2-Dichlorobenzene	ND	25	
95-48-7	2-Methylphenol	ND	25	
108-60-1	2,2'-oxybis(1-chloropropane)	ND	25	
98-86-2	Acetophenone	ND	25	
108-39-4/106-44-5	3&4-Methylphenol	ND	50	
621-64-7	N-nitroso-di-n-propylamine	ND	25	
67-72-1	Hexachloroethane	ND	50	
98-95-3	Nitrobenzene	ND	25	
78-59-1	Isophorone	ND	25	
88-75-5	2-Nitrophenol	ND	25	
105-67-9	2,4-dimethylphenol	ND	100	
111-91-1	bis(-2-Chloroethoxy)methane	ND	25	
65-85-0	Benzoic acid	ND	200	
120-83-2	2,4-Dichlorophenol	ND	25	
120-82-1	1,2,4-Trichlorobenzene	ND	25	
91-20-3	Naphthalene	ND	25	
87-65-0	2,6-Dichlorophenol	ND	25	
106-47-8	4-Chloroaniline	ND	50	
1888-71-7	Hexachloropropene	ND	50	
87-68-3	Hexachlorobutadiene	ND	50	
59-50-7	4-Chloro-3-methylphenol	ND	25	
120-58-1	Isosafrole	ND	25	
91-57-6	2-Methylnaphthalene	ND	25	
90-12-0	1-Methylnaphthalene	ND	25	
77-47-4	Hexachlorocyclopentadiene	ND	50	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	25	
88-06-2	2,4,6-Trichlorophenol	ND	25	
95-95-4	2,4,5-Trichlorophenol	ND	25	
94-59-7	Safrole	ND	50	
91-58-7	2-Chloronaphthalene	ND	25	
88-74-4	2-Nitroaniline	ND	25	
130-15-4	1,4-Naphthoquinone	ND	100	

Burndy LLC IU Lincoln, NH

BNAs in Water

Client Sample ID:	BLLC01-G	Lab Sample ID:	AC11466
Date of Collection:	2/22/2024	Matrix:	Wastewater
Date of Preparation:	2/26/2024	Amount Prepared:	1000 mL
Date of Analysis:	3/06/2024	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	10
Wet Weight Prepared:	N/A	pH:	N/A
Volume Extracted:	1000 mL	GPC Factor:	N/A
Final Volume:	1.0 mL		

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
131-11-3	Dimethyl phthalate	ND	100	
99-65-0	1,3-Dinitrobenzene	ND	25	
606-20-2	2,6-Dinitrotoluene	ND	25	
208-96-8	Acenaphthylene	ND	25	
99-09-2	3-Nitroaniline	ND	50	
83-32-9	Acenaphthene	ND	25	
51-28-5	2,4-Dinitrophenol	ND	100	
100-02-7	4-Nitrophenol	ND	25	
608-93-5	Pentachlorobenzene	ND	100	
132-64-9	Dibenzofuran	ND	25	
121-14-2	2,4-Dinitrotoluene	ND	25	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	25	
84-66-2	Diethylphthalate	ND	50	
86-73-7	Fluorene	ND	25	
7005-72-3	4-Chlorophenyl-phenylether	ND	25	
100-01-6	4-Nitroaniline	ND	50	
534-52-1	4,6-Dinitro-2-methylphenol	ND	50	
86-30-6	N-Nitrosodiphenylamine	ND	25	
103-33-3	Azobenzene	ND	25	
62-44-2	Phenacetin	ND	50	
101-55-3	4-Bromophenyl-phenylether	ND	25	
118-74-1	Hexachlorobenzene	ND	25	
87-86-5	Pentachlorophenol	ND	50	
82-68-8	Pentachloronitrobenzene	ND	50	
85-01-8	Phenanthrene	ND	25	
120-12-7	Anthracene	ND	25	
86-74-8	Carbazole	ND	25	
84-74-2	Di-n-butylphthalate	ND	50	
56-57-5	4-nitroquinoline-1-oxide	ND	50	
465-73-6	Isodrin	ND	25	
206-44-0	Fluoranthene	ND	25	
92-87-5	Benzidine	ND	25	
129-00-0	Pyrene	ND	25	
510-15-6	Chlorobenzilate	ND	100	
85-68-7	Butylbenzylphthalate	ND	50	
91-94-1	3,3'-Dichlorobenzidine	ND	50	
56-55-3	Benzo(a)anthracene	ND	25	
218-01-9	Chrysene	ND	50	
117-81-7	Bis(2-ethylhexyl)phthalate	ND	50	
117-84-0	Di-n-octyl phthalate	ND	50	
205-99-2	Benzo(b)fluoranthene	ND	25	
207-08-9	Benzo(k)fluoranthene	ND	50	
50-32-8	Benzo(a)pyrene	ND	25	

Burndy LLC IU Lincoln, NH

BNAs in Water

Client Sample ID:	BLLC01-G	Lab Sample ID:	AC11466
Date of Collection:	2/22/2024	Matrix:	Wastewater
Date of Preparation:	2/26/2024	Amount Prepared:	1000 mL
Date of Analysis:	3/06/2024	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	10
Wet Weight Prepared:	N/A	pH:	N/A
Volume Extracted:	1000 mL	GPC Factor:	N/A
Final Volume:	1.0 mL		

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
56-49-5	3-Methylcholanthrene	ND	50	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	25	
53-70-3	Dibenz(a,h)anthracene	ND	25	
191-24-2	Benzo(g,h,i)perylene	ND	25	

Surrogate Compounds	Recoveries (%)	QC Ranges
2-Fluorophenol (SS1)	60	44 - 72
Phenol-d6 (SS2)	41	29 - 50
Nitrobenzene-d5 (SS3)	90	79 - 101
2-Fluorobiphenyl (SS4)	95	84 - 100
2,4,6-Tribromophenol (SS5)	84	90 - 119
p-Terphenyl-d14 (SS6)	103	91 - 117

Burndy LLC IU Lincoln, NH

Laboratory Blank Results

Client Sample ID:	N/A	Lab Sample ID:	N/A
Date of Collection:	N/A	Matrix:	Wastewater
Date of Preparation:	2/26/2024	Amount Prepared:	1000 mL
Date of Analysis:	3/06/2024	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	1
Wet Weight Prepared:	N/A	pH:	N/A
Volume Extracted:	1000 mL	GPC Factor:	N/A
Final Volume:	1 mL		

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
62-75-9	N-nitrosodimethylamine	ND	2.5	
110-86-1	Pyridine	ND	2.5	
66-27-3	Methyl methanesulfonate	ND	2.5	
62-50-0	Ethyl methanesulfonate	ND	5.0	
108-95-2	Phenol	ND	2.5	
62-53-3	Aniline	ND	5.0	
111-44-4	Bis(2-Chloroethyl)ether	ND	2.5	
95-57-8	2-Chlorophenol	ND	2.5	
541-73-1	1,3-Dichlorobenzene	ND	2.5	
106-46-7	1,4-Dichlorobenzene	ND	2.5	
100-51-6	Benzyl alcohol	ND	5.0	
95-50-1	1,2-Dichlorobenzene	ND	2.5	
95-48-7	2-Methylphenol	ND	2.5	
108-60-1	2,2'-oxybis(1-chloropropane)	ND	2.5	
98-86-2	Acetophenone	**ND**	2.5	
108-39-4/106-44-5	3&4-Methylphenol	ND	5.0	
621-64-7	N-nitroso-di-n-propylamine	ND	2.5	
67-72-1	Hexachloroethane	ND	5.0	
98-95-3	Nitrobenzene	ND	2.5	
78-59-1	Isophorone	ND	2.5	
88-75-5	2-Nitrophenol	ND	2.5	
105-67-9	2,4-dimethylphenol	ND	10	
111-91-1	bis(-2-Chloroethoxy)methane	ND	2.5	
65-85-0	Benzoic acid	**ND**	20	
120-83-2	2,4-Dichlorophenol	ND	2.5	
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	
91-20-3	Naphthalene	ND	2.5	
87-65-0	2,6-Dichlorophenol	ND	2.5	
106-47-8	4-Chloroaniline	ND	5.0	
1888-71-7	Hexachloropropene	ND	5.0	
87-68-3	Hexachlorobutadiene	ND	5.0	
59-50-7	4-Chloro-3-methylphenol	ND	2.5	
120-58-1	Isosafrole	ND	2.5	
91-57-6	2-Methylnaphthalene	ND	2.5	
90-12-0	1-Methylnaphthalene	ND	2.5	
77-47-4	Hexachlorocyclopentadiene	ND	5.0	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.5	
88-06-2	2,4,6-Trichlorophenol	ND	2.5	
95-95-4	2,4,5-Trichlorophenol	ND	2.5	
94-59-7	Safrole	ND	5.0	
91-58-7	2-Chloronaphthalene	ND	2.5	
88-74-4	2-Nitroaniline	ND	2.5	
130-15-4	1,4-Naphthoquinone	ND	10	

Burndy LLC IU Lincoln, NH

Laboratory Blank Results

Client Sample ID:	N/A	Lab Sample ID:	N/A
Date of Collection:	N/A	Matrix:	Wastewater
Date of Preparation:	2/26/2024	Amount Prepared:	1000 mL
Date of Analysis:	3/06/2024	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	1
Wet Weight Prepared:	N/A	pH:	N/A
Volume Extracted:	1000 mL	GPC Factor:	N/A
Final Volume:	1 mL		

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
131-11-3	Dimethyl phthalate	ND	10	
99-65-0	1,3-Dinitrobenzene	ND	2.5	
606-20-2	2,6-Dinitrotoluene	**ND**	2.5	
208-96-8	Acenaphthylene	ND	2.5	
99-09-2	3-Nitroaniline	ND	5.0	
83-32-9	Acenaphthene	ND	2.5	
51-28-5	2,4-Dinitrophenol	ND	10	
100-02-7	4-Nitrophenol	ND	2.5	
608-93-5	Pentachlorobenzene	ND	10	
132-64-9	Dibenzofuran	ND	2.5	
121-14-2	2,4-Dinitrotoluene	ND	2.5	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	2.5	
84-66-2	Diethylphthalate	**ND**	5.0	
86-73-7	Fluorene	ND	2.5	
7005-72-3	4-Chlorophenyl-phenylether	ND	2.5	
100-01-6	4-Nitroaniline	ND	5.0	
534-52-1	4,6-Dinitro-2-methylphenol	ND	5.0	
86-30-6	N-Nitrosodiphenylamine	ND	2.5	
103-33-3	Azobenzene	ND	2.5	
62-44-2	Phenacetin	ND	5.0	
101-55-3	4-Bromophenyl-phenylether	ND	2.5	
118-74-1	Hexachlorobenzene	ND	2.5	
87-86-5	Pentachlorophenol	ND	5.0	
82-68-8	Pentachloronitrobenzene	ND	5.0	
85-01-8	Phenanthrene	**ND**	2.5	
120-12-7	Anthracene	ND	2.5	
86-74-8	Carbazole	ND	2.5	
84-74-2	Di-n-butylphthalate	**ND**	5.0	
56-57-5	4-nitroquinoline-1-oxide	ND	5.0	
465-73-6	Isodrin	ND	2.5	
206-44-0	Fluoranthene	**ND**	2.5	
92-87-5	Benzidine	ND	2.5	
129-00-0	Pyrene	**ND**	2.5	
510-15-6	Chlorobenzilate	ND	10	
85-68-7	Butylbenzylphthalate	**ND**	5.0	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	
56-55-3	Benzo(a)anthracene	ND	2.5	
218-01-9	Chrysene	ND	5.0	
117-81-7	Bis(2-ethylhexyl)phthalate	**58**	5.0	B
117-84-0	Di-n-octyl phthalate	**ND**	5.0	
205-99-2	Benzo(b)fluoranthene	ND	2.5	
207-08-9	Benzo(k)fluoranthene	ND	5.0	
50-32-8	Benzo(a)pyrene	ND	2.5	

Burndy LLC IU Lincoln, NH

Laboratory Blank Results

Client Sample ID:	N/A	Lab Sample ID:	N/A
Date of Collection:	N/A	Matrix:	Wastewater
Date of Preparation:	2/26/2024	Amount Prepared:	1000 mL
Date of Analysis:	3/06/2024	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	1
Wet Weight Prepared:	N/A	pH:	N/A
Volume Extracted:	1000 mL	GPC Factor:	N/A
Final Volume:	1 mL		

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
56-49-5	3-Methylcholanthrene	ND	5.0	
193-39-5	Indeno(1,2,3-cd)pyrene	**ND**	2.5	
53-70-3	Dibenz(a,h)anthracene	**ND**	2.5	
191-24-2	Benzo(g,h,i)perylene	**ND**	2.5	

Surrogate Compounds	Recoveries (%)	QC Ranges
2-Fluorophenol (SS1)	62	51 - 73
Phenol-d6 (SS2)	42	35 - 52
Nitrobenzene-d5 (SS3)	93	78 - 100
2-Fluorobiphenyl (SS4)	96	69 - 104
2,4,6-Tribromophenol (SS5)	98	78 - 112
p-Terphenyl-d14 (SS6)	102	87 - 118

Burndy LLC IU Lincoln, NH

BNAs in Water

Client Sample ID:	DUP01-G	Lab Sample ID:	AC11468
Date of Collection:	2/22/2024	Matrix:	Wastewater
Date of Preparation:	2/26/2024	Amount Prepared:	990 mL
Date of Analysis:	3/06/2024	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	10
Wet Weight Prepared:	N/A	pH:	N/A
Volume Extracted:	990 mL	GPC Factor:	N/A
Final Volume:	1.0 mL		

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
62-75-9	N-nitrosodimethylamine	**82**	25	
110-86-1	Pyridine	ND	25	
66-27-3	Methyl methanesulfonate	ND	25	
62-50-0	Ethyl methanesulfonate	ND	51	
108-95-2	Phenol	ND	25	
62-53-3	Aniline	ND	51	
111-44-4	Bis(2-Chloroethyl)ether	ND	25	
95-57-8	2-Chlorophenol	ND	25	
541-73-1	1,3-Dichlorobenzene	ND	25	
106-46-7	1,4-Dichlorobenzene	ND	25	
100-51-6	Benzyl alcohol	ND	51	
95-50-1	1,2-Dichlorobenzene	ND	25	
95-48-7	2-Methylphenol	ND	25	
108-60-1	2,2'-oxybis(1-chloropropane)	ND	25	
98-86-2	Acetophenone	ND	25	
108-39-4/106-44-5	3&4-Methylphenol	ND	51	
621-64-7	N-nitroso-di-n-propylamine	ND	25	
67-72-1	Hexachloroethane	ND	51	
98-95-3	Nitrobenzene	ND	25	
78-59-1	Isophorone	ND	25	
88-75-5	2-Nitrophenol	ND	25	
105-67-9	2,4-dimethylphenol	ND	101	
111-91-1	bis(-2-Chloroethoxy)methane	ND	25	
65-85-0	Benzoic acid	ND	202	
120-83-2	2,4-Dichlorophenol	ND	25	
120-82-1	1,2,4-Trichlorobenzene	ND	25	
91-20-3	Naphthalene	ND	25	
87-65-0	2,6-Dichlorophenol	ND	25	
106-47-8	4-Chloroaniline	ND	51	
1888-71-7	Hexachloropropene	ND	51	
87-68-3	Hexachlorobutadiene	ND	51	
59-50-7	4-Chloro-3-methylphenol	ND	25	
120-58-1	Isosafrole	ND	25	
91-57-6	2-Methylnaphthalene	ND	25	
90-12-0	1-Methylnaphthalene	ND	25	
77-47-4	Hexachlorocyclopentadiene	ND	51	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	25	
88-06-2	2,4,6-Trichlorophenol	ND	25	
95-95-4	2,4,5-Trichlorophenol	ND	25	
94-59-7	Safrole	ND	51	
91-58-7	2-Chloronaphthalene	ND	25	
88-74-4	2-Nitroaniline	ND	25	
130-15-4	1,4-Naphthoquinone	ND	101	

Burndy LLC IU Lincoln, NH

BNAs in Water

Client Sample ID:	DUP01-G	Lab Sample ID:	AC11468
Date of Collection:	2/22/2024	Matrix:	Wastewater
Date of Preparation:	2/26/2024	Amount Prepared:	990 mL
Date of Analysis:	3/06/2024	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	10
Wet Weight Prepared:	N/A	pH:	N/A
Volume Extracted:	990 mL	GPC Factor:	N/A
Final Volume:	1.0 mL		

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
131-11-3	Dimethyl phthalate	ND	101	
99-65-0	1,3-Dinitrobenzene	ND	25	
606-20-2	2,6-Dinitrotoluene	ND	25	
208-96-8	Acenaphthylene	ND	25	
99-09-2	3-Nitroaniline	ND	51	
83-32-9	Acenaphthene	ND	25	
51-28-5	2,4-Dinitrophenol	ND	101	
100-02-7	4-Nitrophenol	ND	25	
608-93-5	Pentachlorobenzene	ND	101	
132-64-9	Dibenzofuran	ND	25	
121-14-2	2,4-Dinitrotoluene	ND	25	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	25	
84-66-2	Diethylphthalate	ND	51	
86-73-7	Fluorene	ND	25	
7005-72-3	4-Chlorophenyl-phenylether	ND	25	
100-01-6	4-Nitroaniline	ND	51	
534-52-1	4,6-Dinitro-2-methylphenol	ND	51	
86-30-6	N-Nitrosodiphenylamine	ND	25	
103-33-3	Azobenzene	ND	25	
62-44-2	Phenacetin	ND	51	
101-55-3	4-Bromophenyl-phenylether	ND	25	
118-74-1	Hexachlorobenzene	ND	25	
87-86-5	Pentachlorophenol	ND	51	
82-68-8	Pentachloronitrobenzene	ND	51	
85-01-8	Phenanthrene	ND	25	
120-12-7	Anthracene	ND	25	
86-74-8	Carbazole	ND	25	
84-74-2	Di-n-butylphthalate	ND	51	
56-57-5	4-nitroquinoline-1-oxide	ND	51	
465-73-6	Isodrin	ND	25	
206-44-0	Fluoranthene	ND	25	
92-87-5	Benzidine	ND	25	
129-00-0	Pyrene	ND	25	
510-15-6	Chlorobenzilate	ND	101	
85-68-7	Butylbenzylphthalate	ND	51	
91-94-1	3,3'-Dichlorobenzidine	ND	51	
56-55-3	Benzo(a)anthracene	ND	25	
218-01-9	Chrysene	ND	51	
117-81-7	Bis(2-ethylhexyl)phthalate	ND	51	
117-84-0	Di-n-octyl phthalate	ND	51	
205-99-2	Benzo(b)fluoranthene	ND	25	
207-08-9	Benzo(k)fluoranthene	ND	51	
50-32-8	Benzo(a)pyrene	ND	25	

Burndy LLC IU Lincoln, NH

BNAs in Water

Client Sample ID:	DUP01-G	Lab Sample ID:	AC11468
Date of Collection:	2/22/2024	Matrix:	Wastewater
Date of Preparation:	2/26/2024	Amount Prepared:	990 mL
Date of Analysis:	3/06/2024	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	10
Wet Weight Prepared:	N/A	pH:	N/A
Volume Extracted:	990 mL	GPC Factor:	N/A
Final Volume:	1.0 mL		

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
56-49-5	3-Methylcholanthrene	ND	51	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	25	
53-70-3	Dibenz(a,h)anthracene	ND	25	
191-24-2	Benzo(g,h,i)perylene	ND	25	

Surrogate Compounds	Recoveries (%)	QC Ranges
2-Fluorophenol (SS1)	62	44 - 72
Phenol-d6 (SS2)	41	29 - 50
Nitrobenzene-d5 (SS3)	94	79 - 101
2-Fluorobiphenyl (SS4)	91	84 - 100
2,4,6-Tribromophenol (SS5)	86	90 - 119
p-Terphenyl-d14 (SS6)	100	91 - 117

Burndy LLC IU Lincoln, NH

MATRIX SPIKE (MS) RECOVERY

Sample ID: AC11466

PARAMETER	SPIKE ADDED ug/L	SAMPLE CONCENTRATION ug/L	MS CONCENTRATION ug/L	MS % REC	QC LIMITS (% REC)
1,2,4,5-Tetrachlorobenzene	40.0	ND	35.0	88	53 - 111
1,2,4-Trichlorobenzene	40.0	ND	36.0	90	48 - 105
1,2-Dichlorobenzene	40.0	ND	36.0	89	45 - 97
1,3-Dichlorobenzene	40.0	ND	33.0	82	40 - 97
1,3-Dinitrobenzene	40.0	ND	38.0	95	54 - 138
1,4-Dichlorobenzene	40.0	ND	34.0	84	43 - 96
1,4-Naphthoquinone	40.0	ND	ND	NC	43 - 121
1-Methylnaphthalene	40.0	ND	35.0	86	59 - 108
2,2'-oxybis(1-chloropropane)	40.0	ND	37.0	92	55 - 104
2,3,4,6-Tetrachlorophenol	40.0	ND	37.0	90	62 - 135
2,4,5-Trichlorophenol	40.0	ND	42.0	103	69 - 123
2,4,6-Trichlorophenol	40.0	ND	42.0	105	65 - 126
2,4-Dichlorophenol	40.0	ND	39.0	97	67 - 117
2,4-Dinitrophenol	40.0	ND	95.0	235	33 - 138
2,4-Dinitrotoluene	40.0	ND	42.0	105	66 - 127
2,4-dimethylphenol	40.0	ND	23.0	57	51 - 115
2,6-Dichlorophenol	40.0	ND	34.0	85	66 - 114
2,6-Dinitrotoluene	40.0	ND	42.0	105	63 - 126
2-Chloronaphthalene	40.0	ND	37.0	91	59 - 109
2-Chlorophenol	40.0	ND	44.0	109	59 - 104
2-Methylnaphthalene	40.0	ND	39.0	97	57 - 109
2-Methylphenol	40.0	ND	34.0	84	37 - 110
2-Nitroaniline	40.0	ND	47.0	115	57 - 128
2-Nitrophenol	40.0	ND	40.0	99	61 - 122
3&4-Methylphenol	81.0	ND	63.0	78	10 - 138
3,3'-Dichlorobenzidine	40.0	ND	ND	NC	10 - 152
3-Methylcholanthrene	40.0	ND	39.0	97	48 - 125
3-Nitroaniline	40.0	ND	27.0	67	31 - 127
4,6-Dinitro-2-methylphenol	40.0	ND	57.0	142	55 - 131
4-Bromophenyl-phenylether	40.0	ND	41.0	102	63 - 124
4-Chloro-3-methylphenol	40.0	ND	37.0	92	61 - 122
4-Chloroaniline	40.0	ND	ND	NC	10 - 131
4-Chlorophenyl-phenylether	40.0	ND	38.0	93	62 - 118
4-Nitroaniline	40.0	ND	33.0	81	20 - 148
4-Nitrophenol	40.0	ND	30.0	75	27 - 85
4-nitroquinoline-1-oxide	40.0	ND	ND	NC	19 - 124
Acenaphthene	40.0	ND	36.0	90	60 - 112
Acenaphthylene	40.0	ND	33.0	80	56 - 117
Acetophenone	40.0	ND	41.0	102	58 - 111
Aniline	40.0	ND	ND	NC	10 - 115
Anthracene	40.0	ND	37.0	91	62 - 119
Azobenzene	40.0	ND	45.0	111	62 - 119
Benzidine	40.0	ND	ND	NC	10 - 94
Benzo(a)anthracene	40.0	ND	41.0	101	63 - 126
Benzo(a)pyrene	40.0	ND	40.0	99	58 - 127
Benzo(b)fluoranthene	40.0	ND	42.0	105	59 - 129
Benzo(g,h,i)perylene	40.0	ND	40.0	100	54 - 133
Benzo(k)fluoranthene	40.0	ND	39.0	96	57 - 131

Burndy LLC IU Lincoln, NH

MATRIX SPIKE (MS) RECOVERY

Sample ID: AC11466

PARAMETER	SPIKE ADDED ug/L	SAMPLE CONCENTRATION ug/L	MS CONCENTRATION ug/L	MS % REC	QC LIMITS (% REC)
Benzoic acid	40.0	ND	20.0	50	10 - 89
Benzyl alcohol	40.0	ND	31.0	78	51 - 107
Bis(2-Chloroethyl)ether	40.0	ND	43.0	105	40 - 124
Bis(2-ethylhexyl)phthalate	40.0	ND	47.0	117	59 - 137
Butylbenzylphthalate	40.0	ND	46.0	113	53 - 139
Carbazole	40.0	ND	42.0	103	70 - 119
Chlorobenzilate	40.0	ND	46.0	115	34 - 156
Chrysene	40.0	ND	41.0	101	62 - 124
Di-n-butylphthalate	40.0	ND	44.0	109	63 - 132
Di-n-octyl phthalate	40.0	ND	49.0	120	61 - 134
Dibenz(a,h)anthracene	40.0	ND	41.0	101	52 - 136
Dibenzofuran	40.0	ND	39.0	96	62 - 113
Diethylphthalate	40.0	ND	39.0	97	56 - 124
Dimethyl phthalate	40.0	ND	30.0	75	30 - 140
Ethyl methanesulfonate	40.0	ND	40.0	98	57 - 107
Fluoranthene	40.0	ND	42.0	103	62 - 128
Fluorene	40.0	ND	40.0	99	61 - 117
Hexachlorobenzene	40.0	ND	39.0	96	60 - 125
Hexachlorobutadiene	40.0	ND	33.0	81	35 - 107
Hexachlorocyclopentadiene	40.0	ND	ND	NC	10 - 134
Hexachloroethane	40.0	ND	35.0	86	37 - 95
Hexachloropropene	40.0	ND	20.0	50	31 - 115
Indeno(1,2,3-cd)pyrene	40.0	ND	42.0	104	53 - 135
Isodrin	40.0	ND	41.0	102	55 - 125
Isophorone	40.0	ND	35.0	86	61 - 115
Isosafrole	40.0	ND	36.0	89	58 - 117
Methyl methanesulfonate	40.0	ND	31.0	77	39 - 102
N-Nitrosodiphenylamine	40.0	ND	39.0	97	56 - 125
N-nitroso-di-n-propylamine	40.0	ND	44.0	108	56 - 112
N-nitrosodimethylamine	40.0	65.0	76.0	28	30 - 77
Naphthalene	40.0	ND	37.0	92	56 - 105
Nitrobenzene	40.0	ND	42.0	103	55 - 118
Pentachlorobenzene	40.0	ND	37.0	92	60 - 115
Pentachloronitrobenzene	40.0	ND	39.0	96	58 - 140
Pentachlorophenol	40.0	ND	55.0	135	57 - 132
Phenacetin	40.0	ND	45.0	112	65 - 128
Phenanthrene	40.0	ND	40.0	98	64 - 119
Phenol	40.0	ND	ND	NC	10 - 87
Pyrene	40.0	ND	41.0	101	48 - 137
Pyridine	40.0	ND	21.0	52	29 - 70
Safrole	40.0	ND	36.0	88	43 - 123
bis(-2-Chloroethoxy)methane	40.0	ND	40.0	100	60 - 110

Burndy LLC IU Lincoln, NH

Laboratory Duplicate Results

Sample ID: AC11466

PARAMETER	SAMPLE RESULT ug/L	SAMPLE DUPLICATE RESULT ug/L	PRECISION RPD %	QC LIMITS
1,2,4,5-Tetrachlorobenzene	ND	ND	NC	50
1,2,4-Trichlorobenzene	ND	ND	NC	50
1,2-Dichlorobenzene	ND	ND	NC	50
1,3-Dichlorobenzene	ND	ND	NC	50
1,3-Dinitrobenzene	ND	ND	NC	50
1,4-Dichlorobenzene	ND	ND	NC	50
1,4-Naphthoquinone	ND	ND	NC	50
1-Methylnaphthalene	ND	ND	NC	50
2,2'-oxybis(1-chloropropane)	ND	ND	NC	50
2,3,4,6-Tetrachlorophenol	ND	ND	NC	50
2,4,5-Trichlorophenol	ND	ND	NC	50
2,4,6-Trichlorophenol	ND	ND	NC	50
2,4-Dichlorophenol	ND	ND	NC	50
2,4-Dinitrophenol	ND	ND	NC	50
2,4-Dinitrotoluene	ND	ND	NC	50
2,4-dimethylphenol	ND	ND	NC	50
2,6-Dichlorophenol	ND	ND	NC	50
2,6-Dinitrotoluene	ND	ND	NC	50
2-Chloronaphthalene	ND	ND	NC	50
2-Chlorophenol	ND	ND	NC	50
2-Methylnaphthalene	ND	ND	NC	50
2-Methylphenol	ND	ND	NC	50
2-Nitroaniline	ND	ND	NC	50
2-Nitrophenol	ND	ND	NC	50
3&4-Methylphenol	ND	ND	NC	50
3,3'-Dichlorobenzidine	ND	ND	NC	50
3-Methylcholanthrene	ND	ND	NC	50
3-Nitroaniline	ND	ND	NC	50
4,6-Dinitro-2-methylphenol	ND	ND	NC	50
4-Bromophenyl-phenylether	ND	ND	NC	50
4-Chloro-3-methylphenol	ND	ND	NC	50
4-Chloroaniline	ND	ND	NC	50
4-Chlorophenyl-phenylether	ND	ND	NC	50
4-Nitroaniline	ND	ND	NC	50
4-Nitrophenol	ND	ND	NC	50
4-nitroquinoline-1-oxide	ND	ND	NC	50
Acenaphthene	ND	ND	NC	50
Acenaphthylene	ND	ND	NC	50
Acetophenone	ND	ND	NC	50
Aniline	ND	ND	NC	50
Anthracene	ND	ND	NC	50
Azobenzene	ND	ND	NC	50
Benzidine	ND	ND	NC	50
Benzo(a)anthracene	ND	ND	NC	50
Benzo(a)pyrene	ND	ND	NC	50
Benzo(b)fluoranthene	ND	ND	NC	50
Benzo(g,h,i)perylene	ND	ND	NC	50
Benzo(k)fluoranthene	ND	ND	NC	50
Benzoic acid	ND	ND	NC	50
Benzyl alcohol	ND	ND	NC	50
Bis(2-Chloroethyl)ether	ND	ND	NC	50
Bis(2-ethylhexyl)phthalate	ND	ND	NC	50

Burndy LLC IU Lincoln, NH

Laboratory Duplicate Results

Sample ID: AC11466

PARAMETER	SAMPLE RESULT ug/L	SAMPLE DUPLICATE RESULT ug/L	PRECISION RPD %	QC LIMITS
Butylbenzylphthalate	ND	ND	NC	50
Carbazole	ND	ND	NC	50
Chlorobenzilate	ND	ND	NC	50
Chrysene	ND	ND	NC	50
Di-n-butylphthalate	ND	ND	NC	50
Di-n-octyl phthalate	ND	ND	NC	50
Dibenz(a,h)anthracene	ND	ND	NC	50
Dibenzofuran	ND	ND	NC	50
Diethylphthalate	ND	ND	NC	50
Dimethyl phthalate	ND	ND	NC	50
Ethyl methanesulfonate	ND	ND	NC	50
Fluoranthene	ND	ND	NC	50
Fluorene	ND	ND	NC	50
Hexachlorobenzene	ND	ND	NC	50
Hexachlorobutadiene	ND	ND	NC	50
Hexachlorocyclopentadiene	ND	ND	NC	50
Hexachloroethane	ND	ND	NC	50
Hexachloropropene	ND	ND	NC	50
Indeno(1,2,3-cd)pyrene	ND	ND	NC	50
Isodrin	ND	ND	NC	50
Isophorone	ND	ND	NC	50
Isosafrole	ND	ND	NC	50
Methyl methanesulfonate	ND	ND	NC	50
N-Nitrosodiphenylamine	ND	ND	NC	50
N-nitroso-di-n-propylamine	ND	ND	NC	50
N-nitrosodimethylamine	65.0	40.0	47.4	50
Naphthalene	ND	ND	NC	50
Nitrobenzene	ND	ND	NC	50
Pentachlorobenzene	ND	ND	NC	50
Pentachloronitrobenzene	ND	ND	NC	50
Pentachlorophenol	ND	ND	NC	50
Phenacetin	ND	ND	NC	50
Phenanthrene	ND	ND	NC	50
Phenol	ND	ND	NC	50
Pyrene	ND	ND	NC	50
Pyridine	ND	ND	NC	50
Safrole	ND	ND	NC	50
bis(-2-Chloroethoxy)methane	ND	ND	NC	50

Burndy LLC IU Lincoln, NH

Laboratory Fortified Blank (LFB) Results

PARAMETER	LFB AMOUNT SPIKED ug/L	LFB RESULT ug/L	LFB RECOVERY %	QC LIMITS %
1,2,4,5-Tetrachlorobenzene	40	30.0	75	28 - 113
1,2,4-Trichlorobenzene	40	29.0	73	29 - 105
1,2-Dichlorobenzene	40	30.0	75	32 - 98
1,3-Dichlorobenzene	40	28.0	69	30 - 96
1,3-Dinitrobenzene	40	36.0	90	68 - 118
1,4-Dichlorobenzene	40	28.0	70	30 - 99
1,4-Naphthoquinone	40	ND		28 - 135
1-Methylnaphthalene	40	33.0	81	49 - 104
2,2'-oxybis(1-chloropropane)	40	37.0	92	55 - 107
2,3,4,6-Tetrachlorophenol	40	40.0	101	70 - 125
2,4,5-Trichlorophenol	40	42.0	106	72 - 114
2,4,6-Trichlorophenol	40	43.0	107	70 - 114
2,4-Dichlorophenol	40	40.0	100	72 - 109
2,4-Dinitrophenol	40	39.0	98	65 - 113
2,4-Dinitrotoluene	40	45.0	112	73 - 121
2,4-dimethylphenol	40	37.0	93	65 - 107
2,6-Dichlorophenol	40	38.0	94	72 - 107
2,6-Dinitrotoluene	40	43.0	108	69 - 119
2-Chloronaphthalene	40	34.0	84	44 - 109
2-Chlorophenol	40	38.0	96	58 - 106
2-Methylnaphthalene	40	35.0	87	45 - 105
2-Methylphenol	40	35.0	88	58 - 104
2-Nitroaniline	40	47.0	116	65 - 122
2-Nitrophenol	40	41.0	103	68 - 110
3&4-Methylphenol	80	66.0	83	10 - 124
3,3'-Dichlorobenzidine	40	37.0	93	67 - 118
3-Methylcholanthrene	40	39.0	98	55 - 119
3-Nitroaniline	40	38.0	94	58 - 112
4,6-Dinitro-2-methylphenol	40	43.0	109	68 - 119
4-Bromophenyl-phenylether	40	41.0	102	63 - 116
4-Chloro-3-methylphenol	40	41.0	101	74 - 113
4-Chloroaniline	40	27.0	69	56 - 100
4-Chlorophenyl-phenylether	40	37.0	93	58 - 113
4-Nitroaniline	40	44.0	110	62 - 123
4-Nitrophenol	40	23.0	57	34 - 88
4-nitroquinoline-1-oxide	40	27.0	67	50 - 112
Acenaphthene	40	36.0	90	56 - 106
Acenaphthylene	40	32.0	81	58 - 110
Acetophenone	40	39.0	97	60 - 109
Aniline	40	28.0	70	34 - 100
Anthracene	40	37.0	92	69 - 110
Azobenzene	40	42.0	104	66 - 111
Benzidine	40	16.0	40	10 - 78
Benzo(a)anthracene	40	41.0	103	69 - 120
Benzo(a)pyrene	40	42.0	106	62 - 130
Benzo(b)fluoranthene	40	46.0	114	70 - 118
Benzo(g,h,i)perylene	40	42.0	105	71 - 120
Benzo(k)fluoranthene	40	42.0	105	62 - 130
Benzoic acid	40	12.0	30	10 - 73
Benzyl alcohol	40	36.0	91	58 - 110
Bis(2-Chloroethyl)ether	40	38.0	96	53 - 109
Bis(2-ethylhexyl)phthalate	40	46.0	114	68 - 131
Butylbenzylphthalate	40	37.0	93	58 - 134
Carbazole	40	41.0	104	80 - 109

Burndy LLC IU Lincoln, NH

Laboratory Fortified Blank (LFB) Results

PARAMETER	LFB AMOUNT SPIKED ug/L	LFB RESULT ug/L	LFB RECOVERY %	QC LIMITS %
Chlorobenzilate	40	16.0	40	10 - 166
Chrysene	40	40.0	101	71 - 117
Di-n-butylphthalate	40	41.0	102	72 - 125
Di-n-octyl phthalate	40	50.0	126	67 - 133
Dibenz(a,h)anthracene	40	42.0	106	69 - 121
Dibenzofuran	40	38.0	96	60 - 108
Diethylphthalate	40	29.0	72	47 - 125
Dimethyl phthalate	40	12.0	30	10 - 161
Ethyl methanesulfonate	40	37.0	93	58 - 109
Fluoranthene	40	42.0	105	73 - 114
Fluorene	40	39.0	98	65 - 108
Hexachlorobenzene	40	39.0	97	64 - 116
Hexachlorobutadiene	40	25.0	62	14 - 107
Hexachlorocyclopentadiene	40	13.0	33	10 - 112
Hexachloroethane	40	26.0	65	21 - 94
Hexachloropropene	40	23.0	57	10 - 110
Indeno(1,2,3-cd)pyrene	40	44.0	110	69 - 120
Isodrin	40	39.0	98	71 - 113
Isophorone	40	35.0	88	68 - 110
Isosafrole	40	35.0	87	62 - 106
Methyl methanesulfonate	40	28.0	69	49 - 98
N-Nitrosodiphenylamine	40	39.0	98	71 - 111
N-nitroso-di-n-propylamine	40	42.0	104	59 - 111
N-nitrosodimethylamine	40	27.0	69	35 - 89
Naphthalene	40	34.0	84	51 - 100
Nitrobenzene	40	39.0	97	65 - 104
Pentachlorobenzene	40	35.0	89	50 - 114
Pentachloronitrobenzene	40	42.0	105	73 - 120
Pentachlorophenol	40	40.0	101	66 - 121
Phenacetin	40	43.0	107	72 - 120
Phenanthrene	40	39.0	98	70 - 110
Phenol	40	20.0	49	28 - 70
Pyrene	40	41.0	104	68 - 124
Pyridine	40	21.0	53	34 - 78
Safrole	40	36.0	89	62 - 107
bis(-2-Chloroethoxy)methane	40	40.0	100	67 - 106

Comments:

Samples in Batch: AC11466, AC11468

United States Environmental Protection Agency
Office of Environmental Measurement & Evaluation
11 Technology Drive
North Chelmsford, MA 01863-2431

Laboratory Report

March 25, 2024

Nafisah Ali
US EPA Region 1

Project Number: 24020025
Project: Burndy LLC IU Lincoln, NH
Analysis: Pesticides and PCBs in Water
EPA Chemist: Phillip Gudgel

Date Samples Received by the Laboratory: 02/23/2024

Analytical Procedure:

All samples were received and logged in by the laboratory according to the USEPA New England Laboratory SOP for Sample Log-in.

Sample preparation and analysis was done following the EPA Region I SOP, LSBSOP-PESWALL9.

The SOP is based on "Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, Method 608.3 - Organochlorine Pesticides and PCBs".

The analysis was carried out using high resolution capillary column chromatography. The 30 meter dual capillary system consists of J&W DB-5 and J&W DB-1701 columns both with a 0.25 mm ID.

Data were reviewed in accordance with the internal verification procedures described in the EPA New England Quality Manual for NERL.

Results relate only to the items tested or to the samples as received by the Laboratory. This analytical report shall not be reproduced except in full, without written approval of the laboratory.

If you have any questions please call me at 617-918-8340 .

Sincerely,

Qualifiers:

RL = Reporting limit
ND = Not Detected above Reporting limit
NA = Not Applicable due to high sample dilutions or sample interferences
NC = Not calculated since analyte concentration is ND.
J = Estimated value
J1 = Estimated value due to MS recovery outside accceptance criteria
J2 = Estimated value due to LFB result outside acceptance criteria
J3 = Estimated value due to RPD result outside acceptance criteria
J4 = Estimated value due to LCS result outside acceptance criteria
E = Estimated value exceeds the calibration range
L = Estimated value is below the calibration range
B = Analyte is associated with the lab blank or trip blank contamination. Values are qualified when the observed concentration of the contamination in the sample extract is less than 10 times the concentration in the blank.
R = No recovery was calculated since the analyte concentration is greater than four times the spike level.
P = The confirmation value exceeded 35% difference and is less than 100%. The lower value is reported.
C = The identification has been confirmed by GC/MS.
A = Suspected Aldol condensation product.
N = Tentatively identified compound.

Burndy LLC IU Lincoln, NH

Pesticides and PCBs in Water

Client Sample ID:	BLLC01-G	Lab Sample ID:	AC11466
Date of Collection:	2/22/2024	Matrix:	Wastewater
Date of Preparation:	2/28/2024	Amount Prepared:	990 mL
Date of Analysis:	3/14/2024	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	1
Wet Weight Prepared:	N/A	pH:	6.5
Volume Extracted:	990 mL	GPC Factor:	N/A
Final Volume:	5 mL		

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
319-84-6	Alpha-BHC	ND	0.03	
319-85-7	Beta-BHC	ND	0.03	
58-89-9	Gamma-BHC	ND	0.03	
319-86-8	Delta-BHC	ND	0.03	
76-44-8	Heptachlor	ND	0.03	
309-00-2	Aldrin	ND	0.03	
1024-57-3	Heptachlor Epoxide	ND	0.03	
5103-74-2	Gamma Chlordane	ND	0.03	
959-98-8	Endosulfan I	ND	0.03	
5103-71-9	Alpha Chlordane	ND	0.03	
60-57-1	Dieldrin	ND	0.03	
72-55-9	4,4'-DDE	ND	0.03	
72-20-8	Endrin	ND	0.03	
33213-65-9	Endosulfan II	ND	0.03	
72-54-8	4,4'-DDD	ND	0.03	
7421-93-4	Endrin Aldehyde	ND	0.03	
1031-07-8	Endosulfan Sulfate	ND	0.03	
50-29-3	4,4'-DDT	ND	0.03	
53494-70-5	Endrin Ketone	ND	0.03	
72-43-5	Methoxychlor	ND	0.03	
57-74-9	Technical Chlordane	ND	0.51	
8001-35-2	Toxaphene	ND	0.51	
12674-11-2	Aroclor-1016	ND	0.51	
11104-28-2	Aroclor-1221	ND	0.51	
11141-16-5	Aroclor-1232	ND	0.51	
53469-21-9	Aroclor-1242	ND	0.51	
12672-29-6	Aroclor-1248	ND	0.51	
11097-69-1	Aroclor-1254	ND	0.51	
11096-82-5	Aroclor-1260	ND	0.51	
11100-14-4	Aroclor-1262	ND	0.51	
37324-23-5	Aroclor-1268	ND	0.51	

Surrogate Compounds	Recoveries (%)	QC Ranges
2,4,5,6-Tetrachloro-m-xylene	70	42 - 119
Decachlorobiphenyl	59	15 - 146

Burndy LLC IU Lincoln, NH

Laboratory Blank

Client Sample ID:	N/A	Lab Sample ID:	N/A
Date of Collection:	N/A	Matrix:	Wastewater
Date of Preparation:	2/28/2024	Amount Prepared:	1000 mL
Date of Analysis:	3/13/2024	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	1
Wet Weight Prepared:	N/A	pH:	5.50
Volume Extracted:	1000 mL	GPC Factor:	N/A
Final Volume:	5 mL		

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
319-84-6	Alpha-BHC	ND	0.03	
319-85-7	Beta-BHC	ND	0.03	
58-89-9	Gamma-BHC	ND	0.03	
319-86-8	Delta-BHC	ND	0.03	
76-44-8	Heptachlor	ND	0.03	
309-00-2	Aldrin	ND	0.03	
1024-57-3	Heptachlor Epoxide	ND	0.03	
5103-74-2	Gamma Chlordane	ND	0.03	
959-98-8	Endosulfan I	ND	0.03	
5103-71-9	Alpha Chlordane	ND	0.03	
60-57-1	Dieldrin	ND	0.03	
72-55-9	4,4'-DDE	ND	0.03	
72-20-8	Endrin	ND	0.03	
33213-65-9	Endosulfan II	ND	0.03	
72-54-8	4,4'-DDD	ND	0.03	
7421-93-4	Endrin Aldehyde	ND	0.03	
1031-07-8	Endosulfan Sulfate	ND	0.03	
50-29-3	4,4'-DDT	ND	0.03	
53494-70-5	Endrin Ketone	ND	0.03	
72-43-5	Methoxychlor	ND	0.03	
57-74-9	Technical Chlordane	ND	0.50	
8001-35-2	Toxaphene	ND	0.50	
12674-11-2	Aroclor-1016	ND	0.50	
11104-28-2	Aroclor-1221	ND	0.50	
11141-16-5	Aroclor-1232	ND	0.50	
53469-21-9	Aroclor-1242	ND	0.50	
12672-29-6	Aroclor-1248	ND	0.50	
11097-69-1	Aroclor-1254	ND	0.50	
11096-82-5	Aroclor-1260	ND	0.50	
11100-14-4	Aroclor-1262	ND	0.50	
37324-23-5	Aroclor-1268	ND	0.50	

Surrogate Compounds	Recoveries (%)	QC Ranges
2,4,5,6-Tetrachloro-m-xylene	45	25 - 123
Decachlorobiphenyl	102	32 - 145

Burndy LLC IU Lincoln, NH

Pesticides and PCBs in Water

Client Sample ID:	DUP01-G	Lab Sample ID:	AC11468
Date of Collection:	2/22/2024	Matrix:	Wastewater
Date of Preparation:	2/28/2024	Amount Prepared:	1000 mL
Date of Analysis:	3/14/2024	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	1
Wet Weight Prepared:	N/A	pH:	6.5
Volume Extracted:	1000 mL	GPC Factor:	N/A
Final Volume:	5 mL		

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
319-84-6	Alpha-BHC	ND	0.03	
319-85-7	Beta-BHC	ND	0.03	
58-89-9	Gamma-BHC	ND	0.03	
319-86-8	Delta-BHC	ND	0.03	
76-44-8	Heptachlor	ND	0.03	
309-00-2	Aldrin	ND	0.03	
1024-57-3	Heptachlor Epoxide	ND	0.03	
5103-74-2	Gamma Chlordane	ND	0.03	
959-98-8	Endosulfan I	ND	0.03	
5103-71-9	Alpha Chlordane	ND	0.03	
60-57-1	Dieldrin	ND	0.03	
72-55-9	4,4'-DDE	ND	0.03	
72-20-8	Endrin	ND	0.03	
33213-65-9	Endosulfan II	ND	0.03	
72-54-8	4,4'-DDD	ND	0.03	
7421-93-4	Endrin Aldehyde	ND	0.03	
1031-07-8	Endosulfan Sulfate	ND	0.03	
50-29-3	4,4'-DDT	ND	0.03	
53494-70-5	Endrin Ketone	ND	0.03	
72-43-5	Methoxychlor	ND	0.03	
57-74-9	Technical Chlordane	ND	0.50	
8001-35-2	Toxaphene	ND	0.50	
12674-11-2	Aroclor-1016	ND	0.50	
11104-28-2	Aroclor-1221	ND	0.50	
11141-16-5	Aroclor-1232	ND	0.50	
53469-21-9	Aroclor-1242	ND	0.50	
12672-29-6	Aroclor-1248	ND	0.50	
11097-69-1	Aroclor-1254	ND	0.50	
11096-82-5	Aroclor-1260	ND	0.50	
11100-14-4	Aroclor-1262	ND	0.50	
37324-23-5	Aroclor-1268	ND	0.50	

Surrogate Compounds	Recoveries (%)	QC Ranges
2,4,5,6-Tetrachloro-m-xylene	71	42 - 119
Decachlorobiphenyl	65	15 - 146

MATRIX SPIKE (MS) RECOVERY

Sample ID: AC11468

PARAMETER	SPIKE ADDED ug/L	SAMPLE CONCENTRATION ug/L	MS CONCENTRATION ug/L	MS % REC	QC LIMITS (% REC)
4,4'-DDD	0.204	ND	0.115	56	68 - 141
4,4'-DDE	0.204	ND	0.133	65	79 - 112
4,4'-DDT	0.204	ND	0.144	71	59 - 149
Aldrin	0.204	ND	0.166	81	40 - 123
Alpha Chlordane	0.204	ND	0.127	62	65 - 130
Alpha-BHC	0.204	ND	0.154	76	58 - 124
Beta-BHC	0.204	ND	0.194	95	57 - 134
Delta-BHC	0.204	ND	0.116	57	58 - 117
Dieldrin	0.204	ND	0.093	46	70 - 128
Endosulfan I	0.204	ND	0.131	64	61 - 137
Endosulfan II	0.204	ND	0.120	59	41 - 144
Endosulfan Sulfate	0.204	ND	0.105	52	57 - 124
Endrin	0.204	ND	0.113	55	51 - 170
Endrin Aldehyde	0.204	ND	0.0839	41	46 - 137
Endrin Ketone	0.204	ND	0.129	63	72 - 108
Gamma Chlordane	0.204	ND	0.144	71	59 - 138
Gamma-BHC	0.204	ND	0.142	70	48 - 137
Heptachlor	0.204	ND	0.190	93	30 - 149
Heptachlor Epoxide	0.204	ND	0.151	74	61 - 139
Methoxychlor	0.204	ND	0.132	65	75 - 130

Recovery for 4,4'-DDD, 4,4'-DDE, Alpha Chlordane, Delta-BHC, Dieldrin, Endosulfan Sulfate, Endrin Aldehyde, Endrin Ketone, and Methoxychlor were below QC limits. Recovery was acceptable for surroagtes as well as LFB and LFB DUP. Poor recovery likely due to matrix effects.

Laboratory Duplicate Results

Sample ID: AC11466

PARAMETER	SAMPLE RESULT ug/L	SAMPLE DUPLICATE RESULT ug/L	PRECISION RPD %	QC LIMITS
4,4'-DDD	ND	ND	NC	50
4,4'-DDE	ND	ND	NC	50
4,4'-DDT	ND	ND	NC	50
Aldrin	ND	ND	NC	50
Alpha Chlordane	ND	ND	NC	50
Alpha-BHC	ND	ND	NC	50
Aroclor-1016	ND	ND	NC	50
Aroclor-1221	ND	ND	NC	50
Aroclor-1232	ND	ND	NC	50
Aroclor-1242	ND	ND	NC	50
Aroclor-1248	ND	ND	NC	50
Aroclor-1254	ND	ND	NC	50
Aroclor-1260	ND	ND	NC	50
Aroclor-1262	ND	ND	NC	50
Aroclor-1268	ND	ND	NC	50
Beta-BHC	ND	ND	NC	50
Delta-BHC	ND	ND	NC	50
Dieldrin	ND	ND	NC	50
Endosulfan I	ND	ND	NC	50
Endosulfan II	ND	ND	NC	50
Endosulfan Sulfate	ND	ND	NC	50
Endrin	ND	ND	NC	50
Endrin Aldehyde	ND	ND	NC	50
Endrin Ketone	ND	ND	NC	50
Gamma Chlordane	ND	ND	NC	50
Gamma-BHC	ND	ND	NC	50
Heptachlor	ND	ND	NC	50
Heptachlor Epoxide	ND	ND	NC	50
Methoxychlor	ND	ND	NC	50
Technical Chlordane	ND	ND	NC	50
Toxaphene	ND	ND	NC	50

Laboratory Fortified Blank (LFB) Results

PARAMETER	LFB AMOUNT SPIKED ug/L	LFB RESULT ug/L	LFB RECOVERY %	QC LIMITS %
4,4'-DDD	0.05	0.0468	94	59.1 - 144.2
4,4'-DDE	0.05	0.0441	88	53.1 - 135.5
4,4'-DDT	0.05	0.0488	98	63.6 - 158.9
Aldrin	0.05	0.0313	63	24.6 - 116.9
Alpha Chlordane	0.05	0.0449	90	55.0 - 137.0
Alpha-BHC	0.05	0.0405	81	34.2 - 150.5
Aroclor-1016	ND	ND	0	70.0 - 130.0
Aroclor-1254	ND	ND	0	70.0 - 130.0
Aroclor-1260	ND	ND	0	70.0 - 130.0
Beta-BHC	0.05	0.0446	89	63.6 - 134.1
Delta-BHC	0.05	0.0488	98	52.7 - 120.8
Dieldrin	0.05	0.0448	90	58.0 - 145.3
Endosulfan I	0.05	0.0440	88	60.6 - 139.3
Endosulfan II	0.05	0.0451	90	65.1 - 140.5
Endosulfan Sulfate	0.05	0.0474	95	59.1 - 144.7
Endrin	0.05	0.0435	87	61.1 - 149.1
Endrin Aldehyde	0.05	0.0424	85	54.6 - 132.1
Endrin Ketone	0.05	0.0489	98	70.9 - 131.0
Gamma Chlordane	0.05	0.0448	90	53.0 - 134.7
Gamma-BHC	0.05	0.0430	86	55.3 - 139.0
Heptachlor	0.05	0.0376	75	43.7 - 120.6
Heptachlor Epoxide	0.05	0.0440	88	58.4 - 141.2
Methoxychlor	0.05	0.0406	81	73.7 - 145.4
Technical Chlordane	ND	ND	0	70.0 - 130.0
Toxaphene	ND	ND	0	70.0 - 130.0

Comments:

LABORATORY FORTIFIED DUPLICATE (LFB Dup) RECOVERY

COMPOUND	LFB Dup CONCENTRATION ug/L	LFB Dup RECOVERY %	RPD %	QC LIMITS RPD
4,4'-DDD	0.0476	95	1	40
4,4'-DDE	0.0444	89	1	40
4,4'-DDT	0.0498	100	2	27
Aldrin	0.0309	62	2	22
Alpha Chlordane	0.0454	91	1	40
Alpha-BHC	0.0397	79	2	40
Aroclor-1016	ND			40
Aroclor-1260	ND			40
Beta-BHC	0.0449	90	1	40
Delta-BHC	0.0492	98	0	40
Dieldrin	0.0457	91	2	18
Endosulfan I	0.0446	89	1	40
Endosulfan II	0.0459	92	2	40
Endosulfan Sulfate	0.0483	97	2	40
Endrin	0.0442	88	2	21
Endrin Aldehyde	0.0435	87	2	40
Endrin Ketone	0.0501	100	2	40
Gamma Chlordane	0.0453	91	1	40
Gamma-BHC	0.0425	85	1	15
Heptachlor	0.0358	72	5	20
Heptachlor Epoxide	0.0448	90	2	40
Methoxychlor	0.0412	82	2	40
Technical Chlordane	ND			40
Toxaphene	ND			40

Samples in Batch: AC11466, AC11468

United States Environmental Protection Agency
Laboratory Services and Applied Science Division
11 Technology Drive
North Chelmsford, MA 01863-2431

Laboratory Results

March 18, 2024

Nafisah Ali
US EPA Region 1

Project No:	24020025
Project:	Burndy LLC IU Lincoln, NH
Analysis:	Total Cyanide in Water
EPA Chemist:	Paul Toompas

Date Samples Received by the Laboratory: 02/23/2024

Analytical Procedure:

All samples were received and logged in by the laboratory according to the USEPA New England Laboratory SOP for Sample Log-in.

Sample preparation and analysis was done following the EPA Region I SOP, LSBSOP-CN17.

The Cyanide SOP is Based on Lachat Method 10-204-00-1-X.

Results relate only to the items tested or to the samples as received by the Laboratory. This analytical report shall not be reproduced except in full, without written approval of the laboratory.

Data were reviewed in accordance with the internal verification procedures described in the EPA New England Quality Manual for NERL.

If you have any questions please call me at 617-918-8340.

Sincerely,

Qualifiers:

RL = Reporting limit
ND = Not Detected above Reporting limit
NA = Not Applicable due to high sample dilutions or sample interferences
NC = Not calculated since analyte concentration is ND.
J = Estimated value
J1 = Estimated value due to MS recovery outside accceptance criteria
J2 = Estimated value due to LFB result outside acceptance criteria
J3 = Estimated value due to RPD result outside acceptance criteria
J4 = Estimated value due to LCS result outside acceptance criteria
E = Estimated value exceeds the calibration range
L = Estimated value is below the calibration range
B = Analyte is associated with the lab blank or trip blank contamination. Values are qualified when the observed concentration of the contamination in the sample extract is less than 10 times the concentration in the blank.
R = No recovery was calculated since the analyte concentration is greater than four times the spike level.
P = The confirmation value exceeded 35% difference and is less than 100%. The lower value is reported.
C = The identification has been confirmed by GC/MS.
A = Suspected Aldol condensation product.
N = Tentatively identified compound.
ANR = Analysis not required.

Burndy LLC IU Lincoln, NH

Total Cyanide in Water

Matrix: Wastewater

Sample Number	Lab ID	Collected	Extracted	Analysis	Concentration ug/L	RL ug/L	Qualifier
BLLC02	AC11470	02/22/2024 12:52	02/26/2024	02/26/2024	**44**	16	
Comments:							
DUP02	AC11471	02/22/2024 12:53	02/27/2024	02/27/2024	**43**	16	
Comments:							
Blank			02/26/2024	02/26/2024	**ND**	16	
Comments:							
Blank			02/27/2024	02/27/2024	**ND**	16	
Comments:							

Burndy LLC IU Lincoln, NH

MATRIX SPIKE (MS) Results

SAMPLE ID	PARAMETER	SPIKE ADDED ug/L	SAMPLE CONCENTRATION ug/L	MS CONCENTRATION ug/L	MS % REC	QC LIMITS (% REC)
AC11471	Total Cyanide in Water	400	42.6	495	113	78 - 117

Comments:

Burndy LLC IU Lincoln, NH

Laboratory Duplicate Results

SAMPLE ID	PARAMETER	SAMPLE RESULT ug/L	SAMPLE DUP RESULT ug/L	PRECISION RPD %	QC LIMITS (%RPD)
AC11471	Total Cyanide in Water	42.6	43.5	2.1	20

Burndy LLC IU Lincoln, NH

Low/High Laboratory Fortified Blank (LFB) Results

PARAMETER	LFB AMOUNT SPIKED ug/L	LFB RESULT ug/L	LFB RECOVERY %	QC LIMITS %
High Level				
Total Cyanide in Water	400	398	99.5	90 - 110
Total Cyanide in Water	400	399	99.8	90 - 110
Low Level				
Total Cyanide in Water	40	37.8	94.5	90 - 110
Total Cyanide in Water	40	38.0	95.0	90 - 110

Comments:

United States Environmental Protection Agency
Laboratory Services and Applied Science Division
11 Technology Drive
North Chelmsford, MA 01863-2431

Laboratory Report

March 21, 2024

Nafisah Ali
US EPA Region 1

Project Number: 24020025
Project: Burndy LLC IU Lincoln, NH
Analysis: Metals in Water by ICP-OES
EPA Chemist: Lauren Light

Date Samples Received by the Laboratory: 02/23/2024

Analytical Procedure:

All samples were received and logged in by the laboratory according to the USEPA New England Laboratory SOP for Sample Log-in.

Samples were prepared following the EPA Region I SOP, LSBSOP-INGMETALSPREP9 (EPA Method 200.7).

Sample analysis was performed following the EPA Region I SOP, LSBSOP-OPTIMAS1.

Samples were analyzed by EPA Method 200.7 (Rev. 4.4, 1994 version), using a Perkin Elmer inductively coupled plasma atomic emission spectrophotometer.

Data were reviewed in accordance with the internal verification procedures described in the EPA New England Quality Manual for NERL.

If you have any questions please call me at 617-918-8340 .

Sincerely,

Qualifiers:

RL = Reporting limit
ND = Not Detected above Reporting limit
NA = Not Applicable due to high sample dilutions or sample interferences
NC = Not calculated since analyte concentration is ND.
J = Estimated value
J1 = Estimated value due to MS recovery outside accceptance criteria
J2 = Estimated value due to LFB result outside acceptance criteria
J3 = Estimated value due to RPD result outside acceptance criteria
J4 = Estimated value due to LCS result outside acceptance criteria
E = Estimated value exceeds the calibration range
L = Estimated value is below the calibration range
B = Analyte is associated with the lab blank or trip blank contamination. Values are qualified when the observed concentration of the contamination in the sample extract is less than 10 times the concentration in the blank.
R = No recovery was calculated since the analyte concentration is greater than four times the spike level.
P = The confirmation value exceeded 35% difference and is less than 100%. The lower value is reported.
C = The identification has been confirmed by GC/MS.
A = Suspected Aldol condensation product.
N = Tentatively identified compound.
ANR = Analysis not required.

Burndy LLC IU Lincoln, NH

Metals in Water by ICP-OES

Client Sample ID:	BLLC01-C	Lab Sample ID:	AC11467
Date of Collection:	2/22/2024	Matrix:	Wastewater
Date of Preparation:	3/06/2024	Amount Prepared:	10 mL
Date of Analysis:	3/15/2024	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	5
Wet Weight Prepared:	N/A	pH:	<2
Volume Extracted:	10 mL	GPC Factor:	N/A
Final Volume:	50 mL		

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
7440-22-4	Silver	ND	50	
7429-90-5	Aluminum	ND	550	
7440-38-2	Arsenic	ND	100	
7440-39-3	Barium	ND	100	
7440-41-7	Beryllium	ND	40	
7440-70-2	Calcium	**26000**	500	
7440-43-9	Cadmium	ND	50	
7440-48-4	Cobalt	ND	100	
7440-47-3	Chromium	ND	100	
7440-50-8	Copper	**250**	100	
7439-89-6	Iron	**370**	200	J3
7439-95-4	Magnesium	ND	500	
7439-96-5	Manganese	**130**	100	
7440-02-0	Nickel	ND	100	
7439-92-1	Lead	ND	100	
7440-36-0	Antimony	ND	300	
7782-49-2	Selenium	ND	200	
7440-28-0	Thallium	ND	100	
7440-62-2	Vanadium	ND	100	
7440-66-6	Zinc	ND	100	
7440-23-5	Sodium	**1100000**	5000	
7440-09-7	Potassium	ND	5000	

Comments: Sample prepped at 5X dilution due to matrix issues; reporting limits raised accordingly.

Burndy LLC IU Lincoln, NH

Metals in Water by ICP-OES

Client Sample ID:	DUP01-C	Lab Sample ID:	AC11469
Date of Collection:	2/22/2024	Matrix:	Wastewater
Date of Preparation:	3/06/2024	Amount Prepared:	10 mL
Date of Analysis:	3/15/2024	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	5
Wet Weight Prepared:	N/A	pH:	<2
Volume Extracted:	10 mL	GPC Factor:	N/A
Final Volume:	50 mL		

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
7440-22-4	Silver	ND	50	
7429-90-5	Aluminum	ND	550	
7440-38-2	Arsenic	ND	100	
7440-39-3	Barium	ND	100	
7440-41-7	Beryllium	ND	40	
7440-70-2	Calcium	**26000**	500	
7440-43-9	Cadmium	ND	50	
7440-48-4	Cobalt	ND	100	
7440-47-3	Chromium	ND	100	
7440-50-8	Copper	**250**	100	
7439-89-6	Iron	**340**	200	J3
7439-95-4	Magnesium	ND	500	
7439-96-5	Manganese	**130**	100	
7440-02-0	Nickel	ND	100	
7439-92-1	Lead	ND	100	
7440-36-0	Antimony	ND	300	
7782-49-2	Selenium	ND	200	
7440-28-0	Thallium	ND	100	
7440-62-2	Vanadium	ND	100	
7440-66-6	Zinc	ND	100	
7440-23-5	Sodium	**1100000**	5000	
7440-09-7	Potassium	ND	5000	

Comments: Sample prepped at 5X dilution due to matrix issues; reporting limits raised accordingly.

Burndy LLC IU Lincoln, NH

Laboratory Reagent Blank

Client Sample ID:	N/A	Lab Sample ID:	N/A
Date of Collection:	N/A	Matrix:	Wastewater
Date of Preparation:	3/06/2024	Amount Prepared:	50 mL
Date of Analysis:	3/15/2024	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	1
Wet Weight Prepared:	N/A	pH:	N/A
Volume Extracted:	50 mL	GPC Factor:	N/A
Final Volume:	50 mL		

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
7440-22-4	Silver	ND	10	
7429-90-5	Aluminum	ND	110	
7440-38-2	Arsenic	ND	20	
7440-39-3	Barium	ND	20	
7440-41-7	Beryllium	ND	8.0	
7440-70-2	Calcium	ND	100	
7440-43-9	Cadmium	ND	10	
7440-48-4	Cobalt	ND	20	
7440-47-3	Chromium	ND	20	
7440-50-8	Copper	ND	20	
7439-89-6	Iron	ND	40	
7439-95-4	Magnesium	ND	100	
7439-96-5	Manganese	ND	20	
7440-02-0	Nickel	ND	20	
7439-92-1	Lead	ND	20	
7440-36-0	Antimony	ND	60	
7782-49-2	Selenium	ND	40	
7440-28-0	Thallium	ND	20	
7440-62-2	Vanadium	ND	20	
7440-66-6	Zinc	ND	20	
7440-23-5	Sodium	ND	1000	
7440-09-7	Potassium	ND	1000	

Comments: Lab reagent blank matrix is deionized water

Burndy LLC IU Lincoln, NH

MATRIX SPIKE (MS) RECOVERY

Sample ID: AC11467

PARAMETER	SPIKE ADDED ug/L	SAMPLE CONCENTRATION ug/L	MS CONCENTRATION ug/L	MS % REC	QC LIMITS (% REC)
Aluminum	2500	ND	2690	108	75 - 125
Antimony	2500	ND	2450	98	75 - 125
Arsenic	2500	ND	2570	103	75 - 125
Barium	2500	ND	2490	100	75 - 125
Beryllium	1000	ND	1010	101	75 - 125
Cadmium	1250	ND	1250	100	75 - 125
Chromium	2500	ND	2520	101	75 - 125
Cobalt	2500	ND	2520	101	75 - 125
Copper	2500	250	2930	107	75 - 125
Iron	2500	370	2880	100	75 - 125
Lead	2500	ND	2520	101	75 - 125
Manganese	2500	130	2680	102	75 - 125
Nickel	2500	ND	2490	100	75 - 125
Selenium	2500	ND	2330	93	75 - 125
Silver	500	ND	503	101	75 - 125
Thallium	2500	ND	2410	96	75 - 125
Vanadium	2500	ND	2570	103	75 - 125
Zinc	2500	ND	2740	110	75 - 125

Burndy LLC IU Lincoln, NH

Laboratory Duplicate Results

Sample ID: AC11469

PARAMETER	SAMPLE RESULT ug/L	SAMPLE DUPLICATE RESULT ug/L	PRECISION RPD %	QC LIMITS
Aluminum	ND	ND	NC	20
Antimony	ND	ND	NC	20
Arsenic	ND	ND	NC	20
Barium	ND	ND	NC	20
Beryllium	ND	ND	NC	20
Cadmium	ND	ND	NC	20
Calcium	26000	26000	0.0	20
Chromium	ND	ND	NC	20
Cobalt	ND	ND	NC	20
Copper	250	250	0.0	20
Iron	340	420	21	20
Lead	ND	ND	NC	20
Magnesium	ND	ND	NC	20
Manganese	130	130	0.0	20
Nickel	ND	ND	NC	20
Potassium	ND	ND	NC	20
Selenium	ND	ND	NC	20
Silver	ND	ND	NC	20
Sodium	1100000	1100000	0.0	20
Thallium	ND	ND	NC	20
Vanadium	ND	ND	NC	20
Zinc	ND	ND	NC	20

Burndy LLC IU Lincoln, NH

Laboratory Fortified Blank (LFB) Results

PARAMETER	LFB AMOUNT SPIKED ug/L	LFB RESULT ug/L	LFB RECOVERY %	QC LIMITS %
Aluminum	500	487	97	85 - 115
Antimony	500	486	97	85 - 115
Arsenic	500	494	99	85 - 115
Barium	500	492	98	85 - 115
Beryllium	200	198	99	85 - 115
Cadmium	250	247	99	85 - 115
Calcium	5000	4960	99	85 - 115
Chromium	500	509	102	85 - 115
Cobalt	500	498	100	85 - 115
Copper	500	509	102	85 - 115
Iron	500	513	103	85 - 115
Lead	500	502	100	85 - 115
Magnesium	5000	5100	102	85 - 115
Manganese	500	503	101	85 - 115
Nickel	500	493	99	85 - 115
Potassium	5000	5080	102	85 - 115
Selenium	500	470	94	85 - 115
Silver	100	99.0	99	85 - 115
Sodium	5000	5070	101	85 - 115
Thallium	500	489	98	85 - 115
Vanadium	500	502	100	85 - 115
Zinc	500	498	100	85 - 115

Comments:

Samples in Batch: AC11467, AC11469

End of Report