

**NHDES Waste Management Division
29 Hazen Drive; PO Box 95
Concord, NH 03302-0095**

**SSI Surface Water PFAS Sampling Data Transmittal
North Country Environmental Services, Inc. Landfill
581 Trudeau Road
Bethlehem, New Hampshire 03574**

**NHDES Site #: 198704033
Project Type: Water Quality Monitoring
Project Number: 1737**

Prepared For:
North Country Environmental Services, Inc. (NCES)
581 Trudeau Road, P.O. Box 9
Bethlehem, New Hampshire 03574-0009
Phone Number (603) 869-3366
RP Contact Name: Mr. John Gay
RP Contact Email: John.Gay@casella.com

Prepared By:
Sanborn, Head & Associates, Inc.
6 Bedford Farms Drive, Suite 201
Bedford, New Hampshire 03110
Phone Number: (603) 229-1900
Contact Name: Timothy M. White, P.G.
Contact Email: twhite@sanbornhead.com



Date of Report: October 6, 2023

Groundwater Monitoring Report Cover Sheet

Site Name: **North Country Environmental Services, Inc. (NCES) Landfill**

Town: **Bethlehem, NH**

Permit #: **GWP-198704033-B-008**

Type of Submittal *(Check all that apply)*

- Periodic Summary Report *(year)*:
- Data Submittal *(month and year per Condition #7 of Permit)*: **Surface water data August 2023**
-

Check each box where the answer to any of the following questions is "YES"

Sampling Results

- During the most recent monitoring event, were any **new** compounds detected at any sampling point?
Well/Compound:

Surface water data only - concentrations are discussed in the text.

- Are there any detections of contamination in drinking water that is untreated prior to use? **NO**

Well/Compound:

- Do compounds detected exceed AGQS?

- Was free product detected for the **first time** in any monitoring point? **NO**

Surface Water *(visible sheen)*

Groundwater *(1/8" or greater thickness)*

Location/Thickness:

Contaminant Trends

- Do sampling results show an increasing concentration trend in any source area monitoring well? **Surface water concentrations are discussed in the text.**

Well/Compound:

- Do sampling results indicate an AGQS violation in any of the GMZ boundary wells?

Well/Compound: **Surface water data only**

Recommendations

- Does the report include any recommendations requiring DES action? *(Do not check this box if the only recommendation is to continue with existing permit conditions.)* **NO**

Mr. James W. O'Rourke, P.G.
New Hampshire Department of Environmental Services
Waste Management Division
29 Hazen Drive, P.O. Box 95
Concord, New Hampshire 03302-0095

October 6, 2023
File No. 1003.23

Re: Supplemental Site Investigation (SSI)
Surface Water PFAS Sampling Data Transmittal
Groundwater Management and Release Detection Permit GWP-198704033-B-008
North Country Environmental Services, Inc. (NCES) Landfill
Bethlehem, New Hampshire

Dear Mr. O'Rourke:

On behalf of NCES, Sanborn, Head & Associates, Inc. (Sanborn Head) has prepared this transmittal of surface water quality results related to the on-going SSI. NHDES' June 30, 2023 letter¹ required supplemental surface water sampling to "define the downgradient extent of PFAS impacts and confirm the validity of the Groundwater Management Zone (GMZ) associated with the former unlined landfill which was removed in the 1990s."

Summary of Sampling

Surface water locations S-108, S-109, S-1, S-101, and SF-1 were sampled in July pursuant to NHDES' June 30, 2023 letter. Field parameters pH, specific conductance, temperature, and turbidity were measured at the time of sample collection. Surface water samples were placed into laboratory containers and transported to Eastern Analytical, Inc. (EAI) of Concord, New Hampshire in coolers with ice under standard chain-of-custody procedures. Samples were submitted for analysis of the following parameters in July:

- Chemical oxygen demand (COD), chloride, nitrate, total Kjeldahl-nitrogen (TKN), iron, manganese.
- NHDES Waste Management Division Full List of Analytes for Volatile Organics (Full List VOCs), and 1,4-dioxane.

The results of the July surface water sampling were reported to NHDES in the July/Annual Report².

On August 22, 2023, surface water locations S-108, S-109, S-1, S-101, and SF-1 were sampled for the following analytes pursuant to NHDES' June 30 letter:

¹ <https://www4.des.state.nh.us/DocViewer/?ContentId=5099069>

² <https://www4.des.state.nh.us/DocViewer/?ContentId=5114194>

- Bromide; and
- Per- and polyfluoroalkyl substances (PFAS).

The surface water samples were analyzed by USEPA Method 1633 for the four PFAS analytes with New Hampshire groundwater standards (PFOA, PFOS, PFNA, and PFHxS).

For comparison to the SSI-required surface water results, samples from the three Ammonoosuc River locations (AR-1, AR-2, and AR-3) were also collected on August 22, 2023 for analysis for the same PFAS analytes.

The surface water sampling locations are shown on Figure 1. Tabulated surface water data are included in Appendices A and B. The field sampling form is included in Appendix C, and the laboratory reports are included in Appendix D.

Summary of Surface Water Results

Surface water results from July 2023 sampling, which included all analytes from NHDES' June 20, 2023 letter except PFAS and bromide, were reported in the July /2023 Annual Report. In July 2023, VOCs were not detected in surface water samples, and the results for other analytes in surface water were generally consistent with previous sampling events (refer to Table B.3 and Appendix C.2 of the July 2023/Annual report).

A summary of the PFAS and bromide results from the surface water locations in August 2023 is provided below:

PFAS

Of the eight surface water locations sampled for target four PFAS analytes, only two detections were recorded, both for PFOA:

- SF-1: PFOA = 3.70 ng/l
- S-101: PFOA = 3.05 ng/l

Although there is no surface water standard established in New Hampshire, for reference, we note that the two PFOA concentrations were less than the Ambient Groundwater Quality Standard (AGQS; 12 nanograms per liter [ng/l]).

The low level PFOA detections at SF-1 and S-101 are consistent with residual impacts from the former unlined landfill which have historically been documented in this area.

Bromide

Bromide was not detected in surface water samples collected from S-108, S-109, S-1, S-101, and SF-1 on August 22, 2023.

Closing

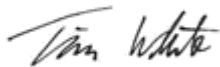
Together, the surface water results summarized in this letter report and the surface water results included in the July/Annual Report fulfill the requirements in NHDES' June 30, 2023 letter.

The results of the supplemental surface water monitoring indicated low-level PFOA detections at two locations (SF-1 and S-101), which are consistent with residual impacts from the former unlined landfill which have historically been well-documented in this area. PFAS target analytes were not detected in the Ammonoosuc River.

Based on the results of this supplemental surface water sampling, the limits of the GMZ are considered to be adequately monitored by the existing surface water monitoring network. We do not recommend additional surface water sampling as part of the SSI.

Please contact Tim White at Sanborn Head, or Joe Gay at NCES if you have any questions.

Very truly yours,
SANBORN, HEAD & ASSOCIATES, INC.



Timothy M. White, P.G.
Vice President



Matthew E. Estabrooks, P.E.
Senior Project Manager

TMW/MEE: tmw

FIGURE

Figure 1 Exploration Location Plan

APPENDICES

- Appendix A – Surface Water Analytical Results
- Appendix B – PFAS Surface Water Analytical Results
- Appendix C – Field Sampling Summary Form
- Appendix D – Analytical Laboratory Reports

cc: w/Appendices: Mr. Joe Gay, NCES
Mr. Kevin Roy, NCES
Town of Bethlehem

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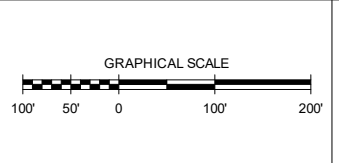
Figure

NOTES:

1. THE AERIAL IMAGERY WAS OBTAINED FROM A JUNE 2023 PHOTOGRAPH PROVIDED BY CMA ENGINEERS, INC.
2. TOPOGRAPHY INSIDE THE ACTIVE AREA WAS OBTAINED FROM AN JUNE 2023 SURVEY. OUTSIDE THE ACTIVE AREA, TOPOGRAPHY WAS OBTAINED FROM SURVEYS PERFORMED IN OCTOBER 2018 AND MAY 2021.
3. THE LIMITS OF THE GMZ ARE BASED ON AN OCTOBER 2017 PLAN PREPARED BY HORIZONS ENGINEERING, INC. ENTITLED "GROUND WATER MANAGEMENT ZONE PLAN FOR LANDS OF NORTH COUNTRY ENVIRONMENTAL SERVICES, INC. AND FOREST ACQUISITIONS, INC."

LEGEND:

-  FACILITY MONITORING WELL
-  SURFACE WATER SAMPLING LOCATION
- U/S** INDICATES UPPER/SHALLOW WELL
- M** INDICATES SCREEN AT MIDDLE INTERVAL BETWEEN UPPER AND LOWER SCREENS
- D/L** INDICATES DEEP/LOWER WELL
- R** INDICATES REPLACEMENT WELL
-  RIP-RAP STONE
-  LIMIT OF WETLAND DELINEATION
-  GROUNDWATER MANAGEMENT ZONE
-  TOWN OF BETHLEHEM ZONING LINE
-  PROPERTY LINE



Appendix A

Surface Water Analytical Results

TABLE A.1
 Summary of Monitoring Data – Surface Water Samples
 North Country Environmental Services, Inc.
 Bethlehem, New Hampshire
 Permit No. GWP-198704033-B-008

Sample Location	Sample Date	Sample Type	Field Parameters / Indicator Parameters / Metals																	Volatile Organic Compounds																
			SU	uS/cm	C	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L		
			pH	Specific Conductance	Temperature	Bromide	Chloride	Nitrate	Chemical Oxygen Demand	Total Kjeldahl Nitrogen (TKN)	Arsenic	Barium	Cadmium	Chromium	Iron	Iron	Lead	Manganese	Nickel	Acetone	Benzene	Butanone (2-) (MEK)	Dichlorodifluoromethane (CFC12)	Dichloroethane (1,1,1-)	Dioxane (1,4-)	Ethylbenzene	Hexanone (2-)	Isopropyltoluene (p-)	Methyl-2-pentanone (4-) (MIBK)	Methylene Chloride (Dichloromethane)	Tetrachloroethene (PCE)	Tetrahydrofuran	Toluene	Trichloroethene (TCE)	Xylene (m,p-)	Xylene (o-)
		Fraction	N	N	N	N	N	N	N	T	T	T	T	D	T	T	T	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
		GW-1 (AGQS)						10		0.005	2	0.005	0.1			0.015	0.3	0.1	6000	5	4000	1000	81	0.32	700		260	2000	5	5	600	1000	5	10000	10000	10000
		SMCL	6.5-8.5				250							0.3	0.3		0.05																			
Seep S-1	10-06-1993	N	6.2	250			7	<0.5	44	0.5					65	3.9		50		<10		<2		1	<10								34			4
Seep S-1	11-24-1993	N	7.2	355	6		3	<0.5	<10	<0.5					36	2.2		<50		<10		<2		<1	<10								19			2
Seep S-1	12-29-1993	N	6	88			1	<0.5	<10	<0.5					1.2	0.14		<50		<10		<2		<1	<10								<1			<1
Seep S-1	01-28-1994	N	6.2	230			7	<0.5	39	<0.5					64	4.6		<50		<10		<2		<1	<10								31			2
Seep S-1	02-28-1994	N	6.6	140			3	<0.5	<10	<0.5					23	1.6		<50		<10		<2		<1	<10								11			<1
Seep S-1	03-29-1994	N	6.4	92			2	<0.5	<10	<0.5					1.7	0.18		<50		<10		<2		<1	<10								<1			<1
Seep S-1	04-13-1994	N	6.7	675	9.1		11	<0.5	94	0.9					120	7.6		<50		<10		4		2	<10								85			7
Seep S-1	05-27-1994	N	6.4	240			8	<0.5	75	0.7					52	3.4		50		30		2		1	<10								38			2
Seep S-1	06-30-1994	N	6	130			3	<0.5	<10	<0.5					1.4	0.38		<50		<10		<2		<1	<10								<1			<1
Seep S-1	07-07-1994	N	6.5	166	25.2		5	<0.5	<10	<0.5	<0.01	<0.05	0.002	<0.002	14	<0.01	1	<50		20		<2		<1	<10							13			<1	
Seep S-1	08-25-1994	N	6.1	500			21	<0.5	300	0.7					220	14		420	1	460		3		3	10		10					260			8	
Seep S-1	09-29-1994	N	6.4	630			26	<0.5	470	1					200	14		480	1	540		8		3	10		10					390			10	
Seep S-1	10-31-1994	N	6.3	310			9	<0.5	140	0.7					73	4.6		280		290		3		1	10							150			4	
Seep S-1	11-28-1994	N	6.7	558	8.9		8	<0.5	63	<0.5					60	4		100		150		<2		<1	<10							74			2	
Seep S-1	12-29-1994	N	6.3	340			15	<0.5	110	0.8					77	5		100		160		<2		1	<10							100			2	
Seep S-1	01-31-1995	N	6.4	180			5	<0.5	27	<0.5					13	1.3		<50		30		<2		<1	<10							21			<1	
Seep S-1	02-27-1995	N	6.4	310			9	<0.5	52	<0.5					44	3.4		100		100		<2		<1	<10							68			2	
Seep S-1	03-29-1995	N	6.3	190			6	<0.5	41	0.6					22	2		50		60		<2		<1	<10							34			<1	
Seep S-1	04-03-1995	N	6.4	893	5.2		27	<0.5	230	1					140	9.4		320		450		5		2	30		20					240			7	
Seep S-1	05-05-1995	N																400		400		4		1	<10							250			8	
Seep S-1	05-10-1995	N	6.3	310			15	<0.5	99	<0.5					68	5.1		100		130		2		1	<10							130			3	
Seep S-1	06-29-1995	N	6.2	500			21	<0.5	170	0.8					83	8.5		<50		270		3		2	<10							170			5	
Seep S-1	07-13-1995	N	6.7	540	20		16	<0.5	130	<0.5					57	5.6		240		250		2		1	20							120			3	
Seep S-1	08-31-1995	N	6.4	220			7	<0.5	41	<0.5					26	2.5		<50		50		<2		<1	<10							40			<1	
Seep S-1	09-29-1995	N	6.4	155			3	<0.5	<10	<0.5					3.5	0.53		<50		<10		<2		<1	<10							6			<1	
Seep S-1	10-26-1995	N	6.4	150			2	<0.5	<10	<0.5					0.34	0.24		<50		<10		<2		<1	<10							<1			<1	
Seep S-1	11-13-1995	N	6.2	161	4.7		2	<0.5	<10	<0.5					1.4	0.24		<50		<10		<2		<1	<10							4			<1	
Seep S-1	12-21-1995	N	7.9	170			3	<0.5	<10	<0.5					3.6	0.62		<50		<10		<2		<1	<10							4			<1	
Seep S-1	01-23-1996	N	6.3	240			8	<0.5	33	<0.5					12	1.3		<50		10		<2		<1	<10							30			<1	
Seep S-1	02-27-1996	N	6.2	230			6	<0.5	<10	<0.5					6.7	1.3		<50		<10		<2		<1	<10							4			<1	
Seep S-1	03-29-1996	N	6.3	390			14	<0.5	56	0.7					48	5.1		80		40		<2		<1	<10							88			2	
Seep S-1	04-15-1996	N	6.5	240	5.4		6	<0.5	21	<0.5					19	2.5		<50		<10		<2		<1	<10							20			<1	
Seep S-1	05-31-1996	N	6.2	190			4	<0.5	<10	<0.5					7.5	1.5		<50		<10		<2		<1	<10							7			<1	
Seep S-1	06-28-1996	N	6.3	150			2	<0.5	<10	<0.5					4	0.92		<50		<10		<2		<1	<10							4			<1	
Seep S-1	07-09-1996	N	6.6	300	14		8	<0.5	30	<0.5					30	2.5		<50		<10		<2		<1	<10							40			<1	
Seep S-1	08-14-1996	N	6.2	250			7	<0.5	36	0.6					31	2.9		<50		<10		<2		<1	<10							32			1	
Seep S-1	09-20-1996	N	6.2	200			65	<0.5	30	<0.5					20	2.5		<50		<10		<2		<1	<10							27			<1	
Seep S-1	10-30-1996	N	6.3	270			7	<0.5	22	<0.5					24	2.9		<50		<10		<2		<1	<10							31			<1	
Seep S-1	11-11-1996	N	6.7	310	0.7		9	<0.5	40	0.5					29	3.5		<50		<10		<2		<1	<10							44			<1	
Seep S-1	12-19-1996	N	6.2	190			4	<0.5	<10	<0.5					7.2	1.6		<50		<10		<2		<1	<10							9			<1	
Seep S-1	01-20-1997	N	6.5	260			8	<0.5	34	0.5																										

TABLE A.1
Summary of Monitoring Data – Surface Water Samples
North Country Environmental Services, Inc.
Bethlehem, New Hampshire
Permit No. GWP-198704033-B-008

Sample Location	Sample Date	Sample Type	Field Parameters / Indicator Parameters / Metals																	Volatile Organic Compounds																			
			SU	uS/cm	C	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	
			pH	Specific Conductance	Temperature	Bromide	Chloride	Nitrate	Chemical Oxygen Demand	Total Kjeldahl Nitrogen (TKN)	Arsenic	Barium	Cadmium	Chromium	Iron	Iron	Lead	Manganese	Nickel	Acetone	Benzene	Butanone (2-) (MEK)	Dichlorodifluoromethane (CFC12)	Dichloroethane (1,1-)	Dioxane (1,4-)	Ethylbenzene	Hexanone (2-)	Isopropyltoluene (p-)	Methyl-2-pentanone (4-) (MIBK)	Methylene Chloride (Dichloromethane)	Tetrachloroethene (PCE)	Tetrahydrofuran	Toluene	Trichloroethene (TCE)	Xylene (m,p-)	Xylene (o-)	Xylenes (total)		
		Fraction	N	N	N	N	N	N	N	T	T	T	T	D	T	T	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
		GW-1 (AGQS)						10		0.005	2	0.005	0.1			0.015	0.3	0.1	6000	5	4000	1000	81	0.32	700		260	2000	5	5	600	1000		5	10000	10000	10000		
		SMCL	6.5-8.5				250								0.3	0.3	0.05																						
Seep S-1	11-03-2010	N	5.8	100	6.5		6	<0.5	<10	<0.5					15	0.78		<10	<1	<10	<5	<2	<1	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1		
Seep S-1	04-18-2011	N	5.5	80	7.4		6	<0.5	<10	<0.5					1	0.41		<10	<1	<10	<5	<2	<1	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1		
Seep S-1	07-14-2011	N	5.7	700	14.7		6	<0.5	<10	<0.5					78	0.92		<10	<1	<10	<5	<2	<1	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1		
Seep S-1	07-14-2011	FD					6	<0.5	<10	<0.5					5	0.52		<10	<1	<10	<5	<2	<1	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1		
Seep S-1	11-01-2011	N	6.5	140	6		4	<0.5	<10	<0.5					0.1	0.085		<10	<1	<10	<5	<2	<0.25	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1		
Seep S-1	04-11-2012	N	6.4	130	10.4		9	<0.5	<10	<0.5					7.3	0.9		<10	<1	<10	<5	<2	<0.25	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1		
Seep S-1	07-18-2012	N	6.39	150	10.1		5	<0.5	<10	<0.5					0.58	0.14		<10	<1	<10	<5	<2	<0.25	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1		
Seep S-1	11-06-2012	N	6.46	90	8.3		7	<0.5	<10	<0.5					0.54	0.18		<10	<1	<10	<5	<2	<0.25	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1		
Seep S-1	04-10-2013	N	6.3	700	8.1		10	<0.5	<10	<0.5					4.5	0.65		<10	<1	<10	<5	<2	<0.25	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1		
Seep S-1	07-09-2013	N	6.59	110	12.9		5	<0.5	<10	<0.5					1	0.18		<10	<1	<10	<5	<2	<0.25	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1		
Seep S-1	11-05-2013	N	6.1	109	9.1		10	<0.5	<10	<0.5					2.4	0.5		<10	<1	<10	<5	<2	<0.25	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1		
Seep S-1	04-21-2014	N	6.89	120	10.8		8	<0.5	<10	<0.5					0.25	0.12		<10	<1	<10	<5	<2	<0.25	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1		
Seep S-1	07-17-2014	N	6.45	108	9		7	<0.5	<10	<0.5					0.09	0.059		<10	<1	<10	<5	<2	<0.25	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1		
Seep S-1	11-05-2014	N	6.51	190	8.9		8	<0.5	<10	<0.5					1.1	0.21		<10	<1	<10	<5	<2	<0.25	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1		
Seep S-1	04-15-2015	N	6.98	100	9.2		8	<0.5	<10	<0.5					0.75	0.15		<10	<1	<10	<5	<2	<0.25	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1		
Seep S-1	07-21-2015	N	7	109	9.5		4	<0.5	<10	<0.5	<0.0005	0.007	<0.001	<0.001	0.12	<0.001	0.038	<0.001	<10	<1	<10	<5	<2	<0.25	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1	
Seep S-1	11-10-2015	N	7.44	70	8.3		5	<0.5	<10	<0.5					0.77	0.14		<10	<1	<10	<5	<2	<0.25	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1		
Seep S-1	04-11-2016	N	7.4	118	7.9		4	<0.5	<10	<0.5					0.87	0.097		<10	<1	<10	<5	<2	<0.25	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1		
Seep S-1	07-12-2016	N	7.64	97	9.2		3	<0.5	<10	<0.5					0.12	0.053		<10	<1	<10	<5	<2	<0.25	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1		
Seep S-1	11-07-2016	N	7.16	97	9.1		3	<0.5	<10	<0.5					0.16	0.044		<10	<1	<10	<5	<2	<0.25	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1		
Seep S-1	04-03-2017	N	6.86	100	9.2		4	<0.5	<10	<0.5					0.38	0.075		<10	<1	<10	<5	<2	<0.25	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1		
Seep S-1	07-26-2017	N	7.27	98	9.1		4	0.6	<10	<0.5					0.32	0.077		<10	<1	<10	<5	<1	<0.25	<1	<10	<1	<10	<5	<1	<10	<1	<1	<10	<1	<1	<1	<1		
Seep S-1	11-06-2017	N	6.91	101	9.2		2	0.7	<10	<0.5				<0.05	<0.005		<10	<1	<10	<5	<1	<0.25	<1	<10	<1	<10	<5	<1	<10	<1	<1	<10	<1	<1	<1	<1	<1		
Seep S-1	04-23-2018	N	6.86	104	10.9		9.7	0.52	<10	<0.5					1.1	0.25		<10	<1	<10	<5	<1	<0.25	<1	<10	<1	<10	<5	<1	<10	<1	<1	<10	<1	<1	<1	<1		
Seep S-1	07-10-2018	N	6.19	130	10.8		9.6	0.57	<10	<0.5					1.9	0.31		<10	<1	<10	<5	<1	<0.25	<1	<10	<1	<10	<5	<1	<10	<1	<1	<10	<1	<1	<1	<1		
Seep S-1	11-05-2018	N	6.66	111	8.8		4.4	0.63	<10	<0.5					0.32	0.094		<10	<1	<10	<5	<1	<0.25	<1	<10	<1	<10	<5	<1	<10	<1	<1	<10	<1	<1	<1	<1		
Seep S-1	04-22-2019	N	7.57	252	9.5		46	<0.5	<10	<0.5					0.76	0.22		<10	<1	<10	<5	<1	<0.25	<1	<10	<1	<10	<5	<1	<10	<1	<1	<10	<1	<1	<1	<1		
Seep S-1	07-08-2019	N	6.76	282	9.2		62	<0.5	<10	<0.5					0.38	0.095		<10	<1	<10	<5	<1	<0.25	<1	<10	<1	<10	<5	<1	<10	<1	<1	<10	<1	<1	<1	<1		
Seep S-1	11-05-2019	N	7.24	132	8.7		9.2	0.71	<10	<0.5					0.41	0.1		<10	<1	<10	<5	<1	<0.25	<1	<10	<1	<10	<5	<1	<10	<1	<1	<10	<1	<1	<1	<1		
Seep S-1	04-20-2020	N	7.28	146	9.5		11	1.1	<10	<0.5					1	0.31		<10	<1	<10	<2	<1	<0.25	<1	<10	<1	<10	<1	<1	<10	<1	<1	<10	<1	<1	<1	<1		
Seep S-1	07-13-2020	N	7.09	132	10.3		11	<0.5	12	<0.5	0.0015	0.017	<0.001	<0.001	2.2	<0.001	0.42	<0.001	<10	<1	<10	<2	<1	<0.25	<1	<10	<1	<10	<1	<1	<10	<1	<1	<10	<1	<1	<1	<1	
Seep S-1	11-03-2020	N	6.69	215	7.2		5.2	0.78	<10	<0.5					0.17	0.041		<10	<1	<10	<2	<1	<0.25	<1	<10	<1	<10	<1	<1	<10	<1	<1	<10	<1	<1	<1	<1		
Seep S-1	12-15-2020	N	7.13	146	7		4.4	0.66	<10	<0.5					0.24	0.055		<10	<1	<10	<2	<1	<0.25	<1	<10	<1	<10	<1	<1	<10	<1	<1	<10	<1	<1	<1	<1		
Seep S-1	01-13-2021	N	7.32	114	8.2		5.2	0.62	<10	<0.5					0.17	0.083		<10	<1	<10	<2	<1	<0.25	<1	<10	<1	<10	<1	<1	<10	<1	<1	<10	<1	<1	<1	<1		
Seep S-1	02-15-2021	N	7.51	114	8.8		6.4	0.6	<10	<0.5					0.25	0.11		<10	<1	<10	<2	<1	<0.25	<1	<10	<1	<10	<1	<1	<10	<1	<1	<10	<1	<1	<1	<1		
Seep S-1	03-17-2021	N	7.53	114	8.7		6.7	0.68	<10	<0.5																													

TABLE A.1
 Summary of Monitoring Data – Surface Water Samples
 North Country Environmental Services, Inc.
 Bethlehem, New Hampshire
 Permit No. GWP-198704033-B-008

Sample Location	Sample Date	Sample Type	Field Parameters / Indicator Parameters / Metals															Volatile Organic Compounds																						
			SU	uS/cm	C	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L				
Fraction			N	N	N	N	N	N	N	T	T	T	T	D	T	T	T	T	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N				
GW-1 (AGQS)								10		0.005	2	0.005	0.1				0.015	0.3	0.1	6000	5	4000	1000	81	0.32	700		260	2000	5	5	600	1000	5	10000	10000	10000			
SMCL			6.5-8.5			250								0.3	0.3		0.05																							
SF-1	07-11-2022	N	7.47	151	10.8		9	<0.5	<10	<0.5						0.95	0.22		<10	<1	<10	<2	<1	<0.25	<1	<10	<1	<10	<1	<10	<1	<1	<10	<1	<1	<1	<1			
SF-1	11-02-2022	N	7.58	130	8.9		7.7	<0.5	<10	<0.5						0.8	0.19		<10	<1	<10	<2	<1	<0.25	<1	<10	<1	<10	<1	<1	<10	<1	<1	<10	<1	<1	<1	<1		
SF-1	04-18-2023	N	7.79	123	8.1		7.4	<0.5	17	<0.5						6.8	0.53		<10	<1	<10	<2	<1	<0.25	<1	<10	<1	<10	<1	<1	<10	<1	<1	<10	<1	<1	<1	<1		
SF-1	07-12-2023	N	7.39	127	13		8.8	<0.5	<10	<0.5						8.8	0.85		<10	<1	<10	<2	<1	<0.25	<1	<10	<1	<10	<1	<1	<10	<1	<1	<10	<1	<1	<1	<1		
SF-1	08-22-2023	N	7.11	122	10.7	<0.1																																		
AR-1	04-15-1996	N	6.8	60	4		5	<0.5	12	<0.5						1.2	0.089																							
AR-1	07-09-1996	N	7.1	40	17.1		5	<0.5	<10	5.2						0.08	0.03																							
AR-1	11-11-1996	N	7.2	20	1.6		2	<0.5	16	<0.5						0.07	0.02																							
AR-1	04-07-1997	N	7	20	14.5		1	0.1	<20	0.27						0.8	0.05																							
AR-1	07-07-1997	N	6.1	23	18		2	0.1	<20	0.34						0.22	0.03																							
AR-1	11-11-1997	N	7.2	20	1.2		2	<0.1	25	0.13						0.11	<0.02																							
AR-1	07-13-1998	N	7.1	30	15.5		3	0.1	<20	0.16						0.12	<0.02																							
AR-1	07-27-1999	N	6.5	56	20		6	<0.1	<20	0.32						0.15	<0.02																							
AR-1	07-17-2000	N	7.4	41	18.8		4.56	0.256	<15	0.13						0.126	0.013																							
AR-1	07-09-2001	N	6.7	65	20.7		7.5	0.914	<15	0.165						0.157	0.018																							
AR-1	07-15-2002	N	7	56	9.3		5.77	0.117	<15	0.204						0.245	0.029																							
AR-1	07-14-2003	N	7.3	60	17.5		10.5	0.165	<15	0.278	<0.002	<0.02	<0.003	<0.01		0.124	<0.002	0.014	<0.02																					
AR-1	07-06-2004	N	7.4	54	20.6		6.46	0.082	<15	0.208						0.233	0.016																							
AR-1	07-11-2005	N	6.5	44	21		5.93	0.086	<15	0.093						0.137	0.014																							
AR-1	07-10-2006	N	7.3	80	19.1		6.7	0.093	<15	0.048						0.177	0.015																							
AR-1	07-23-2007	N	7	40	20.8		6.85	0.153	<15	0.207						0.16	<0.02																							
AR-1	07-21-2008	N	6.8	10	16.7		4.4	0.07	16	0.38						0.23	0.029																							
AR-1	07-13-2009	N	6.6	10	13.9		4	<0.5	<10	<0.5	<0.0005	0.007	<0.001	<0.001		0.18	<0.001	0.019	<0.001	<10	<1	<10	<5	<2	<1	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1	
AR-1	07-15-2010	N	6.9	30	20.2		5	<0.5	20	0.5						0.4	0.028		<10	<1	<10	<5	<2	<1	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1		
AR-1	07-14-2011	N	6.4	30	20.1		8	<0.5	<10	<0.5						0.23	0.022		<10	<1	<10	<5	<2	<1	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1		
AR-1	07-18-2012	N	6.49	40	20		7	<0.5	13	<0.5						0.17	0.014		<10	<1	<10	<5	<2	<0.25	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1		
AR-1	07-09-2013	N	7.12	30	17.2		3	<0.5	15	<0.5						0.22	0.018		<10	<1	<10	<5	<2	<0.25	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1		
AR-1	07-17-2014	N	7.02	36	16.6		4	<0.5	16	1.8						0.19	0.017		<10	<1	<10	<5	<2	<0.25	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1		
AR-1	07-21-2015	N	7.38	46	17.4		6	<0.5	13	<0.5	<0.0005	0.007	<0.001	<0.001		0.18	<0.001	0.015	<0.001	<10	<1	<10	<5	<2	<0.25	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1	
AR-1	07-12-2016	N	7.8	43	15.3		4	<0.5	<10	<0.5						0.1	0.016		<10	<1	<10	<5	<2	<0.25	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1		
AR-1	04-03-2017	N	7.32	63	1.2		8	<0.5	<10	<0.5						0.1	0.018		<10	<1	<10	<5	<2	<0.25	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1		
AR-1	07-26-2017	N	7.96	65	13.9		10	<0.5	<10	0.52						0.18	0.017		<10	<1	<10	<5	<1	<0.25	<1	<10	<1	<10	<5	<1	<10	<1	<1	<10	<1	<1	<1	<1		
AR-1	07-10-2018	N	7.02	71	17.5		9.6	<0.5	<10	<0.5						0.21	0.017		<10	<1	<10	<5	<1	<0.25	<1	<10	<1	<10	<5	<1	<10	<1	<1	<10	<1	<1	<1	<1		
AR-1	11-05-2018	N	6.84	37	3.7		2.6	<0.5	15	<0.5						0.15	0.025																							
AR-1	07-08-2019	N	7.7	54	16.3		8.6	<0.5	12	<0.5						0.22	0.019		<10	<1	<10	<5	<1	<0.25	<1	<10	<1	<10	<5	<1	<10	<1	<1	<10	<1	<1	<1	<1		
AR-1	07-13-2020	N	7.72	36	17.5		5.6	<0.5	14	<0.5	<0.0005	0.0065	<0.001	<0.001		0.19	<0.001	0.017	<0.001	<10	<1	<10	<2	<1	<0.25	<1	<10	<1	<10	<1	<1	<10	<1	<1	<10	<1	<1	<1	<1	
AR-1	07-05-2021	N	7.46	51	18.9		7.7	<0.5	<10	<0.5						0.25	0.018		<10	<1	<10	<2	<1	<0.25	<1	<10	<1	<10	<1	<1	<10	<1	<1	<10	<1	<1	<1	<1		
AR-1	07-11-2022	N	7.62	86	19.2		13	<0.5	<10	<0.5						0.18	0.015		<10	<1	<10	<2	<1	<0.25	<1	<10	<1	<10	<1	<1	<10	<1	<1	<10	<1	<1	<1	<1		
AR-1	07-12-2023	N	7.87	28	18		3.1	<0.5	16	<0.5						0.21	0.021		<10	<1	<10	<2	<1	<0.25	<1	<10	<1	<10	<1	<1	<10	<1	<1	<10	<1	<1	<1	<1		
AR-1	08-22-2023	N	7.41	45	13.8																																			
AR-2	07-13-1995	N	7.2	60	20		4	<0.5	16	<0.5						0.78	0.12																							

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Sample Location	Sample Date	Sample Type	Field Parameters / Indicator Parameters / Metals																	Volatile Organic Compounds																			
			SU	uS/cm	C	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L							
			pH	Specific Conductance	Temperature	Bromide	Chloride	Nitrate	Chemical Oxygen Demand	Total Kjeldahl Nitrogen (TKN)	Arsenic	Barium	Cadmium	Chromium	Iron	Iron	Lead	Manganese	Nickel	Acetone	Benzene	Butanone (2-) (MEK)	Dichlorodifluoromethane (CFC12)	Dichloroethane (1,1-)	Dioxane (1,4-)	Ethylbenzene	Hexanone (2-)	Isopropyltoluene (p-)	Methyl-2-pentanone (4-) (MIBK)	Methylene Chloride (Dichloromethane)	Tetrachloroethene (PCE)	Tetrahydrofuran	Toluene	Trichloroethene (TCE)	Xylene (m,p-)	Xylene (o-)	Xylenes (total)		
	Fraction		N	N	N	N	N	N	N	T	T	T	T	D	T	T	T	T	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
	GW-1 (AGQS)						10			0.005	2	0.005	0.1			0.015	0.3	0.1	6000	5	4000	1000	81	0.32	700		260	2000	5	5	600	1000	5	10000	10000	10000			
	SMCL		6.5-8.5				250							0.3	0.3	0.05																							
AR-3	07-27-1999	N	6.6	60	20		8	0.1	<20	0.23					0.14	<0.02																							
AR-3	07-17-2000	N	7.3	46	18.7		4.56	0.236	<15	0.173					0.25	0.022																							
AR-3	07-09-2001	N	6.9	67	21.5		7.52	0.228	<15	0.168					0.296	0.024																							
AR-3	07-15-2002	N	7	57	14		5.7	0.133	<15	0.186					0.405	0.03																							
AR-3	07-14-2003	N	7.4	75	18.7		10.3	0.147	<15	0.112	<0.002	<0.02	<0.003	<0.01	0.142	<0.002	0.02	<0.02																					
AR-3	07-06-2004	N	7.2	67	20.7		6.39	0.251	<15	0.347					0.345	0.031																							
AR-3	07-11-2005	N	6.7	41	21.7		5.7	0.071	<15	<0.04					0.148	0.014																							
AR-3	07-10-2006	N	7.1	30	19		6.7	0.14	<15	<0.04					0.215	0.02																							
AR-3	07-23-2007	N	6.7	30	21.2		6.87	0.122	<15	0.121					0.199	0.025																							
AR-3	07-21-2008	N	6.8	20	16.8		4.5	0.07	17	0.26					0.39	0.052																							
AR-3	07-13-2009	N	6.9	40	13.7		3	<0.5	10	<0.5	<0.0005	0.007	<0.001	<0.001	0.19	<0.001	0.021	<0.001	<10	<1	<10	<5	<2	<1	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1	
AR-3	07-15-2010	N	7	40	20.2		4	<0.5	15	0.6					0.34	0.029			<10	<1	<10	<5	<2	<1	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1	
AR-3	07-14-2011	N	6.8	10	20.4		9	<0.5	11	<0.5					0.24	0.027			<10	<1	<10	<5	<2	<1	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1	
AR-3	07-18-2012	N	7.62	40	19.6		8	<0.5	18	<0.5					0.16	0.017			<10	<1	<10	<5	<2	<0.25	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1	
AR-3	07-09-2013	N	7.37	30	17.6		3	<0.5	17	<0.5					0.24	0.019			<10	<1	<10	<5	<2	<0.25	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1	
AR-3	07-17-2014	N	7.29	40	16.2		4	<0.5	19	1					0.21	0.022			<10	<1	<10	<5	<2	<0.25	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1	
AR-3	07-21-2015	N	7.31	47	17.1		5	<0.5	10	<0.5	<0.0005	0.007	<0.001	<0.001	0.12	<0.001	0.014	<0.001	<10	<1	<10	<5	<2	<0.25	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1	
AR-3	07-12-2016	N	8.06	44	15.2		5	<0.5	<10	0.6					0.11	0.018			<10	<1	<10	<5	<2	<0.25	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1	
AR-3	04-03-2017	N	7.1	65	1.2		8	<0.5	<10	<0.5					0.11	0.034			<10	<1	<10	<5	<2	<0.25	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1	
AR-3	07-26-2017	N	8.42	64	14.2		10	<0.5	<10	<0.5					0.18	0.019			<10	<1	<10	<5	<1	<0.25	<1	<10	<1	<10	<5	<1	<10	<1	<1	<10	<1	<1	<1	<1	
AR-3	07-10-2018	N	7.23	73	17		9.6	<0.5	<10	<0.5				0.068	0.81	0.025			<10	<1	<10	<5	<1	<0.25	<1	<10	<1	<10	<5	<1	<10	<1	<1	<10	<1	<1	<1	<1	
AR-3	11-05-2018	N	6.96	41	3.8		2.5	<0.5	18	<0.5					0.16	0.028																							
AR-3	07-08-2019	N	7.78	56	15.6		8.8	<0.5	<10	<0.5					0.22	0.023			<10	<1	<10	<5	<1	<0.25	<1	<10	<1	<10	<5	<1	<10	<1	<1	<10	<1	<1	<1	<1	
AR-3	07-13-2020	N	7.68	36	17.4		5.7	<0.5	14	<0.5	<0.0005	0.0067	<0.001	<0.001	0.2	<0.001	0.019	<0.001	<10	<1	<10	<2	<1	<0.25	<1	<10	<1	<10	<1	<1	<10	<1	<1	<10	<1	<1	<1	<1	
AR-3	07-05-2021	N	7.79	52	18.1		7.8	<0.5	<10	<0.5					0.23	0.022			<10	<1	<10	<2	<1	<0.25	<1	<10	<1	<10	<1	<1	<10	<1	<1	<10	<1	<1	<1	<1	
AR-3	07-11-2022	N	7.54	88	19		13	<0.5	<10	<0.5					0.17	0.019			<10	<1	<10	<2	<1	<0.25	<1	<10	<1	<10	<1	<1	<10	<1	<1	<10	<1	<1	<1	<1	
AR-3	07-12-2023	N	7.13	27	18.4		3.2	<0.5	11	<0.5					0.22	0.023			<10	<1	<10	<2	<1	<0.25	<1	<10	<1	<10	<1	<1	<10	<1	<1	<10	<1	<1	<1	<1	
AR-3	08-22-2023	N	7.56	46	13.9																																		
S-101	07-07-1997	N	6.8	63	15																																		
S-101	07-13-1998	N	7	50	14.8																																		
S-101	07-27-1999	N	6.8	84	9		1	0.1	<20	0.18					<0.03	<0.02																							
S-101	07-17-2000	N	8	58	12.7		<4	0.405	<15	<0.040					0.057	<0.005																							
S-101	07-09-2001	N	6.9	77	15		<2.5	0.268	<15	0.251					0.149	0.005																							
S-101	07-15-2002	N	6.8	75	16		<2.5	0.503	<15	0.098					0.044	<0.005																							
S-101	07-14-2003	N	6.6	108	9.6		<2.5	0.506	20	0.46	<0.002	<0.02	<0.003	<0.01	0.095	<0.002	0.007	<0.02																					
S-101	07-06-2004	N	7.1	78	10.2		<2.5	0.631	<15	0.098					0.016	<0.005																							
S-101	07-11-2005	N	7	77	9		<2.5	0.023	<15	<0.04					0.999	0.07																							
S-101	07-10-2006	N	6.7	90	10.1		<2.5	0.372	<15	<0.04					1.16	0.017																							
S-101	07-23-2007	N	6.4	50	9.5		<2.5	0.407	<15	<0.05					0.032	<0.02																							
S-101	07-21-2008	N	5.5	50	10.1		<2.5	0.46	<10	0.24					0.046	<0.02																							
S-101	07-13-2009	N	6.8	60	10		1	<0.5	<10	<0.5	<0.0005	0.004	<0.001	<0.001	<0.05	<0.001	<0.005	<0.001	<10	<1	<10	<5	<2	<1	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1	
S-101	07-15-2010	N	7.1	30	11		<1	<0.5	<10	<0.5					0.06	<0.005			<10	<1	<10	<5	<2</																

TABLE A.1
 Summary of Monitoring Data – Surface Water Samples
 North Country Environmental Services, Inc.
 Bethlehem, New Hampshire
 Permit No. GWP-198704033-B-008

Sample Location	Sample Date	Sample Type	Field Parameters / Indicator Parameters / Metals																	Volatile Organic Compounds																			
			SU	uS/cm	C	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L				
			pH	Specific Conductance	Temperature	Bromide	Chloride	Nitrate	Chemical Oxygen Demand	Total Kjeldahl Nitrogen (TKN)	Arsenic	Barium	Cadmium	Chromium	Iron	Iron	Lead	Manganese	Nickel	Acetone	Benzene	Butanone (2-) (MEK)	Dichlorodifluoromethane (CFC12)	Dichloroethane (1,1-)	Dioxane (1,4-)	Ethylbenzene	Hexanone (2-)	Isopropyltoluene (p-)	Methyl-2-pentanone (4-) (MIBK)	Methylene Chloride (Dichloromethane)	Tetrachloroethene (PCE)	Tetrahydrofuran	Toluene	Trichloroethene (TCE)	Xylene (m,p-)	Xylene (o-)	Xylenes (total)		
Fraction			N	N	N	N	N	N	N	T	T	T	T	D	T	T	T	T	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
GW-1 (AGQS)								10		0.005	2	0.005	0.1			0.015	0.3	0.1	6000	5	4000	1000	81	0.32	700		260	2000	5	5	600	1000	5	10000	10000	10000			
SMCL			6.5-8.5				250							0.3	0.3		0.05																						
S-101	07-14-2011	N	6.7	60	16.7		<1	0.6	<10	<0.5																													
S-101	07-18-2012	N	7.25	130	9.7		2	<0.5	11	<0.5																													
S-101	07-09-2013	N	7.05	70	10.1		1	<0.5	<10	<0.5																													
S-101	07-17-2014	N	6.97	73	8.2		1	<0.5	<10	2.3																													
S-101	07-21-2015	N	7.52	68	8.8		1	<0.5	<10	<0.5																													
S-101	07-12-2016	N	8.16	79	8.8		<1	<0.5	<10	0.8																													
S-101	04-03-2017	N	7.43	79	6.3		2	<0.5	<10	<0.5																													
S-101	07-26-2017	N	7.95	78	8		1	<0.5	<10	<0.5																													
S-101	07-10-2018	N	6.85	92	10		1.8	<0.5	<10	<0.5																													
S-101	11-05-2018	N	7.02	94	6.6		1.4	<0.5	<10	<0.5																													
S-101	07-08-2019	N	7.31	327	8.7		69	<0.5	<10	<0.5																													
S-101	11-05-2019	N	7.42	135	6.7		10	0.56	<10	<0.5																													
S-101	04-20-2020	N	7.69	113	6.6		7.3	0.61	<10	<0.5																													
S-101	07-13-2020	N	7.46	91	9		5.9	<0.5	<10	<0.5																													
S-101	07-05-2021	N	7.53	72	9.3		1.6	0.53	<10	<0.5																													
S-101	07-11-2022	N	7.65	111	8.7		1.2	<0.5	<10	<0.5																													
S-101	07-12-2023	N	6.92	81	9.9		1.1	<0.5	<10	<0.5																													
S-101	08-22-2023	N	7.35	86	8.6	<0.1																																	
S-108	05-05-1995	N																																					
S-108	07-07-1997	N	6.9	500	24.1																																		
S-108	07-13-1998	N	6.6	320	15.5																																		
S-108	07-27-1999	N	6.7	309	13		11	<0.1	1900	1.8																													
S-108	07-17-2000	N	7.3	277	13.2		7.03	0.464	80	0.506																													
S-108	07-09-2001	N	6.6	260	16.9		9.72	0.488	<15	0.364																													
S-108	07-15-2002	N	6.5	236	14.6		7.24	0.026	101	3.79																													
S-108	07-14-2003	N	7	254	13.5		12.7	0.184	340	6.7																													
S-108	07-06-2004	N	6.9	255	13.5		6.64	1.94	308	2.76																													
S-108	07-11-2005	N	6.3	154	11.8		7.56	0.064	680	7.94																													
S-108	07-10-2006	N	6.7	240	12.5		6.88	0.138	<15	10.3																													
S-108	07-23-2007	N	6.9	160	11.1		6.46	0.503	<15	0.34																													
S-108	07-21-2008	N	6.2	100	20.6		5.4	0.03	84	28																													
S-108	07-13-2009	N	6.8	170	13		6	<0.5	140	<0.5																													
S-108	07-15-2010	N	6.8	150	20.8		17	<0.5	31	<0.5																													
S-108	07-14-2011	N	7	130	16.1		6	<0.5	770	0.5																													
S-108	07-18-2012	N	7.25	370	15.7		5	<0.5	15	<0.5																													
S-108	07-09-2013	N	6.85	190	16		6	0.7	14	<0.5																													
S-108	07-17-2014	N	7.08	166	15.3		6	<0.5	52	0.9																													
S-108	07-21-2015	N	7.09	208	14.7		6	<0.5	12	0.6																													
S-108	07-12-2016	N	7.19	192	13.9		5	<0.5	<10	0.5																													
S-108	04-03-2017	N	7.18	162	5		5	0.5	25	<0.5																													
S-108	07-26-2017	N	8.37	165	12.8		5	3.1	71	0.65																													
S-108	07-10-2018	N	6.48	240	14.3		8.9	<0.5	350	0.69																													

TABLE A.1
Summary of Monitoring Data – Surface Water Samples
North Country Environmental Services, Inc.
Bethlehem, New Hampshire
Permit No. GWP-198704033-B-008

Sample Location	Sample Date	Sample Type	Field Parameters / Indicator Parameters / Metals																Volatile Organic Compounds																				
			SU	uS/cm	C	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L		
			pH	Specific Conductance	Temperature	Bromide	Chloride	Nitrate	Chemical Oxygen Demand	Total Kjeldahl Nitrogen (TKN)	Arsenic	Barium	Cadmium	Chromium	Iron	Iron	Lead	Manganese	Nickel	Acetone	Benzene	Butanone (2-) (MEK)	Dichlorodifluoromethane (CFC12)	Dichloroethane (1,1,1-)	Dioxane (1,4-)	Ethylbenzene	Hexanone (2-)	Isopropyltoluene (p-)	Methyl-2-pentanone (4-) (MIBK)	Methylene Chloride (Dichloromethane)	Tetrachloroethene (PCE)	Tetrahydrofuran	Toluene	Trichloroethene (TCE)	Xylene (m,p-)	Xylene (o-)	Xylenes (total)		
	Fraction		N	N	N	N	N	N	N	T	T	T	T	D	T	T	T	T	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
	GW-1 (AGQS)							10		0.005	2	0.005	0.1			0.015	0.3	0.1	6000	5	4000	1000	81	0.32	700		260	2000	5	5	600	1000	5	10000	10000	10000			
	SMCL		6.5-8.5				250							0.3	0.3	0.05																							
S-108	07-08-2019	N	7.24	249	13.7		5.8	<0.5	38	0.92					2.4	6		<10	<1	<10	<5	<1	<0.25	<1	<10	<1	<10	<5	<1	<10	<1	<1	<1	<1	<1	<1			
S-108	04-20-2020	N	6.96	164	11.8																		<0.25																
S-108	07-13-2020	N	6.66	188	15.3		11	<0.5	58	<0.5	0.0024	0.08	<0.001	0.0046	5.5	0.0033	7.5	0.0048	<10	<1	<10	<2	<1	<0.25	<1	<10	<1	<10	<1	<1	<10	<1	<1	<1	<1	<1	<1		
S-108	12-15-2020	N	7.67	154	4.8		5	<0.5	14	<0.5					0.29	0.94		<10	<1	<10	<2	<1	<0.25	<1	<10	<1	<10	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1		
S-108	01-13-2021	N	7.68	154	6.3		5.8	<0.5	24	<0.5					0.23	0.37		<10	<1	<10	<2	<1	<0.25	<1	<10	<1	<10	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1		
S-108	02-15-2021	N	7.81	166	4.1		9.6	0.55	140	<0.5					2.6	1.5		<10	<1	<10	<2	<1	<0.25	<1	<10	<1	<10	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1		
S-108	03-17-2021	N	7.48	170	5.1		5	<0.5	<10	<0.5					0.16	0.19		<10	<1	<10	<2	<1	<0.25	<1	<10	<1	<10	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1		
S-108	04-19-2021	N	7.34	150	9.7		6.6	<0.5	12	<0.5					0.91	0.6		<10	<1	<10	<2	<1	<0.25	<1	<10	<1	<10	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1		
S-108	07-05-2021	N	6.75	168	14.7		7.5	<0.5	14	<0.5					0.41	0.22		<10	<1	<10	<2	<1	<0.25	<1	<10	<1	<10	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1		
S-108	07-11-2022	N	6.87	165	13.2		6.2	<0.5	<10	<0.5					0.3	0.36		<10	<1	<10	<2	<1	<0.25	<1	<10	<1	<10	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1		
S-108	07-12-2023	N	7.22	143	16.7		6	<0.5	14	<0.5					2.3	2		<10	<1	<10	<2	<1	<0.25	<1	<10	<1	<10	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1		
S-108	08-22-2023	N	7	142	13.5	<0.1																																	
S-109	05-05-1995	N																																					
S-109	07-07-1997	N	6.9	434	8.1																																		
S-109	07-13-1998	N	6.7	280	15.2														<10																				
S-109	07-27-1999	N	6.9	271	15		5	<0.1	437	0.6					3	7.3		<10																					
S-109	07-17-2000	N	7.1	245	12.4		4.13	0.94	332	0.28					9.68	10.5		<20																					
S-109	07-09-2001	N	6.5	234	16.8		6.34	0.138	<15	1.31					110	40.6		<20																					
S-109	07-15-2002	N	6.6	198	14.8		5.18	0.105	373	13.6					16.4	32.6		<20																					
S-109	07-14-2003	N	7.1	220	11		6.26	<0.020	103	2.52	0.006	0.11	<0.003	<0.01	4.99	0.008	11.5	<0.02	<10																				
S-109	07-06-2004	N	7.3	180	12.8		23.2	0.29	570	179					1130	2360		<10																					
S-109	07-11-2005	N	6.4	207	10.6		5.25	0.295	133	11.9					14.8	300		49																					
S-109	07-10-2006	N	7	250	13.4		5.12	0.131	<15	1.47					7.96	17.8		<10																					
S-109	07-23-2007	N	6.8	130	14.9		4.55	0.063	<15	0.197					0.093	1.07		<10																					
S-109	07-21-2008	N	6.2	90	20.1		4.6	0.04	18	0.81					6.2	25		<10																					
S-109	07-13-2009	N	7.2	190	13.3		5	<0.5	<10	<0.5	0.0012	0.012	<0.001	0.001	1.1	0.001	1.7	0.001	<10	<1	<10	<5	<2	<1	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1	
S-109	07-15-2010	N	7.1	140	17.2		5	<0.5	<10	<0.5					0.37	0.66		<10	<1	<10	<5	<2	<1	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1		
S-109	07-14-2011	N	6.9	150	21.9		5	<0.5	94	0.5					16	21		<10	<1	<10	<5	<2	<1	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1		
S-109	07-18-2012	N	6.75	390	17.3		8	<0.5	14	<0.5					2.9	2.1		<10	<1	<10	<5	<2	<0.25	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1		
S-109	07-09-2013	N	7.29	170	16		5	1.2	<10	<0.5					1.9	2.6		<10	<1	<10	<5	<2	<0.25	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1		
S-109	07-17-2014	N	7.18	165	14.4		5	<0.5	19	1					0.65	1.5		<10	<1	<10	<5	<2	<0.25	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1		
S-109	07-21-2015	N	7.46	162	14.4		5	<0.5	<10	<0.5	0.006	0.11	<0.001	0.011	8.2	0.01	14	0.008	<10	<1	<10	<5	<2	<0.25	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1		
S-109	07-12-2016	N	7.67	167	13.9		4	<0.5	17	0.6					4.8	7.8		<10	<1	<10	<5	<2	<0.25	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1		
S-109	04-03-2017	N	6.78	152	4.8		13	<0.5	86	0.6					24	43		<10	<1	<10	<5	<2	<0.25	<1	<10	<1	<10	<5	<2	<10	<1	<2	<10	<1	<2	<1	<1		
S-109	07-26-2017	N	7.89	177	14.3		4	<0.5	51	0.95					1.8	1.6		<10	<1	<10	<5	<1	<0.25	<1	<10	<1	<10	<5	<1	<10	<1	<1	<10	<1	<1	<1	<1		
S-109	07-10-2018	N	7.01	193	15.1		4.4	<0.5	53	<0.5					1.3	1.3		<10	<1	<10	<5	<1	<0.25	<1	<10	<1	<10	<5	<1	<10	<1	<1	<10	<1	<1	<1	<1		
S-109	07-08-2019	N	7.11	157	14		4.3	<0.5	<10	<0.5					0.28	0.84		<10	<1	<10	<5	<1	<0.25	<1	<10	<1	<10	<5	<1	<10	<1	<1	<10	<1	<1	<1	<1		
S-109	04-20-2020	N	7.71	149	9.3																			<0.25															
S-109	07-13-2020	N	7.05	171	15.8		5.1	<0.5	<10	<0.5	<0.0005	0.0042	<0.001	<0.001	0.4	<0.001	0.47	<0.001	<10	<1	<10	<2	<1	<0.25	<1	<10	<1	<10	<1	<1	<10	<1	<1	<1	<1	<1	<1		
S-109	12-15-2020	N	7.46	150	6.1		5	<0.5	25	<0.5					3.5	5.6		<10	<1	<10	<2</																		

TABLE A.1
Summary of Monitoring Data – Surface Water Samples
North Country Environmental Services, Inc.
Bethlehem, New Hampshire
Permit No. GWP-198704033-B-008

Sample Location	Sample Date	Sample Type	Field Parameters / Indicator Parameters / Metals																Volatile Organic Compounds																					
			SU	uS/cm	C	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L			
			pH	Specific Conductance	Temperature	Bromide	Chloride	Nitrate	Chemical Oxygen Demand	Total Kjeldahl Nitrogen (TKN)	Arsenic	Barium	Cadmium	Chromium	Iron	Iron	Lead	Manganese	Nickel	Acetone	Benzene	Butanone (2-) (MEK)	Dichlorodifluoromethane (CFC12)	Dichloroethane (1,1,1-)	Dioxane (1,4-)	Ethylbenzene	Hexanone (2-)	Isopropyltoluene (p-)	Methyl-2-pentanone (4-) (MIBK)	Methylene Chloride (Dichloromethane)	Tetrachloroethene (PCE)	Tetrahydrofuran	Toluene	Trichloroethene (TCE)	Xylene (m,p-)	Xylene (o-)	Xylenes (total)			
Fraction			N	N	N	N	N	N	N	N	T	T	T	T	D	T	T	T	T	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
GW-1 (AGQS)								10			0.005	2	0.005	0.1			0.015	0.3	0.1	6000	5	4000	1000	81	0.32	700		260	2000	5	5	600	1000	5	10000	10000	10000			
SMCL			6.5-8.5			250									0.3	0.3		0.05																						
S-109	03-17-2021	N	7.78	146	4.8		4.9	<0.5	18	0.73							0.8	0.84		<10	<1	<10	<2	<1	<0.25	<1	<10	<1	<10	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1
S-109	04-19-2021	N	7.6	142	10.1		5.3	<0.5	<10	<0.5							1.5	0.48		<10	<1	<10	<2	<1	<0.25	<1	<10	<1	<10	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1
S-109	07-05-2021	N	7.12	152	15.3		5.4	<0.5	<10	<0.5							0.91	0.23		<10	<1	<10	<2	<1	<0.25	<1	<10	<1	<10	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1
S-109	07-11-2022	N	7.07	165	14.3		6.7	<0.5	23	0.75							1.8	3.1		<10	<1	<10	<2	<1	<0.25	<1	<10	<1	<10	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1
S-109	07-12-2023	N	7.04	133	16.3		5.5	<0.5	<10	<0.5							<0.05	0.41		<10	<1	<10	<2	<1	<0.25	<1	<10	<1	<10	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1
S-109	08-22-2023	N	7.26	138	14.2	<0.1																																		

Notes:

- Samples through July 1993 were collected by GZA GeoEnvironmental, Inc. of Manchester, New Hampshire. Subsequent samples were collected by Sanborn Head. Dates indicated prior to 2009 are the first date of the given sampling round. Samples through July 1991 were analyzed by Resource Analysts, Inc. of Hampton, New Hampshire. Samples from September 1991 through November 1996 were analyzed by Eastern Analytical, Inc. (EAI) of Concord, New Hampshire. Samples from April 1997 through July 1999 were analyzed by SciTest Laboratory Services of Randolph, Vermont. Samples from November 1999 through December 2008 were analyzed by Endyne, Inc. (Endyne) of Williston, Vermont. Samples from December 2008 through current were analyzed by EAI.
- A sample type of "N" indicates a normal sample. A sample type of "FD" indicates a field duplicate sample.
A fraction of "T" indicates a total (unfiltered) metals analysis; a fraction of "D" indicates a dissolved (filtered) metals analysis; and a fraction type of "N" indicates not applicable for non-metals results.
- Only those analytes detected one or more times are presented herein. Refer to the analytical laboratory reports for the complete list of parameters analyzed.
- Blank cells for data collected after 2008 indicate analyte not analyzed on date indicated. Blank cells for data 2008 and older indicate sample was not analyzed for field/indicator parameters and metals, and either the sample was not submitted for laboratory analysis of volatile organic compounds (VOCs), or results were not reported electronically for VOCs. Refer to previous submittals to NHDES for 2008 and older data.
- pH is presented in standard units (s.u.), specific conductance is presented in microSiemens per centimeter (µS/cm), and temperature is presented in degrees Celsius (°C). Indicator parameter and metals results are presented in milligrams per liter (mg/L) which is equivalent to parts per million. VOC results are presented in micrograms per liter (µg/L) which is equivalent to parts per billion (ppb).
- "<" indicates the analyte was not detected above the listed laboratory reporting limit.
- "GW-1" refers to the New Hampshire GW-1 Groundwater Standards as defined in New Hampshire Department of Environmental Services (NHDES) Contaminated Sites Risk Characterization and Management Policy (RCMP) (January 1998, with 2000 through 2018 revisions/addenda). GW-1 Groundwater Standards are intended to be equivalent to the Ambient Groundwater Quality Standards (AGQSs) promulgated in Env-Or 600 (June 2015 with October 2016, September 2018, September 2019, May 2020, January 2021, and July 2021 amendments). For analytes where GW-1 and AGQS values differ, the values presented in this table reflect the AGQSs in the latest Env-Or 600 update. The AGQS/GW-1 Groundwater Standards are intended to be protective of groundwater as a source of drinking water.
"SMCL" refers to the USEPA Secondary Maximum Contaminant Levels as presented in the National Primary Drinking Water Standards (May 2009). The SMCLs are established as guidelines to assist public water systems in managing their drinking water for aesthetic considerations, such as taste, color, and odor. These analytes are not considered to present a risk to human health at the SMCL.
- Bold** values exceed the GW-1 Groundwater Standard.
Italic values exceed the SMCL.

Appendix B

PFAS Surface Water Analytical Results

TABLE B.1
Summary of PFAS Surface Water Analytical Results
North Country Environmental Services, Inc.
Bethlehem, New Hampshire
Permit No. GWP-198704033-B-008

Sample Location	Sample Date	Sample Type	Concentrations in ng/L				Total of Regulated PFAS
			Perfluoroalkyl Carboxylic Acids		Perfluoroalkyl Sulfonic Acids		
			Perfluorooctanoic Acid (PFOA) [7]	Perfluorononanoic Acid (PFNA) [8]	Perfluorohexanesulfonic Acid (PFHxS) [6S]	Perfluorooctanesulfonic Acid (PFOS) [8S]	
CAS Number			335-67-1	375-95-1	355-46-4	1763-23-1	-
GW-1 (AGQS)			12	11	18	15	
Seep S-1	08-22-2023	N	<1.92	<1.54	<1.4	<1.43	ND
SF-1	08-22-2023	N	3.70	<1.52	<1.39	<1.42	3.70
AR-1	08-22-2023	N	<1.92	<1.54	<1.4	<1.43	ND
AR-2	08-22-2023	N	<1.93	<1.54	<1.41	<1.44	ND
AR-3	08-22-2023	N	<1.96	<1.57	<1.43	<1.46	ND
S-101	08-22-2023	N	3.05	<1.52	<1.39	<1.42	3.05
S-108	08-22-2023	N	<1.93	<1.54	<1.41	<1.44	ND
S-109	08-22-2023	N	<1.99	<1.59	<1.45	<1.48	ND
QC_FB	08-22-2023	FB	<3.76	<3.01	<2.74	<2.8	ND

TABLE B.1
Summary of PFAS Surface Water Analytical Results
North Country Environmental Services, Inc.
Bethlehem, New Hampshire
Permit No. GWP-198704033-B-008

Notes:

1. Samples were collected by Sanborn Head personnel on the dates indicated and analyzed for PFAS by Enthalpy Analytical Laboratory (Enthalpy) of El Dorado Hills, California by Draft USEPA Method 1633. Enthalpy was subcontracted through Eastern Analytical, Inc. (EAI) of Concord, New Hampshire.


Sample Locations denoted "QC_FB" indicate a quality control field blank sample.

2. A sample type of "N" indicates a normal sample. A sample type of "FB" indicates a field blank.
3. Results are presented in nanograms per liter (ng/L) which are equivalent to parts per trillion (ppt).
4. "<" indicates the analyte was not detected above the listed laboratory reporting limit.
5. "GW-1" refers to the New Hampshire GW-1 Groundwater Standards as defined in New Hampshire Department of Environmental Services (NHDES) Contaminated Sites Risk Characterization and Management Policy (RCMP) (January 1998, with 2000 through 2018 revisions/addenda). GW-1 Groundwater Standards are intended to be equivalent to the Ambient Groundwater Quality Standards (AGQSs) promulgated in Env-Or 600 (June 2015 with October 2016, September 2018, September 2019, May 2020, January 2021, and July 2021 amendments). For analytes where GW-1 and AGQS values differ, the values presented in this table reflect the AGQSs in the latest Env-Or 600 update. The AGQS/GW-1 Groundwater Standards are intended to be protective of groundwater as a source of drinking water.
6. [3] = number of carbons in the alkyl chain for perfluorinated carboxylic acids (PFCAs). The carbon included in the carboxylic functional group is non-fluorinated and the remaining carbons (i.e., alkyl chain) are fluorinated.
[4S] = number of carbons in the alkyl chain for perfluorinated sulfonic acids (PFASs). All of the carbons are fluorinated.

Appendix C

Field Sampling Summary Form

Surface Water Quality Field Sampling Summary

	Project Number: 2637.10		Date(s): August 22, 2023					
	Project Name: North Country Environmental Services, Inc.							
	Project Location: Bethlehem, New Hampshire							
pH, Conductivity, Temperature Meter(s): Oakton PC450			Project Manager: T. White					
Turbidity Meter: Hach 2100Q			Collector(s): M. Stein, P. Pryor					
			Weather: Sunny, 60s° F					
Field Measurements								
Sampling Location	Sample Date	Sample Time	pH (S.U.)	Specific Conductance (µS/cm)	Temp. (°C)	Turbidity (NTU)	Purge/Sample Device	Comment No.
SF-1	08/22/23	9:51	7.1	122	10.7	8.01	Laboratory Container	1
Seep S-1	08/22/23	10:14	6.9	98	10.0	1.42	Laboratory Container	1
S-101	08/22/23	10:04	7.4	86	8.6	2.38	Laboratory Container	1
S-108	08/22/23	10:35	7.0	142	13.5	14.9	Laboratory Container	1,3
S-109	08/22/23	10:40	7.3	138	14.2	12.1	Laboratory Container	1,3
AR-1	08/22/23	9:45	7.4	45	13.8	2.29	Laboratory Container	1
AR-2	08/22/23	9:36	7.3	45	13.8	2.13	Laboratory Container	1
AR-3	08/22/23	9:16	7.6	46	13.9	3.19	Laboratory Container	1
QC_FB	08/22/23	10:50	—	—	—	—	—	2
Comments								
<p>1. Surface water samples were collected as grab samples from the above sampling locations.</p> <p>2. Field blank was collected by pouring laboratory-provided PFAS-free water into a laboratory-provided sampling container. The field blank was collected in the vicinity of B-928U/D.</p> <p>3. A depression was created for water accumulation.</p>								

Appendix D

Analytical Laboratory Reports

Matt Estabrooks
Sanborn, Head & Associates, Inc. (NH)
6 Bedford Farms Drive, Suite 201
Bedford, NH 03110



Laboratory Report for:

Eastern Analytical, Inc. ID: 265510
Client Identification: NCES | Surface Water | 2637.10
Date Received: 8/22/2023

Enclosed are the analytical results per the Chain of Custody for sample(s) in the referenced project. All analyses were performed in accordance with our QA/QC Program, NELAP and other applicable state requirements. All quality control criteria was within acceptance criteria unless noted on the report pages. Results are for the exclusive use of the client named on this report and will not be released to a third party without consent.

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the written approval of the laboratory.

The following standard abbreviations and conventions apply to all EAI reports:

- < : "less than" followed by the reporting limit
- > : "greater than" followed by the reporting limit
- %R : % Recovery

Certifications:

Eastern Analytical, Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269), Vermont (VT1012), New York (12072) and West Virginia (9910C). Please refer to our website at www.easternanalytical.com for a copy of our certificates and accredited parameters.

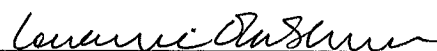
References:

- EPA 600/4-79-020, 1983
- Standard Methods for Examination of Water and Wastewater, 20th, 21st, 22nd & 23rd edition or noted revision year.
- Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
- Hach Water Analysis Handbook, 4th edition, 1992
- ASTM International

If you have any questions regarding the results contained within, please feel free to contact customer service. Unless otherwise requested, we will dispose of the sample(s) 6 weeks from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,


Lorraine Olashaw, Lab Director

8.29.23
Date



SAMPLE CONDITIONS PAGE

EAI ID#: 265510

Client: **Sanborn, Head & Associates, Inc. (NH)**

Client Designation: **NCES | Surface Water | 2637.10**

Temperature upon receipt (°C): 2.6

Received on ice or cold packs (Yes/No): Y

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date/Time Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
265510.01	S-1_20230822	8/22/23	8/22/23 10:14	aqueous		Adheres to Sample Acceptance Policy
265510.02	SF-1_20230822	8/22/23	8/22/23 09:51	aqueous		Adheres to Sample Acceptance Policy
265510.03	S-101_20230822	8/22/23	8/22/23 10:04	aqueous		Adheres to Sample Acceptance Policy
265510.04	S-108_20230822	8/22/23	8/22/23 10:35	aqueous		Adheres to Sample Acceptance Policy
265510.05	S-109_20230822	8/22/23	8/22/23 10:40	aqueous		Adheres to Sample Acceptance Policy

All results contained in this report relate only to the above listed samples.

Unless otherwise noted:

- Hold times, preservation, container types, and sample conditions adhered to EPA Protocol.
- Solid samples are reported on a dry weight basis, unless otherwise noted. pH/Corrosivity, Flashpoint, Ignitability, Paint Filter, Conductivity and Specific Gravity are always reported on an "as received" basis.
- Analysis of pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite were performed at the laboratory outside of the recommended 15 minute hold time.
- Samples collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures.



LABORATORY REPORT

EAI ID#: 265510

Client: **Sanborn, Head & Associates, Inc. (NH)**
 Client Designation: **NCES | Surface Water | 2637.10**

Sample ID:	S-1_20230822	SF -1_20230822	S -101_20230822	S -108_20230822		Analysis				
Lab Sample ID:	265510.01	265510.02	265510.03	265510.04		Units	Date	Time	Method	Analyst
Matrix:	aqueous	aqueous	aqueous	aqueous						
Date Sampled:	8/22/23	8/22/23	8/22/23	8/22/23						
Date Received:	8/22/23	8/22/23	8/22/23	8/22/23						
Bromide	< 0.1	< 0.1	< 0.1	< 0.1	mg/L	08/24/23	15:45		300.0	ALM

Sample ID:	S-109_20230822					Analysis				
Lab Sample ID:	265510.05					Units	Date	Time	Method	Analyst
Matrix:	aqueous									
Date Sampled:	8/22/23									
Date Received:	8/22/23									
Bromide	< 0.1				mg/L	08/24/23	16:43		300.0	ALM



QC REPORT

EAI ID#: 265510

Client: **Sanborn, Head & Associates, Inc. (NH)**

Client Designation: **NCES | Surface Water | 2637.10**

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
Bromide	< 0.1	2.1 (103 %R)	2.1 (103 %R) (0 RPD)	mg/L	8/25/23	90 - 110	20	300.0

*! Flagged analyte recoveries deviated from the QA/QC limits. Unless noted, flagged data does not impact the sample data.

Chain-of-Custody Record

For

265510

Sample ID	Sampling Date/Time <small>*If Composite, Indicate Both Start & Finish Date/Time</small>	Matrix (see below)	Grab/*Composite	Analyses Requested																				
				Bromide																				
S-1_20230822	8/22/23 1614	SW	G	X																				
SF-1_20230822	8/22/23 0451	SW	G	X																				
S-101_20230822	8/22/23 1004	SW	G	X																				
S-108_20230822	8/22/23 1035	SW	G	X																				
S-109_20230822	8/22/23 1040	SW	G	X																				

Matrix: A-Air; S-Soil; GM-Ground Water; SW-Surface Water; DW-Drinking Water;
 WW-Waste Water; AQ-Aqueous
 Preservative: H-HCl; N-HNO3; S-H2SO4; Na-NAOH; M-MeOH; NSO-NA2S2O3

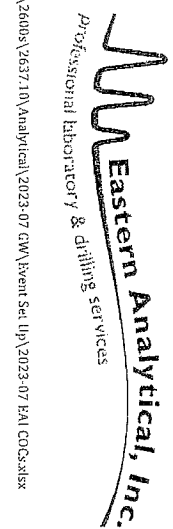
Project Manager: M. Estabrooks / T. White

Company: Sanborn, Head & Associates, Inc.
 Address: 6 Bedford Farms Drive, Suite 201
 City: Bedford State: NH Zip: 03110
 Phone: 603-229-1900 Ext.:
 Fax: 603-229-1919
 E-Mail: mestabrooks@sanbornhead.com
 Site Name: NCES | Surface Water
 Project #: 2637.10
 State: NH
 Regulatory Program: NPDES: RGP POTW Stormwater or
 GWP, Oil Fund, Brownfield or Other:
 Quote #: PO#:

Date Needed: Standard TAT
 QA/QC Reporting Level: A B C
 or Presumptive Certainty
 Reporting Options: Prelims: Yes or No
 If Yes: Fax or PDF
 Electronic Options: No Fax E-Mail PDF Equis
 Temp: 26 °C
 Ice? Yes No

Relinquished By: Date: Time: Received By: Date: Time: Received By:
 Relinquished By: Date: Time: Received By:
 Relinquished By: Date: Time: Received By:

Metars: Lists Below Samples Field Filtered: N/A
 A: B: C:
 Notes: (i.e., Special Detection Limits, Billing Info, If Different)
 Trip blank(s) prepared by EAI.
 Bill NCES.
 *Hold Final report until EQUIS EDD ready.
 Site History:
 Suspected Contamination:
 Field Readings:



51 Antism Ave | Concord, NH 03301 | Tel: 603.228.0525 | 1.800.287.0525 | Fax: 603.228.4591 | E-Mail: customerservice@eallabs.com | www.eallabs.com



Eastern Analytical, Inc.

professional laboratory and drilling services

Matt Estabrooks

Sanborn, Head & Associates, Inc. (NH)

6 Bedford Farms Drive, Suite 201

Bedford, NH 03110



Subject: Laboratory Report

Eastern Analytical, Inc. ID: 265509

Client Identification: NCES | Surface Water - PFAS | 2637.10

Date Received: 8/22/2023

Dear Estabrooks :

Enclosed please find the report of analysis for the above identified project. As discussed, analyses were subcontracted and are listed as follows:

Analysis: Subcontract - PFAS EPA Method 1633 (VAL)

Subcontractor Lab: Enthalpy Analytical

A complete copy of the report is attached. This report may not be reproduced except in full, without the written approval of the laboratory.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Lorraine Olashaw, Lab Director

9.21.23

Date



SAMPLE CONDITIONS PAGE

EAI ID#: 265509

Client: **Sanborn, Head & Associates, Inc. (NH)**

Client Designation: **NCES | Surface Water - PFAS | 2637.10**

Temperature upon receipt (°C): **2.6**

Received on ice or cold packs (Yes/No): **Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date/Time Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
265509.01	S-1_20230822	8/22/23	8/22/23 10:14	aqueous		Adheres to Sample Acceptance Policy
265509.02	SF-1_20230822	8/22/23	8/22/23 09:51	aqueous		Adheres to Sample Acceptance Policy
265509.03	S-101_20230822	8/22/23	8/22/23 10:04	aqueous		Adheres to Sample Acceptance Policy
265509.04	S-108_20230822	8/22/23	8/22/23 10:35	aqueous		Adheres to Sample Acceptance Policy
265509.05	S-109_20230822	8/22/23	8/22/23 10:40	aqueous		Adheres to Sample Acceptance Policy
265509.06	AR-1_20230822	8/22/23	8/22/23 09:45	aqueous		Adheres to Sample Acceptance Policy
265509.07	AR-2_20230822	8/22/23	8/22/23 09:36	aqueous		Adheres to Sample Acceptance Policy
265509.08	AR-3_20230822	8/22/23	8/22/23 09:16	aqueous		Adheres to Sample Acceptance Policy
265509.09	FB-01_20230822	8/22/23	8/22/23 10:50	aqueous		Adheres to Sample Acceptance Policy

All results contained in this report relate only to the above listed samples.

Unless otherwise noted:

- Hold times, preservation, container types, and sample conditions adhered to EPA Protocol.
- Solid samples are reported on a dry weight basis, unless otherwise noted. pH/Corrosivity, Flashpoint, Ignitability, Paint Filter, Conductivity and Specific Gravity are always reported on an "as received" basis.
- Analysis of pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite were performed at the laboratory outside of the recommended 15 minute hold time.
- Samples collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures.



September 15, 2023

**Enthalpy Analytical - El Dorado Hills
Work Order No. 2308236**

Ms. Jennifer Laramie
Eastern Analytical, Inc.
51 Antrim Avenue
Concord, NH 03301

Dear Ms. Laramie,

Enclosed are the results for the sample set received at Enthalpy Analytical - EDH on August 24, 2023 under your Project Name '265509 NH 2089'.

Enthalpy Analytical - EDH is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at rajwinder.kaur@enthalpy.com.

Thank you for choosing Enthalpy Analytical - EDH as part of your analytical support team.

Sincerely,

A handwritten signature in black ink that reads "Rajwinder Kaur".

Rajwinder Kaur
Project Manager

Enthalpy Analytical - EDH certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Enthalpy Analytical - EDH.

Enthalpy Analytical - EDH Work Order No. 2308236

Case Narrative

Sample Condition on Receipt:

Nine aqueous samples were received and stored securely in accordance with Enthalpy Analytical - EDH standard operating procedures and EPA methodology. The samples were received in good condition and within the recommended temperature requirements. Sample ID discrepancies were noted for the samples between the container labels and the Chain-of-Custody (CoC). The sample IDs have been reported as listed on the CoC.

Analytical Notes:

Draft EPA Method 1633 (Aqueous)

The samples were extracted and analyzed for a selected list of PFAS using Draft EPA Method 1633. The results for PFHxS, PFOA, and PFOS include both linear and branched isomers. The result for PFNS include the linear isomer only.

Holding Times

The samples were extracted and analyzed within the hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank, Laboratory Control Sample (LCS)/Laboratory Control Sample Duplicate (LCSD) and Low-Level Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above 1/2 the LOQ concentration. The OPR recoveries were within the method acceptance criteria.

The labeled standard recoveries for all QC and field samples were within the acceptance criteria.

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Sample Inventory Report

Sample ID	Client Sample ID	Sampled	Received	Components/Containers
2308236-01	S-1_20230822	22-Aug-23 10:14	24-Aug-23 10:50	HDPE Bottle, 500 mL HDPE Bottle, 500 mL HDPE Bottle, 125 mL
2308236-02	SF-1_20230822	22-Aug-23 09:51	24-Aug-23 10:50	HDPE Bottle, 500 mL HDPE Bottle, 500 mL HDPE Bottle, 125 mL
2308236-03	S-101_20230822	22-Aug-23 10:04	24-Aug-23 10:50	HDPE Bottle, 500 mL HDPE Bottle, 500 mL HDPE Bottle, 125 mL
2308236-04	S-108_20230822	22-Aug-23 10:35	24-Aug-23 10:50	HDPE Bottle, 500 mL HDPE Bottle, 500 mL HDPE Bottle, 125 mL
2308236-05	S-109_20230822	22-Aug-23 10:40	24-Aug-23 10:50	HDPE Bottle, 500 mL HDPE Bottle, 500 mL HDPE Bottle, 125 mL
2308236-06	AR-1_20230822	22-Aug-23 09:45	24-Aug-23 10:50	HDPE Bottle, 500 mL HDPE Bottle, 500 mL HDPE Bottle, 125 mL
2308236-07	AR-2_20230822	22-Aug-23 09:36	24-Aug-23 10:50	HDPE Bottle, 500 mL HDPE Bottle, 500 mL HDPE Bottle, 125 mL
2308236-08	AR-3_20230822	22-Aug-23 09:16	24-Aug-23 10:50	HDPE Bottle, 500 mL HDPE Bottle, 500 mL HDPE Bottle, 125 mL
2308236-09	FB-01_20230822	22-Aug-23 10:50	24-Aug-23 10:50	HDPE Bottle, 250 mL HDPE Bottle, 250 mL

ANALYTICAL RESULTS

Sample ID: Method Blank					EPA Method 1633				
Client Data				Laboratory Data					
Name:	Eastern Analytical, Inc.	Matrix:	Aqueous	Lab Sample:	B23I081-BLK1	Column:	BEH C18		
Project:	265509 NH 2089								
Analyte	Conc. (ug/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
PFOA	ND	0.00200		B23I081	13-Sep-23	0.500 L	14-Sep-23 12:56	1	
PFHxS	ND	0.00146		B23I081	13-Sep-23	0.500 L	14-Sep-23 12:56	1	
PFNA	ND	0.00160		B23I081	13-Sep-23	0.500 L	14-Sep-23 12:56	1	
PFOS	ND	0.00149		B23I081	13-Sep-23	0.500 L	14-Sep-23 12:56	1	
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C8-PFOA	IS	101	20 - 150		B23I081	13-Sep-23	0.500 L	14-Sep-23 12:56	1
13C3-PFHxS	IS	96.1	20 - 150		B23I081	13-Sep-23	0.500 L	14-Sep-23 12:56	1
13C9-PFNA	IS	96.3	20 - 150		B23I081	13-Sep-23	0.500 L	14-Sep-23 12:56	1
13C8-PFOS	IS	94.9	20 - 150		B23I081	13-Sep-23	0.500 L	14-Sep-23 12:56	1

RL - Reporting limit

Results reported to RL.

Sample ID: LCSD												EPA Method 1633			
Name: Eastern Analytical, Inc.				Lab Sample: B23I081-BS1/B23I081-BSD1				Date Extracted: 13-Sep-23							
Project: 265509 NH 2089				QC Batch: B23I081				Column: BEH C18							
Matrix: Aqueous				Samp Size: 0.500/0.500 L											
Analyte	LCS (ug/L)	LCS Spike	LCS % Rec	LCS Quals	LCSD (ug/L)	LCSD Spike	LCSD % Rec	RPD	LCSD Quals	%Rec Limits	RPD Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
PFOA	0.00507	0.00500	101		0.00516	0.00500	103	1.72		40-150	30	14-Sep-23 13:10	1	14-Sep-23 13:37	1
PFHxS	0.00494	0.00456	108		0.00506	0.00456	111	2.30		40-150	30	14-Sep-23 13:10	1	14-Sep-23 13:37	1
PFNA	0.00524	0.00500	105		0.00546	0.00500	109	4.09		40-150	30	14-Sep-23 13:10	1	14-Sep-23 13:37	1
PFOS	0.00462	0.00464	99.6		0.00511	0.00464	110	9.97		40-150	30	14-Sep-23 13:10	1	14-Sep-23 13:37	1
Labeled Standards	Type		LCS % Rec	LCS Quals			LCSD % Rec		LCSD Quals	Limits		LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
13C8-PFOA	IS		104				99.8			20 - 150		14-Sep-23 13:10	1	14-Sep-23 13:37	1
13C3-PFHxS	IS		95.1				91.7			20 - 150		14-Sep-23 13:10	1	14-Sep-23 13:37	1
13C9-PFNA	IS		98.2				94.1			20 - 150		14-Sep-23 13:10	1	14-Sep-23 13:37	1
13C8-PFOS	IS		96.5				89.4			20 - 150		14-Sep-23 13:10	1	14-Sep-23 13:37	1

Sample ID: OPR				EPA Method 1633						
Client Data				Laboratory Data						
Name: Eastern Analytical, Inc.		Matrix: Aqueous		Lab Sample: B23I081-BS2		Column: BEH C18				
Project: 265509 NH 2089										
Analyte	Amt Found (ug/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFOA	0.00326	0.00320	102	40 - 150		B23I081	13-Sep-23	0.500 L	14-Sep-23 13:23	1
PFHxS	0.00310	0.00292	106	40 - 150		B23I081	13-Sep-23	0.500 L	14-Sep-23 13:23	1
PFNA	0.00327	0.00320	102	40 - 150		B23I081	13-Sep-23	0.500 L	14-Sep-23 13:23	1
PFOS	0.00294	0.00297	99.1	40 - 150		B23I081	13-Sep-23	0.500 L	14-Sep-23 13:23	1
Labeled Standards	Type		% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C8-PFOA	IS		114	20 - 150		B23I081	13-Sep-23	0.500 L	14-Sep-23 13:23	1
13C3-PFHxS	IS		94.0	20 - 150		B23I081	13-Sep-23	0.500 L	14-Sep-23 13:23	1
13C9-PFNA	IS		94.1	20 - 150		B23I081	13-Sep-23	0.500 L	14-Sep-23 13:23	1
13C8-PFOS	IS		98.2	20 - 150		B23I081	13-Sep-23	0.500 L	14-Sep-23 13:23	1

Sample ID: S-1_20230822					EPA Method 1633					
Client Data				Laboratory Data						
Name:	Eastern Analytical, Inc.		Matrix:	Aqueous		Lab Sample:	2308236-01	Column:	BEH C18	
Project:	265509 NH 2089		Date Collected:	22-Aug-23 10:14		Date Received:	24-Aug-23 10:50			
Location:	265509									
Analyte	Conc. (ug/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution		
PFOA	ND	0.00192		B23I081	13-Sep-23	0.520 L	14-Sep-23 14:04	1		
PFHxS	ND	0.00140		B23I081	13-Sep-23	0.520 L	14-Sep-23 14:04	1		
PFNA	ND	0.00154		B23I081	13-Sep-23	0.520 L	14-Sep-23 14:04	1		
PFOS	ND	0.00143		B23I081	13-Sep-23	0.520 L	14-Sep-23 14:04	1		
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
13C8-PFOA	IS	102	20 - 150		B23I081	13-Sep-23	0.520 L	14-Sep-23 14:04	1	
13C3-PFHxS	IS	95.5	20 - 150		B23I081	13-Sep-23	0.520 L	14-Sep-23 14:04	1	
13C9-PFNA	IS	95.1	20 - 150		B23I081	13-Sep-23	0.520 L	14-Sep-23 14:04	1	
13C8-PFOS	IS	97.6	20 - 150		B23I081	13-Sep-23	0.520 L	14-Sep-23 14:04	1	

RL - Reporting limit

Results reported to RL.

Sample ID: SF-1_20230822				EPA Method 1633						
Client Data				Laboratory Data						
Name:	Eastern Analytical, Inc.		Matrix:	Aqueous		Lab Sample:	2308236-02	Column:	BEH C18	
Project:	265509 NH 2089		Date Collected:	22-Aug-23 09:51		Date Received:	24-Aug-23 10:50			
Location:	265509									
Analyte	Conc. (ug/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution		
PFOA	0.00370	0.00190		B23I081	13-Sep-23	0.525 L	14-Sep-23 14:17	1		
PFHxS	ND	0.00139		B23I081	13-Sep-23	0.525 L	14-Sep-23 14:17	1		
PFNA	ND	0.00152		B23I081	13-Sep-23	0.525 L	14-Sep-23 14:17	1		
PFOS	ND	0.00142		B23I081	13-Sep-23	0.525 L	14-Sep-23 14:17	1		
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
13C8-PFOA	IS	111	20 - 150		B23I081	13-Sep-23	0.525 L	14-Sep-23 14:17	1	
13C3-PFHxS	IS	93.1	20 - 150		B23I081	13-Sep-23	0.525 L	14-Sep-23 14:17	1	
13C9-PFNA	IS	92.5	20 - 150		B23I081	13-Sep-23	0.525 L	14-Sep-23 14:17	1	
13C8-PFOS	IS	93.7	20 - 150		B23I081	13-Sep-23	0.525 L	14-Sep-23 14:17	1	

RL - Reporting limit

Results reported to RL.

Sample ID: S-101_20230822						EPA Method 1633				
Client Data					Laboratory Data					
Name:	Eastern Analytical, Inc.		Matrix:	Aqueous		Lab Sample:	2308236-03	Column:	BEH C18	
Project:	265509 NH 2089		Date Collected:	22-Aug-23 10:04		Date Received:	24-Aug-23 10:50			
Location:	265509									
Analyte	Conc. (ug/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution		
PFOA	0.00305	0.00190		B23I081	13-Sep-23	0.526 L	14-Sep-23 14:31	1		
PFHxS	ND	0.00139		B23I081	13-Sep-23	0.526 L	14-Sep-23 14:31	1		
PFNA	ND	0.00152		B23I081	13-Sep-23	0.526 L	14-Sep-23 14:31	1		
PFOS	ND	0.00142		B23I081	13-Sep-23	0.526 L	14-Sep-23 14:31	1		
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
13C8-PFOA	IS	101	20 - 150		B23I081	13-Sep-23	0.526 L	14-Sep-23 14:31	1	
13C3-PFHxS	IS	90.8	20 - 150		B23I081	13-Sep-23	0.526 L	14-Sep-23 14:31	1	
13C9-PFNA	IS	96.1	20 - 150		B23I081	13-Sep-23	0.526 L	14-Sep-23 14:31	1	
13C8-PFOS	IS	92.5	20 - 150		B23I081	13-Sep-23	0.526 L	14-Sep-23 14:31	1	

RL - Reporting limit

Results reported to RL.

Sample ID: S-108_20230822						EPA Method 1633					
Client Data						Laboratory Data					
Name:	Eastern Analytical, Inc.			Matrix:	Aqueous		Lab Sample:	2308236-04		Column:	BEH C18
Project:	265509 NH 2089			Date Collected:	22-Aug-23 10:35		Date Received:	24-Aug-23 10:50			
Location:	265509										
Analyte	Conc. (ug/L)			RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
PFOA	ND			0.00193		B23I081	13-Sep-23	0.518 L	14-Sep-23 14:44	1	
PFHxS	ND			0.00141		B23I081	13-Sep-23	0.518 L	14-Sep-23 14:44	1	
PFNA	ND			0.00154		B23I081	13-Sep-23	0.518 L	14-Sep-23 14:44	1	
PFOS	ND			0.00144		B23I081	13-Sep-23	0.518 L	14-Sep-23 14:44	1	
Labeled Standards	Type	% Recovery		Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
13C8-PFOA	IS	94.3		20 - 150		B23I081	13-Sep-23	0.518 L	14-Sep-23 14:44	1	
13C3-PFHxS	IS	94.3		20 - 150		B23I081	13-Sep-23	0.518 L	14-Sep-23 14:44	1	
13C9-PFNA	IS	95.7		20 - 150		B23I081	13-Sep-23	0.518 L	14-Sep-23 14:44	1	
13C8-PFOS	IS	90.9		20 - 150		B23I081	13-Sep-23	0.518 L	14-Sep-23 14:44	1	

RL - Reporting limit

Results reported to RL.

Sample ID: S-109_20230822				EPA Method 1633							
Client Data				Laboratory Data							
Name:	Eastern Analytical, Inc.	Matrix:	Aqueous	Lab Sample:	2308236-05	Column:	BEH C18				
Project:	265509 NH 2089	Date Collected:	22-Aug-23 10:40	Date Received:	24-Aug-23 10:50						
Location:	265509										
Analyte	Conc. (ug/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution			
PFOA	ND	0.00199		B23I081	13-Sep-23	0.502 L	14-Sep-23 14:58	1			
PFHxS	ND	0.00145		B23I081	13-Sep-23	0.502 L	14-Sep-23 14:58	1			
PFNA	ND	0.00159		B23I081	13-Sep-23	0.502 L	14-Sep-23 14:58	1			
PFOS	ND	0.00148		B23I081	13-Sep-23	0.502 L	14-Sep-23 14:58	1			
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution		
13C8-PFOA	IS	95.3	20 - 150		B23I081	13-Sep-23	0.502 L	14-Sep-23 14:58	1		
13C3-PFHxS	IS	92.7	20 - 150		B23I081	13-Sep-23	0.502 L	14-Sep-23 14:58	1		
13C9-PFNA	IS	95.1	20 - 150		B23I081	13-Sep-23	0.502 L	14-Sep-23 14:58	1		
13C8-PFOS	IS	85.5	20 - 150		B23I081	13-Sep-23	0.502 L	14-Sep-23 14:58	1		

RL - Reporting limit

Results reported to RL.

Sample ID: AR-1_20230822				EPA Method 1633					
Client Data				Laboratory Data					
Name:	Eastern Analytical, Inc.	Matrix:	Aqueous	Lab Sample:	2308236-06	Column:	BEH C18		
Project:	265509 NH 2089	Date Collected:	22-Aug-23 09:45	Date Received:	24-Aug-23 10:50				
Location:	265509								
Analyte	Conc. (ug/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
PFOA	ND	0.00192		B23I081	13-Sep-23	0.521 L	14-Sep-23 15:11	1	
PFHxS	ND	0.00140		B23I081	13-Sep-23	0.521 L	14-Sep-23 15:11	1	
PFNA	ND	0.00154		B23I081	13-Sep-23	0.521 L	14-Sep-23 15:11	1	
PFOS	ND	0.00143		B23I081	13-Sep-23	0.521 L	14-Sep-23 15:11	1	
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C8-PFOA	IS	92.4	20 - 150		B23I081	13-Sep-23	0.521 L	14-Sep-23 15:11	1
13C3-PFHxS	IS	93.9	20 - 150		B23I081	13-Sep-23	0.521 L	14-Sep-23 15:11	1
13C9-PFNA	IS	95.8	20 - 150		B23I081	13-Sep-23	0.521 L	14-Sep-23 15:11	1
13C8-PFOS	IS	86.5	20 - 150		B23I081	13-Sep-23	0.521 L	14-Sep-23 15:11	1

RL - Reporting limit

Results reported to RL.

Sample ID: AR-2_20230822		EPA Method 1633							
Client Data				Laboratory Data					
Name:	Eastern Analytical, Inc.	Matrix:	Aqueous	Lab Sample:	2308236-07	Column:	BEH C18		
Project:	265509 NH 2089	Date Collected:	22-Aug-23 09:36	Date Received:	24-Aug-23 10:50				
Location:	265509								
Analyte	Conc. (ug/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
PFOA	ND	0.00193		B23I081	13-Sep-23	0.519 L	14-Sep-23 15:25	1	
PFHxS	ND	0.00141		B23I081	13-Sep-23	0.519 L	14-Sep-23 15:25	1	
PFNA	ND	0.00154		B23I081	13-Sep-23	0.519 L	14-Sep-23 15:25	1	
PFOS	ND	0.00144		B23I081	13-Sep-23	0.519 L	14-Sep-23 15:25	1	
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C8-PFOA	IS	93.0	20 - 150		B23I081	13-Sep-23	0.519 L	14-Sep-23 15:25	1
13C3-PFHxS	IS	88.8	20 - 150		B23I081	13-Sep-23	0.519 L	14-Sep-23 15:25	1
13C9-PFNA	IS	89.6	20 - 150		B23I081	13-Sep-23	0.519 L	14-Sep-23 15:25	1
13C8-PFOS	IS	86.3	20 - 150		B23I081	13-Sep-23	0.519 L	14-Sep-23 15:25	1

RL - Reporting limit

Results reported to RL.

Sample ID: AR-3_20230822					EPA Method 1633				
Client Data					Laboratory Data				
Name:	Eastern Analytical, Inc.		Matrix:	Aqueous	Lab Sample:	2308236-08	Column:	BEH C18	
Project:	265509 NH 2089		Date Collected:	22-Aug-23 09:16	Date Received:	24-Aug-23 10:50			
Location:	265509								
Analyte	Conc. (ug/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
PFOA	ND	0.00196		B23I081	13-Sep-23	0.511 L	14-Sep-23 15:38	1	
PFHxS	ND	0.00143		B23I081	13-Sep-23	0.511 L	14-Sep-23 15:38	1	
PFNA	ND	0.00157		B23I081	13-Sep-23	0.511 L	14-Sep-23 15:38	1	
PFOS	ND	0.00146		B23I081	13-Sep-23	0.511 L	14-Sep-23 15:38	1	
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C8-PFOA	IS	85.9	20 - 150		B23I081	13-Sep-23	0.511 L	14-Sep-23 15:38	1
13C3-PFHxS	IS	87.8	20 - 150		B23I081	13-Sep-23	0.511 L	14-Sep-23 15:38	1
13C9-PFNA	IS	87.3	20 - 150		B23I081	13-Sep-23	0.511 L	14-Sep-23 15:38	1
13C8-PFOS	IS	77.1	20 - 150		B23I081	13-Sep-23	0.511 L	14-Sep-23 15:38	1

RL - Reporting limit

Results reported to RL.

Sample ID: FB-01_20230822					EPA Method 1633					
Client Data				Laboratory Data						
Name:	Eastern Analytical, Inc.		Matrix:	Aqueous		Lab Sample:	2308236-09		Column:	BEH C18
Project:	265509 NH 2089		Date Collected:	22-Aug-23 10:50		Date Received:	24-Aug-23 10:50			
Location:	265509									
Analyte	Conc. (ug/L)		RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
PFOA	ND		0.00376		B23I081	13-Sep-23	0.266 L	14-Sep-23 15:52	1	
PFHxS	ND		0.00274		B23I081	13-Sep-23	0.266 L	14-Sep-23 15:52	1	
PFNA	ND		0.00301		B23I081	13-Sep-23	0.266 L	14-Sep-23 15:52	1	
PFOS	ND		0.00280		B23I081	13-Sep-23	0.266 L	14-Sep-23 15:52	1	
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
13C8-PFOA	IS	88.3	20 - 150		B23I081	13-Sep-23	0.266 L	14-Sep-23 15:52	1	
13C3-PFHxS	IS	82.9	20 - 150		B23I081	13-Sep-23	0.266 L	14-Sep-23 15:52	1	
13C9-PFNA	IS	84.6	20 - 150		B23I081	13-Sep-23	0.266 L	14-Sep-23 15:52	1	
13C8-PFOS	IS	86.4	20 - 150		B23I081	13-Sep-23	0.266 L	14-Sep-23 15:52	1	

RL - Reporting limit

Results reported to RL.

DATA QUALIFIERS & ABBREVIATIONS

For EPA 1633

B	This compound was also detected in the method blank
Conc.	Concentration
CRS	Cleanup Recovery Standard
D	Dilution
DL	Detection Limit
E	The associated compound concentration exceeded the calibration range of the instrument
I	Ion transition ratio is outside of the acceptance criteria.
IS	Internal Standard
J	The amount detected is below the Reporting Limit/LOQ
LOD	Limit of Detection
LOQ	Limit of Quantitation
M	Estimated Maximum Possible Concentration (CA Region 2 projects only)
MDL	Method Detection Limit
NA	Not applicable
ND	Not Detected
OPR	Ongoing Precision and Recovery sample
P	The reported concentration may include contribution from chlorinated diphenyl ether(s).
Q	Recovery and/or RPD was outside laboratory acceptance limits
RL	Reporting Limit
RL	For 537.1, the reported RLs are the MRLs.
TEQ	Toxic Equivalency, sum of the toxic equivalency factors (TEF) multiplied by the sample concentrations.
TEQMax	TEQ calculation that uses the detection limit as the concentration for non-detects
TEQMin	TEQ calculation that uses zero as the concentration for non-detects
TEQRisk	TEQ calculation that uses ½ the detection limit as the concentration for non-detects
U	Not Detected (specific projects only)
*	See Cover Letter

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

Enthalpy Analytical - EDH Certifications

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	21-023-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025	3091.01
Florida Department of Health	E87777
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2020018
Michigan Department of Environmental Quality	9932
Minnesota Department of Health	2211390
Nevada Division of Environmental Protection	CA00413
New Hampshire Environmental Accreditation Program	207721
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Ohio Environmental Protection Agency	87778
Oregon Laboratory Accreditation Program	4042-021
Texas Commission on Environmental Quality	T104704189-22-13
Vermont Department of Health	VT-4042
Virginia Department of General Services	11276
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters can be found at Enthalpy.com/Resources/Accreditations.

CHAIN-OF-CUSTODY RECORD

EAI ID# **265509**

Page 1

Sample ID	Date Sampled	Matrix	aParameters	Sample Notes
S-1_20230822	8/22/2023 10:14	aqueous	Subcontract - PFAS EPA Method 1633 (VAL)	230 8236 5.625 4.5% No off/out?
SF-1_20230822	8/22/2023 09:51	aqueous	Subcontract - PFAS EPA Method 1633 (VAL)	
S-101_20230822	8/22/2023 10:04	aqueous	Subcontract - PFAS EPA Method 1633 (VAL)	
S-108_20230822	8/22/2023 10:35	aqueous	Subcontract - PFAS EPA Method 1633 (VAL)	

EAI ID# **265509**

Project State: NH

Project ID: 2089

Company Vista Analytical Laboratory

Address 1104 Windfield Way

Address El Dorado Hills, CA 95762

Account #

Phone # (916) 673-1520

Results Needed: Preferred Date: Standard

RUSH Due Date: _____

QC Deliverables

A A+ B B+ C MA MCP

Notes about project:

Email login confirmation, pdf of results and invoice to customerservice@easternanalytical.com.

PFAS Method 1633 - PFOS, PFOA, PFNA, PFHxS

Please report Sulfonic Acids

Report to RL (no J-flags)

PO #:60539

EAI ID# **265509**

Data Deliverable (circle)

Excel NH EMD EquiS ME EGAD

Call prior to analyzing, if RUSH charges will be applied.

Samples Collected by:

Chris Johnson 8/23/23 6:00 VPS

Relinquished by Date/Time Received by

WPS 08/24/23 10:50 *WPS*

Relinquished by Date/Time Received by

Eastern Analytical, Inc. 51 Antrim Ave Concord, NH 03301

Phone: (603)228-0525

1-800-287-0525

customerservice@easternanalytical.com

As a subcontract lab to EAI, you will defend, indemnify and hold Eastern Analytical, Inc., its officers, employees, and agents harmless from and against any and all liability, loss, expense or claims for injury or damages arising out of the performance against this chain of custody but only in proportion to and to the extent such liability, loss, expense, or claims for injury or damages are caused by or result from the negligent or intentional acts or omissions of you as a subcontract lab, your officers, agents or employees

CHAIN-OF-CUSTODY RECORD

EAI ID# **265509**

Page 2

Sample ID	Date Sampled	Matrix	aParameters	Sample Notes
S-109_20230822	8/22/2023 10:40	aqueous	Subcontract - PFAS EPA Method 1633 (VAL)	2708236
AR-1_20230822	8/22/2023 09:45	aqueous	Subcontract - PFAS EPA Method 1633 (VAL)	
AR-2_20230822	8/22/2023 09:36	aqueous	Subcontract - PFAS EPA Method 1633 (VAL)	
AR-3_20230822	8/22/2023 09:16	aqueous	Subcontract - PFAS EPA Method 1633 (VAL)	

EAI ID# **265509**

Project State: NH

Project ID: 2089

Company Vista Analytical Laboratory

Address 1104 Windfield Way

Address El Dorado Hills, CA 95762

Account #

Phone # (916) 673-1520

Results Needed: Preferred Date: Standard

RUSH Due Date: _____

QC Deliverables

A A+ B B+ C MA MCP

Notes about project:

Email login confirmation, pdf of results and invoice to customerservice@easternanalytical.com.

PFAS Method 1633 - PFOS, PFOA, PFNA, PFHxS

Please report Sulfonic Acids
Report to RL (no J-flags)

PO #:60539

EAI ID# **265509**

Data Deliverable (circle)

Excel NH EMD EQUIS ME EGAD

Call prior to analyzing, if RUSH charges will be applied.

Samples Collected by:

[Signature] 8/23/23 1600 VPS

Relinquished by *[Signature]* Date/Time 08/24/23 1050 Received by *[Signature]*

Relinquished by _____ Date/Time _____ Received by _____

Eastern Analytical, Inc. 51 Antrim Ave Concord, NH 03301

Phone: (603)228-0525

1-800-287-0525

customerservice@easternanalytical.com

As a subcontract lab to EAI, you will defend, indemnify and hold Eastern Analytical, Inc., its officers, employees, and agents harmless from and against any and all liability, loss, expense or claims for injury or damages arising out of the performance against this chain of custody but only in proportion to and to the extent such liability, loss, expense, or claims for injury or damages are caused by or result from the negligent or intentional acts or omissions of you as a subcontract lab, your officers, agents or employees

CHAIN-OF-CUSTODY RECORD

EAI ID# **265509**

Page 3

Sample ID	Date Sampled	Matrix	aParameters	Sample Notes
FB-01_20230822	8/22/2023 10:50	aqueous	Subcontract - PFAS EPA Method 1633 (VAL)	2308236

EAI ID# **265509** Project State: NH
Project ID: 2089

Company Vista Analytical Laboratory
Address 1104 Windfield Way
Address El Dorado Hills, CA 95762
Account #
Phone # (916) 673-1520

Results Needed: Preferred Date: Standard
RUSH Due Date: _____

QC Deliverables
 A A+ B B+ C MA MCP

Notes about project:
Email login confirmation, pdf of results and invoice to customerservice@easternanalytical.com.

PFAS Method 1633 - PFOS, PFOA, PFNA, PFHxS
Please report Sulfonic Acids
Report to RL (no J-flags)

PO #:60539 EAI ID# **265509**

Data Deliverable (circle)
Excel NH EMD EQUIS ME EGAD

Call prior to analyzing, if RUSH charges will be applied.

Samples Collected by: Chapman 8/23/23 1000 UPS
Relinquished by UPS Date/Time 08/24/23 1050 Received by [Signature]
Relinquished by _____ Date/Time _____ Received by _____

Eastern Analytical, Inc. 51 Antrim Ave Concord, NH 03301 Phone: (603)228-0525 1-800-287-0525 customerservice@easternanalytical.com

As a subcontract lab to EAI, you will defend, indemnify and hold Eastern Analytical, Inc., its officers, employees, and agents harmless from and against any and all liability, loss, expense or claims for injury or damages arising out of the performance against this chain of custody but only in proportion to and to the extent such liability, loss, expense, or claims for injury or damages are caused by or result from the negligent or intentional acts or omissions of you as a subcontract lab, your officers, agents or employees

Sample Log-In Checklist



Page # 7 of 7

Work Order #: 2308236 TAT 1 day

Samples Arrival:	Date/Time 08/24/23 10:50	Initials: WRS	Location: WR-2
Delivered By:		Shelf/Rack: N/A	
<input type="checkbox"/> FedEx <input checked="" type="checkbox"/> UPS <input type="checkbox"/> On Trac <input type="checkbox"/> GLS <input type="checkbox"/> DHL <input type="checkbox"/> Hand Delivered <input type="checkbox"/> Other			
Preservation:			
<input checked="" type="checkbox"/> Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> Techni Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> None			
Temp °C: 3.1 (uncorrected)	Probe used: Y / <input checked="" type="checkbox"/> N		Thermometer ID: TR-3
Temp °C: 4.5 (corrected)			

	YES	NO	NA
Shipping Container(s) Intact?	<input checked="" type="checkbox"/>		
Shipping Custody Seals Intact?			<input checked="" type="checkbox"/>
Airbill 2 of 2 Trk # 12 246509 01 9899 9154	<input checked="" type="checkbox"/>		
Shipping Documentation Present?	<input checked="" type="checkbox"/>		
Shipping Container	Enthalpy	<input checked="" type="checkbox"/> Client	Retain <input checked="" type="checkbox"/> Return <input type="checkbox"/> Dispose
Chain of Custody / Sample Documentation Present?	<input checked="" type="checkbox"/>		
Chain of Custody / Sample Documentation Complete?	<input checked="" type="checkbox"/>		
Holding Time Acceptable?	<input checked="" type="checkbox"/>		

Logged In:	Date/Time 08/24/23 12:09	Initials: WA	Location: R-13, WR-2
COC Anomaly/Sample Acceptance Form completed?		Shelf/Rack: A-3, E-1	
<input checked="" type="checkbox"/>			

Comments:

CoC/Label Reconciliation Report WO# 2308236

LabNumber	CoC Sample ID	DEAL Label ID	Sample Alias	Sample Date/Time	Container	BaseMatrix	Sample Comments
2308236-01	A S-1_20230822	<input type="checkbox"/> D-5-1-2023082	265509	22-Aug-23 10:14	HDPE Bottle, 500 mL	Aqueous	<input checked="" type="checkbox"/>
2308236-01	B S-1_20230822	<input type="checkbox"/> ↓	265509	22-Aug-23 10:14	HDPE Bottle, 500 mL	Aqueous	<input checked="" type="checkbox"/>
2308236-01	C S-1_20230822	<input type="checkbox"/> A	265509	22-Aug-23 10:14	HDPE Bottle, 125 mL	Aqueous	<input checked="" type="checkbox"/>
2308236-02	A SF-1_20230822	<input type="checkbox"/> ①	265509	22-Aug-23 09:51	HDPE Bottle, 500 mL	Aqueous	<input checked="" type="checkbox"/>
2308236-02	B SF-1_20230822	<input type="checkbox"/>	265509	22-Aug-23 09:51	HDPE Bottle, 500 mL	Aqueous	<input checked="" type="checkbox"/>
2308236-02	C SF-1_20230822	<input type="checkbox"/>	265509	22-Aug-23 09:51	HDPE Bottle, 125 mL	Aqueous	<input checked="" type="checkbox"/>
2308236-03	A S-101_20230822	<input type="checkbox"/>	265509	22-Aug-23 10:04	HDPE Bottle, 500 mL	Aqueous	<input checked="" type="checkbox"/>
2308236-03	B S-101_20230822	<input type="checkbox"/>	265509	22-Aug-23 10:04	HDPE Bottle, 500 mL	Aqueous	<input checked="" type="checkbox"/>
2308236-03	C S-101_20230822	<input type="checkbox"/>	265509	22-Aug-23 10:04	HDPE Bottle, 125 mL	Aqueous	<input checked="" type="checkbox"/>
2308236-04	A S-108_20230822	<input type="checkbox"/>	265509	22-Aug-23 10:35	HDPE Bottle, 500 mL	Aqueous	<input checked="" type="checkbox"/>
2308236-04	B S-108_20230822	<input type="checkbox"/>	265509	22-Aug-23 10:35	HDPE Bottle, 500 mL	Aqueous	<input checked="" type="checkbox"/>
2308236-04	C S-108_20230822	<input type="checkbox"/>	265509	22-Aug-23 10:35	HDPE Bottle, 125 mL	Aqueous	<input checked="" type="checkbox"/>
2308236-05	A S-109_20230822	<input type="checkbox"/>	265509	22-Aug-23 10:40	HDPE Bottle, 500 mL	Aqueous	<input checked="" type="checkbox"/>
2308236-05	B S-109_20230822	<input type="checkbox"/>	265509	22-Aug-23 10:40	HDPE Bottle, 500 mL	Aqueous	<input checked="" type="checkbox"/>
2308236-05	C S-109_20230822	<input type="checkbox"/>	265509	22-Aug-23 10:40	HDPE Bottle, 125 mL	Aqueous	<input checked="" type="checkbox"/>
2308236-06	A AR-1_20230822	<input type="checkbox"/>	265509	22-Aug-23 09:45	HDPE Bottle, 500 mL	Aqueous	<input type="checkbox"/>
2308236-06	B AR-1_20230822	<input type="checkbox"/>	265509	22-Aug-23 09:45	HDPE Bottle, 500 mL	Aqueous	<input type="checkbox"/>
2308236-06	C AR-1_20230822	<input type="checkbox"/>	265509	22-Aug-23 09:45	HDPE Bottle, 125 mL	Aqueous	<input type="checkbox"/>
2308236-07	A AR-2_20230822	<input type="checkbox"/>	265509	22-Aug-23 09:36	HDPE Bottle, 500 mL	Aqueous	<input checked="" type="checkbox"/>
2308236-07	B AR-2_20230822	<input type="checkbox"/>	265509	22-Aug-23 09:36	HDPE Bottle, 500 mL	Aqueous	<input checked="" type="checkbox"/>
2308236-07	C AR-2_20230822	<input type="checkbox"/>	265509	22-Aug-23 09:36	HDPE Bottle, 125 mL	Aqueous	<input checked="" type="checkbox"/>
2308236-08	A AR-3_20230822	<input type="checkbox"/>	265509	22-Aug-23 09:16	HDPE Bottle, 500 mL	Aqueous	<input checked="" type="checkbox"/>
2308236-08	B AR-3_20230822	<input type="checkbox"/>	265509	22-Aug-23 09:16	HDPE Bottle, 500 mL	Aqueous	<input checked="" type="checkbox"/>
2308236-08	C AR-3_20230822	<input type="checkbox"/>	265509	22-Aug-23 09:16	HDPE Bottle, 125 mL	Aqueous	<input checked="" type="checkbox"/>
2308236-09	A FB-01_20230822	<input type="checkbox"/> D FB	265509	22-Aug-23 10:50	HDPE Bottle, 250 mL	Aqueous	<input checked="" type="checkbox"/>
2308236-09	B FB-01_20230822	<input type="checkbox"/> ↓	265509	22-Aug-23 10:50	HDPE Bottle, 250 mL	Aqueous	<input checked="" type="checkbox"/>

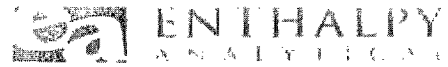
Checkmarks indicate that information on the COC reconciled with the sample label.
Any discrepancies are noted in the following columns.

	Yes	No	NA
Sample Container Intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample Custody Seals Intact?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Adequate Sample Volume?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Container Type Appropriate for Analysis(es)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments: A) Sample ID reconciled by EAI Label ID
B) Underscored part not present on sample label

Preservation Documented: Na2S2O3 Trizma NH4CH3CO2 None Other

Verified by/Date: WJA 08/24/23
WJS 08/24/23



ANOMALY FORM

Work Order # 2308236

Initial/Date _____ The following checked issues were noted during sample receipt and login:

- _____ 1. The samples were received out of temperature at (WI-PHT): _____
Was Ice present: Yes No Melted Blue Ice
- _____ 2. The Chain-of-Custody (CoC) was not relinquished properly.
- _____ 3. The CoC did not include collection time(s). 00:00 will be used unless notified otherwise.
- _____ 4. The sample(s) did not include a sample collection time. All or Sample Name: _____
- 1/23/23 5. A sample ID discrepancy was found. See the Reconciliation report.
The CoC Sample ID will be used unless notified otherwise.
- _____ 6. A sample date and/or time discrepancy was found. See the Reconciliation report.
The CoC Sample date/time will be used unless notified otherwise.
- _____ 7. The CoC did not include a sample matrix. The following sample matrix will be used: _____
- _____ 8. Insufficient volume received for analysis. All or Sample Name: _____
- _____ 9. The backup bottle was received broken. Sample Name: _____
- _____ 10. CoC not received, illegible or destroyed.
- _____ 11. The sample(s) were received out of holding time. All or Sample Name: _____
- _____ 12. The CoC did not include an analysis. All or Sample Name: _____
- _____ 13. Sample(s) received without collection date. All or Sample Name: _____
- _____ 14. Sample(s) not received. All or Sample Name: _____
- _____ 15. Sample(s) received broken. All or Sample Name: _____
- _____ 16. An incorrect container-type was used. All or Sample Name: _____
- _____ 17. The Field Reagent Blank (FRB) preservative was from a different lot than the field samples.
Will proceed with analysis and narrate unless notified otherwise.
- _____ 18. Other:

Bolded items require sign-off

Client Contacted: _____

Date of Contact: _____

Lab Project Manager: _____

Resolution:

