

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

**Initial Response Action - November 2022
Water Quality Monitoring Results
North Country Environmental Services, Inc.
(NCES) Landfill
Bethlehem, New Hampshire**

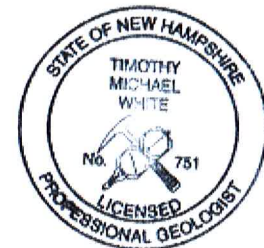
**NHDES Site #: 198704033
Project Type: Water Quality Monitoring
Project Number: 1737**

Prepared For:

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Date of Report: January 5, 2023

Groundwater Monitoring Report Cover Sheet

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

Town: **Bethlehem, NH**

Permit #: **GWP-198704033-B-007**

Type of Submittal (*Check all that apply*)

- Periodic Summary Report (*year*):
 - Data Submittal (*month and year per Condition #7 of Permit*): **November 2022 – Initial Response Action (IRA) groundwater data report.**
-

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:
B-928D – Initial detection of TKN at this location (0.64 mg/l); however the concentration was below the background TKN value (0.92 mg/l).
B-304DR – Initial detection of 6:2FTS at this location (6.99 ng/l).
AGQS are not established for TKN or 6:2FTS.
- Are there any detections of contamination in drinking water that is untreated prior to use?
Well/Compound: **NO**
 - 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? **Concentration trends are discussed in the text.**
Well/Compound:
- Do sampling results indicate an AGQS violation in any of the GMZ boundary wells? **AGQS exceedances at monitoring wells for November 2022 are indicated below and are discussed in the report text.**
Well/Compound:
Arsenic: B-919M [inside GMZ]
Manganese: B-304DR, B-919M [inside GMZ];

1,4-Dioxane: B-304UR and B-304DR [inside GMZ]; B-928D [SSI well inside the GMZ]

PFOA: B-304DR, B-919U, B-928U [inside GMZ]

PFHxS: B-304DR [inside GMZ]

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.*) **See text for recommendation to discontinue IRA sampling in light of overall attenuated concentrations and return to Permit-required tri-annual monitoring in April 2023.**

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

January 5, 2023
File No. 1003.21

Re: Initial Response Action (IRA) – November 2022 Water Quality Monitoring Results
Groundwater Management and Release Detection Permit GWP-198704033-B-007
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 groundwater monitoring results related to the IRA. In accordance with NHDES' February 24, 2022 letter¹, bimonthly (occurring every two months) groundwater monitoring was performed through June 2022. To provide an additional check on attenuated concentrations recorded in June 2022, IRA monitoring wells and analyte list were incorporated into the Groundwater Management and Release Detection Permit tri-annual water quality sampling round completed in November 2022. The following information summarizes the groundwater sampling and analysis performed to date, and our evaluation of the data.

SUMMARY OF SAMPLING

On November 2, 2022 Sanborn Head collected groundwater samples from eight monitoring wells² (locations are shown on Figure 1):

- B-304UR
- B-304DR
- B-928U
- B-928D
- B-919U
- B-919M
- B-919D
- MW-604

Field parameters pH, specific conductance, temperature, and turbidity were measured at the time of sample collection. Groundwater 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:

- NHDES "Full List" VOCs by USEPA Methods 8260C and 8011/504

¹ <https://www4.des.state.nh.us/IISProxy/IISProxy.dll?ContentId=4974850>

² Monitoring wells B-928U and B-928D were installed in September 2021 as part of the Supplemental Site Investigation; <https://www4.des.state.nh.us/IISProxy/IISProxy.dll?ContentId=4960509>

- 1,4-Dioxane (low level) by USEPA Method 8260B SIM
- COD by Hach Method H8000
- Bromide, chloride, sulfate, and nitrate by USEPA Method 300.0
- TKN by Standard Method 4500NorgC/NH3D-11
- Filtered (dissolved) metals (antimony, arsenic, barium, beryllium, cadmium, chromium, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, silver, sodium, thallium, zinc) by USEPA Method 200.8
- PFAS by USEPA Method 537 Modified, reporting the US Department of Defense (DoD) 25 analytes³.

The field sampling summary form is included in Attachment 1. Water level measurements recorded on November 2, 2022 are provided in Attachment 2 (Table 2.1). Analytical laboratory results are tabulated in Attachment 2 (Tables 2.2 and 2.3). Groundwater elevation contours are shown on Figure 2. The analytical laboratory reports are included as Attachment 3.

To compile data to serve as a resource for documenting drought conditions as they may persist in the area and provide a context for evaluating the potential influence on water quality results, we have included an assessment of publicly available information – refer to discussion below and plots in Attachment 4.

RESULTS

The following summarizes the analytical results of the groundwater sampling from the IRA monitoring wells in November 2022.

Volatile Organic Compounds (VOCs)

1,4-Dioxane was the only VOC detected in groundwater samples collected from the IRA monitoring wells in November 2022.

- **1,4-Dioxane:** was detected at three of the eight IRA locations sampled (B-304UR, B-304DR, and B-928D). The 1,4-dioxane concentrations at these wells ranged from 0.38 ug/l (B-304UR) to 0.71 ug/l (B-928D), above the AGQS (0.32 ug/l), but were within the range of concentrations recorded at these locations previously in 2022 (0.27 to 4.7 ug/l at B-304UR and 0.32 to 0.49 ug/l at B-304DR). The November 2022 concentrations at B-304UR and B-304DR were lower than values recorded at these locations in November 2019 through November 2021 (0.7 to 11 ug/l [both locations]). The concentration at B-928D (0.71 ug/l) was within the range of concentrations recorded since the well was initially sampled in September 2021 (0.6 to 0.76 ug/l).

The 1,4-dioxane concentration at B-928D was higher than values recorded at B-304UR and B-304DR, which is consistent with downgradient transport/attenuation of 1,4-dioxane concentrations previously recorded at the B-304 couplet.

³ <https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/waste-site-testing-guidelines.pdf>



Inorganic Parameters

General Water Quality Indicator Parameters

The values of pH, temperature, and specific conductance, and the COD concentration at site monitoring locations relative to background values at upgradient monitoring wells serve as general indicators of impacts to water quality. Indicator parameter values were generally similar to previous results at IRA locations. A summary of results from November 2022 is included below.

- **pH:** The pH values at IRA monitoring wells were below the range of site background (6.5 to 9.5 standard units [s.u.]) at three locations: B-304DR (6.44 s.u.), B-919U (6.49 s.u.), and B-928D (6.28 s.u.). However, the pH values at these and other wells were generally similar to historical values.
- **Temperature:** The temperature values ranged from 10.8°C (B-928U and B-928D) to 15.3°C (B-304DR) and were within the site background range (5.6 to 13.5°C) at each location except for B-304DR, B-919M, and B-919D, which were slightly above the background range. Temperature values remained within historical ranges at these and other locations.
- **Specific conductance:** Specific conductance ranged from 96 microSiemens per centimeter (uS/cm) at B-919D to 336 uS/cm at B-304UR, and was above the site background value (186 uS/cm) at B-304UR, B-304DR, MW-604, B-928U and B-928D. Values at these and other wells were within historical ranges at these locations. The B-928 wells have a relatively limited dataset (six sampling events at each well).
- **COD:** Chemical oxygen demand (COD) was not detected at any location in November 2022 IRA monitoring. There is no AGQS established for COD.

Metals

Note: As indicated in previous transmittals, several metals (principally iron, arsenic, and manganese) are naturally occurring in soil at the Site, and elevated concentrations of these metals have been detected in groundwater at locations downgradient of the former unlined landfill, which generally have reducing conditions. Therefore, locations within and adjacent to the GMZ are anticipated to typically exhibit higher metals concentrations in groundwater than other areas of the site. As discussed in previous reports, iron, manganese, and/or arsenic have shown variable, but in some cases overall increasing concentration trends for recent reporting periods at two wells within the GMZ (e.g., MW-803; refer to 2022 Annual Report for discussion). These trends are inferred to be related to the persistent reducing conditions associated with the former unlined landfill.

Of the 18 metals analyzed in the November 2022 groundwater samples, nine were detected in one or more samples (arsenic, barium, chromium, copper, iron, manganese, molybdenum, nickel, and sodium). Six supplemental metals analyzed in November 2022 (copper, mercury, molybdenum, selenium, sodium, and zinc) are not required in the Permit, and therefore background values have not been established for these analytes and historical data prior to May 2021 are not available for comparison. For select Permit-required metals (e.g., barium,



chromium, lead, and nickel), most IRA wells have a relatively limited historical record prior to May 2021 – typically only three to nine events, limiting comparison to results collected after May 2021. Results for permit-required metals are shown on Table 2.2 in Attachment 2 and discussed below; results for supplemental metals analyzed in November 2022 are shown on Exhibit 1 below.

- **Arsenic:** Was detected at three of eight locations, with concentrations ranging from 0.00061 mg/l at MW-604 to 0.045 mg/l at B-919M. The concentration at B-919M exceeded the AGQS of 0.005 mg/l, as well as the site background (0.0011 mg/l), but was within the range of previous detections at that location. The detection at B-919D (0.0012 mg/l) also slightly exceeded the site background but was within the results detected at that location since it began to be sampled for arsenic starting in May 2021 (0.0012 to 0.0014 mg/l).
- **Barium:** Concentrations ranged from 0.01 mg/l at B-919U to 0.091 mg/l at MW-604, well below the AGQS of 2 mg/l. Concentrations greater than the site background (0.025 mg/l) were recorded at two locations: B-304DR (0.035 mg/l) and MW-604. Barium concentrations at all IRA locations were within the range of previous results.
- **Chromium:** Was detected at one location: B-919U (0.0011 mg/l), below the site background (0.0014 mg/l) and well below the AGQS (0.1 mg/l). Chromium concentrations at all IRA locations were within the range of previous results.
- **Iron:** Was detected at three of eight locations, at concentrations ranging from 0.076 mg/l (B-919D) to 9.4 mg/l (B-919M). The concentrations recorded at B-919D and B-304UR (0.097 mg/l) were below the site background (0.64 mg/l) and within the range of values previously recorded at these locations. The concentration at B-919M exceeded the background value. Iron concentrations at all IRA locations were within the range of previous results. There is no AGQS established for iron.
- **Manganese:** Was detected at four of eight locations at concentrations ranging from 0.026 mg/l (B-919D) to 4.5 mg/l (B-919M). Concentrations at B-304DR (2.4 mg/l [2.3 mg/l in the duplicate]) and B-919M exceeded the AGQS of 0.3 mg/l and site background (0.19 mg/l). Manganese concentrations at all IRA locations were within the range of previous results.
- **Nickel:** Was detected at three locations at concentrations ranging from 0.001 mg/l (B-919M and B-304UR) to 0.01 mg/l (B-304DR). Nickel concentrations at B-919M and B-304UR were less than the site background (0.0027 mg/l), while the concentration at B-304DR exceeded the site background. All concentrations were well below the AGQS of 0.1 mg/l. Nickel concentrations at all IRA locations were within the range of previous results.

The metals listed below on Exhibit 1 are not required to be monitored in the Permit, and therefore historical data prior to May 2021 are not available for comparison, and background values have not been established for these analytes. Mercury and selenium have not been detected in the IRA sampling events. Where detected, concentrations of



other non-Permit required metals were less than the GW-1/AGQS and SMCL (where established, there is no GW-1/AGQS or SMCL established for molybdenum or sodium).

Exhibit 1
Summary of Additional Metals Results (mg/l)

Location	Date	Copper	Mercury	Molybdenum	Selenium	Sodium	Zinc
GW-1 (AGQS)		1.3	0.002	NS	0.05	NS	NS
SMCL		1	NS	NS	NS	NS	5
B-304UR	05/27/21	0.0018	<0.0001	<0.001	<0.001	20	0.011
B-304UR	07/07/21	0.0036	<0.0001	<0.001	<0.001	38	0.013
B-304UR	09/29/21	0.0042	<0.0001	<0.001	<0.001	79	0.018
B-304UR	11/01/21	0.003	<0.0001	<0.001	<0.001	40	0.0057
B-304UR	02/22/22	0.0031	<0.0001	<0.001	<0.001	76	<0.005
B-304UR	04/18/22	<0.001	<0.0001	<0.001	<0.001	24	0.0086
B-304UR	06/08/22	0.0016	<0.0001	<0.001	<0.001	17	0.005
B-304UR	11/02/22	0.0017	<0.0001	<0.001	<0.001	45	<0.005
B-304DR	05/27/21	0.0018	<0.0001	<0.001	<0.001	9.8	0.0083
B-304DR	07/07/21	0.0034	<0.0001	<0.001	<0.001	12	0.0091
B-304DR	09/29/21	0.0017	<0.0001	<0.001	<0.001	10	0.015
B-304DR	11/01/21	<0.001	<0.0001	0.0012	<0.001	11	<0.005
B-304DR	02/22/22	<0.001	<0.0001	0.0013	<0.001	11	<0.005
B-304DR	04/18/22	0.0019	<0.0001	0.0012	<0.001	11	<0.005
B-304DR	06/08/22	0.0017	<0.0001	0.001	<0.001	9.6	0.012
B-304DR	11/02/22	0.0061	<0.0001	0.0013	<0.001	11	<0.005
MW-604	05/27/21	0.0033	<0.0001	0.0015	<0.001	9	0.008
MW-604	07/07/21	0.0028	<0.0001	0.0015	<0.001	10	0.008
MW-604	09/29/21	0.0058	<0.0001	<0.001	<0.001	11	0.0086
MW-604	11/01/21	0.0014	<0.0001	<0.001	<0.001	10	<0.005
MW-604	02/22/22	0.0022	<0.0001	0.0013	<0.001	9.4	<0.005
MW-604	04/18/22	0.022	<0.0001	0.0011	<0.001	9.1	0.041
MW-604	06/08/22	0.0011	<0.0001	0.0013	<0.001	10	<0.005
MW-604	11/02/22	0.0065	<0.0001	0.0015	<0.001	8.6	<0.005
B-919U	05/27/21	0.0015	<0.0001	<0.001	<0.001	12	0.0068
B-919U	07/07/21	0.0038	<0.0001	<0.001	<0.001	12	0.0075
B-919U	09/29/21	0.0026	<0.0001	<0.001	<0.001	11	0.012
B-919U	11/01/21	0.002	<0.0001	<0.001	<0.001	12	0.0051
B-919U	02/22/22	<0.001	<0.0001	<0.001	<0.001	15	<0.005
B-919U	04/18/22	0.042	<0.0001	<0.001	<0.001	15	0.075
B-919U	06/08/22	0.0016	<0.0001	<0.001	<0.001	13	<0.005
B-919U	11/02/22	0.0051	<0.0001	<0.001	<0.001	12	<0.005
B-919M	05/27/21	0.0015	<0.0001	0.0064	<0.001	3.9	0.006
B-919M	07/07/21	0.0031	<0.0001	0.0039	<0.001	3.6	0.0094
B-919M	09/29/21	<0.001	<0.0001	0.0033	<0.001	3.4	0.0092
B-919M	11/02/21	<0.001	<0.0001	0.0044	<0.001	3.7	0.0052
B-919M	02/22/22	<0.001	<0.0001	0.002	<0.001	3.7	<0.005
B-919M	04/18/22	0.0013	<0.0001	0.0053	<0.001	3.8	0.018
B-919M	06/08/22	<0.001	<0.0001	0.0055	<0.001	3.7	<0.005
B-919M	11/02/22	<0.001	<0.0001	0.005	<0.001	3.9	<0.005



Location	Date	Copper	Mercury	Molybdenum	Selenium	Sodium	Zinc
GW-1 (AGQS)		1.3	0.002	NS	0.05	NS	NS
SMCL		1	NS	NS	NS	NS	5
B-919D	05/27/21	0.0017	<0.0001	0.0023	<0.001	4	0.0084
B-919D	07/07/21	0.0025	<0.0001	0.0022	<0.001	3.9	0.01
B-919D	09/29/21	<0.001	<0.0001	0.0019	<0.001	3.7	0.0093
B-919D	11/01/21	0.0027	<0.0001	0.0021	<0.001	3.9	<0.005
B-919D	02/22/22	<0.001	<0.0001	0.0019	<0.001	3.8	<0.005
B-919D	04/18/22	0.032	<0.0001	0.0022	<0.001	4.1	0.064
B-919D	06/08/22	<0.001	<0.0001	0.0018	<0.001	4	<0.005
B-919D	11/02/22	<0.001	<0.0001	0.0019	<0.001	4	<0.005
B-928U	09/29/21	0.0036	<0.0001	<0.001	<0.001	12	0.0071
B-928U	11/01/21	0.0023	<0.0001	<0.001	<0.001	13	<0.005
B-928U	02/22/22	<0.001	<0.0001	<0.001	<0.001	18	0.0082
B-928U	04/18/22	0.033	<0.0001	<0.001	<0.001	15	0.063
B-928U	06/08/22	0.0014	<0.0001	<0.001	<0.001	14	<0.005
B-928U	11/02/22	<0.001	<0.0001	<0.001	<0.001	15	<0.005
B-928D	09/29/21	0.0024	<0.0001	0.0022	<0.001	14	0.011
B-928D	11/01/21	0.0033	<0.0001	<0.001	<0.001	16	<0.005
B-928D	02/22/22	0.0028	<0.0001	<0.001	<0.001	16	<0.005
B-928D	04/18/22	0.0019	<0.0001	<0.001	<0.001	16	0.01
B-928D	06/08/22	0.0019	<0.0001	<0.001	<0.001	15	<0.005
B-928D	11/02/22	<0.001	<0.0001	<0.001	<0.001	14	<0.005

The additional metals have a limited dataset at the site (typically eight or fewer sampling events) precluding assessment of long-term trends; however, concentrations in November 2022 were within the range of previous concentrations, with a single exception: copper at B-304DR.

Other Inorganic Parameters

The following bullets provide a summary comparison of other inorganic parameters at IRA monitoring wells in November 2022.

- **Bromide:** Bromide concentrations at IRA locations were below the GMZ background value (0.4 mg/l) and were within the range of previous results. There is no AGQS established for bromide.
- **Chloride:** Was detected at concentrations above the site background value (4 mg/l) at six IRA monitoring wells (B-304UR, B-304DR, MW-604, B-919U, B-928U and B-928D) at concentrations ranging from 5.3 mg/l (B-919U) to 37 mg/l (B-304DR). Chloride concentrations at these locations were within the range of previous results at the IRA monitoring wells. Chloride concentrations at other wells were below the background value.
- **Nitrate:** Was detected at five locations (B-304UR, B-304DR, B-919U, B-928U, B928D) at concentrations ranging from 1.2 mg/l (B-304DR) to 1.9 mg/l (B-304UR), all less than the AGQS (10 mg/l) and the site background (2.5 mg/l). Nitrate concentrations at the IRA



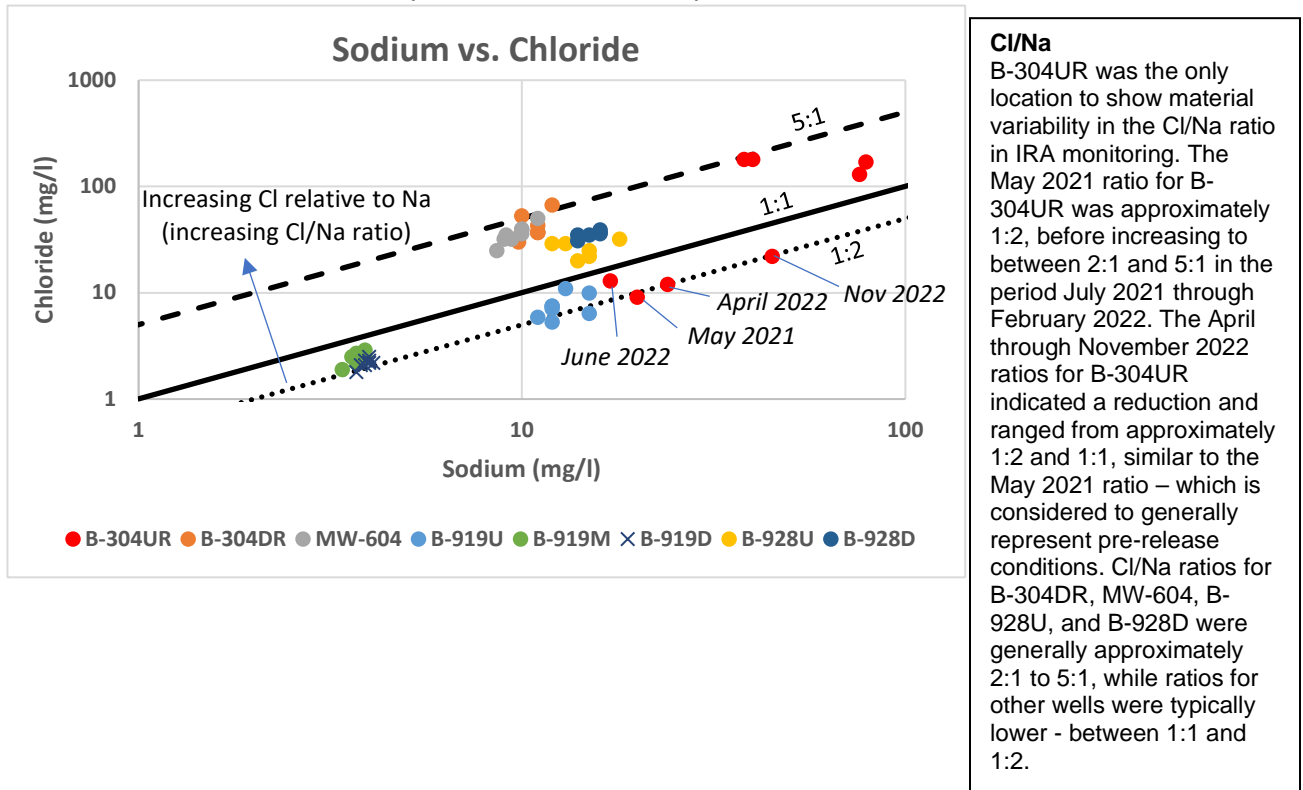
monitoring wells were non detect or within the range of previous results and below the background value.

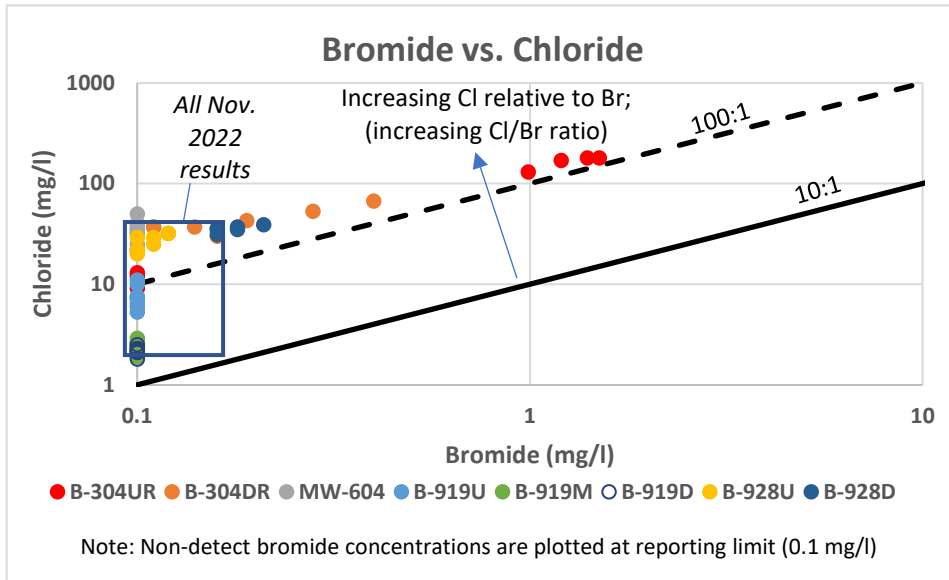
- **TKN:** Was detected at one location: B-928D (0.64 mg/l). The concentration at B-928D was the first detection at this location (0.64 mg/l); however the concentration was below the background TKN value (0.92 mg/l). There is no AGQS established for TKN.

Concentrations of chloride, bromide, and sodium, and the ratios of chloride to bromide (Cl/Br), chloride to sodium (Cl/Na), and sodium to bromide (Na/Br) in the IRA groundwater samples were compared between locations for data collected beginning in May 2021. These analytes were selected for evaluation because they are anticipated to be relatively conservative in groundwater and therefore their concentrations and ratios may give information on different sources (e.g., potential influences of road salt, historical application of bromide as a potential tracer, presence of landfill leachate, sorption/desorption from clays and iron oxides, or others) and changes over time (e.g., new release conditions, attenuation over time, seasonal variability).

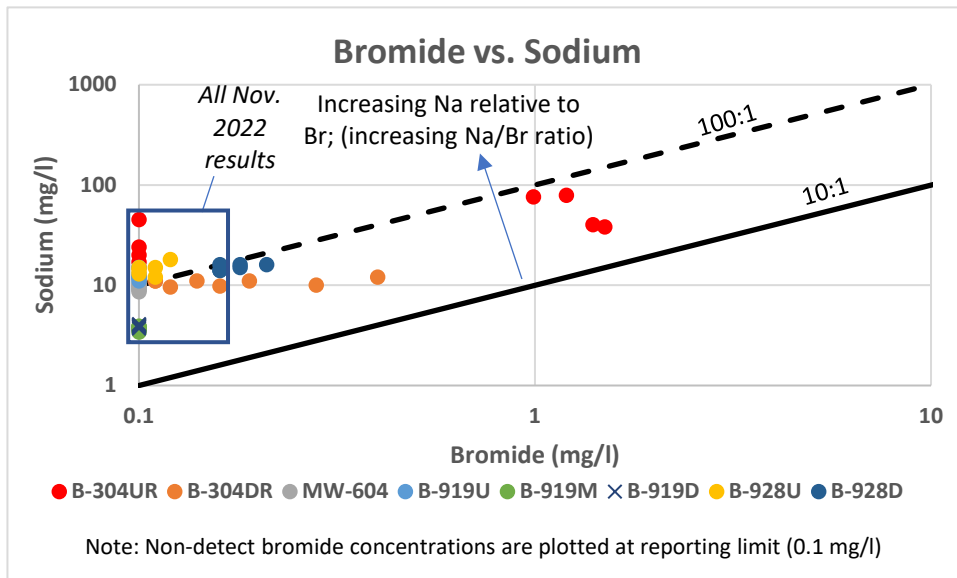
Exhibit 2 below provides plots comparing Cl/Na, Cl/Br, and Na/Br; discussion of the results is included in the subsequent sections.

Exhibit 2 – Chloride to Sodium, Chloride to Bromide, and Sodium to Bromide Concentrations





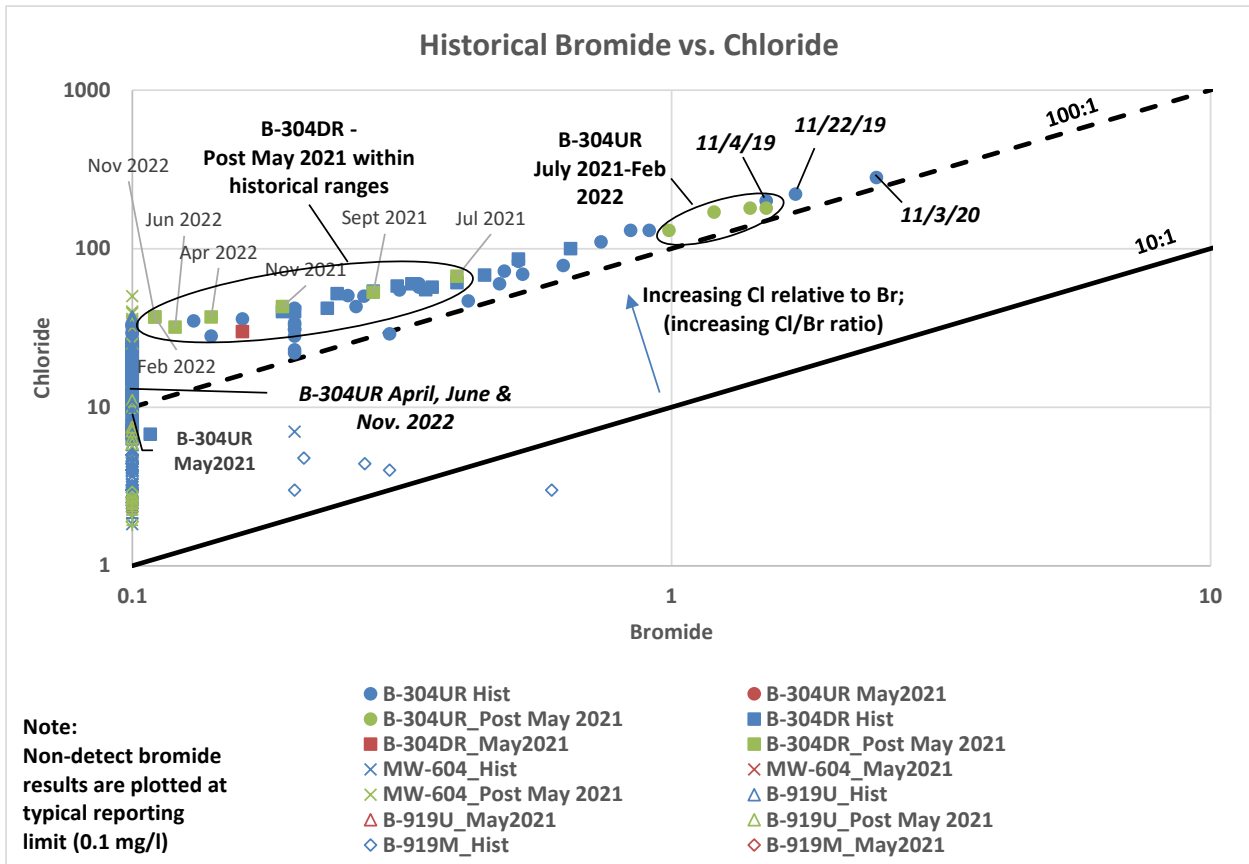
Cl/Br
Where Br was detected, Cl/Br ratios in November 2022 were generally about 200:1 or greater and all November 2022 results were clustered in a relatively small range. This clustering contrasts with results from some other rounds collected after May 2021 at B-304UR, B-304DR, and B-928D, suggesting short-lived effects from the leachate release have attenuated at these locations.



Na/Br
Where Br was detected, Na/Br ratios in November 2022 were generally about 80:1 or greater and all November 2022 results were clustered in a relatively small range. This clustering contrasts with results from some other rounds collected after May 2021 at B-304UR, B-304DR, and B-928D, suggesting short-lived effects from the leachate release have attenuated at these locations.

Historical chloride and bromide data were reviewed for comparison to results recorded since May 2021 (refer to Table 2.2 for concentrations). As indicated on the plot below, the Cl/Br concentrations and ratios at B-304UR in July 2021 through November 2022 were generally consistent with concentrations and ratios recorded in November 2019 and November 2020, following the summer 2019 earthwork.





Regarding ratios, we make the following observations:

- After indicating elevated concentrations between July 2021 and February 2022, the bromide and chloride concentrations at B-304UR in April, June, and November 2022 returned to levels similar to those recorded in May 2021, shortly after the leachate release.
- The similarity in Cl/Br concentrations and ratios at B-304UR between November 2019/November 2020 and July 2021 to February 2022 suggests that removal of the sediment from the stormwater pond in May 2021 may have had similar effects in mobilizing analytes as the summer 2019 earthwork, perhaps as a result of enhanced infiltration of stormwater beneath the pond.
- The ratios of chloride, bromide, and sodium at B-304UR, B-304DR, B-928U, and B-928D in November 2022 were generally similar to one another. These four wells are inferred to be screened along a general groundwater flow path (with the B-304 wells upgradient and the B-928 wells downgradient), and therefore are anticipated to show generally consistent groundwater chemistry, allowing for possible downgradient transport/attenuation at the B-928 wells. Of these four wells, B-304UR typically showed the highest concentrations of analytes. These four wells are generally distinguished from the other IRA locations on the above plots by periodic detections of bromide.



- Regarding the Cl/Na ratio, MW-604 has remained generally similar to B-304DR in IRA sampling (4:1 to 5:1), while the B-919 wells indicated lower ratios (typically less than 1:1). The B-928 wells show Cl/Na ratios between these values at approximately 1.5:1 and 2.2:1, respectively.

PFAS

A summary of the PFAS results from the IRA wells in November 2022 is provided below:

- As indicated on Table 2.3 in Attachment 2, of the four regulated PFAS analytes (PFOA, PFOS, PFNA, and PFHxS)⁴, only PFOA and PFHxS were detected in one or more IRA wells in November 2022. PFOS and PFNA have not been detected in the IRA monitoring wells during their periods of record.
- PFOA results exceeded the AGQS (12 nanograms per liter; ng/l) at B-304DR, B-919U and B-928U, at concentrations ranging from 19.1 ng/l (B-928U) to 63.4 ng/l (B-304DR). PFOA was detected in all IRA monitoring wells except B-919M and B-919D. PFOA concentrations detected in November 2022 were within the range of historical results at these locations with the exception of: B-304DR (previous maximum of 49.5 ng/l in April 2022), B-928U (previous maximum of 15.4 ng/l in June 2022), and B-928D at 8.49 ng/l (previous maximum of 6.47 ng/l in April 2022).
- PFHxS, which exceeded the AGQS of 18 ng/l for the first time at B-304DR in July 2022 at a concentration of 21.2 ng/l, was detected at a concentration of 18.8 ng/l at B-304DR in November 2022. PFHxS, which had previously been detected at B-304UR at concentrations ranging from 4.19 to 13.2 ng/l, was not detected at any other IRA location besides B-304DR in November 2022.
- The concentration of PFBS at B-919U in November 2022 (14.8 ng/l) was a period of record maximum, slightly higher than the previous maximum concentration of 10.4 ng/l in July 2022.
- The concentrations of PFHpA at B-919U (13.1 ng/l) and B-928U (13.3 ng/l) in November 2022 were both period of record maxima, each slightly higher than the previous maxima of 10.2 ng/l and 9.83 ng/l, respectively, which were recorded in July and June 2022, respectively.
- An initial detection (and therefore also a first-time background exceedance) of the fluorotelomer sulfonic acid⁵ 6:2FTS was recorded at B-304DR in November 2022 at a concentration of 6.99 ng/l. While 6:2FTS has been detected in one other monitoring well at the site (MW-701; located west and upgradient of the IRA wells), one other precursor compound (the perfluoroalkane sulfonamide PFOSA) has been periodically detected in IRA monitoring wells B-304UR, B-304DR, MW-604, and B-928D.

⁴ Refer to Table 2.3 for full PFAS analyte names.

⁵ FTSs are precursor compounds and can undergo aerobic biotransformation to form perfluoroalkyl carboxylic acids; https://pfas-1.itrcweb.org/wp-content/uploads/2022/09/NamingConventions_PFAS_Fact-Sheet_083122_508.pdf



EVALUATION OF IRA GROUNDWATER MONITORING DATA

To evaluate potential influence from the May 1-3, 2021 leachate release on concentrations at the eight monitoring wells (B-304UR, B-304DR, MW-604, B-919U, B-919M, B-919D, B-928U and B-928D), results from November 2022 were compared to results from April 2021 (prior to the leachate release), where data were available. For PFAS analytes and non-Permit-required metals, a comparison of May and April 2021 results was made. Data for the IRA wells are tabulated in Attachment 2. Table 1 includes a summary of the analytes at the IRA wells with comparison of November 2022 to April 2021 (or May 2021 in the case of PFAS and non-Permit-required metals) results; a summary is provided below.



Location	Summary
<p>B-304UR & B-304DR</p>	<p>Results for B-304UR indicated IRA analytes were within the range of previous results and overall concentrations were similar to values recorded prior to May 2021. In November 2022, only specific conductance, chloride, 1,4-dioxane, and six PFAS analytes (PFBA, PFPeA, PFHxA, PFHpA, PFOA, and PFBS) indicated background exceedances at B-304UR. Background exceedances at B-304DR included pH, specific conductance, temperature, chloride, barium, manganese, 1,4-dioxane, and the six PFAS analytes detected at B-304UR plus PFHxS and 6:2FTS.</p> <p>The 1,4-dioxane concentration at B-304DR in November 2022 (0.41 ug/l) represented a decrease from when the recent high was recorded at that location in July 2021 (1.7 ug/l). The PFOA concentration at B-304DR in November 2022 (63.4 ng/l) indicated a period of record maximum and AGQS exceedance, an increase from the previous maximum of 49.5 ng/l in April 2022. PFHxS results in November 2022 decreased from a period of record maximum recorded in July 2022, but remained above the AGQS and above values recorded prior to May 2021. 6:2FTS was detected for the first time at this location in November 2022. The PFHxS and 6:2FTS results in November 2022 represented modest increases from values recorded prior to May 2021. Nickel indicated a higher concentration in November 2022 than values recorded prior to May 2021. The concentrations of other analytes in November 2022 suggest effects indicated in July 2021 (e.g., elevated PFAS and 1,4-dioxane) have lessened at B-304DR and that influences other than the May 2021 leachate release are responsible for variations in concentrations at this location.</p> <p>In November 2022, the Cl/Na, Cl/Br, and Na/Br ratios at B-304UR were similar to pre-release values. Other IRA wells have not indicated substantial changes in overall Cl/Na, Cl/Br, or Na/Br ratios in the eight sampling events completed to date. The Cl/Br ratios at B-304UR and B-304DR are generally consistent to one another and the B-928 wells, but differed from other IRA wells, which did not have detectable concentrations of bromide in November 2022.</p> <p>The Cl/Br concentrations and ratios at B-304UR in July 2021 through November 2022 were generally consistent with concentrations and ratios recorded in November 2019 and November 2020, following the summer 2019 earthwork. The similarity in Cl/Br concentrations and ratios during these times suggest that removal of the sediment from the stormwater pond in May 2021 may have had similar effects in mobilizing analytes as the summer 2019 earthwork, perhaps as a result of enhanced infiltration of stormwater beneath the pond.</p>



Location	Summary
<p>B-928U & B-928D</p>	<p>Although the period of record for B-928U and B-928D is relatively short (seven sampling events beginning in September 2021), concentrations of most analytes have generally shown little variation since the first results in September 2021.</p> <p>Exceedances of background values at B-928U and B-928D were limited to six PFAS analytes (PFBA, PFPeA, PFHxA, PFHpA, PFOA, and PFBS), chloride, and specific conductance, as well as 1,4-dioxane and pH at B-928D only.</p> <p>The 1,4-dioxane concentration at B-928D (0.71 ug/l) exceeded the AGQS but was within the range of concentrations previously recorded at this location. PFOA indicated period of record maxima at both B-928U and B-928D. The PFOA concentrations were only modestly higher than the previous maxima which were both recorded in June 2022 at these locations. The PFOA detection at B-928U also exceeded the AGQS. PFHpA indicated a period of record maximum at B-928U (13.3 ng/l), only slightly higher than the previous maximum of 9.83 ng/l in June 2022.</p> <p>In general, where analytes were detected at B-928U or B-928D, the concentrations were similar to or lower than the B-304 wells. The lightest, and presumably most mobile PFAS analytes (PFBA and PFBS), were consistent with downgradient transport from the B-304 wells.</p>
<p>MW-604</p>	<p>Exceedances of background values were limited to five PFAS analytes (PFBA, PFPeA, PFHxA, PFHpA, and PFOA), barium, chloride, and specific conductance. Detected concentrations at MW-604 were within the range of recent results. Barium indicated a concentration of 0.091 mg/l, slightly higher than the limited concentrations were which recorded at this location prior to May 2021.</p> <p>The detected PFAS analytes and Cl/Na ratios at MW-604 have indicated generally consistent concentrations since May 2021. As noted above, a number of key leachate indicator parameters were not detected at MW-604 in November 2022, suggesting this location is influenced by factors other than the May 2021 leachate release such as seasonal/localized changes in groundwater flow direction.</p>
<p>B-919U</p>	<p>With the exception of six PFAS analytes (PFBA, PFPeA, PFHxA, PFHpA, PFOA, and PFBS), concentrations of leachate-related analytes at B-919U were generally either not detected or were detected at concentrations below background, with the exception of chloride. Chloride (5.3 mg/l) was detected in November 2022 within the range of previous results at this location and only marginally higher than the site background (4 mg/l).</p> <p>The Cl/Na ratios at B-919U have generally not varied throughout IRA monitoring. Bromide was not detected at B-919U during IRA monitoring. The general absence of other analytes suggest influences other than the May 2021 leachate release are responsible for variations in concentrations at B-919U.</p>



Location	Summary
<p>B-919M & B-919D</p>	<p>These two wells are screened in generally deeper intervals than other IRA wells and showed only a limited number of analytes with background exceedances in November 2022 (arsenic and temperature at B-919M and B-919D, and iron and manganese at B-919M). VOCs were not detected at B-919M or B-919D, and arsenic and manganese at B-919M were the only AGQS exceedances at these wells in November 2022.</p> <p>PFOA had been detected in B-919M in two previous IRA rounds (September 2021 and February 2022) at concentrations below the AGQS, but was not detected in November 2022. PFAS analytes have not been detected in B-919D in IRA monitoring.</p> <p>B-919M and B-919D do not show overall trends for other analytes consistent with impacts from the May 2021 leachate release. The Cl/Na ratios at B-919M and B-919D have generally been consistent throughout the IRA monitoring, and bromide was not detected at these locations. The Cl/Na ratio and concentrations of other analytes discussed above have indicated influences other than the May 2021 leachate release are responsible for concentrations at these wells.</p>

EVALUATION OF DROUGHT CONDITIONS

Data from the U.S. Drought Monitor and USGS Ammonoosuc River gage were reviewed to provide a context for the hydrologic conditions at the time of IRA November 2022 sampling.

From early February 2022 to early April 2022, approximately 80-85% of Grafton County was classified as abnormally dry by the U.S. Drought Monitor. By the third week of April, the abnormally dry conditions in Grafton County had eased compared to earlier in 2022. By the end of May 2022 and continuing through mid-June 2022, no drought conditions were noted in the county. Beginning in late June 2022, dry conditions returned and through late September 100% of the county was classified as abnormally dry. During this time, two intervals were recorded when between 15 and 100% of the county was classified to be in moderate drought. The dry conditions attenuated briefly in late September, but from October through early November when the samples discussed herein were collected, conditions in approximately 30 to 50% of the county were rated abnormally dry.

USGS Ammonoosuc River gage data indicated that average daily flows in the Ammonoosuc River at the time of sample collection in early November were at the lower end of the range of flows recorded in the previous five years. Flows were generally at the low end of values from late June through early August 2022, before increasing to be within the range of flows through mid-October. Beginning in mid-October 2022, flows decreased again to be near the lower end of flows recorded in the last five years. The flows between the June and November IRA sampling events indicated several “spikes” which were generally at the higher end of flows for the previous five years, likely due to high precipitation events.



CLOSING AND RECOMMENDATIONS

As discussed above, we note the following conclusions regarding the IRA monitoring results for May 2021 through November 2022 and potential influences on analyte concentrations from the May 2021 leachate release:

- The November 2022 data showed overall attenuation of concentrations compared to previous rounds:
 - There were fewer exceedances of background values.
 - Besides four PFAS analytes, there were no analytes with new period of record maxima concentrations above site background values.
 - There were fewer analytes with initial detections and fewer analytes with remaining elevated concentrations compared to values recorded prior to April/May 2021,
 - There were lower 1,4-dioxane concentrations and fewer VOCs detected.
- The Cl/Br concentrations and ratios at B-304UR in July 2021 through November 2022 were generally consistent with concentrations and ratios recorded in November 2019 and November 2020, following the summer 2019 earthwork which suggests that removal of the sediment from the stormwater pond in May 2021 may have had similar effects in mobilizing analytes as the summer 2019 earthwork, perhaps as a result of enhanced infiltration of stormwater beneath the pond. The Cl/Br concentrations at B-304UR in November 2022, like April and June 2022, were at levels similar to those recorded prior to and in May 2021, shortly after the leachate release, indicating that the potential effects on analyte concentrations at these wells due to the sediment removal may have lessened.
- At B-304DR, the Cl/Br concentrations and ratios in May 2021 through November 2022 were generally within the range of historical concentrations and ratios. The concentrations of other analytes at B-304DR in November 2022 suggest that the effects indicated in July 2021 (e.g., elevated PFAS analytes and 1,4-dioxane) have generally lessened and that influences other than the May 2021 leachate release are responsible for variations in concentrations at this location.
- Through the seven sampling events over approximately 18 months, concentrations of most analytes at B-928U and B-928D have generally shown little variation since the first results were collected in September 2021. The concentrations at the B-928 wells have been consistent with downgradient migration from the B-304 wells. There have been modest increases in some PFAS analytes including PFOA and PFHpA at one or both of the B-928 wells; however, the PFAS concentrations recorded at B-928U and B-928D are within the historical ranges of the upgradient B-304 wells which is indicative of downgradient transport/attenuation at the B-928 wells and not necessarily representative of impacts from the May 2021 leachate release.
- The detected PFAS analytes and Cl/Na ratios at MW-604 have indicated generally consistent concentrations since May 2021. A number of key leachate indicator parameters were not detected at MW-604 in November 2022, suggesting this location is influenced by factors



other than the May 2021 leachate release, such as seasonal/localized changes in groundwater flow direction.

- The Cl/Na ratios at B-919U have generally not varied throughout IRA monitoring. The general absence of other analytes suggests influences other than the May 2021 leachate release are responsible for variations in concentrations at B-919U.
- B-919M and B-919D do not show overall trends for other analytes consistent with impacts from the May 2021 leachate release. The Cl/Na ratios at B-919M and B-919D have generally been consistent throughout the IRA monitoring, and bromide was not detected at these locations. The Cl/Na ratio and concentrations of other analytes have indicated influences other than the May 2021 leachate release are responsible for concentrations at these wells.

Consistent with NHDES' February 24, 2022 letter, bimonthly groundwater monitoring was performed through June 2022 to evaluate potential effects of stormwater infiltration resulting from snowmelt, spring rains, and peak seasonal utilization of Detention Pond 4. An additional event was performed in November 2022 as a check on continued attenuation of concentrations. The data through November 2022 are consistent with the continued attenuation or minor variations of key analytes, and are not consistent with an ongoing release.

In consideration of the overall attenuation trends of key analytes, continued IRA monitoring does not appear to be warranted and we recommend discontinuing the IRA sampling. The Permit-required tri-annual sampling, next planned for April 2023, is considered appropriate for release detection purposes.

Should you have questions regarding the information presented herein, or wish to discuss any of our findings and conclusions as presented in this report, please contact Tim White at Sanborn Head or Joe Gay at NCES.

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



Timothy M. White, P.G.
Vice President



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

MEE/TMW: gap

FIGURES

- Figure 1 Site Features Plan
Figure 2 Groundwater Elevation Contour Plan (November 2022)



TABLE

Table 1 Summary of IRA Analytes of Interest – November 2022 vs. April/May 2021

ATTACHMENTS

Attachment 1 – Field Forms

Groundwater Quality Field Sampling Summary Form

Water Level Measurement Form

Attachment 2 – Summary of IRA Groundwater Results

Table 2.1 Water Level - Depth and Elevation Post-2008

Table 2.2 Summary of IRA Groundwater Monitoring Data

Table 2.3 Summary of IRA PFAS Groundwater Analytical Results

Attachment 3 – Analytical Laboratory Reports

Attachment 4 – Evaluation of Drought Conditions

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

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




Figures

NOTES:

1. THE AERIAL IMAGERY WAS OBTAINED FROM A JUNE 2022 PHOTOGRAPH PROVIDED BY CMA ENGINEERS, INC. THE JUNE 2022 AERIAL IMAGE WAS ORTHORECTIFIED TO DISPLAY TOGETHER WITH THE MONITORING WELL NETWORK.
2. TOPOGRAPHY INSIDE THE ACTIVE AREA WAS OBTAINED FROM AN APRIL 2022 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

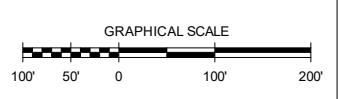


NOTES:

1. THE GROUNDWATER ELEVATION CONTOURS SHOWN ARE BASED ON GROUNDWATER LEVELS MEASURED BY SANBORN HEAD PERSONNEL IN WELLS SCREENED ACROSS/NEAR TO THE WATER TABLE ON NOVEMBER 1-2, 2022. VARIATIONS IN GROUNDWATER ELEVATIONS ARE EXPECTED TO OCCUR DUE TO CHANGES IN PRECIPITATION, TEMPERATURE, AND OTHER FACTORS NOT EVIDENT AT THE TIME WATER LEVEL MEASUREMENTS WERE OBTAINED.
2. THE GROUNDWATER ELEVATION CONTOURS WERE DEVELOPED USING GENERALLY-ACCEPTED HYDROGEOLOGIC PRACTICES, AND ARE INTENDED TO DEPICT INFERRED TRENDS IN GROUNDWATER LEVELS CONSISTENT WITH THE AVAILABLE INFORMATION. ACTUAL CONDITIONS MAY VARY FROM THOSE SHOWN AND OTHER INTERPRETATIONS ARE POSSIBLE.
3. REFER TO FIGURE NO. 2 FOR ADDITIONAL NOTES.

LEGEND:

-  GROUNDWATER MANAGEMENT ZONE
-  1311.1 GROUNDWATER ELEVATION RECORDED AT WELL LOCATION IN NOVEMBER 2022
-  1305 GROUNDWATER ELEVATION CONTOUR (DASHED WHERE LESS CONSTRAINED)



DRAWN BY: E. WRIGHT
 DESIGNED BY: M. ESTABROOKS
 REVIEWED BY: T. WHITE
 PROJECT MGR: M. ESTABROOKS
 PIC: T. WHITE
 DATE: JAN 2023

NORTH COUNTRY ENVIRONMENTAL SERVICES, INC.
 BETHLEHEM, NEW HAMPSHIRE
GROUNDWATER ELEVATION CONTOUR PLAN (NOV. 2022)

PROJECT NUMBER:
 1003.21
 FIGURE NUMBER:
 2

Table

Table 1
Summary of IRA Analytes of Interest - November 2022 vs. April/May 2021
North Country Environmental Services, Inc. - Bethlehem, New Hampshire
Permit No. GWP-198704033-B-007


Analyte	Location							
	B-304UR	B-304DR	MW-604	B-919U	B-919M	B-919D	B-928U	B-928D
PFAS								
PFBA [3]								
PFPeA [4]								
PFHxA [5]								
PFHpA [6]								
PFOA [7]		AGQS		AGQS			AGQS	
PFBS [4S]								
PFHxS [6S]		AGQS						
6:2FTS [6S]		Initial						
VOCs								
1,4-Dioxane	AGQS	AGQS						AGQS
Permit-Required Metals and Inorganic Analytes								
Arsenic					AGQS			
Barium								
Chromium								
Iron								
Manganese		AGQS			AGQS			
Nickel								
Bromide								
Chloride								
Nitrate							= to Max	
TKN							Initial	
Additional IRA Analytes								
(Only May, July, September, and November 2021 and February, April, June, and November 2022 data available for comparison; Period of record maximum comparisons are on six to eight rounds of data depending upon location)								
Copper	NE		NE	NE				
Molybdenum		= to Max	= to Max		NE	NE		
Sodium	NE	NE	NE	NE	= to Max	NE	NE	NE


Notes:

1. This table compares November 2022 data vs. April 2021 (prior to the May 2021 leachate release) where data are available, or vs. May 2021 where data are available. The following are indicated where applicable in November 2022:

- A period of record maxima concentration at a given location;
- Initial detections (typically at locations with a limited historical record); and
- Exceedances of the background and/or AGQS values.

2. Refer to Table 2.3 for an indication of number of number of carbons in the alkyl chain in perfluorinated carboxylic acids and perfluorinated sulfonic acids.


 Green highlight indicates November 2022 result exceeds the site background value.

 - Diagonal line indicates a period of record maximum concentration above background for Permit-required analytes was recorded in November 2022.
- For non-Permit required analytes, diagonal line indicates a period of record maximum on available data (typically only four to six rounds).

"Initial" Indicates initial detection of Permit-required analyte above background was recorded in November 2022 and therefore also represents a period of record maximum for that analyte at that location; sometimes noted at locations with limited historical records.


= to Max Indicates value in November 2022 was equal to the value of the previous period of record maximum concentration

For background exceedances that did not represent period of record maximum concentrations:

 Pink outline indicates November 2022 concentrations remain higher than values recorded in April/May 2021, and higher than values recorded prior to April/May 2021. Concentrations that were only modestly higher in November 2022 than prior to April/May 2021 are not indicated in pink outline.

"AGQS" Bold "AGQS" indicate an exceedance of the AGQS.

 White cells represent a detection in November 2022, but not a background exceedance.


 Gray cells indicate analyte was not detected in November 2022.

"NE" = Analyte detected but background (B/G) not established.

Attachment 1

Field Forms

Groundwater Quality Field Sampling Summary

	Project Number: 2637.09	Date(s): November 1-2, 2022
	Project Name: North Country Environmental Services, Inc.	Project Manager: T. White, M. Estabrooks
	Project Location: Bethlehem, New Hampshire	Collector(s): P. Pryor, G. Panik, G. Bush
pH, Conductivity, Temperature Meter(s): Oakton PC450		Weather: 11/2: Sunny, 30-50s °F
Water Level Meter(s): Heron Dipper T		Turbidity: Hach 2100Q

Field Measurements


Sampling Location	Sample Date	Sample Time	Ref. Point	Well Dia.	Ref. Point Elev. (ft)	Depth to Water (ft)	Water Table Elev. (ft)	Depth to Bottom Installed (ft bgs)	Depth to Bottom Plunked July 2021 (ft Ref Pt)	Surface Completion Type: Standpipe (SP) Vault (V)	Approx. PVC Height (ft)		pH (S.U.)	Specific Conductance (µS/cm)	Temp. (°C)	Turbidity (NTU)	Well Secured?		Approx. Gallons Purged	Target 3x Well Volume?	Purge/Sample Device	Comment No.
											July 2017 Height	AG or BG?					On Arrival	After Sampling				
B-304UR	11/02/22	10:39	TPVC	2"	1338.44	49.15	1289.29	50	52.95	SP	2.15	AG	6.74	336	12.7	42	Y	Y	2	Y	Ded. Bailer	1,7
B-304DR	11/02/22	10:55	TPVC	2"	1338.24	48.94	1289.30	75	75.77 ^x	SP	2.20	AG	6.44	328	15.3	>1,000	Y	Y	13.75	Y	Mega-Monsoon XL Pump	3,4,7
MW-604	11/02/22	12:00	TPVC	2"	1319.83	41.71	1278.12	75	75.11	SP	2.65	AG	7.18	298	12.9	544	Y	Y	5.5	N	Ded. Waterra	2,5,7
B-919U	11/02/22	8:50	TPVC	2"	1344.27	40.48	1303.79	50	43.43	SP	2.15	AG	6.49	136	11.0	179	Y	Y	0.75	N	Ded. Bailer	1,5,7
B-919M	11/02/22	13:00	TPVC	2"	1344.06	52.56	1291.50	100	99.24	SP	2.25	AG	6.81	154	14.4	11.3	Y	Y	9.25	N	Ded. Bailer	1,5,7
B-919D	11/02/22	9:55	TPVC	2"	1344.13	52.69	1291.44	150	151.18	SP	1.2	AG	7.06	96	13.8	12.3	Y	Y	47.5	Y	Ded. Waterra	2,7
B-928U	11/02/22	11:35	TPVC	2"	1333.75	47.45	1286.30	51.3	54.01 ^x	SP	-	AG	6.51	216	10.8	11	Y	Y	3.25	Y	Ded. Bailer	1,7
B-928D	11/02/22	11:42	TPVC	2"	1334.12	51.78	1282.34	71.1	73.79 ^x	SP	-	AG	6.28	283	10.8	>1,000	Y	Y	10.75	Y	Ded. Waterra	2,7
QC_FB	11/02/22	14:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,7

Comments

AG = Above ground
BG = Below ground

- The monitoring well was purged using a dedicated polyethylene bailer prior to collecting the groundwater sample (using the bailer).
- The monitoring well was purged using a dedicated Waterra® inertial pump and polyethylene tubing prior to collecting the groundwater sample (directly from the pump discharge line).
- The monitoring well was purged using a ProActive Mega-Monsoon XL pump with new LDPE tubing.
- Field duplicate (labeled "Dup-1") obtained from well B-304DR.
- Monitoring well purged near dry. Sample collected upon sufficient recharge.
- 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 monitoring well MW-701.
- Sampled for PFAS. Only PFAS samples were screened for turbidity to support laboratory analysis.
- "x" indicates depth to bottom plunked September 2021.

Water Level Measurement Form

	Project Number: 2637.09	Date(s): November 1-2, 2022
	Project Name: North Country Environmental Services, Inc.	Project Manager: T. White, M. Estabrooks
	Project Location: Bethlehem, New Hampshire	Collector(s): P. Pryor, G. Panik, G. Bush
Water Level Meter(s): Heron Dipper T		Weather: 11/1: Cloudy to Mostly Sunny, 50-60s °F 11/2: Sunny, 30-50s °F

Field Measurements

Sampling Location	Sample Date	Sample Time	Ref. Point	Well Dia.	Ref. Point Elev. (ft)	Depth to Water (ft)	Water Table Elev. (ft)	Depth to Bottom Installed (ft bgs)	Depth to Bottom Plunked July 2021 (ft Ref Pt)	Surface Completion Type: Standpipe (SP) Vault (V)	Approx. PVC Height (ft)		Well Secured?		Comment No.
											July 2017 Height	AG or BG?	On Arrival	After Sampling	
B-102S	11/01/22	8:38	TPVC	1.5"	1344.77	40.36	1304.41	38.3	41.20	SP	0.10	AG	Y	Y	
B-103S	11/01/22	8:51	TPVC	1.5"	1357.64	54.79	1302.85	61	61.43	SP	1.99	AG	Y	Y	
MW-603	11/02/22	15:10	TPVC	2"	1375.33	67.21	1308.12	70	71.64	SP	2.15	AG	Y	Y	
MW-801	11/01/22	10:07	TPVC	2"	1347.07	43.66	1303.41	52	51.23	SP	2.85	AG	Y	Y	
MW-802	11/01/22	9:51	TPVC	2"	1350.55	47.98	1302.57	52	51.84	SP	3.05	AG	Y	Y	
MW-803	11/01/22	10:05	TPVC	2"	1346.38	43.75	1302.63	53	55.39	SP	0.75	AG	Y	Y	
B-914U	11/01/22	8:54	TPVC	2"	1347.55	40.81	1306.74	44	46.40	SP	0.05	AG	Y	Y	
B-915U	11/01/22	14:34	TPVC	2"	1338.20	25.49	1312.71	35.75	35.87	SP	1.95	AG	Y	Y	
B-916U	11/01/22	12:50	TPVC	2"	1323.76	15.43	1308.33	26.14	26.23	SP	2.42	AG	Y	Y	
B-917U	11/01/22	13:38	TPVC	2"	1325.14	33.74	1291.40	38.64	37.80	SP	2.55	AG	Y	Y	
B-918U	11/01/22	12:40	TPVC	2"	1330.59	28.01	1302.58	30.55	31.51	SP	3.00	AG	Y	Y	
B-926U	11/01/22	15:00	TPVC	2"	1332.47	27.32	1305.15	29	31.52	SP	2.4	AG	Y	Y	
B-927U	11/01/22	11:10	TPVC	2"	1345.58	46.93	1298.65	49.2	52.35	SP	2.7	AG	Y	Y	

Comments

Attachment 2

Summary of IRA Groundwater Results

Table 2.1
Summary of Groundwater Elevations
Post 2008 Data
North Country Environmental Services, Inc.
Bethlehem, New Hampshire
Permit No. GWP-198704033-B-007

Location	Date	Reference Elevation (ft)	Reference Point	Depth to Water (ft)	Water Level Elevation (ft)
B-102S	04-07-2009	1344.77	TPVC	36.30	1308.47
B-102S	07-14-2009	1344.77	TPVC	36.22	1308.55
B-102S	11-10-2009	1344.77	TPVC	36.44	1308.33
B-102S	04-08-2010	1344.77	TPVC	36.57	1308.20
B-102S	07-13-2010	1344.77	TPVC	36.27	1308.50
B-102S	11-02-2010	1344.77	TPVC	36.21	1308.56
B-102S	04-18-2011	1344.77	TPVC	34.90	1309.87
B-102S	07-13-2011	1344.77	TPVC	35.40	1309.37
B-102S	11-02-2011	1344.77	TPVC	36.21	1308.56
B-102S	04-10-2012	1344.77	TPVC	37.51	1307.26
B-102S	07-16-2012	1344.77	TPVC	37.84	1306.93
B-102S	11-06-2012	1344.77	TPVC	38.18	1306.59
B-102S	04-10-2013	1344.77	TPVC	38.55	1306.22
B-102S	07-08-2013	1344.77	TPVC	38.11	1306.66
B-102S	11-07-2013	1344.77	TPVC	37.80	1306.97
B-102S	04-22-2014	1344.77	TPVC	37.05	1307.72
B-102S	07-14-2014	1344.77	TPVC	37.70	1307.07
B-102S	11-04-2014	1344.77	TPVC	37.97	1306.80
B-102S	04-13-2015	1344.77	TPVC	38.50	1306.27
B-102S	07-21-2015	1344.77	TPVC	38.56	1306.21
B-102S	11-10-2015	1344.77	TPVC	38.90	1305.87
B-102S	04-11-2016	1344.77	TPVC	39.09	1305.68
B-102S	07-11-2016	1344.77	TPVC	38.95	1305.82
B-102S	11-07-2016	1344.77	TPVC	39.39	1305.38
B-102S	04-03-2017	1344.77	TPVC	39.61	1305.16
B-102S	07-25-2017	1344.77	TPVC	39.22	1305.55
B-102S	11-09-2017	1344.77	TPVC	38.90	1305.87
B-102S	04-24-2018	1344.77	TPVC	38.91	1305.86
B-102S	07-11-2018	1344.77	TPVC	38.95	1305.82
B-102S	11-05-2018	1344.77	TPVC	39.28	1305.49
B-102S	04-23-2019	1344.77	TPVC	38.91	1305.86
B-102S	07-08-2019	1344.77	TPVC	38.92	1305.85
B-102S	11-06-2019	1344.77	TPVC	38.72	1306.05
B-102S	04-20-2020	1344.77	TPVC	38.30	1306.47
B-102S	07-16-2020	1344.77	TPVC	38.46	1306.31
B-102S	11-03-2020	1344.77	TPVC	38.63	1306.14
B-102S	04-20-2021	1344.77	TPVC	38.83	1305.94
B-102S	07-05-2021	1344.77	TPVC	39.25	1305.52
B-102S	09-29-2021	1344.77	TPVC	39.63	1305.14
B-102S	11-01-2021	1344.77	TPVC	39.86	1304.91
B-102S	02-22-2022	1344.77	TPVC	39.89	1304.88
B-102S	04-18-2022	1344.77	TPVC	39.77	1305.00
B-102S	04-20-2022	1344.77	TPVC	39.78	1304.99
B-102S	06-08-2022	1344.77	TPVC	39.92	1304.85
B-102S	07-13-2022	1344.77	TPVC	40.03	1304.74
B-102S	11-01-2022	1344.77	TPVC	40.36	1304.41
B-103S	04-07-2009	1357.64	TPVC	50.97	1306.67
B-103S	07-14-2009	1357.64	TPVC	50.88	1306.76
B-103S	11-09-2009	1357.64	TPVC	51.06	1306.58
B-103S	02-15-2010	1357.64	TPVC	51.39	1306.25
B-103S	03-10-2010	1357.64	TPVC	51.47	1306.17
B-103S	04-08-2010	1357.64	TPVC	51.77	1305.87
B-103S	05-26-2010	1357.64	TPVC	50.98	1306.66
B-103S	06-16-2010	1357.64	TPVC	50.98	1306.66
B-103S	07-12-2010	1357.64	TPVC	50.93	1306.71
B-103S	08-10-2010	1357.64	TPVC	50.71	1306.93
B-103S	09-08-2010	1357.64	TPVC	50.8	1306.84
B-103S	10-05-2010	1357.64	TPVC	50.63	1307.01
B-103S	11-01-2010	1357.64	TPVC	50.78	1306.86
B-103S	12-03-2010	1357.64	TPVC	50.75	1306.89
B-103S	01-14-2011	1357.64	TPVC	50.74	1306.9
B-103S	02-17-2011	1357.64	TPVC	50.85	1306.79
B-103S	03-10-2011	1357.64	TPVC	50.86	1306.78
B-103S	04-18-2011	1357.64	TPVC	49.32	1308.32
B-103S	07-13-2011	1357.64	TPVC	50.1	1307.54
B-103S	11-02-2011	1357.64	TPVC	50.91	1306.73
B-103S	04-10-2012	1357.64	TPVC	52.15	1305.49
B-103S	07-16-2012	1357.64	TPVC	52.38	1305.26
B-103S	11-06-2012	1357.64	TPVC	52.71	1304.93
B-103S	04-10-2013	1357.64	TPVC	53.15	1304.49
B-103S	07-08-2013	1357.64	TPVC	52.57	1305.07
B-103S	11-07-2013	1357.64	TPVC	52.21	1305.43
B-103S	04-22-2014	1357.64	TPVC	51.68	1305.96
B-103S	07-14-2014	1357.64	TPVC	52.12	1305.52
B-103S	11-04-2014	1357.64	TPVC	52.54	1305.1
B-103S	04-13-2015	1357.64	TPVC	53.02	1304.62
B-103S	07-21-2015	1357.64	TPVC	52.98	1304.66
B-103S	11-10-2015	1357.64	TPVC	53.38	1304.26
B-103S	04-11-2016	1357.64	TPVC	53.55	1304.09

Table 2.1
Summary of Groundwater Elevations
Post 2008 Data
North Country Environmental Services, Inc.
Bethlehem, New Hampshire
Permit No. GWP-198704033-B-007

Location	Date	Reference Elevation (ft)	Reference Point	Depth to Water (ft)	Water Level Elevation (ft)
B-103S	07-11-2016	1357.64	TPVC	54.84	1302.8
B-103S	11-07-2016	1357.64	TPVC	53.97	1303.67
B-103S	04-04-2017	1357.64	TPVC	53.9	1303.74
B-103S	07-25-2017	1357.64	TPVC	53.53	1304.11
B-103S	11-08-2017	1357.64	TPVC	53.37	1304.27
B-103S	04-24-2018	1357.64	TPVC	53.33	1304.31
B-103S	07-11-2018	1357.64	TPVC	53.48	1304.16
B-103S	11-05-2018	1357.64	TPVC	53.85	1303.79
B-103S	04-23-2019	1357.64	TPVC	53.31	1304.33
B-103S	07-08-2019	1357.64	TPVC	53.33	1304.31
B-103S	11-05-2019	1357.64	TPVC	53.04	1304.6
B-103S	04-21-2020	1357.64	TPVC	52.61	1305.03
B-103S	07-15-2020	1357.64	TPVC	52.97	1304.67
B-103S	11-03-2020	1357.64	TPVC	53.24	1304.4
B-103S	04-20-2021	1357.64	TPVC	53.36	1304.28
B-103S	07-05-2021	1357.64	TPVC	53.79	1303.85
B-103S	09-29-2021	1357.64	TPVC	54.07	1303.57
B-103S	11-01-2021	1357.64	TPVC	54.27	1303.37
B-103S	02-22-2022	1357.64	TPVC	54.31	1303.33
B-103S	04-18-2022	1357.64	TPVC	54.18	1303.46
B-103S	04-20-2022	1357.64	TPVC	54.21	1303.43
B-103S	06-08-2022	1357.64	TPVC	54.34	1303.3
B-103S	07-11-2022	1357.64	TPVC	54.49	1303.15
B-103S	11-01-2022	1357.64	TPVC	54.79	1302.85
B-304UR	01-21-2009	1338.44	TPVC	47.64	1290.8
B-304UR	02-19-2009	1338.44	TPVC	47.88	1290.56
B-304UR	03-18-2009	1338.44	TPVC	47.91	1290.53
B-304UR	04-06-2009	1338.44	TPVC	47.62	1290.82
B-304UR	05-19-2009	1338.44	TPVC	47.19	1291.25
B-304UR	06-11-2009	1338.44	TPVC	47.2	1291.24
B-304UR	07-13-2009	1338.44	TPVC	47.08	1291.36
B-304UR	08-24-2009	1338.44	TPVC	47.33	1291.11
B-304UR	09-14-2009	1338.44	TPVC	47.44	1291
B-304UR	10-14-2009	1338.44	TPVC	48	1290.44
B-304UR	11-09-2009	1338.44	TPVC	48.29	1290.15
B-304UR	12-08-2009	1338.44	TPVC	48.47	1289.97
B-304UR	01-07-2010	1338.44	TPVC	48.5	1289.94
B-304UR	02-09-2010	1338.44	TPVC	48.62	1289.82
B-304UR	03-09-2010	1338.44	TPVC	48.68	1289.76
B-304UR	04-07-2010	1338.44	TPVC	48.16	1290.28
B-304UR	05-25-2010	1338.44	TPVC	47.22	1291.22
B-304UR	06-15-2010	1338.44	TPVC	47.3	1291.14
B-304UR	07-12-2010	1338.44	TPVC	47.36	1291.08
B-304UR	08-09-2010	1338.44	TPVC	47.33	1291.11
B-304UR	09-08-2010	1338.44	TPVC	47.63	1290.81
B-304UR	10-05-2010	1338.44	TPVC	48.02	1290.42
B-304UR	11-01-2010	1338.44	TPVC	47.95	1290.49
B-304UR	12-02-2010	1338.44	TPVC	47.74	1290.7
B-304UR	01-13-2011	1338.44	TPVC	47.49	1290.95
B-304UR	02-16-2011	1338.44	TPVC	47.76	1290.68
B-304UR	03-10-2011	1338.44	TPVC	48.1	1290.34
B-304UR	04-18-2011	1338.44	TPVC	47.34	1291.1
B-304UR	05-18-2011	1338.44	TPVC	46.17	1292.27
B-304UR	06-09-2011	1338.44	TPVC	45.87	1292.57
B-304UR	07-12-2011	1338.44	TPVC	46.48	1291.96
B-304UR	08-09-2011	1338.44	TPVC	47.34	1291.1
B-304UR	09-06-2011	1338.44	TPVC	47.88	1290.56
B-304UR	10-03-2011	1338.44	TPVC	47.53	1290.91
B-304UR	11-01-2011	1338.44	TPVC	48.04	1290.4
B-304UR	04-10-2012	1338.44	TPVC	48.57	1289.87
B-304UR	07-17-2012	1338.44	TPVC	48.81	1289.63
B-304UR	11-07-2012	1338.44	TPVC	49.33	1289.11
B-304UR	04-10-2013	1338.44	TPVC	48.95	1289.49
B-304UR	07-08-2013	1338.44	TPVC	48.14	1290.3
B-304UR	11-07-2013	1338.44	TPVC	47.26	1291.18
B-304UR	04-22-2014	1338.44	TPVC	48.5	1289.94
B-304UR	07-15-2014	1338.44	TPVC	46.75	1291.69
B-304UR	11-05-2014	1338.44	TPVC	48.65	1289.79
B-304UR	04-14-2015	1338.44	TPVC	49.2	1289.24
B-304UR	07-20-2015	1338.44	TPVC	46.08	1292.36
B-304UR	11-10-2015	1338.44	TPVC	47.86	1290.58
B-304UR	04-12-2016	1338.44	TPVC	45.82	1292.62
B-304UR	07-12-2016	1338.44	TPVC	47.81	1290.63
B-304UR	11-07-2016	1338.44	TPVC	50.32	1288.12
B-304UR	04-04-2017	1338.44	TPVC	50.28	1288.16
B-304UR	07-25-2017	1338.44	TPVC	46.68	1291.76
B-304UR	11-07-2017	1338.44	TPVC	49.25	1289.19
B-304UR	04-23-2018	1338.44	TPVC	47.83	1290.61

Table 2.1
Summary of Groundwater Elevations
Post 2008 Data
North Country Environmental Services, Inc.
Bethlehem, New Hampshire
Permit No. GWP-198704033-B-007

Location	Date	Reference Elevation (ft)	Reference Point	Depth to Water (ft)	Water Level Elevation (ft)
B-304UR	07-11-2018	1338.44	TPVC	47.33	1291.11
B-304UR	07-26-2018	1338.44	TPVC	47.8	1290.64
B-304UR	11-05-2018	1338.44	TPVC	50.33	1288.11
B-304UR	04-23-2019	1338.44	TPVC	48.24	1290.2
B-304UR	07-08-2019	1338.44	TPVC	46.29	1292.15
B-304UR	11-04-2019	1338.44	TPVC	49.53	1288.91
B-304UR	11-22-2019	1338.44	TPVC	49.34	1289.1
B-304UR	04-21-2020	1338.44	TPVC	45.87	1292.57
B-304UR	07-13-2020	1338.44	TPVC	47.66	1290.78
B-304UR	09-28-2020	1338.44	TPVC	49.99	1288.45
B-304UR	11-03-2020	1338.44	TPVC	49.49	1288.95
B-304UR	12-15-2020	1338.44	TPVC	48.85	1289.59
B-304UR	01-13-2021	1338.44	TPVC	47.08	1291.36
B-304UR	02-15-2021	1338.44	TPVC	47.02	1291.42
B-304UR	03-17-2021	1338.44	TPVC	48.08	1290.36
B-304UR	04-19-2021	1338.44	TPVC	46.75	1291.69
B-304UR	05-27-2021	1338.44	TPVC	46.36	1292.08
B-304UR	07-07-2021	1338.44	TPVC	48.07	1290.37
B-304UR	09-29-2021	1338.44	TPVC	50.18	1288.26
B-304UR	11-01-2021	1338.44	TPVC	50.84	1287.6
B-304UR	02-22-2022	1338.44	TPVC	50.31	1288.13
B-304UR	04-18-2022	1338.44	TPVC	47.18	1291.26
B-304UR	06-08-2022	1338.44	TPVC	46.81	1291.63
B-304UR	07-11-2022	1338.44	TPVC	48.08	1290.36
B-304UR	11-02-2022	1338.44	TPVC	49.15	1289.29
B-304DR	04-06-2009	1338.37	TPVC	47.03	1291.34
B-304DR	07-13-2009	1338.37	TPVC	46.66	1291.71
B-304DR	11-09-2009	1338.37	TPVC	57.54	1280.83
B-304DR	04-07-2010	1338.37	TPVC	47.37	1291
B-304DR	07-12-2010	1338.37	TPVC	46.83	1291.54
B-304DR	11-01-2010	1338.37	TPVC	47.29	1291.08
B-304DR	01-13-2011	1338.37	TPVC	46.92	1291.45
B-304DR	04-18-2011	1338.37	TPVC	46.74	1291.63
B-304DR	07-12-2011	1338.37	TPVC	46.02	1292.35
B-304DR	11-01-2011	1338.37	TPVC	47.4	1290.97
B-304DR	04-10-2012	1338.37	TPVC	48.15	1290.22
B-304DR	07-17-2012	1338.37	TPVC	48.31	1290.06
B-304DR	11-07-2012	1338.37	TPVC	48.72	1289.65
B-304DR	04-10-2013	1338.37	TPVC	48.65	1289.72
B-304DR	07-08-2013	1338.37	TPVC	47.97	1290.4
B-304DR	11-07-2013	1338.37	TPVC	47.18	1291.19
B-304DR	04-22-2014	1338.37	TPVC	47.92	1290.45
B-304DR	07-15-2014	1338.37	TPVC	46.92	1291.45
B-304DR	11-05-2014	1338.37	TPVC	48.15	1290.22
B-304DR	04-14-2015	1338.37	TPVC	48.86	1289.51
B-304DR	07-20-2015	1338.37	TPVC	46.85	1291.52
B-304DR	11-10-2015	1338.37	TPVC	47.94	1290.43
B-304DR	04-12-2016	1338.37	TPVC	46.74	1291.63
B-304DR	07-12-2016	1338.37	TPVC	47.83	1290.54
B-304DR	11-07-2016	1338.37	TPVC	49.57	1288.8
B-304DR	04-04-2017	1338.37	TPVC	49.65	1288.72
B-304DR	07-25-2017	1338.37	TPVC	47.28	1291.09
B-304DR	11-07-2017	1338.37	TPVC	48.81	1289.56
B-304DR	04-23-2018	1338.37	TPVC	48.02	1290.35
B-304DR	07-11-2018	1338.37	TPVC	47.49	1290.88
B-304DR	11-05-2018	1338.37	TPVC	49.54	1288.83
B-304DR	04-23-2019	1338.37	TPVC	48.38	1289.99
B-304DR	07-08-2019	1338.37	TPVC	46.8	1291.57
B-304DR	11-04-2019	1338.37	TPVC	48.93	1289.44
B-304DR	11-22-2019	1338.37	TPVC	48.75	1289.62
B-304DR	04-21-2020	1338.37	TPVC	46.67	1291.7
B-304DR	07-13-2020	1338.37	TPVC	47.61	1290.76
B-304DR	09-28-2020	1338.37	TPVC	49.33	1289.04
B-304DR	11-03-2020	1338.37	TPVC	49.42	1288.95
B-304DR	12-15-2020	1338.37	TPVC	48.78	1289.59
B-304DR	01-13-2021	1338.37	TPVC	47.73	1290.64
B-304DR	02-15-2021	1338.37	TPVC	47.63	1290.74
B-304DR	03-17-2021	1338.37	TPVC	48.29	1290.08
B-304DR	04-19-2021	1338.37	TPVC	47.51	1290.86
B-304DR	05-27-2021	1338.37	TPVC	47.15	1291.22
B-304DR	07-07-2021	1338.37	TPVC	48.21	1290.16
B-304DR	09-29-2021	1338.24	TPVC	49.32	1288.92
B-304DR	11-01-2021	1338.24	TPVC	49.66	1288.58
B-304DR	02-22-2022	1338.24	TPVC	49.51	1288.73
B-304DR	04-18-2022	1338.24	TPVC	47.76	1290.48
B-304DR	06-08-2022	1338.24	TPVC	47.29	1290.95
B-304DR	07-11-2022	1338.24	TPVC	47.98	1290.26
B-304DR	11-02-2022	1338.24	TPVC	48.94	1289.3

Table 2.1
Summary of Groundwater Elevations
Post 2008 Data
North Country Environmental Services, Inc.
Bethlehem, New Hampshire
Permit No. GWP-198704033-B-007

Location	Date	Reference Elevation (ft)	Reference Point	Depth to Water (ft)	Water Level Elevation (ft)
MW-603	04-07-2009	1375.33	TPVC	63.62	1311.71
MW-603	07-14-2009	1375.33	TPVC	63.46	1311.87
MW-603	11-10-2009	1375.33	TPVC	63.68	1311.65
MW-603	04-08-2010	1375.33	TPVC	63.94	1311.39
MW-603	07-13-2010	1375.33	TPVC	63.45	1311.88
MW-603	11-02-2010	1375.33	TPVC	63.53	1311.8
MW-603	04-19-2011	1375.33	TPVC	63.28	1312.05
MW-603	07-13-2011	1375.33	TPVC	62.6	1312.73
MW-603	11-02-2011	1375.33	TPVC	63.57	1311.76
MW-603	04-11-2012	1375.33	TPVC	64.88	1310.45
MW-603	07-17-2012	1375.33	TPVC	64.98	1310.35
MW-603	11-06-2012	1375.33	TPVC	65.34	1309.99
MW-603	04-11-2013	1375.33	TPVC	65.63	1309.7
MW-603	07-09-2013	1375.33	TPVC	65.32	1310.01
MW-603	11-06-2013	1375.33	TPVC	64.73	1310.6
MW-603	04-22-2014	1375.33	TPVC	64.82	1310.51
MW-603	07-15-2014	1375.33	TPVC	64.88	1310.45
MW-603	11-04-2014	1375.33	TPVC	65.15	1310.18
MW-603	04-14-2015	1375.33	TPVC	65.89	1309.44
MW-603	07-22-2015	1375.33	TPVC	65.81	1309.52
MW-603	11-10-2015	1375.33	TPVC	65.93	1309.4
MW-603	04-11-2016	1375.33	TPVC	66.09	1309.24
MW-603	07-11-2016	1375.33	TPVC	65.92	1309.41
MW-603	11-07-2016	1375.33	TPVC	66.33	1309
MW-603	04-03-2017	1375.33	TPVC	66.76	1308.57
MW-603	07-26-2017	1375.33	TPVC	66.29	1309.04
MW-603	11-09-2017	1375.33	TPVC	66.1	1309.23
MW-603	04-24-2018	1375.33	TPVC	66.1	1309.23
MW-603	07-11-2018	1375.33	TPVC	65.81	1309.52
MW-603	11-05-2018	1375.33	TPVC	66.17	1309.16
MW-603	04-22-2019	1375.33	TPVC	66.41	1308.92
MW-603	07-08-2019	1375.33	TPVC	65.91	1309.42
MW-603	11-06-2019	1375.33	TPVC	65.89	1309.44
MW-603	04-20-2020	1375.33	TPVC	65.69	1309.64
MW-603	07-15-2020	1375.33	TPVC	65.52	1309.81
MW-603	11-04-2020	1375.33	TPVC	65.85	1309.48
MW-603	04-20-2021	1375.33	TPVC	66.11	1309.22
MW-603	07-06-2021	1375.33	TPVC	66.25	1309.08
MW-603	11-02-2021	1375.33	TPVC	66.73	1308.6
MW-603	02-22-2022	1375.33	TPVC	66.92	1308.41
MW-603	04-18-2022	1375.33	TPVC	66.92	1308.41
MW-603	04-20-2022	1375.33	TPVC	66.96	1308.37
MW-603	06-08-2022	1375.33	TPVC	66.81	1308.52
MW-603	07-12-2022	1375.33	TPVC	66.8	1308.53
MW-603	11-02-2022	1375.33	TPVC	67.21	1308.12
MW-604	07-13-2009	1319.83	TPVC	39.14	1280.69
MW-604	11-10-2009	1319.83	TPVC	39.66	1280.17
MW-604	07-12-2010	1319.83	TPVC	39.37	1280.46
MW-604	11-03-2010	1319.83	TPVC	39.27	1280.56
MW-604	07-12-2011	1319.83	TPVC	38.7	1281.13
MW-604	07-17-2012	1319.83	TPVC	40.35	1279.48
MW-604	07-08-2013	1319.83	TPVC	40.18	1279.65
MW-604	04-23-2014	1319.83	TPVC	39.89	1279.94
MW-604	07-15-2014	1319.83	TPVC	39.74	1280.09
MW-604	04-14-2015	1319.83	TPVC	40.41	1279.42
MW-604	07-21-2015	1319.83	TPVC	39.93	1279.9
MW-604	04-12-2016	1319.83	TPVC	40.11	1279.72
MW-604	07-12-2016	1319.83	TPVC	40.36	1279.47
MW-604	11-07-2016	1319.83	TPVC	40.88	1278.95
MW-604	04-03-2017	1319.83	TPVC	41.1	1278.73
MW-604	07-25-2017	1319.83	TPVC	40.17	1279.66
MW-604	11-07-2017	1319.83	TPVC	40.59	1279.24
MW-604	04-24-2018	1319.83	TPVC	40.29	1279.54
MW-604	07-11-2018	1319.83	TPVC	40.48	1279.35
MW-604	11-05-2018	1319.83	TPVC	40.95	1278.88
MW-604	04-23-2019	1319.83	TPVC	40.5	1279.33
MW-604	07-09-2019	1319.83	TPVC	40.01	1279.82
MW-604	11-06-2019	1319.83	TPVC	40.71	1279.12
MW-604	04-21-2020	1319.83	TPVC	40.14	1279.69
MW-604	07-13-2020	1319.83	TPVC	40.4	1279.43
MW-604	11-03-2020	1319.83	TPVC	40.45	1279.38
MW-604	04-19-2021	1319.83	TPVC	40.73	1279.1
MW-604	05-27-2021	1319.83	TPVC	40.65	1279.18
MW-604	07-07-2021	1319.83	TPVC	40.97	1278.86
MW-604	09-29-2021	1319.83	TPVC	41.49	1278.34
MW-604	11-01-2021	1319.83	TPVC	41.61	1278.22
MW-604	02-22-2022	1319.83	TPVC	41.71	1278.12

Table 2.1
Summary of Groundwater Elevations
Post 2008 Data
North Country Environmental Services, Inc.
Bethlehem, New Hampshire
Permit No. GWP-198704033-B-007

Location	Date	Reference Elevation (ft)	Reference Point	Depth to Water (ft)	Water Level Elevation (ft)
MW-604	04-18-2022	1319.83	TPVC	41.25	1278.58
MW-604	06-08-2022	1319.83	TPVC	41.01	1278.82
MW-604	07-11-2022	1319.83	TPVC	41.3	1278.53
MW-604	11-02-2022	1319.83	TPVC	41.71	1278.12
MW-801	04-07-2009	1347.07	TPVC	39.92	1307.15
MW-801	07-14-2009	1347.07	TPVC	39.88	1307.19
MW-801	11-09-2009	1347.07	TPVC	40.07	1307
MW-801	04-08-2010	1347.07	TPVC	40.13	1306.94
MW-801	07-13-2010	1347.07	TPVC	39.98	1307.09
MW-801	11-02-2010	1347.07	TPVC	39.85	1307.22
MW-801	04-18-2011	1347.07	TPVC	37.59	1309.48
MW-801	07-13-2011	1347.07	TPVC	39.1	1307.97
MW-801	11-02-2011	1347.07	TPVC	39.87	1307.2
MW-801	04-10-2012	1347.07	TPVC	41.19	1305.88
MW-801	07-18-2012	1347.07	TPVC	41.48	1305.59
MW-801	11-06-2012	1347.07	TPVC	41.78	1305.29
MW-801	04-10-2013	1347.07	TPVC	42.1	1304.97
MW-801	07-08-2013	1347.07	TPVC	41.63	1305.44
MW-801	11-07-2013	1347.07	TPVC	41.24	1305.83
MW-801	04-22-2014	1347.07	TPVC	40.5	1306.57
MW-801	07-14-2014	1347.07	TPVC	41.22	1305.85
MW-801	11-04-2014	1347.07	TPVC	41.58	1305.49
MW-801	04-14-2015	1347.07	TPVC	41.97	1305.1
MW-801	07-21-2015	1347.07	TPVC	42.05	1305.02
MW-801	11-10-2015	1347.07	TPVC	42.4	1304.67
MW-801	04-11-2016	1347.07	TPVC	42.52	1304.55
MW-801	07-11-2016	1347.07	TPVC	42.38	1304.69
MW-801	11-07-2016	1347.07	TPVC	42.86	1304.21
MW-801	04-03-2017	1347.07	TPVC	42.89	1304.18
MW-801	07-25-2017	1347.07	TPVC	42.57	1304.5
MW-801	11-09-2017	1347.07	TPVC	42.23	1304.84
MW-801	04-24-2018	1347.07	TPVC	42.29	1304.78
MW-801	07-11-2018	1347.07	TPVC	42.42	1304.65
MW-801	11-05-2018	1347.07	TPVC	42.7	1304.37
MW-801	04-22-2019	1347.07	TPVC	42.14	1304.93
MW-801	07-09-2019	1347.07	TPVC	42.37	1304.7
MW-801	11-06-2019	1347.07	TPVC	42.09	1304.98
MW-801	04-20-2020	1347.07	TPVC	41.65	1305.42
MW-801	07-15-2020	1347.07	TPVC	41.89	1305.18
MW-801	11-04-2020	1347.07	TPVC	42.02	1305.05
MW-801	04-20-2021	1347.07	TPVC	42.28	1304.79
MW-801	07-05-2021	1347.07	TPVC	42.69	1304.38
MW-801	09-29-2021	1347.07	TPVC	43.01	1304.06
MW-801	11-01-2021	1347.07	TPVC	43.21	1303.86
MW-801	02-22-2022	1347.07	TPVC	43.09	1303.98
MW-801	04-18-2022	1347.07	TPVC	43.08	1303.99
MW-801	04-20-2022	1347.07	TPVC	43.09	1303.98
MW-801	06-08-2022	1347.07	TPVC	43.23	1303.84
MW-801	07-13-2022	1347.07	TPVC	43.44	1303.63
MW-801	11-01-2022	1347.07	TPVC	43.66	1303.41
MW-802	04-06-2009	1350.55	TPVC	44.14	1306.41
MW-802	07-13-2009	1350.55	TPVC	43.97	1306.58
MW-802	11-09-2009	1350.55	TPVC	44.22	1306.33
MW-802	04-07-2010	1350.55	TPVC	44.32	1306.23
MW-802	07-12-2010	1350.55	TPVC	44.06	1306.49
MW-802	11-01-2010	1350.55	TPVC	43.84	1306.71
MW-802	04-18-2011	1350.55	TPVC	43.24	1307.31
MW-802	07-12-2011	1350.55	TPVC	43.2	1307.35
MW-802	10-04-2011	1350.55	TPVC	43.6	1306.95
MW-802	11-01-2011	1350.55	TPVC	43.9	1306.65
MW-802	12-08-2011	1350.55	TPVC	44.33	1306.22
MW-802	01-10-2012	1350.55	TPVC	44.43	1306.12
MW-802	02-07-2012	1350.55	TPVC	44.67	1305.88
MW-802	03-06-2012	1350.55	TPVC	44.96	1305.59
MW-802	04-10-2012	1350.55	TPVC	45.26	1305.29
MW-802	05-16-2012	1350.55	TPVC	45.22	1305.33
MW-802	06-12-2012	1350.55	TPVC	45.28	1305.27
MW-802	07-17-2012	1350.55	TPVC	45.47	1305.08
MW-802	08-20-2012	1350.55	TPVC	45.44	1305.11
MW-802	09-14-2012	1350.55	TPVC	45.51	1305.04
MW-802	10-18-2012	1350.55	TPVC	45.72	1304.83
MW-802	11-07-2012	1350.55	TPVC	45.79	1304.76
MW-802	12-04-2012	1350.55	TPVC	45.98	1304.57
MW-802	01-15-2013	1350.55	TPVC	46.01	1304.54
MW-802	02-12-2013	1350.55	TPVC	46.08	1304.47
MW-802	02-25-2013	1350.55	TPVC	46.08	1304.47
MW-802	03-13-2013	1350.55	TPVC	46.09	1304.46

Table 2.1
Summary of Groundwater Elevations
Post 2008 Data
North Country Environmental Services, Inc.
Bethlehem, New Hampshire
Permit No. GWP-198704033-B-007

Location	Date	Reference Elevation (ft)	Reference Point	Depth to Water (ft)	Water Level Elevation (ft)
MW-802	04-10-2013	1350.55	TPVC	46.14	1304.41
MW-802	07-08-2013	1350.55	TPVC	45.7	1304.85
MW-802	11-07-2013	1350.55	TPVC	45.31	1305.24
MW-802	04-23-2014	1350.55	TPVC	45.22	1305.33
MW-802	07-15-2014	1350.55	TPVC	45.21	1305.34
MW-802	11-05-2014	1350.55	TPVC	45.78	1304.77
MW-802	04-14-2015	1350.55	TPVC	46.35	1304.2
MW-802	07-20-2015	1350.55	TPVC	46.15	1304.4
MW-802	11-10-2015	1350.55	TPVC	46.7	1303.85
MW-802	04-12-2016	1350.55	TPVC	46.77	1303.78
MW-802	07-11-2016	1350.55	TPVC	46.92	1303.63
MW-802	11-07-2016	1350.55	TPVC	47.33	1303.22
MW-802	04-04-2017	1350.55	TPVC	47.16	1303.39
MW-802	07-25-2017	1350.55	TPVC	46.65	1303.9
MW-802	11-07-2017	1350.55	TPVC	46.86	1303.69
MW-802	04-23-2018	1350.55	TPVC	46.59	1303.96
MW-802	07-11-2018	1350.55	TPVC	46.69	1303.86
MW-802	11-05-2018	1350.55	TPVC	47.22	1303.33
MW-802	04-23-2019	1350.55	TPVC	46.65	1303.9
MW-802	07-08-2019	1350.55	TPVC	46.49	1304.06
MW-802	11-05-2019	1350.55	TPVC	46.11	1304.44
MW-802	04-20-2020	1350.55	TPVC	45.76	1304.79
MW-802	07-15-2020	1350.55	TPVC	46.29	1304.26
MW-802	11-04-2020	1350.55	TPVC	46.52	1304.03
MW-802	04-22-2021	1350.55	TPVC	46.67	1303.88
MW-802	07-07-2021	1350.55	TPVC	47.09	1303.46
MW-802	09-29-2021	1350.55	TPVC	47.28	1303.27
MW-802	11-01-2021	1350.55	TPVC	47.53	1303.02
MW-802	02-22-2022	1350.55	TPVC	47.73	1302.82
MW-802	04-18-2022	1350.55	TPVC	47.4	1303.15
MW-802	04-20-2022	1350.55	TPVC	47.47	1303.08
MW-802	06-08-2022	1350.55	TPVC	47.53	1303.02
MW-802	07-11-2022	1350.55	TPVC	47.67	1302.88
MW-802	11-01-2022	1350.55	TPVC	47.98	1302.57
MW-803	04-06-2009	1346.38	TPVC	40.15	1306.23
MW-803	07-13-2009	1346.38	TPVC	39.94	1306.44
MW-803	11-09-2009	1346.38	TPVC	40.18	1306.2
MW-803	04-07-2010	1346.38	TPVC	40.28	1306.1
MW-803	07-12-2010	1346.38	TPVC	40.01	1306.37
MW-803	11-01-2010	1346.38	TPVC	39.78	1306.6
MW-803	04-18-2011	1346.38	TPVC	39.19	1307.19
MW-803	07-13-2011	1346.38	TPVC	39.14	1307.24
MW-803	11-01-2011	1346.38	TPVC	39.88	1306.5
MW-803	04-10-2012	1346.38	TPVC	41.18	1305.2
MW-803	07-17-2012	1346.38	TPVC	41.39	1304.99
MW-803	11-07-2012	1346.38	TPVC	41.69	1304.69
MW-803	04-10-2013	1346.38	TPVC	42.05	1304.33
MW-803	07-08-2013	1346.38	TPVC	41.6	1304.78
MW-803	11-07-2013	1346.38	TPVC	41.23	1305.15
MW-803	04-23-2014	1346.38	TPVC	41.07	1305.31
MW-803	07-15-2014	1346.38	TPVC	41.01	1305.37
MW-803	11-05-2014	1346.38	TPVC	41.63	1304.75
MW-803	04-14-2015	1346.38	TPVC	42.21	1304.17
MW-803	07-20-2015	1346.38	TPVC	41.94	1304.44
MW-803	11-10-2015	1346.38	TPVC	42.34	1304.04
MW-803	04-12-2016	1346.38	TPVC	42.55	1303.83
MW-803	07-11-2016	1346.38	TPVC	42.73	1303.65
MW-803	11-07-2016	1346.38	TPVC	43.16	1303.22
MW-803	04-04-2017	1346.38	TPVC	42.92	1303.46
MW-803	07-25-2017	1346.38	TPVC	42.4	1303.98
MW-803	11-08-2017	1346.38	TPVC	42.53	1303.85
MW-803	11-29-2017	1346.38	TPVC	42.51	1303.87
MW-803	04-24-2018	1346.38	TPVC	42.31	1304.07
MW-803	07-11-2018	1346.38	TPVC	42.43	1303.95
MW-803	11-05-2018	1346.38	TPVC	42.99	1303.39
MW-803	04-23-2019	1346.38	TPVC	42.4	1303.98
MW-803	07-09-2019	1346.38	TPVC	42.39	1303.99
MW-803	11-05-2019	1346.38	TPVC	41.83	1304.55
MW-803	04-20-2020	1346.38	TPVC	41.49	1304.89
MW-803	07-15-2020	1346.38	TPVC	42.08	1304.3
MW-803	11-04-2020	1346.38	TPVC	42.27	1304.11
MW-803	04-22-2021	1346.38	TPVC	42.44	1303.94
MW-803	05-27-2021	1346.38	TPVC	42.48	1303.9
MW-803	07-07-2021	1346.38	TPVC	42.88	1303.5
MW-803	09-29-2021	1346.38	TPVC	43.02	1303.36
MW-803	11-01-2021	1346.38	TPVC	43.3	1303.08
MW-803	02-22-2022	1346.38	TPVC	43.48	1302.9
MW-803	04-18-2022	1346.38	TPVC	43.15	1303.23

Table 2.1
Summary of Groundwater Elevations
Post 2008 Data
North Country Environmental Services, Inc.
Bethlehem, New Hampshire
Permit No. GWP-198704033-B-007

Location	Date	Reference Elevation (ft)	Reference Point	Depth to Water (ft)	Water Level Elevation (ft)
MW-803	04-20-2022	1346.38	TPVC	43.22	1303.16
MW-803	06-08-2022	1346.38	TPVC	43.28	1303.1
MW-803	07-11-2022	1346.38	TPVC	43.41	1302.97
MW-803	11-01-2022	1346.38	TPVC	43.75	1302.63
B-914U	04-07-2009	1347.55	TPVC	36.95	1310.6
B-914U	07-14-2009	1347.55	TPVC	36.86	1310.69
B-914U	11-10-2009	1347.55	TPVC	37.02	1310.53
B-914U	04-08-2010	1347.55	TPVC	37.24	1310.31
B-914U	07-14-2010	1347.55	TPVC	36.75	1310.8
B-914U	11-02-2010	1347.55	TPVC	36.82	1310.73
B-914U	04-19-2011	1347.55	TPVC	36.48	1311.07
B-914U	07-13-2011	1347.55	TPVC	35.95	1311.6
B-914U	11-02-2011	1347.55	TPVC	36.85	1310.7
B-914U	04-10-2012	1347.55	TPVC	38.16	1309.39
B-914U	07-18-2012	1347.55	TPVC	38.49	1309.06
B-914U	11-06-2012	1347.55	TPVC	38.68	1308.87
B-914U	04-11-2013	1347.55	TPVC	39.04	1308.51
B-914U	07-09-2013	1347.55	TPVC	38.77	1308.78
B-914U	11-07-2013	1347.55	TPVC	38.05	1309.5
B-914U	04-22-2014	1347.55	TPVC	38.1	1309.45
B-914U	07-14-2014	1347.55	TPVC	38.18	1309.37
B-914U	11-04-2014	1347.55	TPVC	35.8	1311.75
B-914U	04-14-2015	1347.55	TPVC	39.19	1308.36
B-914U	07-22-2015	1347.55	TPVC	39.2	1308.35
B-914U	11-10-2015	1347.55	TPVC	39.45	1308.1
B-914U	04-11-2016	1347.55	TPVC	39.54	1308.01
B-914U	07-11-2016	1347.55	TPVC	39.51	1308.04
B-914U	11-07-2016	1347.55	TPVC	39.94	1307.61
B-914U	04-03-2017	1347.55	TPVC	40.29	1307.26
B-914U	07-26-2017	1347.55	TPVC	39.78	1307.77
B-914U	11-09-2017	1347.55	TPVC	39.68	1307.87
B-914U	04-24-2018	1347.55	TPVC	39.63	1307.92
B-914U	07-11-2018	1347.55	TPVC	39.49	1308.06
B-914U	11-05-2018	1347.55	TPVC	39.9	1307.65
B-914U	04-22-2019	1347.55	TPVC	39.87	1307.68
B-914U	07-08-2019	1347.55	TPVC	39.54	1308.01
B-914U	11-06-2019	1347.55	TPVC	39.38	1308.17
B-914U	04-20-2020	1347.55	TPVC	39.09	1308.46
B-914U	07-16-2020	1347.55	TPVC	39.13	1308.42
B-914U	11-04-2020	1347.55	TPVC	39.38	1308.17
B-914U	04-20-2021	1347.55	TPVC	39.59	1307.96
B-914U	07-05-2021	1347.55	TPVC	39.94	1307.61
B-914U	09-29-2021	1347.55	TPVC	40.25	1307.3
B-914U	11-01-2021	1347.55	TPVC	40.48	1307.07
B-914U	04-20-2022	1347.55	TPVC	40.41	1307.14
B-914U	06-08-2022	1347.55	TPVC	40.52	1307.03
B-914U	07-13-2022	1347.55	TPVC	40.65	1306.9
B-914U	11-01-2022	1347.55	TPVC	40.81	1306.74
B-915U	01-24-2012	1338.2	TPVC	25.77	1312.43
B-915U	02-07-2012	1338.2	TPVC	25.95	1312.25
B-915U	03-06-2012	1338.2	TPVC	26.95	1311.25
B-915U	04-11-2012	1338.2	TPVC	26.62	1311.58
B-915U	05-16-2012	1338.2	TPVC	25.63	1312.57
B-915U	06-11-2012	1338.2	TPVC	25.45	1312.75
B-915U	09-13-2012	1338.2	TPVC	25.65	1312.55
B-915U	04-22-2014	1338.2	TPVC	25.6	1312.6
B-915U	07-15-2014	1338.2	TPVC	25.31	1312.89
B-915U	07-21-2015	1338.2	TPVC	26.22	1311.98
B-915U	11-09-2015	1338.2	TPVC	24.24	1313.96
B-915U	04-12-2016	1338.2	TPVC	22.64	1315.56
B-915U	07-13-2016	1338.2	TPVC	23.08	1315.12
B-915U	11-08-2016	1338.2	TPVC	23.67	1314.53
B-915U	04-04-2017	1338.2	TPVC	23.95	1314.25
B-915U	07-25-2017	1338.2	TPVC	22.49	1315.71
B-915U	11-07-2017	1338.2	TPVC	22.77	1315.43
B-915U	04-23-2018	1338.2	TPVC	22.92	1315.28
B-915U	07-09-2018	1338.2	TPVC	23.09	1315.11
B-915U	11-06-2018	1338.2	TPVC	25.04	1313.16
B-915U	04-23-2019	1338.2	TPVC	22.7	1315.5
B-915U	07-09-2019	1338.2	TPVC	21.89	1316.31
B-915U	11-05-2019	1338.2	TPVC	21.78	1316.42
B-915U	04-21-2020	1338.2	TPVC	22.05	1316.15
B-915U	07-15-2020	1338.2	TPVC	22.23	1315.97
B-915U	11-02-2020	1338.2	TPVC	24.3	1313.9
B-915U	04-20-2021	1338.2	TPVC	25.13	1313.07
B-915U	07-06-2021	1338.2	TPVC	26.37	1311.83
B-915U	09-29-2021	1338.2	TPVC	26.44	1311.76

Table 2.1
Summary of Groundwater Elevations
Post 2008 Data
North Country Environmental Services, Inc.
Bethlehem, New Hampshire
Permit No. GWP-198704033-B-007

Location	Date	Reference Elevation (ft)	Reference Point	Depth to Water (ft)	Water Level Elevation (ft)
B-915U	11-02-2021	1338.2	TPVC	25.7	1312.5
B-915U	02-22-2022	1338.2	TPVC	26.59	1311.61
B-915U	04-18-2022	1338.2	TPVC	23.92	1314.28
B-915U	04-20-2022	1338.2	TPVC	23.77	1314.43
B-915U	06-08-2022	1338.2	TPVC	24.44	1313.76
B-915U	07-12-2022	1338.2	TPVC	26.49	1311.71
B-915U	11-01-2022	1338.2	TPVC	25.49	1312.71
B-916U	01-24-2012	1323.76	TPVC	15.4	1308.36
B-916U	02-07-2012	1323.76	TPVC	14.9	1308.86
B-916U	03-06-2012	1323.76	TPVC	17.33	1306.43
B-916U	04-11-2012	1323.76	TPVC	16.44	1307.32
B-916U	05-16-2012	1323.76	TPVC	13.83	1309.93
B-916U	06-11-2012	1323.76	TPVC	14.09	1309.67
B-916U	09-13-2012	1323.76	TPVC	15.12	1308.64
B-916U	04-21-2014	1323.76	TPVC	14.75	1309.01
B-916U	07-15-2014	1323.76	TPVC	15.07	1308.69
B-916U	07-21-2015	1323.76	TPVC	14.65	1309.11
B-916U	11-09-2015	1323.76	TPVC	15.56	1308.2
B-916U	04-12-2016	1323.76	TPVC	10.67	1313.09
B-916U	07-13-2016	1323.76	TPVC	13.25	1310.51
B-916U	11-08-2016	1323.76	TPVC	13.47	1310.29
B-916U	04-04-2017	1323.76	TPVC	10.8	1312.96
B-916U	07-24-2017	1323.76	TPVC	10	1313.76
B-916U	11-08-2017	1323.76	TPVC	11.36	1312.4
B-916U	04-24-2018	1323.76	TPVC	9.45	1314.31
B-916U	07-09-2018	1323.76	TPVC	11.63	1312.13
B-916U	11-06-2018	1323.76	TPVC	16.87	1306.89
B-916U	04-22-2019	1323.76	TPVC	9.06	1314.7
B-916U	07-09-2019	1323.76	TPVC	9.03	1314.73
B-916U	11-05-2019	1323.76	TPVC	8.4	1315.36
B-916U	04-21-2020	1323.76	TPVC	8.8	1314.96
B-916U	07-15-2020	1323.76	TPVC	10.22	1313.54
B-916U	11-02-2020	1323.76	TPVC	13.11	1310.65
B-916U	04-19-2021	1323.76	TPVC	13.61	1310.15
B-916U	07-06-2021	1323.76	TPVC	16.95	1306.81
B-916U	09-29-2021	1323.76	TPVC	17.35	1306.41
B-916U	11-02-2021	1323.76	TPVC	16.9	1306.86
B-916U	02-22-2022	1323.76	TPVC	17.41	1306.35
B-916U	04-18-2022	1323.76	TPVC	11.01	1312.75
B-916U	06-08-2022	1323.76	TPVC	12.91	1310.85
B-916U	07-12-2022	1323.76	TPVC	16.45	1307.31
B-916U	11-01-2022	1323.76	TPVC	15.43	1308.33
B-917U	01-24-2012	1325.14	TPVC	29.82	1295.32
B-917U	02-07-2012	1325.14	TPVC	30.23	1294.91
B-917U	03-06-2012	1325.14	TPVC	30.83	1294.31
B-917U	04-11-2012	1325.14	TPVC	30.7	1294.44
B-917U	05-16-2012	1325.14	TPVC	28.54	1296.6
B-917U	06-11-2012	1325.14	TPVC	28.34	1296.8
B-917U	09-13-2012	1325.14	TPVC	30.39	1294.75
B-917U	04-21-2014	1325.14	TPVC	30.29	1294.85
B-917U	07-16-2014	1325.14	TPVC	28.41	1296.73
B-917U	07-21-2015	1325.14	TPVC	28.79	1296.35
B-917U	11-09-2015	1325.14	TPVC	31.91	1293.23
B-917U	04-12-2016	1325.14	TPVC	29.93	1295.21
B-917U	07-13-2016	1325.14	TPVC	30.01	1295.13
B-917U	11-08-2016	1325.14	TPVC	32.84	1292.3
B-917U	04-04-2017	1325.14	TPVC	33.07	1292.07
B-917U	07-24-2017	1325.14	TPVC	28.78	1296.36
B-917U	11-08-2017	1325.14	TPVC	31.65	1293.49
B-917U	04-24-2018	1325.14	TPVC	30.07	1295.07
B-917U	07-10-2018	1325.14	TPVC	29.08	1296.06
B-917U	11-06-2018	1325.14	TPVC	32.52	1292.62
B-917U	04-23-2019	1325.14	TPVC	31.16	1293.98
B-917U	07-09-2019	1325.14	TPVC	28.05	1297.09
B-917U	11-05-2019	1325.14	TPVC	31.43	1293.71
B-917U	04-21-2020	1325.14	TPVC	29.03	1296.11
B-917U	07-15-2020	1325.14	TPVC	29.84	1295.3
B-917U	11-02-2020	1325.14	TPVC	32.4	1292.74
B-917U	04-19-2021	1325.14	TPVC	31.59	1293.55
B-917U	07-06-2021	1325.14	TPVC	30.93	1294.21
B-917U	09-29-2021	1325.14	TPVC	33.02	1292.12
B-917U	11-02-2021	1325.14	TPVC	33.45	1291.69
B-917U	02-22-2022	1325.14	TPVC	34.11	1291.03
B-917U	04-18-2022	1325.14	TPVC	32.26	1292.88
B-917U	06-08-2022	1325.14	TPVC	30.62	1294.52
B-917U	07-12-2022	1325.14	TPVC	31.52	1293.62
B-917U	11-01-2022	1325.14	TPVC	33.74	1291.4

Table 2.1
Summary of Groundwater Elevations
Post 2008 Data
North Country Environmental Services, Inc.
Bethlehem, New Hampshire
Permit No. GWP-198704033-B-007

Location	Date	Reference Elevation (ft)	Reference Point	Depth to Water (ft)	Water Level Elevation (ft)
B-918U	01-24-2012	1329.9	TPVC	22.35	1307.55
B-918U	02-07-2012	1329.9	TPVC	22.6	1307.3
B-918U	03-06-2012	1329.9	TPVC	13.09	1316.81
B-918U	04-11-2012	1329.9	TPVC	23.12	1306.78
B-918U	05-16-2012	1329.9	TPVC	22.65	1307.25
B-918U	06-11-2012	1329.9	TPVC	23.04	1306.86
B-918U	09-13-2012	1329.9	TPVC	23.31	1306.59
B-918U	04-22-2014	1329.9	TPVC	23.49	1306.41
B-918U	07-16-2014	1329.9	TPVC	22.21	1307.69
B-918U	07-21-2015	1330.59	TPVC	24.21	1306.38
B-918U	11-09-2015	1330.59	TPVC	26.03	1304.56
B-918U	04-12-2016	1330.59	TPVC	24.95	1305.64
B-918U	07-12-2016	1330.59	TPVC	26.49	1304.1
B-918U	11-08-2016	1330.59	TPVC	26.92	1303.67
B-918U	04-04-2017	1330.59	TPVC	26.75	1303.84
B-918U	07-24-2017	1330.59	TPVC	26.09	1304.5
B-918U	11-08-2017	1330.59	TPVC	26.72	1303.87
B-918U	04-24-2018	1330.59	TPVC	25.81	1304.78
B-918U	07-09-2018	1330.59	TPVC	26.28	1304.31
B-918U	08-27-2018	1330.59	TPVC	26.64	1303.95
B-918U	11-05-2018	1330.59	TPVC	27.2	1303.39
B-918U	04-22-2019	1330.59	TPVC	26.2	1304.39
B-918U	07-09-2019	1330.59	TPVC	26.02	1304.57
B-918U	11-04-2019	1330.59	TPVC	26.35	1304.24
B-918U	04-20-2020	1330.59	TPVC	25.24	1305.35
B-918U	07-15-2020	1330.59	TPVC	26.2	1304.39
B-918U	11-02-2020	1330.59	TPVC	26.47	1304.12
B-918U	04-19-2021	1330.59	TPVC	26.23	1304.36
B-918U	07-06-2021	1330.59	TPVC	26.91	1303.68
B-918U	09-29-2021	1330.59	TPVC	27.44	1303.15
B-918U	11-02-2021	1330.59	TPVC	27.65	1302.94
B-918U	02-22-2022	1330.59	TPVC	27.7	1302.89
B-918U	04-18-2022	1330.59	TPVC	26.95	1303.64
B-918U	06-08-2022	1330.59	TPVC	27.22	1303.37
B-918U	07-12-2022	1330.59	TPVC	27.62	1302.97
B-918U	11-01-2022	1330.59	TPVC	28.01	1302.58
B-919U	03-18-2009	1344.27	TPVC	38.51	1305.76
B-919U	04-07-2009	1344.27	TPVC	38.33	1305.94
B-919U	05-19-2009	1344.27	TPVC	38.04	1306.23
B-919U	06-10-2009	1344.27	TPVC	37.96	1306.31
B-919U	07-14-2009	1344.27	TPVC	37.73	1306.54
B-919U	08-24-2009	1344.27	TPVC	37.75	1306.52
B-919U	09-15-2009	1344.27	TPVC	37.87	1306.4
B-919U	10-14-2009	1344.27	TPVC	38.24	1306.03
B-919U	11-10-2009	1344.27	TPVC	38.34	1305.93
B-919U	12-08-2009	1344.27	TPVC	38.36	1305.91
B-919U	01-07-2010	1344.27	TPVC	38.47	1305.8
B-919U	02-09-2010	1344.27	TPVC	38.64	1305.63
B-919U	03-09-2010	1344.27	TPVC	38.78	1305.49
B-919U	04-07-2010	1344.27	TPVC	38.28	1305.99
B-919U	05-25-2010	1344.27	TPVC	37.69	1306.58
B-919U	06-15-2010	1344.27	TPVC	37.88	1306.39
B-919U	07-13-2010	1344.27	TPVC	37.66	1306.61
B-919U	08-09-2010	1344.27	TPVC	37.41	1306.86
B-919U	09-08-2010	1344.27	TPVC	37.73	1306.54
B-919U	10-05-2010	1344.27	TPVC	37.85	1306.42
B-919U	11-02-2010	1344.27	TPVC	37.66	1306.61
B-919U	12-02-2010	1344.27	TPVC	37.65	1306.62
B-919U	01-13-2011	1344.27	TPVC	37.72	1306.55
B-919U	02-16-2011	1344.27	TPVC	38.01	1306.26
B-919U	04-18-2011	1344.27	TPVC	37.32	1306.95
B-919U	07-12-2011	1344.27	TPVC	37.1	1307.17
B-919U	11-01-2011	1344.27	TPVC	37.98	1306.29
B-919U	04-10-2012	1344.27	TPVC	39.06	1305.21
B-919U	07-18-2012	1344.27	TPVC	39.47	1304.8
B-919U	11-07-2012	1344.27	TPVC	39.93	1304.34
B-919U	04-10-2013	1344.27	TPVC	40	1304.27
B-919U	07-08-2013	1344.27	TPVC	39.34	1304.93
B-919U	11-06-2013	1344.27	TPVC	39.08	1305.19
B-919U	04-23-2014	1344.27	TPVC	38.97	1305.3
B-919U	07-14-2014	1344.27	TPVC	38.35	1305.92
B-919U	11-05-2014	1344.27	TPVC	39.7	1304.57
B-919U	04-14-2015	1344.27	TPVC	41.04	1303.23
B-919U	07-22-2015	1344.27	TPVC	39.1	1305.17
B-919U	11-10-2015	1344.27	TPVC	39.76	1304.51
B-919U	04-12-2016	1344.27	TPVC	39.14	1305.13
B-919U	07-12-2016	1344.27	TPVC	40.43	1303.84

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Post 2008 Data
North Country Environmental Services, Inc.
Bethlehem, New Hampshire
Permit No. GWP-198704033-B-007

Location	Date	Reference Elevation (ft)	Reference Point	Depth to Water (ft)	Water Level Elevation (ft)
B-919U	11-08-2016	1344.27	TPVC	41.31	1302.96
B-919U	04-04-2017	1344.27	TPVC	40.64	1303.63
B-919U	07-24-2017	1344.27	TPVC	39.23	1305.04
B-919U	11-07-2017	1344.27	TPVC	40.23	1304.04
B-919U	04-23-2018	1344.27	TPVC	39.64	1304.63
B-919U	07-09-2018	1344.27	TPVC	39.87	1304.4
B-919U	11-05-2018	1344.27	TPVC	41.08	1303.19
B-919U	04-22-2019	1344.27	TPVC	39.77	1304.5
B-919U	07-08-2019	1344.27	TPVC	39.31	1304.96
B-919U	11-04-2019	1344.27	TPVC	39.36	1304.91
B-919U	04-20-2020	1344.27	TPVC	38.27	1306
B-919U	07-13-2020	1344.27	TPVC	39.66	1304.61
B-919U	11-02-2020	1344.27	TPVC	39.36	1304.91
B-919U	04-19-2021	1344.27	TPVC	39.78	1304.49
B-919U	05-27-2021	1344.27	TPVC	39.82	1304.45
B-919U	07-07-2021	1344.27	TPVC	40.66	1303.61
B-919U	09-29-2021	1344.27	TPVC	40.75	1303.52
B-919U	11-01-2021	1344.27	TPVC	40.61	1303.66
B-919U	02-22-2022	1344.27	TPVC	40.99	1303.28
B-919U	04-18-2022	1344.27	TPVC	39.62	1304.65
B-919U	06-08-2022	1344.27	TPVC	39.8	1304.47
B-919U	07-11-2022	1344.27	TPVC	40.43	1303.84
B-919U	11-02-2022	1344.27	TPVC	40.48	1303.79
B-919M	04-07-2009	1344.06	TPVC	48.95	1295.11
B-919M	07-13-2009	1344.06	TPVC	48.71	1295.35
B-919M	11-10-2009	1344.06	TPVC	49.1	1294.96
B-919M	04-07-2010	1344.06	TPVC	49.31	1294.75
B-919M	07-13-2010	1344.06	TPVC	48.8	1295.26
B-919M	11-02-2010	1344.06	TPVC	48.92	1295.14
B-919M	01-13-2011	1344.06	TPVC	49.21	1294.85
B-919M	04-18-2011	1344.06	TPVC	48.8	1295.26
B-919M	07-12-2011	1344.06	TPVC	48.16	1295.9
B-919M	11-01-2011	1344.06	TPVC	49.07	1294.99
B-919M	04-10-2012	1344.06	TPVC	50	1294.06
B-919M	07-18-2012	1344.06	TPVC	50.28	1293.78
B-919M	11-07-2012	1344.06	TPVC	50.65	1293.41
B-919M	04-10-2013	1344.06	TPVC	50.63	1293.43
B-919M	07-09-2013	1344.06	TPVC	50.51	1293.55
B-919M	11-06-2013	1344.06	TPVC	49.72	1294.34
B-919M	04-23-2014	1344.06	TPVC	50.08	1293.98
B-919M	04-25-2014	1344.06	TPVC	87.49	1256.57
B-919M	07-16-2014	1344.06	TPVC	49.9	1294.16
B-919M	11-05-2014	1344.06	TPVC	50.12	1293.94
B-919M	04-14-2015	1344.06	TPVC	50.81	1293.25
B-919M	07-22-2015	1344.06	TPVC	50.77	1293.29
B-919M	11-10-2015	1344.06	TPVC	51.64	1292.42
B-919M	04-12-2016	1344.06	TPVC	51.1	1292.96
B-919M	07-12-2016	1344.06	TPVC	52.91	1291.15
B-919M	11-08-2016	1344.06	TPVC	52.38	1291.68
B-919M	04-04-2017	1344.06	TPVC	53.37	1290.69
B-919M	07-25-2017	1344.06	TPVC	53.03	1291.03
B-919M	11-07-2017	1344.06	TPVC	54.07	1289.99
B-919M	04-23-2018	1344.06	TPVC	51.54	1292.52
B-919M	07-10-2018	1344.06	TPVC	53.53	1290.53
B-919M	11-06-2018	1344.06	TPVC	51.86	1292.2
B-919M	04-23-2019	1344.06	TPVC	51.78	1292.28
B-919M	07-09-2019	1344.06	TPVC	52.84	1291.22
B-919M	11-05-2019	1344.06	TPVC	51.5	1292.56
B-919M	04-20-2020	1344.06	TPVC	51.02	1293.04
B-919M	07-13-2020	1344.06	TPVC	50.88	1293.18
B-919M	11-04-2020	1344.06	TPVC	51.44	1292.62
B-919M	04-22-2021	1344.06	TPVC	51.5	1292.56
B-919M	05-27-2021	1344.06	TPVC	53.39	1290.67
B-919M	07-07-2021	1344.06	TPVC	51.77	1292.29
B-919M	09-29-2021	1344.06	TPVC	52.11	1291.95
B-919M	11-02-2021	1344.06	TPVC	52.28	1291.78
B-919M	02-22-2022	1344.06	TPVC	52.49	1291.57
B-919M	04-18-2022	1344.06	TPVC	52.21	1291.85
B-919M	06-08-2022	1344.06	TPVC	51.9	1292.16
B-919M	07-11-2022	1344.06	TPVC	52.2	1291.86
B-919M	11-02-2022	1344.06	TPVC	52.56	1291.5
B-919D	04-07-2009	1344.13	TPVC	49.18	1294.95
B-919D	07-13-2009	1344.13	TPVC	49.03	1295.1
B-919D	11-10-2009	1344.13	TPVC	49.64	1294.49
B-919D	04-07-2010	1344.13	TPVC	49.43	1294.7
B-919D	07-15-2010	1344.13	TPVC	49.24	1294.89
B-919D	11-02-2010	1344.13	TPVC	49.42	1294.71

Table 2.1
Summary of Groundwater Elevations
Post 2008 Data
North Country Environmental Services, Inc.
Bethlehem, New Hampshire
Permit No. GWP-198704033-B-007

Location	Date	Reference Elevation (ft)	Reference Point	Depth to Water (ft)	Water Level Elevation (ft)
B-919D	01-13-2011	1344.13	TPVC	48.71	1295.42
B-919D	04-18-2011	1344.13	TPVC	48.92	1295.21
B-919D	07-12-2011	1344.13	TPVC	48.7	1295.43
B-919D	11-01-2011	1344.13	TPVC	49.7	1294.43
B-919D	04-10-2012	1344.13	TPVC	50.7	1293.43
B-919D	07-18-2012	1344.13	TPVC	50.86	1293.27
B-919D	11-07-2012	1344.13	TPVC	51.08	1293.05
B-919D	04-10-2013	1344.13	TPVC	51.09	1293.04
B-919D	07-08-2013	1344.13	TPVC	50.74	1293.39
B-919D	11-06-2013	1344.13	TPVC	50.19	1293.94
B-919D	04-23-2014	1344.13	TPVC	50.42	1293.71
B-919D	07-16-2014	1344.13	TPVC	50.31	1293.82
B-919D	11-04-2014	1344.13	TPVC	50.73	1293.4
B-919D	04-13-2015	1344.13	TPVC	51.35	1292.78
B-919D	07-20-2015	1344.13	TPVC	51.01	1293.12
B-919D	11-09-2015	1344.13	TPVC	51.4	1292.73
B-919D	04-11-2016	1344.13	TPVC	51.22	1292.91
B-919D	07-11-2016	1344.13	TPVC	51.2	1292.93
B-919D	11-07-2016	1344.13	TPVC	51.84	1292.29
B-919D	04-03-2017	1344.13	TPVC	52.15	1291.98
B-919D	07-24-2017	1344.13	TPVC	51.46	1292.67
B-919D	11-07-2017	1344.13	TPVC	51.44	1292.69
B-919D	04-23-2018	1344.13	TPVC	51.47	1292.66
B-919D	07-09-2018	1344.13	TPVC	51.1	1293.03
B-919D	11-05-2018	1344.13	TPVC	51.76	1292.37
B-919D	04-22-2019	1344.13	TPVC	51.8	1292.33
B-919D	07-08-2019	1344.13	TPVC	51.1	1293.03
B-919D	11-04-2019	1344.13	TPVC	51.39	1292.74
B-919D	04-20-2020	1344.13	TPVC	51.02	1293.11
B-919D	07-13-2020	1344.13	TPVC	51.01	1293.12
B-919D	11-02-2020	1344.13	TPVC	51.27	1292.86
B-919D	04-19-2021	1344.13	TPVC	51.66	1292.47
B-919D	05-27-2021	1344.13	TPVC	51.52	1292.61
B-919D	07-07-2021	1344.13	TPVC	51.86	1292.27
B-919D	09-29-2021	1344.13	TPVC	52.28	1291.85
B-919D	11-01-2021	1344.13	TPVC	52.36	1291.77
B-919D	02-22-2022	1344.13	TPVC	52.6	1291.53
B-919D	04-18-2022	1344.13	TPVC	52.39	1291.74
B-919D	06-08-2022	1344.13	TPVC	52.06	1292.07
B-919D	07-11-2022	1344.13	TPVC	52.29	1291.84
B-919D	11-02-2022	1344.13	TPVC	52.69	1291.44
B-926U	11-08-2017	1332.47	TPVC	22.72	1309.75
B-926U	04-24-2018	1332.47	TPVC	21.52	1310.95
B-926U	07-10-2018	1332.47	TPVC	21.92	1310.55
B-926U	11-06-2018	1332.47	TPVC	24.68	1307.79
B-926U	04-23-2019	1332.47	TPVC	24.06	1308.41
B-926U	07-09-2019	1332.47	TPVC	22.11	1310.36
B-926U	11-05-2019	1332.47	TPVC	23.02	1309.45
B-926U	04-21-2020	1332.47	TPVC	23.16	1309.31
B-926U	07-15-2020	1332.47	TPVC	24.07	1308.4
B-926U	11-02-2020	1332.47	TPVC	25.59	1306.88
B-926U	04-20-2021	1332.47	TPVC	24.93	1307.54
B-926U	07-06-2021	1332.47	TPVC	31.28	1301.19
B-926U	09-29-2021	1332.47	TPVC	26.06	1306.41
B-926U	11-02-2021	1332.47	TPVC	26.32	1306.15
B-926U	02-22-2022	1332.47	TPVC	27.06	1305.41
B-926U	04-18-2022	1332.47	TPVC	25.61	1306.86
B-926U	04-20-2022	1332.47	TPVC	25.52	1306.95
B-926U	06-08-2022	1332.47	TPVC	25.03	1307.44
B-926U	07-12-2022	1332.47	TPVC	25.89	1306.58
B-926U	11-01-2022	1332.47	TPVC	27.32	1305.15
B-927U	11-07-2017	1345.58	TPVC	44.87	1300.71
B-927U	04-24-2018	1345.58	TPVC	44.39	1301.19
B-927U	07-09-2018	1345.58	TPVC	43.7	1301.88
B-927U	11-06-2018	1345.58	TPVC	45.27	1300.31
B-927U	04-22-2019	1345.58	TPVC	43.3	1302.28
B-927U	08-05-2019	1345.58	TPVC	43.79	1301.79
B-927U	11-04-2019	1345.58	TPVC	44.32	1301.26
B-927U	04-20-2020	1345.58	TPVC	43.34	1302.24
B-927U	07-13-2020	1345.58	TPVC	43.49	1302.09
B-927U	11-02-2020	1345.58	TPVC	44.79	1300.79
B-927U	04-19-2021	1345.58	TPVC	44.56	1301.02
B-927U	07-05-2021	1345.58	TPVC	44.6	1300.98
B-927U	09-29-2021	1345.58	TPVC	45.48	1300.1
B-927U	11-01-2021	1345.58	TPVC	45.98	1299.6
B-927U	02-22-2022	1345.58	TPVC	46.49	1299.09
B-927U	04-18-2022	1345.58	TPVC	46.13	1299.45

Table 2.1
Summary of Groundwater Elevations
Post 2008 Data
North Country Environmental Services, Inc.
Bethlehem, New Hampshire
Permit No. GWP-198704033-B-007

Location	Date	Reference Elevation (ft)	Reference Point	Depth to Water (ft)	Water Level Elevation (ft)
B-927U	06-08-2022	1345.58	TPVC	45.51	1300.07
B-927U	07-11-2022	1345.58	TPVC	45.82	1299.76
B-927U	11-01-2022	1345.58	TPVC	46.93	1298.65
B-928U	09-29-2021	1333.75	TPVC	48.33	1285.42
B-928U	11-01-2021	1333.75	TPVC	49.83	1283.92
B-928U	02-22-2022	1333.75	TPVC	48.37	1285.38
B-928U	04-18-2022	1333.75	TPVC	45.11	1288.64
B-928U	06-08-2022	1333.75	TPVC	44.17	1289.58
B-928U	07-11-2022	1333.75	TPVC	45.21	1288.54
B-928U	11-02-2022	1333.75	TPVC	47.45	1286.3
B-928D	09-29-2021	1334.12	TPVC	52.29	1281.83
B-928D	11-01-2021	1334.12	TPVC	52.98	1281.14
B-928D	02-22-2022	1334.12	TPVC	52.07	1282.05
B-928D	04-18-2022	1334.12	TPVC	50.17	1283.95
B-928D	06-08-2022	1334.12	TPVC	49.19	1284.93
B-928D	07-11-2022	1334.12	TPVC	49.83	1284.29
B-928D	11-02-2022	1334.12	TPVC	51.78	1282.34

Notes:

1. Sampling performed prior to November 1993 was performed and tabulated by GZA GeoEnvironmental, Inc. of Manchester, New Hampshire. Subsequent sampling and tabulation was performed by Sanborn Head.
2. Elevations are referenced to NAVD 88. To convert to old site datum subtract 6.83 feet.
3. Refer to previous annual reports for historical data (generally prior to 2009).

Table 2.2
Summary of IRA Groundwater Results
North Country Environmental Services, Inc.
Bethlehem, New Hampshire
Permit No. GWP-198704033-B-007

Sample Location	Sample Date	Sample Type	Field Parameters / Indicator Parameters / Metals																				Volatile Organic Compounds					
			ft	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	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	
			Groundwater Elevation	pH	Specific Conductance	Temperature	Bromide	Chloride	Nitrate	Chemical Oxygen Demand	Total Kjeldahl Nitrogen (TKN)	Antimony	Arsenic	Barium	Beryllium	Chromium	Iron	Iron	Lead	Manganese	Manganese	Nickel	Zinc	Acetone	Chloroform (Trichloromethane)	Dichlorodifluoromethane (CFC12)	Dichloroethane (1,1-)	Dioxane (1,4-)
N	N	N	N	N	N	N	N	N	D	D	D	D	D	D	T	D	D	T	D	D	N	N	N	N	N			
GW-1 (AGQS)									10																			
SMCL				6.5-8.5					250						0.3	0.3		0.05	0.05		5							
Background 2022-11				6.5-9.3	186	5.6-13.5	0.1, 0.4 §	4	2.5	20	0.92	<0.001	0.0011	0.025	<0.001	0.0014	0.64	0.64	<0.001	0.19	0.19	0.0027		<10	<1	<2	<1	<0.25
B-304UR	4/10/2006	N	1293.9	6.9	175	8.9	<0.1	14.8	0.936	<15	0.447					<0.01			0.08									
B-304UR	5/30/2006	N										<0.002	<0.002	<0.02	<0.002	<0.01			<0.01			<0.02						
B-304UR	7/10/2006	N	1291.25	6.28	271	20.7	0.269	50	0.963	<15	0.12	<0.002	<0.002	0.031	<0.002	<0.01	<0.01		<0.02	0.032								
B-304UR	11/6/2006	N	1290.66	6.2	110	7.7	0.251	50.4	0.938	<15	<0.04					<0.02			<0.02									
B-304UR	4/9/2007	N	1290.21	6.2	300	9.2	0.42	46.7	0.92	<15	0.216					<0.02			<0.02									
B-304UR	7/23/2007	N	1290.74	6.3	364	17.2	0.313	54.7	0.952	<15	0.177	<0.002	<0.002	0.026	<0.002	<0.02	<0.02		<0.001	<0.02		<0.02						
B-304UR	11/5/2007	N	1288.69	6.1	240	8.6	0.14	28	0.86	<10	0.29		<0.002			<0.02			<0.02									
B-304UR	4/21/2008	N	1289.62	6.15	419	15.2	0.48	60	1.2	38	<0.1					<0.02			<0.02									
B-304UR	7/21/2008	N	1289.78	5.3	500	14.6	0.34	60	1.2	<10	0.11					0.23			<0.02									
B-304UR	11/18/2008	N	1290.34	5.8	290	4.9	0.16	36	1.1	<10	0.11					<0.02			<0.02									
B-304UR	12/10/2008	N	1290.46	6	289	9.6	0.2																					
B-304UR	1/21/2009	N	1290.8	6.1	90	5.5	0.2																					
B-304UR	2/19/2009	N	1290.56	5.8	370	8	0.2																					
B-304UR	3/18/2009	N	1290.53	6.2	240	10	0.1																					
B-304UR	4/6/2009	N	1290.82	5.98	410	8.3	0.2	42	1.6	20	<0.5					0.08			0.012									
B-304UR	5/19/2009	N	1291.25	5.8	310	13.2	0.3																					
B-304UR	6/11/2009	N	1291.24	5.9	320	15.2	0.1																					
B-304UR	7/13/2009	N	1291.36	5.44	310	14.1	0.1	30	1.4	<10	<0.5	<0.001	<0.0005	0.03	<0.001	<0.001	<0.05		<0.001	<0.005		<0.001						
B-304UR	7/30/2009	N																										
B-304UR	8/24/2009	N	1291.11	5.8	560	16.5	<0.1																					
B-304UR	9/14/2009	N	1291	6.4	440	14.1	0.2																					
B-304UR	10/14/2009	N	1290.44	5.39	320	9.3	0.2																					
B-304UR	11/9/2009	N	1290.15	5.9	300	13.1	0.2	34	1.5	<10	<0.5					0.85			0.059									
B-304UR	12/8/2009	N	1289.97	6.4	330	6.8	0.2																					
B-304UR	1/7/2010	N	1289.94	5.7	470	8.4	0.2																					
B-304UR	2/9/2010	N	1289.82	6.4	380	7	0.2																					
B-304UR	3/9/2010	N	1289.76	5.5	360	11.4	0.3																					
B-304UR	4/7/2010	N	1290.28	5.61	370	16.1	0.2	33	1.5	<10	<0.5					<0.05			<0.005									
B-304UR	5/25/2010	N	1291.22	5.4	360	19	0.1																					
B-304UR	6/15/2010	N	1291.14	5.5	330	17.2	0.2																					
B-304UR	7/12/2010	N	1291.08	5.6	350	19.1	0.2	31	1.6	<10	<0.5					<0.05			<0.005									
B-304UR	8/9/2010	N	1291.11	5.4	340	18.1	0.2																					
B-304UR	9/8/2010	N	1290.81	5.6	370	16.1	0.2																					
B-304UR	10/5/2010	N	1290.42	5.7	370	15.4	0.2																					
B-304UR	11/1/2010	N	1290.49	5.99	470	9.4	0.2	31	2	<10	<0.5					<0.05			<0.005									
B-304UR	12/2/2010	N	1290.7	5.9	320	9.9	0.2																					
B-304UR	1/13/2011	N	1290.95	8.6	311	5.9	0.2																					
B-304UR	2/16/2011	N	1290.68	5.8	333	10.9	0.2																					
B-304UR	3/10/2011	N	1290.34	5.7	360	8.4	0.2																					

Table 2.2
Summary of IRA Groundwater Results
North Country Environmental Services, Inc.
Bethlehem, New Hampshire
Permit No. GWP-198704033-B-007

Sample Location	Sample Date	Sample Type	Field Parameters / Indicator Parameters / Metals																			Volatile Organic Compounds						
			ft	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	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	
			Groundwater Elevation	pH	Specific Conductance	Temperature	Bromide	Chloride	Nitrate	Chemical Oxygen Demand	Total Kjeldahl Nitrogen (TKN)	Antimony	Arsenic	Barium	Beryllium	Chromium	Iron	Iron	Lead	Manganese	Manganese	Nickel	Zinc	Acetone	Chloroform (Trichloromethane)	Dichlorodifluoromethane (CFC12)	Dichloroethane (1,1-)	Dioxane (1,4-)
N	N	N	N	N	N	N	N	N	D	D	D	D	D	D	T	D	D	T	D	D	N	N	N	N	N			
GW-1 (AGQS)								10			0.006	0.005	2	0.004	0.1			0.015	0.3	0.3	0.1		6000	70	1000	81	0.32	
SMCL				6.5-8.5				250								0.3	0.3		0.05	0.05		5						
Background 2022-11				6.5-9.3	186	5.6-13.5	0.1, 0.4 §	4	2.5	20	0.92	<0.001	0.0011	0.025	<0.001	0.0014	0.64	0.64	<0.001	0.19	0.19	0.0027		<10	<1	<2	<1	<0.25
B-304UR	4/18/2011	N	1291.1	5.7	350	10	0.3	29	2	<10	<0.5					<0.05			<0.005				<10	<2	7	<2	<1	
B-304UR	5/18/2011	N	1292.27	6.1	370	13	0.2																<10	<2	<5	<2	<1	
B-304UR	6/9/2011	N	1292.57	5.7	370	15.3	0.2																<10	<2	6	<2	<1	
B-304UR	7/12/2011	N	1291.96	7.1	250	20.4	0.2	28	1.7	<10	<0.5	<0.001	<0.0005	0.032	<0.001	<0.001	<0.05		<0.001	<0.005		<0.001	<10	<2	6	<2	<1	
B-304UR	8/9/2011	N	1291.1	5.6	320	16	0.1																<10	<2	8	<2	<1	
B-304UR	9/6/2011	N	1290.56	5.5	290	14.2	0.2																<10	<2	9	<2	<1	
B-304UR	10/3/2011	N	1290.91	5.8	240	14.9	0.1																<10	<2	12	<2	<1	
B-304UR	11/1/2011	N	1290.4	6.17	420	10.5	0.1	22	2	<10	<0.5					<0.05			<0.005			<10	<2	9	<2	<0.25		
B-304UR	4/10/2012	N	1289.87	6.3	1100	9.6	0.1	15	1.9	<10	<0.5					<0.05			0.014			<10	<2	10	<2	<0.25		
B-304UR	7/17/2012	N	1289.63	6.3	290	17.6	0.2	22	1.8	<10	<0.5					0.17			0.013									
B-304UR	11/7/2012	N	1289.11	6.32	332	9.9	0.2	23	1.6	<10	<0.5					<0.05			<0.005			<10	<2	<5	<2	<0.25		
B-304UR	4/10/2013	N	1289.49	6.3	440	9.9	<0.1	17	2.2	<10	<0.5					<0.05			<0.005			<10	<2	<5	<2	<0.25		
B-304UR	7/8/2013	N	1290.3	5.86	380	17.3	<0.1	21	1.8	<10	<0.5	<0.001	<0.0005	0.025	<0.001	<0.001	<0.05		<0.001	0.007	0.012							
B-304UR	11/7/2013	N	1291.18	6.87	541	11.9	0.1	20	2.2	<10	<0.5					<0.05			<0.005			<10	<2	<5	<2	<0.25		
B-304UR	11/7/2013	FD					<0.1	21	2.2	<10	<0.5					<0.05			<0.005			<10	<2	<5	<2	<0.25		
B-304UR	4/22/2014	N	1289.94	5.97	420	14.5	<0.1	20	2.8	12	<0.5					0.06			0.009			<10	<2	<5	<2	0.29		
B-304UR	7/15/2014	N	1291.69	5.96	780	20.1	<0.1	24	2.4	<10	<0.5					<0.05			<0.005									
B-304UR	11/5/2014	N	1289.79	6.22	700	13.8	<0.1	26	2.7	<10	<0.5					<0.05			<0.005			<10	<2	<5	<2	<0.25		
B-304UR	4/14/2015	N	1289.24	6.46	338	12.9	0.1	25	5.1	<10	<0.5					<0.05			<0.005			<10	<2	<5	<2	0.65		
B-304UR	7/20/2015	N	1292.36	6.13	379	18.4	<0.1	23	0.9	<10	0.5	<0.001	0.0009	0.018	<0.001	<0.001	<0.05		<0.001	<0.005	0.002							
B-304UR	11/10/2015	N	1290.58	6.44	440	14.4	<0.1	25	0.6	<10	<0.5					<0.05			<0.005			<10	<2	<5	<2	<0.25		
B-304UR	4/12/2016	N	1292.62	6.2	380	11.7	<0.1	20	0.6	<10	<0.5					<0.05			<0.005			<10	<2	<5	<2	<0.25		
B-304UR	7/12/2016	N	1290.63	6.36	283	17.4	<0.1	19	3.2	<10	<0.5					<0.05			<0.005									
B-304UR	11/7/2016	N	1288.12	6.25	267	12.1	<0.1	29	1.8	<10	<0.5					<0.05			<0.005			<10	<2	<5	<2	<0.25		
B-304UR	4/4/2017	N	1288.16	6.44	377	10.1	<0.1	32	5.9	<10	<0.5					<0.05			<0.005			<10	<2	<5	<2	0.65		
B-304UR	7/25/2017	N	1291.76	6.83	252	14	<0.1	12	1.5	<10	<0.5	<0.001	<0.0005	0.02	<0.001	<0.001	<0.05		<0.001	<0.005	<0.001							
B-304UR	11/7/2017	N	1289.19	6.6	295	11.1	<0.1	33	1.2	<10	<0.5					<0.05			<0.005			<10	<1	<5	<1	0.47		
B-304UR	4/23/2018	N	1290.61	6.35	285	17.6	0.13	35	1.8	<10	<0.5					<0.05			<0.005			<10	<1	<5	<1	0.85		
B-304UR	7/11/2018	N	1291.11	5.99	561	18.1	0.63	78	1.4	<10	<0.5					<0.05			<0.005									
B-304UR	7/26/2018	N	1290.64	6.58	518	13.8	0.49	72																				
B-304UR	11/5/2018	N	1288.11	6.15	313	11	0.34	57	1.4	<10	<0.5					<0.05			<0.005			<10	<1	<5	<1	0.71		
B-304UR	4/23/2019	N	1290.2	6.57	430	11.8	0.53	69	2.2	<10	<0.5					<0.05			0.0057			<10	<1	<5	<1	1.8		
B-304UR	7/8/2019	N	1292.15	6.48	327	15.4	0.26	43	1.6	<10	<0.5	<0.001	<0.0005	0.025	<0.001	<0.001	<0.05		<0.001	<0.005	<0.001							
B-304UR	11/4/2019	N	1288.91	6.1	823	10.8	1.5	200	3.4	15	<0.5					<0.05			0.011			<10	<1	<5	<1	5.4		
B-304UR	11/22/2019	N	1289.1	6.28	1103	11.3	1.7	220																		6.9		
B-304UR	4/21/2020	N	1292.57	6.26	309	10.5	<0.1	33	2.3	<10	<0.5					0.15			0.0095			<10	<1	<2	<1	<0.25		
B-304UR	7/13/2020	N	1290.78	6.07	758	17	0.74	110	3.9	11	<0.5					<0.05			0.016			<10	<1	<2	<1	1.7		
B-304UR	9/28/2020	N	1288.45	6.5	208	14.2	0.91	130														<10	<1	<2	<1	3.9		
B-304UR	11/3/2020	N	1288.95	5.98	1021	9.3	2.4	280	7.1	48	0.91					<0.05			0.051			<10	<1	<2	<1	11		

**Table 2.2
Summary of IRA Groundwater Results
North Country Environmental Services, Inc.
Bethlehem, New Hampshire
Permit No. GWP-198704033-B-007**

Sample Location	Sample Date	Sample Type	Field Parameters / Indicator Parameters / Metals																				Volatile Organic Compounds						
			ft	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	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L		
			Groundwater Elevation	pH	Specific Conductance	Temperature	Bromide	Chloride	Nitrate	Chemical Oxygen Demand	Total Kjeldahl Nitrogen (TKN)	Antimony	Arsenic	Barium	Beryllium	Chromium	Iron	Iron	Lead	Manganese	Manganese	Nickel	Zinc	Acetone	Chloroform (Trichloromethane)	Dichlorodifluoromethane (CFC12)	Dichloroethane (1,1-)	Dioxane (1,4-)	
N	N	N	N	N	N	N	N	N	D	D	D	D	D	D	T	D	D	T	D	D	N	N	N	N	N				
GW-1 (AGQS)										10																			
SMCL				6.5-8.5				250							0.3	0.3		0.015	0.3	0.3	0.1		6000	70	1000	81	0.32		
Background 2022-11				6.5-9.3	186	5.6-13.5	0.1, 0.4 §	4	2.5	20	0.92	<0.001	0.0011	0.025	<0.001	0.0014	0.64	0.64	<0.001	0.19	0.19	0.0027		<10	<1	<2	<1	<0.25	
B-304UR	12/15/2020	N	1289.59	6.35	792	7.7	0.84	130	5.7	13	0.5					<0.05													
B-304UR	1/13/2021	N	1291.36	7.13	258	8.6	<0.1	20	1.4	<10	<0.5					<0.05													
B-304UR	2/15/2021	N	1291.42	6.7	223	11.2	<0.1	18	1.1	<10	<0.5					<0.05													
B-304UR	3/17/2021	N	1290.36	6.45	298	7.6	0.52	83	2.9	<10	<0.5					<0.05												0.81	
B-304UR	4/19/2021	N	1291.69	6.41	264	13.5	<0.1	22	2.1	<10	<0.5					<0.05			<0.005									<0.25	
B-304UR	5/27/2021	N	1292.08	6.66	196	12.8	<0.1	9.1	<0.5	<10	<0.5	<0.001	<0.001	0.023	<0.001	<0.001	<0.05		<0.001	<0.005		<0.001	0.011	<10	<1	<2	<1	<0.25	
B-304UR	7/7/2021	N	1290.37	6.13	685	17.5	1.5	180	5.1	13	0.53	<0.001	0.0006	0.056	<0.001	<0.001	0.073		<0.001	0.0098		0.0024	0.013	<10	<1	<2	<1	2.5	
B-304UR	9/29/2021	N	1288.26	6.2	642	11.7	1.2	170	9.6	22	0.54	<0.001	0.00085	0.076	<0.001	<0.001	<0.05		<0.001	0.02		0.0041	0.018	<10	<1	<2	<1	4.6	
B-304UR	11/1/2021	N	1287.6	5.94	761	11.5	1.4	180	7.2	13	0.59	<0.001	0.00055	0.061	<0.001	<0.001	<0.05		<0.001	0.017		0.0026	0.0057	<10	<1	<2	<1	4.7	
B-304UR	2/22/2022	N	1288.13	6.9	840	10.2	0.99	130	7.3	20	<0.5	<0.001	0.00084	0.054	<0.001	<0.001	<0.05		<0.001	0.029		0.0035	<0.005	<10	<1	<2	<1	4.7	
B-304UR	4/18/2022	N	1291.26	6.71	207	12.5	<0.1	12	0.81	<10	0.76	<0.001	<0.0005	0.012	<0.001	<0.001	<0.05		<0.001	<0.005		<0.001	0.0086	<10	<1	<2	<1	1.3	
B-304UR	6/8/2022	N	1291.63	6.33	190	15.1	<0.1	13	0.91	<10	<0.5	<0.001	<0.0005	0.012	<0.001	<0.001	<0.05		<0.001	<0.005		0.0019	0.005	<10	<1	<2	<1	0.27	
B-304UR	7/11/2022	N	1290.36	6.27	371	14.1	0.53	80	6.1	<10	<0.5					<0.05													
B-304UR	11/2/2022	N	1289.29	6.74	336	12.7	0.1	22	1.9	<10	<0.5	<0.001	<0.0005	0.018	<0.001	<0.001	0.097		<0.001	<0.005		0.001	<0.005	<10	<1	<2	<1	0.38	
B-304DR	4/10/2006	N	1291.43	6.7	391	11.3	<0.1	7.57	<0.02	<15	9.88					0.156												12.6	3.4
B-304DR	5/30/2006	N										<0.002	<0.002	0.029	<0.002	<0.01			<0.01			<0.02							
B-304DR	7/10/2006	N	1291.78	6.5	387	11.8	0.108	6.76	<0.02	<15	6.39	<0.002	<0.004	0.08	0.002	<0.01	3.85		<0.02	1.76		<0.02						18.6	2.7
B-304DR	11/6/2006	N	1291.29																										
B-304DR	4/9/2007	N	1291.02																										
B-304DR	7/23/2007	N	1291.41	7	394	14.2	<0.1	6.3	0.066	<15	0.333					0.042											15.9	1.9	
B-304DR	11/5/2007	N	1289.93	6.5	320	8.2	<0.1	6.8	0.12	<10	0.18					0.002											10.1	2.1	
B-304DR	4/21/2008	N	1290.3	6.56	406	13	<0.1	7.3	0.06	67	0.25																18.3	2.5	
B-304DR	7/21/2008	N	1290.33	5.9	310	16.2	<0.1	7.1	0.09	16	1.7					0.21													
B-304DR	11/18/2008	N	1291.1	6.7	310	5	<0.1	6.9	0.12	160	0.16					0.21											17.7	1.5	<2
B-304DR	4/6/2009	N	1291.34	6.25	240	9.8	<0.1	9	<0.5	20	<0.5					<0.05								<10	<2	21	2	<1	
B-304DR	7/13/2009	N	1291.71	6.55	180	14	0.1	8	<0.5	<10	<0.5	<0.001	0.0007	0.047	<0.001	<0.001	0.71		0.002		0.003								
B-304DR	11/9/2009	N	1280.83	6.6	150	14.2	<0.1	7	<0.5	<10	<0.5					<0.05								<10	<2	18	<2	<1	
B-304DR	4/7/2010	N	1291	6.17	330	16.7	<0.1	10	<0.5	<10	<0.5					<0.05								<10	<2	15	<2	<1	
B-304DR	7/12/2010	N	1291.54	6.1	330	18	<0.1	10	<0.5	<10	<0.5					<0.05													
B-304DR	11/1/2010	N	1291.08	6.5	440	6.9	<0.1	10	<0.5	<10	<0.5					0.28								<10	<2	11	<2	<1	
B-304DR	1/13/2011	N	1291.45																										
B-304DR	4/18/2011	N	1291.63	6.16	180	9.4	<0.1	10	<0.5	<10	<0.5					<0.05								<10	<2	12	<2	<1	
B-304DR	7/12/2011	N	1292.35	6.2	160	17.9	<0.1	12	0.5	<10	<0.5	<0.001	<0.0005	0.028	<0.001	<0.001	<0.05		<0.001	1.2		0.003							
B-304DR	11/1/2011	N	1290.97	6.63	290	9.7	<0.1	10	0.5	<10	<0.5					<0.05								<10	<2	12	<2	0.42	
B-304DR	4/10/2012	N	1290.22	6.5	780	9.5	<0.1	12	0.6	<10	<0.5					0.11								<10	<2	11	<2	0.48	
B-304DR	7/17/2012	N	1290.06	6.7	280	17	<0.1	12	0.6	<10	<0.5					<0.05													
B-304DR	11/7/2012	N	1289.65	6.61	251	9.4	<0.1	12	0.5	<10	<0.5					<0.05								<10	<2	12	<2	0.43	
B-304DR	4/10/2013	N	1289.72	6.7	370	10.4	<0.1	12	0.6	<10	<0.5					0.43								<10	<2	11	<2	0.32	

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North Country Environmental Services, Inc.
Bethlehem, New Hampshire
Permit No. GWP-198704033-B-007

Sample Location	Sample Date	Sample Type	Field Parameters / Indicator Parameters / Metals																				Volatile Organic Compounds									
			ft	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	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L					
			Groundwater Elevation	pH	Specific Conductance	Temperature	Bromide	Chloride	Nitrate	Chemical Oxygen Demand	Total Kjeldahl Nitrogen (TKN)	Antimony	Arsenic	Barium	Beryllium	Chromium	Iron	Iron	Lead	Manganese	Manganese	Nickel	Zinc	Acetone	Chloroform (Trichloromethane)	Dichlorodifluoromethane (CFC12)	Dichloroethane (1,1-)	Dioxane (1,4-)				
N	N	N	N	N	N	N	N	N	D	D	D	D	D	D	T	D	D	T	D	D	N	N	N	N	N							
GW-1 (AGQS)									10						0.006	0.005	2	0.004	0.1			0.015	0.3	0.3	0.1		5	6000	70	1000	81	0.32
SMCL				6.5-8.5				250								0.3	0.3		0.05	0.05												
Background 2022-11				6.5-9.3	186	5.6-13.5	0.1, 0.4 §	4	2.5	20	0.92	<0.001	0.0011	0.025	<0.001	0.0014	0.64	0.64	<0.001	0.19	0.19	0.0027					<10	<1	<2	<1	<0.25	
B-304DR	9/29/2021	N	1288.92	6.54	446	12.6	0.28	53	1.4	<10	<0.5	<0.001	<0.0005	0.04	<0.001	<0.001	<0.05		<0.001	2.7		0.0027	0.015	<10	<1	<2	<1	1.2				
B-304DR	11/1/2021	N	1288.57	6.49	325	14.6	0.19	43	1	<10	<0.5	<0.001	<0.0005	0.034	<0.001	<0.001	<0.05		<0.001	2.7		0.013	<0.005	<10	<1	<2	<1	0.7				
B-304DR	2/22/2022	N	1288.73	6.5	336	14.9	0.11	37	1.2	<10	<0.5	<0.001	<0.0005	0.032	<0.001	<0.001	<0.05		<0.001	2.6		0.011	<0.005	<10	<1	<2	<1	0.47				
B-304DR	4/18/2022	N	1290.48	6.43	386	14.6	0.14	37	1.1	<10	0.62	<0.001	<0.0005	0.034	<0.001	<0.001	<0.05		<0.001	2.9		0.0097	<0.005	<10	<1	<2	<1	0.32				
B-304DR	4/18/2022	FD					0.12	37	1.1	<10	1.3					<0.05				2.9				<10	<1	<2	<1	0.34				
B-304DR	6/8/2022	N	1290.95	6.21	393	17.5	0.12	32	2.2	<10	<0.5	<0.001	<0.0005	0.036	<0.001	<0.001	0.16		<0.001	2.3		0.01	0.012	<10	<1	4.3	<1	0.49				
B-304DR	7/11/2022	N	1290.26	6.27	472	15.5	0.17	45	2.7	<10	<0.5					<0.05				2.7												
B-304DR	11/2/2022	N	1289.3	6.44	328	15.3	0.11	37	1.2	<10	<0.5	<0.001	<0.0005	0.035	<0.001	<0.001	<0.05		<0.001	2.4		0.01	<0.005	<10	<1	<2	<1	0.43				
B-304DR	11/2/2022	FD					0.11	37	1.2	<10	<0.5					<0.05				2.3				<10	<1	<2	<1	0.41				
MW-604	6/12/1995	N	1291.63																													
MW-604	7/9/1996	N	1281.24	11.6	1000	13.6	<0.1	7	<0.5	39	2						0.07				<0.005											
MW-604	7/7/1997	N	1280.79	11	490	15.3	<0.1	12	0.1	<20	0.35						<0.03				<0.02											
MW-604	7/13/1998	N	1280.8	11	250	10.7	<0.5	4	0.1	27	0.49						<0.05				<0.02											
MW-604	7/27/1999	N	1280.1	10.7	276	16	<0.1	3	0.1	23	4.3						0.04				<0.02											
MW-604	7/17/2000	N	1281.45	9.7	202	14.2	<0.1	1.83	0.31	18	0.233						0.188				<0.005											
MW-604	7/9/2001	N	1274.05	9.9	210	13.7	<0.1	3.28	0.147	<15	0.364			0.006	0.028	<0.01	0.092		<0.002	0.008											1.3	
MW-604	7/15/2002	N	1279.93	7.1	214	14.4	<0.1	3.12	0.212	<15	0.486	<0.002	0.005	0.042	<0.002	<0.01	0.478		<0.002	0.018		<0.02										
MW-604	7/14/2003	N	1278.08	7	203	12.4	<0.1	3.25	0.215	<15	1.58						<0.01			<0.005												
MW-604	7/6/2004	N	1279.85	9.2	167	16.2	<0.1	<2.5	0.301	584	34.4						0.154			0.015												
MW-604	7/11/2005	N	1279.86	6.5	156	12	<0.1	<2.5	0.281	87	3.5																					
MW-604	11/1/2005	N	1273.1	8.3	135	8											0.922			0.032												
MW-604	4/10/2006	N	1279.71																													
MW-604	7/10/2006	N	1280.62	10.2	210	15.8	<0.1	3.32	0.339	<15	1.55						0.013			<0.005												
MW-604	7/23/2007	N	1279.83	9.9	244	17.2	<0.1	3.68	0.031	20	2.07						0.237			<0.02												
MW-604	11/5/2007	N	1279.49																													
MW-604	4/21/2008	N	1279.73																													
MW-604	7/21/2008	N	1281.04	9.6	230	15.4	<0.1	<2.5	0.17	75	7.5						12			0.2												
MW-604	7/13/2009	N	1280.69	7.83	270	14.9	0.1	9	<0.5	220	1.1						0.2			0.03				<10	<2	<5	<2	<1				
MW-604	7/13/2009	FD					0.1	9	<0.5	60	0.7						0.53			0.046			<10	<2	<5	<2	<1					
MW-604	11/10/2009	N	1280.17																													
MW-604	7/12/2010	N	1280.46	7.83	250	17.7	0.2	7	<0.5	24	0.8						<0.05			0.049			<10	<2	<5	<2	<1					
MW-604	11/3/2010	N	1280.56																													
MW-604	7/12/2011	N	1281.13	8	210	19	0.1	13	<0.5	32	1.6	<0.001	0.0036	0.046	<0.001	<0.001	0.05		<0.001	0.13		0.002	<10	<2	<5	<2	<1					
MW-604	7/17/2012	FD					<0.1	13	<0.5	<10	0.6						0.68			0.19			<10	<2	<5	<2	<0.25					
MW-604	7/17/2012	N	1279.48	7.8	290	20.5	<0.1	15	<0.5	24	0.7						0.57			0.19			<10	<2	<5	<2	<0.25					
MW-604	7/8/2013	N	1279.65	7.34	340	17.7	<0.1	14	<0.5	24	1.8						0.25			0.041			<10	<2	<5	<2	<0.25					
MW-604	4/23/2014	N	1279.94																													
MW-604	7/15/2014	N	1280.09	7.3	290	21	<0.1	20	<0.5	46	1.3						<0.05			0.23			<10	<2	<5	<2	<0.25					

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Sample Location	Sample Date	Sample Type	Field Parameters / Indicator Parameters / Metals																			Volatile Organic Compounds							
			ft	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	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L		
			Groundwater Elevation	pH	Specific Conductance	Temperature	Bromide	Chloride	Nitrate	Chemical Oxygen Demand	Total Kjeldahl Nitrogen (TKN)	Antimony	Arsenic	Barium	Beryllium	Chromium	Iron	Iron	Lead	Manganese	Manganese	Nickel	Zinc	Acetone	Chloroform (Trichloromethane)	Dichlorodifluoromethane (CFC12)	Dichloroethane (1,1-)	Dioxane (1,4-)	
GW-1 (AGQS)			N	N	N	N	N	N	N	N	D	D	D	D	D	T	D	D	T	D	D	N	N	N	N	N			
SMCL				6.5-8.5				250								0.3	0.3		0.05	0.05		5							
Background 2022-11				6.5-9.3	186	5.6-13.5	0.1, 0.4 §	4	2.5	20	0.92	<0.001	0.0011	0.025	<0.001	0.0014	0.64	0.64	<0.001	0.19	0.19	0.0027		<10	<1	<2	<1	<0.25	
MW-604	4/14/2015	N	1279.42																										
MW-604	7/21/2015	N	1279.9	7.29	292	15.2	<0.1	18	<0.5	<10	<0.5					<0.05			0.074										
MW-604	4/12/2016	N	1279.72																										
MW-604	7/12/2016	N	1279.47	7.33	286	14.7	<0.1	15	0.6	<10	<0.5					<0.05			0.008										
MW-604	11/7/2016	N	1278.95																										
MW-604	4/3/2017	N	1278.73																										
MW-604	7/25/2017	N	1279.66	7.37	264	14	<0.1	15	0.7	<10	0.6					0.06			0.013										
MW-604	11/7/2017	N	1279.24																										
MW-604	4/24/2018	N	1279.54																										
MW-604	7/11/2018	N	1279.35	6.32	289	14.8	<0.1	14	<0.5	10	<0.5					0.82			0.2										
MW-604	7/11/2018	FD					<0.1	14	<0.5	12	<0.5					0.77			0.22										
MW-604	11/5/2018	N	1278.88																										
MW-604	4/23/2019	N	1279.33																										
MW-604	7/9/2019	N	1279.82	6.96	255	13.2	<0.1	21	<0.5	<10	<0.5					<0.05			<0.005										
MW-604	11/6/2019	N	1279.12																										
MW-604	4/21/2020	N	1279.69																										
MW-604	7/13/2020	N	1279.43	6.91	240	14.8	<0.1	26	<0.5	14	<0.5					<0.05			0.0086										
MW-604	11/3/2020	N	1279.38																										
MW-604	4/19/2021	N	1279.1																										
MW-604	5/27/2021	N	1279.18	7.03	274	13.4	<0.1	32	<0.5	<10	<0.5	<0.001	<0.001	0.073	<0.001	<0.001	<0.05		<0.001	0.011		<0.001	0.008	<10	<1	<2	<1	<0.25	
MW-604	7/7/2021	N	1278.86	7.21	308	15.2	<0.1	39	<0.5	<10	<0.5	<0.001	0.00064	0.091	<0.001	<0.001	<0.05		<0.001	0.013		<0.001	0.008	<10	<1	<2	<1	<0.25	
MW-604	9/29/2021	N	1278.34	6.89	341	12.6	<0.1	50	<0.5	<10	0.87	<0.001	0.00065	0.13	<0.001	0.0013	0.71		0.0024	0.12		0.0013	0.0086	<10	<1	<2	<1	<0.25	
MW-604	11/1/2021	N	1278.22	7.09	298	10.7	<0.1	36	<0.5	<10	<0.5	<0.001	<0.0005	0.09	<0.001	<0.001	0.078		<0.001	0.0067		<0.001	<0.005	<10	<1	<2	<1	<0.25	
MW-604	2/22/2022	N	1278.12	7.2	287	10.1	<0.1	32	<0.5	<10	<0.5	<0.001	<0.0005	0.081	<0.001	<0.001	<0.05		<0.001	0.0094		<0.001	<0.005	<10	<1	<2	<1	<0.25	
MW-604	4/18/2022	N	1278.58	6.97	171	11.6	<0.1	35	<0.5	<10	1.2	<0.001	<0.0005	0.081	<0.001	0.0012	<0.05		0.0018	0.0077		0.0013	0.041	<10	<1	<2	<1	<0.25	
MW-604	6/8/2022	N	1278.82	6.95	330	14.5	<0.1	40	<0.5	<10	0.55	<0.001	0.00059	0.093	<0.001	<0.001	<0.05		<0.001	0.015		0.002	<0.005	<10	<1	<2	<1	<0.25	
MW-604	7/11/2022	N	1278.53	7.11	339	14.3	<0.1	26	<0.5	<10	<0.5					0.37			0.025					<10	<1	<2	<1	<0.25	
MW-604	11/2/2022	N	1278.12	7.18	298	12.9	<0.1	25	<0.5	<10	<0.5	<0.001	0.00061	0.091	<0.001	<0.001	<0.05		<0.001	0.052		<0.001	<0.005	<10	<1	<2	<1	<0.25	
B-919U	9/11/2001	N	1303.56	5.87	77	10.7	<0.1	<2.5		<15	0.149					<0.01			0.025					<20	9	22.4	<1		
B-919U	11/6/2006	N	1306.2	6.1	150	11.6	<0.1	2.87	1.71	68	0.639					0.264			<0.02						<1	10.8			
B-919U	4/9/2007	N	1305.73	5.8	170	7.9	<0.1	4.17	2.56	<15	0.887					0.235			<0.02						<1	<5			
B-919U	7/23/2007	N	1306.05	6.9	182	13.9	<0.1	4.8	3.69	<15	0.754	<0.002	<0.002	<0.02	<0.002	<0.02			<0.001	<0.02		<0.02			<1	<5			
B-919U	11/5/2007	N	1305.22	6.1	170	8.6	<0.1	5.2	4.1	<10	1.3					0.317			<0.02						<1	<5			
B-919U	4/21/2008	N	1304.97	5.98	310	10.9	<0.1	5.8	4.6	85	0.17					<0.02			<0.02						<1	7			
B-919U	7/21/2008	N	1305.05	6.6	50	13.3	<0.1	4.8	4.2	10	1.8					<0.02			<0.02						<1	<5			
B-919U	11/18/2008	N	1305.88	5.9	150	5	<0.1	3.5	5.3	410	0.45					<0.002			<0.02						<1	<5			
B-919U	3/18/2009	N	1305.76	5.9	170	10.1																			<10	<2	5	<2	<1
B-919U	4/7/2009	N	1305.94	6	150	6.8	<0.1	4	4.6	<10	<0.5					0.15			0.018						<10	<2	<5	<2	<1

Table 2.2
Summary of IRA Groundwater Results
North Country Environmental Services, Inc.
Bethlehem, New Hampshire
Permit No. GWP-198704033-B-007

Sample Location	Sample Date	Sample Type	Field Parameters / Indicator Parameters / Metals																				Volatile Organic Compounds					
			ft	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	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	
			Groundwater Elevation	pH	Specific Conductance	Temperature	Bromide	Chloride	Nitrate	Chemical Oxygen Demand	Total Kjeldahl Nitrogen (TKN)	Antimony	Arsenic	Barium	Beryllium	Chromium	Iron	Iron	Lead	Manganese	Manganese	Nickel	Zinc	Acetone	Chloroform (Trichloromethane)	Dichlorodifluoromethane (CFC12)	Dichloroethane (1,1-)	Dioxane (1,4-)
N	N	N	N	N	N	N	N	N	D	D	D	D	D	D	T	D	D	T	D	D	N	N	N	N	N			
GW-1 (AGQS)								10			0.006	0.005	2	0.004	0.1			0.015	0.3	0.3	0.1		6000	70	1000	81	0.32	
SMCL				6.5-8.5				250								0.3	0.3		0.05	0.05		5						
Background 2022-11				6.5-9.3	186	5.6-13.5	0.1, 0.4 §	4	2.5	20	0.92	<0.001	0.0011	0.025	<0.001	0.0014	0.64	0.64	<0.001	0.19	0.19	0.0027		<10	<1	<2	<1	<0.25
B-919U	5/19/2009	N	1306.23	5.9	180	15.2																	<10	<2	5	<2	<1	
B-919U	6/10/2009	N	1306.31	5.9	190	15.1																	<10	<2	<5	<2	<1	
B-919U	7/14/2009	N	1306.54	5.56	180	12.9	<0.1	5	5.1	<10	<0.5	<0.001	<0.0005	0.015	<0.001	0.002	<0.05		<0.001	<0.005		0.001						
B-919U	7/30/2009	N																					<10	<2	7	<2	<1	
B-919U	8/24/2009	N	1306.52	5.8	260	16.1																	<10	<2	7	<2	<1	
B-919U	9/15/2009	N	1306.4	6.2	150	12.8																	<10	<2	6	<2	<1	
B-919U	10/14/2009	N	1306.03	5.46	140	8.5																	<10	<2	6	<2	<1	
B-919U	11/10/2009	N	1305.93	5.6	160	11.7	<0.1	7	2.4	10	<0.5		<0.0005			<0.05			<0.005			<10	<2	6	<2	<1		
B-919U	12/8/2009	N	1305.91	6.2	170	6.8																	<10	<2	5	<2	<1	
B-919U	1/7/2010	N	1305.8	5.9	170	7.6																	<10	<2	7	<2	<1	
B-919U	2/9/2010	N	1305.63	6.3	180	10.2																	<10	<2	<5	<2	<1	
B-919U	3/9/2010	N	1305.49	5.3	150	11.3																	<10	<2	<5	<2	<1	
B-919U	4/7/2010	N	1305.99	5.2	170	15.9	<0.1	13	1.2	<10	<0.5		<0.0005			<0.05			<0.005			<10	<2	<5	<2	<1		
B-919U	5/25/2010	N	1306.58	5.5	170	19.1																	<10	<2	5	<2	<1	
B-919U	6/15/2010	N	1306.39	5.1	160	14																	<10	<2	<5	<2	<1	
B-919U	7/13/2010	N	1306.61	5.6	160	18.9	<0.1	20	0.7	<10	<0.5					4.3			0.31			<10	<2	<5	<2	<1		
B-919U	8/9/2010	N	1306.86	5.2	170	19																	<10	<2	<5	<2	<1	
B-919U	9/8/2010	N	1306.54	5.3	170	13.8																	<10	<2	<5	<2	<1	
B-919U	10/5/2010	N	1306.42	5.5	140	16																	<10	<2	<5	<2	<1	
B-919U	11/2/2010	N	1306.61	5.2	190	7.9	<0.1	13	0.8	<10	<0.5		<0.001			<0.05			<0.005			<10	<2	<5	<2	<1		
B-919U	11/2/2010	FD					<0.1	13	0.8	<10	<0.5					<0.05			<0.005			<10	<2	<5	<2	<1		
B-919U	12/2/2010	N	1306.62	5.7	130	9.7																	<10	<2	<5	<2	<1	
B-919U	1/13/2011	N	1306.55	5.7	140	8.4																	<10	<2	<5	<2	<1	
B-919U	2/16/2011	N	1306.26	5.6	158	8.9																	<10	<2	<5	<2	<1	
B-919U	4/18/2011	N	1306.95	5.89	160	8.6	<0.1	16	0.8	<10	<0.5		<0.001			<0.05			0.005			<10	<2	<5	<2	<1		
B-919U	7/12/2011	N	1307.17	5.6	150	20.2	<0.1	19	0.6	<10	<0.5	<0.001	<0.0005	0.012	<0.001	<0.001	<0.05		<0.001	<0.005		0.002						
B-919U	11/1/2011	N	1306.29	6.05	180	12.6	<0.1	17	0.9	<10	<0.5		<0.0005			<0.05			<0.005			<10	<2	<5	<2	<0.25		
B-919U	4/10/2012	N	1305.21	5.7	130	10.8	<0.1	18	1	<10	<0.5		<0.0005			0.43			0.036			<10	<2	<5	<2	<0.25		
B-919U	7/18/2012	N	1304.8	5.95	170	17.9	<0.1	16	0.9	<10	<0.5		<0.001			0.37			0.012									
B-919U	11/7/2012	N	1304.34	6.1	200	8.8	<0.1	14	0.9	<10	<0.5		<0.001			0.14			0.009			<10	<2	<5	<2	<0.25		
B-919U	4/10/2013	N	1304.27	6.3	200	12	<0.1	11	1.3	<10	<0.5		<0.001			0.17			0.012			<10	<2	<5	<2	<0.25		
B-919U	7/8/2013	N	1304.93	5.72	196	19.3	<0.1	9	1	<10	<0.5	<0.001	<0.0005	0.015	<0.001	<0.001	0.1		<0.001	0.009		0.003						
B-919U	11/6/2013	N	1305.19	6.17	480	11.2	<0.1	24	0.8	<10	<0.5		<0.0005			<0.05			<0.005			<10	<2	<5	<2	<0.25		
B-919U	4/23/2014	N	1305.3	6	280	9.4	<0.1	15	0.8	<10	<0.5		<0.0005			<0.05			<0.005			<10	<2	<5	<2	<0.25		
B-919U	7/14/2014	N	1305.92	6.11	191	15.9	<0.1	20	<0.5	<10	<0.5					<0.05			0.006									
B-919U	11/5/2014	N	1304.57	6.03	340	11.4	<0.1	20	0.5	<10	0.9		<0.0005			<0.05			0.007			<10	<2	<5	<2	<0.25		
B-919U	4/14/2015	N	1303.23	6.13	171	11.2	<0.1	18	0.6	<10	<0.5		<0.0005			<0.05			<0.005			<10	<2	<5	<2	<0.25		
B-919U	7/22/2015	N	1305.17	6.07	171	14.4	<0.1	18	<0.5	<10	<0.5	<0.001	<0.0005	0.011	<0.001	<0.001	<0.05		<0.001	<0.005		0.002						
B-919U	11/10/2015	N	1304.51	6.84	290	12.8	<0.1	16	<0.5	<10	<0.5		<0.0005			<0.05			<0.005			<10	<2	<5	<2	<0.25		

Table 2.2
 Summary of IRA Groundwater Results
 North Country Environmental Services, Inc.
 Bethlehem, New Hampshire
 Permit No. GWP-198704033-B-007

Sample Location	Sample Date	Sample Type	Field Parameters / Indicator Parameters / Metals																				Volatile Organic Compounds					
			ft	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	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	
			Groundwater Elevation	pH	Specific Conductance	Temperature	Bromide	Chloride	Nitrate	Chemical Oxygen Demand	Total Kjeldahl Nitrogen (TKN)	Antimony	Arsenic	Barium	Beryllium	Chromium	Iron	Iron	Lead	Manganese	Manganese	Nickel	Zinc	Acetone	Chloroform (Trichloromethane)	Dichlorodifluoromethane (CFC12)	Dichloroethane (1,1-)	Dioxane (1,4-)
GW-1 (AGQS)			N	N	N	N	N	N	N	N	D	D	D	D	D	T	D	D	T	D	D	N	N	N	N	N		
SMCL				6.5-8.5				250							0.3	0.3		0.05	0.05		5							
Background 2022-11				6.5-9.3	186	5.6-13.5	0.1, 0.4 §	4	2.5	20	0.92	<0.001	0.0011	0.025	<0.001	0.0014	0.64	0.64	<0.001	0.19	0.19	0.0027		<10	<1	<2	<1	<0.25
B-919M	9/29/2021	N	1291.95	6.81	187	15	<0.1	1.9	<0.5	<10	<0.5	<0.001	0.0062	0.0051	<0.001	<0.001	1.2		<0.001	4.6		<0.001	0.0092	<10	<1	<2	<1	<0.25
B-919M	11/2/2021	N	1291.78	6.66	117	14.4	<0.1	2.2	<0.5	<10	1.1	<0.001	0.02	0.012	<0.001	<0.001	4.5		<0.001	6.1		0.0013	0.0052	<10	<1	<2	<1	<0.25
B-919M	2/22/2022	N	1291.57	7	112	16.4	<0.1	2.6	<0.5	<10	<0.5	<0.001	0.0086	0.0042	<0.001	<0.001	0.5		<0.001	0.45		<0.001	<0.005	<10	<1	<2	<1	<0.25
B-919M	4/18/2022	N	1291.85	6.85	147	14.1	<0.1	2.4	<0.5	<10	<0.5	<0.001	0.043	0.016	<0.001	<0.001	7.6		<0.001	4.5		<0.001	0.018	<10	<1	<2	<1	<0.25
B-919M	6/8/2022	N	1292.16	6.62	398	18.5	<0.1	2.7	<0.5	<10	<0.5	<0.001	0.06	0.016	<0.001	<0.001	10		<0.001	4.5		0.0021	<0.005	11	<1	<2	<1	<0.25
B-919M	7/11/2022	N	1291.86	6.64	164	18.6	<0.1	2.6	<0.5	<10	<0.5						8.3			4.2								
B-919M	11/2/2022	N	1291.5	6.81	154	14.4	<0.1	2.9	<0.5	<10	<0.5	<0.001	0.045	0.016	<0.001	<0.001	9.4		<0.001	4.5		0.001	<0.005	<10	<1	<2	<1	<0.25
B-919D	9/11/2001	N	1291.61	6.07	99	13	<0.1	<2.5		<15	0.099						0.017			0.022				<20	<1	<10	<1	
B-919D	11/6/2006	N	1294.59																									
B-919D	4/9/2007	N	1294.14																									
B-919D	7/23/2007	N	1294.31	7.7	84	18.1	<0.1	<2.5	<0.02	<15	<0.05						0.049			0.029								
B-919D	11/5/2007	N	1293.54																									
B-919D	4/21/2008	N	1293.35																									
B-919D	7/21/2008	N	1293.88	6.1	140	14.1	<0.1	<2.5	<0.02	<10	<0.1						0.08			0.03								
B-919D	11/18/2008	N	1294.63																									
B-919D	4/7/2009	N	1294.95																									
B-919D	7/13/2009	N	1295.1																									
B-919D	11/10/2009	N	1294.49																									
B-919D	4/7/2010	N	1294.7																									
B-919D	7/15/2010	N	1294.89	6.1	100	16.8	<0.1	2	<0.5	<10	<0.5						0.08			0.035				<10	<2	<5	<2	<1
B-919D	11/2/2010	N	1294.71																									
B-919D	1/13/2011	N	1295.42																									
B-919D	4/18/2011	N	1295.21																									
B-919D	7/12/2011	N	1295.43																									
B-919D	11/1/2011	N	1294.43																									
B-919D	4/10/2012	N	1293.43																									
B-919D	7/18/2012	N	1293.27	6.8	80	15.3	<0.1	2	<0.5	<10	<0.5						0.07			0.022				<10	<2	<5	<2	<0.25
B-919D	11/7/2012	N	1293.05																									
B-919D	4/10/2013	N	1293.04																									
B-919D	7/8/2013	N	1293.39																									
B-919D	11/6/2013	N	1293.94																									
B-919D	4/23/2014	N	1293.71																									
B-919D	7/16/2014	N	1293.82	7.3	92	14.5	<0.1	2	<0.5	<10	<0.5						0.07			0.027				<10	<2	<5	<2	<0.25
B-919D	11/4/2014	N	1293.4																									
B-919D	4/13/2015	N	1292.78																									
B-919D	7/20/2015	N	1293.12																									
B-919D	11/9/2015	N	1292.73																									
B-919D	4/11/2016	N	1292.91																									

Table 2.2
Summary of IRA Groundwater Results
North Country Environmental Services, Inc.
Bethlehem, New Hampshire
Permit No. GWP-198704033-B-007

Sample Location	Sample Date	Sample Type	Field Parameters / Indicator Parameters / Metals																			Volatile Organic Compounds						
			ft	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	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	
			Groundwater Elevation	pH	Specific Conductance	Temperature	Bromide	Chloride	Nitrate	Chemical Oxygen Demand	Total Kjeldahl Nitrogen (TKN)	Antimony	Arsenic	Barium	Beryllium	Chromium	Iron	Iron	Lead	Manganese	Manganese	Nickel	Zinc	Acetone	Chloroform (Trichloromethane)	Dichlorodifluoromethane (CFC12)	Dichloroethane (1,1-)	Dioxane (1,4-)
			N	N	N	N	N	N	N	D	D	D	D	D	D	T	D	D	T	D	D	N	N	N	N	N		
GW-1 (AGQS)										10							0.015	0.3	0.3	0.1		6000	70	1000	81	0.32		
SMCL				6.5-8.5				250							0.3	0.3		0.05	0.05		5							
Background 2022-11				6.5-9.3	186	5.6-13.5	0.1, 0.4 §	4	2.5	20	0.92	<0.001	0.0011	0.025	<0.001	0.0014	0.64	0.64	<0.001	0.19	0.19	0.0027		<10	<1	<2	<1	<0.25
B-928D	11/2/2022	N	1282.34	6.28	283	10.8	0.16	31	1.3	<10	0.64	<0.001	<0.0005	0.017	<0.001	<0.001	<0.05		<0.001	<0.005		<0.001	<0.005	<10	<1	<2	<1	0.71

Notes:

- 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 "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) and semi-volatile organic compound (SVOCs), or results were not reported electronically for VOCs and SVOCs. Refer to previous submittals to NHDES for 2008 and older data.
- Groundwater elevation is presented in feet (ft), pH is presented in standard units (s.u.), specific conductance is presented in microSiemens per centimeter (uS/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 and SVOC results are presented in micrograms per liter (ug/L) which is equivalent to parts per billion (ppb).
- "<" indicates the analyte was not detected above the listed laboratory reporting limit.
 "§" indicates background value for bromide is 0.4 mg/L for wells within the groundwater management zone (GMZ) established for the site, and 0.1 mg/L for wells outside the GMZ.
- "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 (AGQS) Groundwater Standard.**
Italic values exceed the SMCL.
 Green shaded values exceed the November 2022 Background criteria.

TABLE 2.3
Summary of IRA PFAS Groundwater Analytical Results
North Country Environmental Services, Inc.
Bethlehem, New Hampshire
Permit No. GWP-198704033-B-007

Sample Location	Sample Date	Sample Type	Concentrations in ng/L																									
			Perfluoroalkyl Carboxylic Acids										Perfluoroalkyl Sulfonic Acids							Fluorotelomers			Perfluoroalkane Sulfonamides		Perfluoroalkane Sulfonyl Substances			
			Perfluorobutanoic Acid (PFBA) [3]	Perfluoropentanoic Acid (PFPeA) [4]	Perfluorohexanoic Acid (PFHxA) [5]	Perfluoroheptanoic Acid (PFHpA) [6]	Perfluorooctanoic Acid (PFOA) [7]	Perfluorononanoic Acid (PFNA) [8]	Perfluorodecanoic Acid (PFDA) [9]	Perfluoroundecanoic Acid (PFUnA) [10]	Perfluorododecanoic Acid (PFDoA) [11]	Perfluorotridecanoic Acid (PFTeDA) [12]	Perfluorotetradecanoic Acid (PFTeA) [13]	Perfluorobutanesulfonic Acid (PFBS) [4S]	Perfluoropentanesulfonic Acid (PFPeS) [5S]	Perfluorohexanesulfonic Acid (PFHxS) [6S]	Perfluoroheptanesulfonic Acid (PFHpS) [7S]	Perfluorooctanesulfonic Acid (PFOS) [8S]	Perfluorononanesulfonic Acid (PFNS) [9S]	Perfluorodecane sulfonic Acid (PFDS) [10S]	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (4:2FTS)	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	1H,1H,2H,2H-Perfluorodecane sulfonic Acid (8:2FTS)	Perfluorooctanesulfonamide (PFOSA)	N-methyl perfluorooctane sulfonamide (MeFOSA)	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEFOSAA)	N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	
CAS Number			375-22-4	2706-90-3	307-24-4	375-85-9	335-67-1	375-95-1	335-76-2	2058-94-8	307-55-1	72629-94-8	376-06-7	375-73-5	2706-91-4	355-46-4	375-92-8	1763-23-1	68259-12-1	335-77-3	757124-72-4	27619-97-2	39108-34-4	754-91-6	31506-32-8	2991-50-6	2355-31-9	
GW-1 (AQGS)							12	11								18	15											
Background 2022-11			<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<20-<24	<4.0-<5.0	<4.0-<5.0	
B-304UR	7/25/2017	N	7.06	5.2	14.9	21.4	5.51	<4.05					<4.05		<4.05		<4.05											
B-304UR	11/7/2017	N	25	19.8	33.2	7.72	<4.47	<4.47					10.1		<4.47		<4.47											
B-304UR	4/23/2018	N	52.4	20.9	28.8	18	6.26	<4.01					11.1		<4.01		<4.01											
B-304UR	7/11/2018	N	40.8	17.6	32.4	29	<4.27	<4.27					22.1		<4.27		<4.27											
B-304UR	7/8/2019	N	30.8	14.9	21.1	9.4	4.94	<4.43					15.3		<4.43		<4.43											
B-304UR	7/13/2020	N	56	32.3	55.5	18.1	22.7	<4.29	<4.29	<4.29	<4.29	<4.29	37.2	<4.29	<4.29	<4.29	<4.29	<4.29	<4.29	<4.29	<4.29	<4.29	6.44	<21.5	<4.29	<4.29		
B-304UR	5/27/2021	N	10.1	15.6	22.2	11.8	17.5	<4.05	<4.05	<4.05	<4.05	<4.05	<4.05	<4.05	<4.05	<5.06	<4.05	<4.05	<5.57	<4.05	<4.05	<4.56	<4.05	<20	<5.32	<4.05		
B-304UR	7/7/2021	N	107	59.6	76.8	9.19	10.6	<4	<4	<4	<4	<4	66.5	<4	<4	<4	<4	<4	<4	<4	<4	<4	5.33	<20	<4	<4		
B-304UR	9/29/2021	N	194	128	199	63.2	13	<4	<4	<4	<4	<4	137	4.46	13.2	<4	<4	<4	<4	<4	<4	<4	4.81	<20	<4	<4		
B-304UR	11/1/2021	N	180	103	151	31.3	5.93	<4	<4	<4	<4	<4	111	<4	6.51	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4		
B-304UR	2/22/2022	N	199	144	227	73.1	11.2	<4	<4	<4	<4	<4	165	5	11.1	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4		
B-304UR	4/18/2022	N	8.39	9.88	15.4	13.3	13.9	<4	<4	<4	<4	<4	4.43	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4		
B-304UR	6/8/2022	N	18.8	16.4	24.7	21	26.7	<4	<4	<4	<4	<4	12	<4	5.37	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4		
B-304UR	7/11/2022	N	58.5	43.7	49.5	8.18	25.9	<4	<4	<4	<4	<4	47	<4	4.19	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4		
B-304UR	11/2/2022	N	27	19.2	26.1	7.04	8.34	<4	<4	<4	<4	<4	22.9	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4		
B-304DR	7/25/2017	N	8.15	16.1	19.2	7.15	18.7	<4.11					<4.11		<4.11		<4.11											
B-304DR	11/7/2017	N	14.3	25.2	32	12.5	25	<4.78					6.58		<4.78		<4.78											
B-304DR	4/23/2018	N	20	31.8	38.2	15	19.7	<4.2					8.56		6.12		<4.2											
B-304DR	7/11/2018	N	16.2	27.9	37.7	16.9	14.9	<4.55					10.4		6.93		<4.55											
B-304DR	7/8/2019	N	8.68	10.9	14.4	7.9	6.58	<4.15					4.35		<4.15		<4.15											
B-304DR	7/13/2020	N	85.4	62.1	102	20	24.8	<4.41	<4.41	<4.41	<4.41	<4.41	73.8	<4.41	<4.41	<4.41	<4.41	<4.41	<4.41	<4.41	<4.41	<4.41	<4.41	<22.1	<4.41	<4.41		
B-304DR	5/27/2021	N	18.7	15.8	29.3	7.24	7.21	<4.02	<4.02	<4.02	<4.02	<4.02	16.5	<4.02	<4.02	<5.03	<4.02	<4.02	<5.53	<4.02	<4.02	<4.52	4.95	<20	<5.28	<4.02		
B-304DR	7/7/2021	N	65.1	48.3	91.7	39.4	32.5	<4	<4	<4	<4	<4	55.6	<4	7.51	<4	<4	<4	<4	<4	<4	<4	4.41	<20	<4	<4		
B-304DR	9/29/2021	N	35.6	28	55.9	23.3	24	<4	<4	<4	<4	<4	27	<4	6.8	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4		
B-304DR	11/1/2021	N	25	21.7	40.2	20	23.6	<4.04	<4.04	<4.04	<4.04	<4.04	19.9	<4.04	6.36	<5.05	<4.04	<4.04	<5.55	<4.04	<4.04	<4.54	<4.04	<20	<5.3	<4.04		
B-304DR	2/22/2022	N	20	19.5	31	22	42.9	<4	<4	<4	<4	<4	14.9	<4	13.8	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4		
B-304DR	4/18/2022	N	17.6	21.2	25.6	18.1	49.5	<4	<4	<4	<4	<4	12.2	<4	15.8	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4		
B-304DR	6/8/2022	N	16.7	15.1	20.6	14.4	25.8	<4	<4	<4	<4	<4	11.4	<4	11.3	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4		
B-304DR	7/11/2022	N	27.4	25.5	29.4	24.5	41.1	<4	<4	<4	<4	<4	15	<4	21.2	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4		
B-304DR	11/2/2022	N	19.7	21.8	26.8	18.3	63.4	<4	<4	<4	<4	<4	12.9	<4	18.8	<4	<4	<4	<4	<4	6.99	<4	<4	<20	<4	<4		
MW-604	5/27/2021	N	<4.26	<4.26	5.82	5.37	11	<4.26	<4.26	<4.26	<4.26	<4.26	<4.26	<4.26	<4.26	<5.33	<4.26	<4.26	<5.86	<4.26	<4.26	<4.8	16.1	<20	<5.6	<4.26		
MW-604	7/7/2021	N	5.17	4.91	7.83	7.42	12	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	18.7	<20	<4	<4		
MW-604	9/29/2021	N	5.12	5	7.78	6.64	10.6	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	6.85	<20	<4	<4		
MW-604	11/1/2021	N	4.51	5.14	7.45	6.11	10.7	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	4.3	<20	<4	<4		
MW-604	2/22/2022	N	4.59	5.42	7.92	6.15	10.4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4		
MW-604	4/18/2022	N	4.12	4.62	6.21	5.29	11.5	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4		
MW-604	6/8/2022	N	5.25	4.97	7.8	6.92	11.9	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4		
MW-604	11/2/2022	N	4.01	4.38	6.58	5.87	11	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4		

TABLE 2.3
 Summary of IRA PFAS Groundwater Analytical Results
 North Country Environmental Services, Inc.
 Bethlehem, New Hampshire
 Permit No. GWP-198704033-B-007

Sample Location	Sample Date	Sample Type	Concentrations in ng/L																									
			Perfluoroalkyl Carboxylic Acids											Perfluoroalkyl Sulfonic Acids							Fluorotelomers			Perfluoroalkane Sulfonamides		Perfluoroalkane Sulfonyl Substances		
			Perfluorobutanoic Acid (PFBA) [3]	Perfluoropentanoic Acid (PFPeA) [4]	Perfluorohexanoic Acid (PFHxA) [5]	Perfluoroheptanoic Acid (PFHpA) [6]	Perfluorooctanoic Acid (PFOA) [7]	Perfluorononanoic Acid (PFNA) [8]	Perfluorodecanoic Acid (PFDA) [9]	Perfluoroundecanoic Acid (PFUnA) [10]	Perfluorododecanoic Acid (PFDoA) [11]	Perfluorotridecanoic Acid (PFTDA) [12]	Perfluorotetradecanoic Acid (PFTeA) [13]	Perfluorobutanesulfonic Acid (PFBS) [4S]	Perfluoropentanesulfonic Acid (PFPeS) [5S]	Perfluorohexanesulfonic Acid (PFHxS) [6S]	Perfluoroheptanesulfonic Acid (PFHpS) [7S]	Perfluorooctanesulfonic Acid (PFOS) [8S]	Perfluoronanesulfonic Acid (PFNS) [9S]	Perfluorodecane sulfonic Acid (PFDS) [10S]	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	1H,1H,2H,2H-Perfluorodecane sulfonic Acid (8:2FTS)	Perfluorooctanesulfonamide (PFOSA)	N-methyl perfluorooctane sulfonamide (MeFOSA)	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEFOSAA)	N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	
CAS Number			375-22-4	2706-90-3	307-24-4	375-85-9	335-67-1	375-95-1	335-76-2	2058-94-8	307-55-1	72629-94-8	376-06-7	375-73-5	2706-91-4	355-46-4	375-92-8	1763-23-1	68259-12-1	335-77-3	757124-72-4	27619-97-2	39108-34-4	754-91-6	31506-32-8	2991-50-6	2355-31-9	
GW-1 (AQGS)							12	11								18	15											
Background 2022-11			<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<20-<24	<4.0-<5.0	<4.0-<5.0	
B-919U	11/7/2017	N	8.92	14	18.7	8.27	54.3	<4.38						4.38		10.6		<4.38										
B-919U	4/23/2018	N	7.48	8.46	6.52	4.27	23.4	<4.12						4.37		<4.12		<4.12										
B-919U	7/9/2018	N	9.06	12	13.2	6.67	20.6	<4.38						<4.38		<4.38		<4.38										
B-919U	7/8/2019	N	9.56	9.07	9.88	5.74	14.1	<4.3						<4.3		<4.3		<4.3										
B-919U	7/13/2020	N	6.51	9.14	10.4	<4.38	25.4	<4.38	<4.38	<4.38	<4.38	<4.38	<4.38	<4.38	<4.38	<4.38	<4.38	<4.38	<4.38	<4.38	<4.38	<4.38	<4.38	<4.38	<21.9	<4.38	<4.38	
B-919U	5/27/2021	N	5.1	7	7.98	<4.19	24.5	<4.19	<4.19	<4.19	<4.19	<4.19	<4.19	4.36	<4.19	<4.19	<5.24	<4.19	<4.19	<5.76	<4.19	<4.19	<4.71	<4.19	<20	<5.5	<4.19	
B-919U	7/7/2021	N	7.78	9.41	11.7	6.38	27.9	<4	<4	<4	<4	<4	<4	4.61	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4	
B-919U	9/29/2021	N	7.31	8.41	11.4	6.59	24.5	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4	
B-919U	11/1/2021	N	6.52	6.96	9.31	6.14	23.7	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4	
B-919U	2/22/2022	N	13.7	17.2	23	9.88	25.4	<4	<4	<4	<4	<4	<4	13	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4	
B-919U	4/18/2022	N	10.8	13.1	18.2	8.81	22	<4	<4	<4	<4	<4	<4	8.91	<4	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4	<4	
B-919U	6/8/2022	N	9	9.46	12.8	8.68	20.1	<4	<4	<4	<4	<4	<4	9.93	<4	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4	<4	
B-919U	7/11/2022	N	7.6	8.61	12.4	10.2	27.1	<4	<4	<4	<4	<4	<4	10.4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4	<4	
B-919U	11/2/2022	N	10.8	15.6	19.9	13.1	23.4	<4	<4	<4	<4	<4	<4	14.8	<4	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4	<4	
B-919M	11/7/2017	N	<4.76	6.16	<4.76	<4.76	<4.76	<4.76						<4.76		<4.76		<4.76										
B-919M	4/23/2018	N	<4.2	4.5	4.75	<4.2	<4.2	<4.2						<4.2		<4.2		<4.2										
B-919M	7/10/2018	N	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5						<4.5		<4.5		<4.5										
B-919M	7/9/2019	N	<4.44	<4.44	<4.44	<4.44	<4.44	<4.44						<4.44		<4.44		<4.44										
B-919M	7/15/2020	N	<4.29	<4.29	<4.29	<4.29	<4.29	<4.29	<4.29	<4.29	<4.29	<4.29	<4.29	<4.29	<4.29	<4.29	<4.29	<4.29	<4.29	<4.29	<4.29	<4.29	<4.29	<4.29	<21.5	<4.29	<4.29	
B-919M	5/27/2021	N	<4.03	<4.03	<4.03	<4.03	<4.03	<4.03	<4.03	<4.03	<4.03	<4.03	<4.03	<4.03	<4.03	<4.03	<5.03	<4.03	<4.03	<5.54	<4.03	<4.03	<4.53	<4.12	<20	<5.29	<4.03	
B-919M	7/7/2021	N	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4	
B-919M	9/29/2021	N	<4	<4	<4	<4	5.51	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4	
B-919M	11/2/2021	N	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4	
B-919M	2/22/2022	N	<4	<4	<4	<4	5.97	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4	
B-919M	4/18/2022	N	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4	
B-919M	6/8/2022	N	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4	
B-919M	7/11/2022	N	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4	
B-919M	11/2/2022	N	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4	
B-919D	11/7/2017	N	<4.59	<4.59	<4.59	<4.59	<4.59	<4.59						<4.59		<4.59		<4.59										
B-919D	4/23/2018	N	<4.22	<4.22	<4.22	<4.22	<4.22	<4.22						<4.22		<4.22		<4.22										
B-919D	7/8/2019	N	<4.26	<4.26	<4.26	<4.26	<4.26	<4.26						<4.26		<4.26		<4.26										
B-919D	5/27/2021	N	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<5.12	<4.1	<4.1	<5.63	<4.1	<4.1	<4.61	<4.1	<20	<5.38	<4.1	
B-919D	7/7/2021	N	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4	
B-919D	9/29/2021	N	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4	
B-919D	11/1/2021	N	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4	
B-919D	2/22/2022	N	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4	
B-919D	4/18/2022	N	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4	
B-919D	6/8/2022	N	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4	
B-919D	11/2/2022	N	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4	

TABLE 2.3
Summary of IRA PFAS Groundwater Analytical Results
North Country Environmental Services, Inc.
Bethlehem, New Hampshire
Permit No. GWP-198704033-B-007

Sample Location	Sample Date	Sample Type	Concentrations in ng/L																								
			Perfluoroalkyl Carboxylic Acids											Perfluoroalkyl Sulfonic Acids							Fluorotelomers			Perfluoroalkane Sulfonamides		Perfluoroalkane Sulfonyl Substances	
			Perfluorobutanoic Acid (PFBA) [3]	Perfluoropentanoic Acid (PFPeA) [4]	Perfluorohexanoic Acid (PFHxA) [5]	Perfluoroheptanoic Acid (PFHpA) [6]	Perfluorooctanoic Acid (PFOA) [7]	Perfluorononanoic Acid (PFNA) [8]	Perfluorodecanoic Acid (PFDA) [9]	Perfluoroundecanoic Acid (PFUnA) [10]	Perfluorododecanoic Acid (PFDoA) [11]	Perfluorotridecanoic Acid (PFTeA) [12]	Perfluorotetradecanoic Acid (PFTeA) [13]	Perfluorobutanesulfonic Acid (PFBS) [4S]	Perfluoropentanesulfonic Acid (PFPeS) [5S]	Perfluorohexanesulfonic Acid (PFHxS) [6S]	Perfluoroheptanesulfonic Acid (PFHpS) [7S]	Perfluorooctanesulfonic Acid (PFOS) [8S]	Perfluorononanesulfonic Acid (PFNS) [9S]	Perfluorodecane sulfonic Acid (PFDS) [10S]	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (4:2FTS)	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	1H,1H,2H,2H-Perfluorodecane sulfonic Acid (8:2FTS)	Perfluorooctanesulfonamide (PFOSA)	N-methyl perfluorooctane sulfonamide (MeFOSA)	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEFOSAA)	N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)
CAS Number	375-22-4	2706-90-3	307-24-4	375-85-9	335-67-1	375-95-1	335-76-2	2058-94-8	307-55-1	72629-94-8	376-06-7	375-73-5	2706-91-4	355-46-4	375-92-8	1763-23-1	68259-12-1	335-77-3	757124-72-4	27619-97-2	39108-34-4	754-91-6	31506-32-8	2991-50-6	2355-31-9		
GW-1 (AGQS)					12	11								18	15												
Background 2022-11	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<4.0-<5.0	<20-<24	<4.0-<5.0	<4.0-<5.0		
QC_FB	6/8/2022	FB	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4		
QC_FB	7/13/2022	FB	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4		
QC_FB	11/2/2022	FB	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4	<4		

Notes:

- Samples were collected by Sanborn Head personnel on the dates indicated and analyzed for PFAS by Vista Analytical Laboratory (Vista) of El Dorado Hills, California (except April 2019) by USEPA Method 537 (modified) with isotope dilution. Vista was subcontracted through Eastern Analytical, Inc. (EAI) of Concord, New Hampshire.

PFAS Samples from April 2019 were analyzed by Eurofins Lancaster Laboratories (Lancaster) of Lancaster, Pennsylvania. Lancaster was subcontracted through EAI.

Sample Locations denoted "QC_FB" indicate a quality control field blank sample respectively.
- A sample type of "N" indicates a normal sample. A sample type of "FB" indicates a field blank.
- Results are presented in nanograms per liter (ng/L) which are equivalent to parts per trillion (ppt).
- "<" indicates the analyte was not detected above the listed laboratory reporting limit.
Blank cells indicate the sample was not analyzed for that analyte.
- "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.
- [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.
- Bold values exceed the GW-1 (AGQS) Groundwater Standard.
Green shaded values exceed the November 2022 Background criteria.
Yellow shading indicates a concentration exceeds current background for the first time.

Attachment 3

Analytical Laboratory Reports



Eastern Analytical, Inc.

professional laboratory and drilling services

Matt Estabrooks
Sanborn, Head & Associates, Inc. (NH)
20 Foundry Street
Concord, NH 03301



Laboratory Report for:

Eastern Analytical, Inc. ID: 251747
Client Identification: NCES | Groundwater / 2637.09
Date Received: 11/3/2022

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), West Virginia (9910C) and Alabama (41620). 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 11.11.22
 Date



SAMPLE CONDITIONS PAGE

EAI ID#: 251747

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

Client Designation: **NCES | Groundwater / 2637.09**

Temperature upon receipt (°C): 1.5

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)
251747.01	B-304UR_20221102	11/3/22	11/2/22 10:39	aqueous		Adheres to Sample Acceptance Policy
251747.02	B-304DR_20221102	11/3/22	11/2/22 10:55	aqueous		Adheres to Sample Acceptance Policy
251747.03	DUP-1_20221102	11/3/22	11/2/22 10:55	aqueous		Adheres to Sample Acceptance Policy
251747.04	MW-603_20221102	11/3/22	11/2/22 15:10	aqueous		Adheres to Sample Acceptance Policy
251747.05	MW-604_20221102	11/3/22	11/2/22 12:00	aqueous		Adheres to Sample Acceptance Policy
251747.06	MW-701_20221102	11/3/22	11/2/22 13:52	aqueous		Adheres to Sample Acceptance Policy
251747.07	B-918M_20221102	11/3/22	11/2/22 13:25	aqueous		Adheres to Sample Acceptance Policy
251747.08	B-919U_20221102	11/3/22	11/2/22 08:50	aqueous		Adheres to Sample Acceptance Policy
251747.09	B-919M_20221102	11/3/22	11/2/22 13:00	aqueous		Adheres to Sample Acceptance Policy
251747.1	B-919D_20221102	11/3/22	11/2/22 09:55	aqueous		Adheres to Sample Acceptance Policy
251747.11	B-923U_20221102	11/3/22	11/2/22 14:25	aqueous		Adheres to Sample Acceptance Policy
251747.12	B-925U_20221102	11/3/22	11/2/22 15:40	aqueous		Adheres to Sample Acceptance Policy
251747.13	B-928U_20221102	11/3/22	11/2/22 11:35	aqueous		Adheres to Sample Acceptance Policy
251747.14	B-928D_20221102	11/3/22	11/2/22 11:42	aqueous		Adheres to Sample Acceptance Policy
251747.15	TB-GW-02_20221102	11/3/22	11/2/22 15:45	aqueous		Adheres to Sample Acceptance Policy
251747.16	TB-LL-GW-02_20221102	11/3/22	11/2/22 15:45	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#: 251747

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

Client Designation: NCES | Groundwater / 2637.09

Sample ID:	B-304UR_20221102	B-304DR_20221102	DUP-1_20221102	MW-603_20221102
Lab Sample ID:	251747.01	251747.02	251747.03	251747.04
Matrix:	aqueous	aqueous	aqueous	aqueous
Date Sampled:	11/2/22	11/2/22	11/2/22	11/2/22
Date Received:	11/3/22	11/3/22	11/3/22	11/3/22
Units:	ug/L	ug/L	ug/L	ug/L
Date of Analysis:	11/5/22	11/6/22	11/7/22	11/5/22
Analyst:	JAK	JAK	JAK	JAK
Method:	8260C	8260C	8260C	8260C
Dilution Factor:	1	1	1	1
Dichlorodifluoromethane	< 2	< 2	< 2	< 2
Chloromethane	< 2	< 2	< 2	< 2
Vinyl chloride	< 1	< 1	< 1	< 1
Bromomethane	< 2	< 2	< 2	< 2
Chloroethane	< 2	< 2	< 2	< 2
Trichlorofluoromethane	< 2	< 2	< 2	< 2
Diethyl Ether	< 2	< 2	< 2	< 2
Acetone	< 10	< 10	< 10	< 10
1,1-Dichloroethene	< 0.5	< 0.5	< 0.5	< 0.5
tert-Butyl Alcohol (TBA)	< 30	< 30	< 30	< 30
Methylene chloride	< 1	< 1	< 1	< 1
Carbon disulfide	< 2	< 2	< 2	< 2
Methyl-t-butyl ether(MTBE)	< 1	< 1	< 1	< 1
Ethyl-t-butyl ether(ETBE)	< 2	< 2	< 2	< 2
Isopropyl ether(DIPE)	< 2	< 2	< 2	< 2
tert-amyl methyl ether(TAME)	< 2	< 2	< 2	< 2
trans-1,2-Dichloroethene	< 1	< 1	< 1	< 1
1,1-Dichloroethane	< 1	< 1	< 1	< 1
2,2-Dichloropropane	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	< 1	< 1	< 1	< 1
2-Butanone(MEK)	< 10	< 10	< 10	< 10
Bromochloromethane	< 1	< 1	< 1	< 1
Tetrahydrofuran(THF)	< 10	< 10	< 10	< 10
Chloroform	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	< 1	< 1	< 1	< 1
Carbon tetrachloride	< 1	< 1	< 1	< 1
1,1-Dichloropropene	< 1	< 1	< 1	< 1
Benzene	< 1	< 1	< 1	< 1
1,2-Dichloroethane	< 1	< 1	< 1	< 1
Trichloroethene	< 1	< 1	< 1	< 1
1,2-Dichloropropane	< 1	< 1	< 1	< 1
Dibromomethane	< 1	< 1	< 1	< 1
Bromodichloromethane	< 0.5	< 0.5	< 0.5	< 0.5
1,4-Dioxane	< 50	< 50	< 50	< 50
4-Methyl-2-pentanone(MIBK)	< 10	< 10	< 10	< 10
cis-1,3-Dichloropropene	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	< 1	< 1	< 1	< 1
trans-1,3-Dichloropropene	< 0.5	< 0.5	< 0.5	< 0.5
1,1,2-Trichloroethane	< 1	< 1	< 1	< 1
2-Hexanone	< 10	< 10	< 10	< 10
Tetrachloroethene	< 1	< 1	< 1	< 1
1,3-Dichloropropane	< 1	< 1	< 1	< 1
Dibromochloromethane	< 1	< 1	< 1	< 1
1,2-Dibromoethane(EDB)	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	< 1	< 1	< 1	< 1
1,1,1,2-Tetrachloroethane	< 1	< 1	< 1	< 1



LABORATORY REPORT

EAI ID#: 251747

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

Client Designation: NCES | Groundwater / 2637.09

Sample ID:	B-304UR_20221102	B-304DR_20221102	DUP-1_20221102	MW-603_20221102
Lab Sample ID:	251747.01	251747.02	251747.03	251747.04
Matrix:	aqueous	aqueous	aqueous	aqueous
Date Sampled:	11/2/22	11/2/22	11/2/22	11/2/22
Date Received:	11/3/22	11/3/22	11/3/22	11/3/22
Units:	ug/L	ug/L	ug/L	ug/L
Date of Analysis:	11/5/22	11/6/22	11/7/22	11/5/22
Analyst:	JAK	JAK	JAK	JAK
Method:	8260C	8260C	8260C	8260C
Dilution Factor:	1	1	1	1
Ethylbenzene	< 1	< 1	< 1	< 1
mp-Xylene	< 1	< 1	< 1	< 1
o-Xylene	< 1	< 1	< 1	< 1
Styrene	< 1	< 1	< 1	< 1
Bromoform	< 2	< 2	< 2	< 2
IsoPropylbenzene	< 1	< 1	< 1	< 1
Bromobenzene	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	< 1	< 1	< 1	< 1
2-Chlorotoluene	< 1	< 1	< 1	< 1
4-Chlorotoluene	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	< 1	< 1	< 1	< 1
tert-Butylbenzene	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	< 1	< 1	< 1	< 1
sec-Butylbenzene	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	< 1	< 1	< 1	< 1
p-Isopropyltoluene	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	< 1	< 1	< 1	< 1
n-Butylbenzene	< 1	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	< 2	< 2	< 2	< 2
1,3,5-Trichlorobenzene	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	< 1	< 1	< 1	< 1
Hexachlorobutadiene	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	< 2	< 2	< 2	< 2
1,2,3-Trichlorobenzene	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr)	92 %R	88 %R	87 %R	92 %R
1,2-Dichlorobenzene-d4 (surr)	101 %R	104 %R	105 %R	101 %R
Toluene-d8 (surr)	103 %R	102 %R	103 %R	103 %R
1,2-Dichloroethane-d4 (surr)	103 %R	109 %R	110 %R	103 %R



LABORATORY REPORT

EAI ID#: 251747

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

Client Designation: NCES | Groundwater / 2637.09

Sample ID:	MW-604_20221102	MW-701_20221102	B-918M_20221102	B-919U_20221102
Lab Sample ID:	251747.05	251747.06	251747.07	251747.08
Matrix:	aqueous	aqueous	aqueous	aqueous
Date Sampled:	11/2/22	11/2/22	11/2/22	11/2/22
Date Received:	11/3/22	11/3/22	11/3/22	11/3/22
Units:	ug/L	ug/L	ug/L	ug/L
Date of Analysis:	11/5/22	11/5/22	11/5/22	11/5/22
Analyst:	JAK	JAK	JAK	JAK
Method:	8260C	8260C	8260C	8260C
Dilution Factor:	1	1	1	1
Dichlorodifluoromethane	< 2	< 2	< 2	< 2
Chloromethane	< 2	< 2	< 2	< 2
Vinyl chloride	< 1	< 1	< 1	< 1
Bromomethane	< 2	< 2	< 2	< 2
Chloroethane	< 2	< 2	< 2	< 2
Trichlorofluoromethane	< 2	< 2	< 2	< 2
Diethyl Ether	< 2	< 2	< 2	< 2
Acetone	< 10	< 10	< 10	< 10
1,1-Dichloroethene	< 0.5	< 0.5	< 0.5	< 0.5
tert-Butyl Alcohol (TBA)	< 30	< 30	< 30	< 30
Methylene chloride	< 1	< 1	< 1	< 1
Carbon disulfide	< 2	< 2	< 2	< 2
Methyl-t-butyl ether(MTBE)	< 1	< 1	< 1	< 1
Ethyl-t-butyl ether(ETBE)	< 2	< 2	< 2	< 2
Isopropyl ether(DIPE)	< 2	< 2	< 2	< 2
tert-amyl methyl ether(TAME)	< 2	< 2	< 2	< 2
trans-1,2-Dichloroethene	< 1	< 1	< 1	< 1
1,1-Dichloroethane	< 1	< 1	< 1	< 1
2,2-Dichloropropane	< 1	< 1	< 1	< 1
cls-1,2-Dichloroethene	< 1	< 1	< 1	< 1
2-Butanone(MEK)	< 10	< 10	< 10	< 10
Bromochloromethane	< 1	< 1	< 1	< 1
Tetrahydrofuran(THF)	< 10	< 10	< 10	< 10
Chloroform	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	< 1	< 1	< 1	< 1
Carbon tetrachloride	< 1	< 1	< 1	< 1
1,1-Dichloropropene	< 1	< 1	< 1	< 1
Benzene	< 1	< 1	< 1	< 1
1,2-Dichloroethane	< 1	< 1	< 1	< 1
Trichloroethene	< 1	< 1	< 1	< 1
1,2-Dichloropropane	< 1	< 1	< 1	< 1
Dibromomethane	< 1	< 1	< 1	< 1
Bromodichloromethane	< 0.5	< 0.5	< 0.5	< 0.5
1,4-Dioxane	< 50	< 50	< 50	< 50
4-Methyl-2-pentanone(MIBK)	< 10	< 10	< 10	< 10
cis-1,3-Dichloropropene	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	< 1	< 1	< 1	< 1
trans-1,3-Dichloropropene	< 0.5	< 0.5	< 0.5	< 0.5
1,1,2-Trichloroethane	< 1	< 1	< 1	< 1
2-Hexanone	< 10	< 10	< 10	< 10
Tetrachloroethene	< 1	< 1	< 1	< 1
1,3-Dichloropropane	< 1	< 1	< 1	< 1
Dibromochloromethane	< 1	< 1	< 1	< 1
1,2-Dibromoethane(EDB)	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	< 1	< 1	< 1	< 1
1,1,1,2-Tetrachloroethane	< 1	< 1	< 1	< 1



LABORATORY REPORT

EAI ID#: 251747

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

Client Designation: NCES | Groundwater / 2637.09

Sample ID:	MW-604_20221102	MW-701_20221102	B-918M_20221102	B-919U_20221102
Lab Sample ID:	251747.05	251747.06	251747.07	251747.08
Matrix:	aqueous	aqueous	aqueous	aqueous
Date Sampled:	11/2/22	11/2/22	11/2/22	11/2/22
Date Received:	11/3/22	11/3/22	11/3/22	11/3/22
Units:	ug/L	ug/L	ug/L	ug/L
Date of Analysis:	11/5/22	11/5/22	11/5/22	11/5/22
Analyst:	JAK	JAK	JAK	JAK
Method:	8260C	8260C	8260C	8260C
Dilution Factor:	1	1	1	1
Ethylbenzene	< 1	< 1	< 1	< 1
mp-Xylene	< 1	< 1	< 1	< 1
o-Xylene	< 1	< 1	< 1	< 1
Styrene	< 1	< 1	< 1	< 1
Bromoform	< 2	< 2	< 2	< 2
IsoPropylbenzene	< 1	< 1	< 1	< 1
Bromobenzene	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	< 1	< 1	< 1	< 1
2-Chlorotoluene	< 1	< 1	< 1	< 1
4-Chlorotoluene	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	< 1	< 1	< 1	< 1
tert-Butylbenzene	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	< 1	< 1	< 1	< 1
sec-Butylbenzene	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	< 1	< 1	< 1	< 1
p-Isopropyltoluene	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	< 1	< 1	< 1	< 1
n-Butylbenzene	< 1	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	< 2	< 2	< 2	< 2
1,3,5-Trichlorobenzene	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	< 1	< 1	< 1	< 1
Hexachlorobutadiene	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	< 2	< 2	< 2	< 2
1,2,3-Trichlorobenzene	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr)	93 %R	92 %R	92 %R	91 %R
1,2-Dichlorobenzene-d4 (surr)	101 %R	102 %R	102 %R	101 %R
Toluene-d8 (surr)	104 %R	103 %R	103 %R	104 %R
1,2-Dichloroethane-d4 (surr)	103 %R	104 %R	104 %R	104 %R



LABORATORY REPORT

EAI ID#: 251747

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

Client Designation: NCES | Groundwater / 2637.09

Sample ID:	B-919M_20221102	B-919D_20221102	B-923U_20221102	B-925U_20221102
Lab Sample ID:	251747.09	251747.1	251747.11	251747.12
Matrix:	aqueous	aqueous	aqueous	aqueous
Date Sampled:	11/2/22	11/2/22	11/2/22	11/2/22
Date Received:	11/3/22	11/3/22	11/3/22	11/3/22
Units:	ug/L	ug/L	ug/L	ug/L
Date of Analysis:	11/5/22	11/5/22	11/5/22	11/5/22
Analyst:	JAK	JAK	JAK	JAK
Method:	8260C	8260C	8260C	8260C
Dilution Factor:	1	1	1	1
Dichlorodifluoromethane	< 2	< 2	< 2	< 2
Chloromethane	< 2	< 2	< 2	< 2
Vinyl chloride	< 1	< 1	< 1	< 1
Bromomethane	< 2	< 2	< 2	< 2
Chloroethane	< 2	< 2	< 2	< 2
Trichlorofluoromethane	< 2	< 2	< 2	< 2
Diethyl Ether	< 2	< 2	< 2	< 2
Acetone	< 10	< 10	< 10	< 10
1,1-Dichloroethene	< 0.5	< 0.5	< 0.5	< 0.5
tert-Butyl Alcohol (TBA)	< 30	< 30	< 30	< 30
Methylene chloride	< 1	< 1	< 1	< 1
Carbon disulfide	< 2	< 2	< 2	< 2
Methyl-t-butyl ether(MTBE)	< 1	< 1	< 1	< 1
Ethyl-t-butyl ether(ETBE)	< 2	< 2	< 2	< 2
Isopropyl ether(DIPE)	< 2	< 2	< 2	< 2
tert-amyl methyl ether(TAME)	< 2	< 2	< 2	< 2
trans-1,2-Dichloroethene	< 1	< 1	< 1	< 1
1,1-Dichloroethane	< 1	< 1	< 1	< 1
2,2-Dichloropropane	< 1	< 1	< 1	< 1
cls-1,2-Dichloroethene	< 1	< 1	< 1	< 1
2-Butanone(MEK)	< 10	< 10	< 10	< 10
Bromochloromethane	< 1	< 1	< 1	< 1
Tetrahydrofuran(THF)	< 10	< 10	< 10	< 10
Chloroform	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	< 1	< 1	< 1	< 1
Carbon tetrachloride	< 1	< 1	< 1	< 1
1,1-Dichloropropene	< 1	< 1	< 1	< 1
Benzene	< 1	< 1	< 1	< 1
1,2-Dichloroethane	< 1	< 1	< 1	< 1
Trichloroethene	< 1	< 1	< 1	< 1
1,2-Dichloropropane	< 1	< 1	< 1	< 1
Dibromomethane	< 1	< 1	< 1	< 1
Bromodichloromethane	< 0.5	< 0.5	< 0.5	< 0.5
1,4-Dioxane	< 50	< 50	< 50	< 50
4-Methyl-2-pentanone(MIBK)	< 10	< 10	< 10	< 10
cis-1,3-Dichloropropene	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	< 1	< 1	< 1	< 1
trans-1,3-Dichloropropene	< 0.5	< 0.5	< 0.5	< 0.5
1,1,2-Trichloroethane	< 1	< 1	< 1	< 1
2-Hexanone	< 10	< 10	< 10	< 10
Tetrachloroethene	< 1	< 1	< 1	< 1
1,3-Dichloropropane	< 1	< 1	< 1	< 1
Dibromochloromethane	< 1	< 1	< 1	< 1
1,2-Dibromoethane(EDB)	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	< 1	< 1	< 1	< 1
1,1,1,2-Tetrachloroethane	< 1	< 1	< 1	< 1



LABORATORY REPORT

EAI ID#: 251747

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

Client Designation: NCES | Groundwater / 2637.09

Sample ID:	B-919M_20221102	B-919D_20221102	B-923U_20221102	B-925U_20221102
Lab Sample ID:	251747.09	251747.1	251747.11	251747.12
Matrix:	aqueous	aqueous	aqueous	aqueous
Date Sampled:	11/2/22	11/2/22	11/2/22	11/2/22
Date Received:	11/3/22	11/3/22	11/3/22	11/3/22
Units:	ug/L	ug/L	ug/L	ug/L
Date of Analysis:	11/5/22	11/5/22	11/5/22	11/5/22
Analyst:	JAK	JAK	JAK	JAK
Method:	8260C	8260C	8260C	8260C
Dilution Factor:	1	1	1	1
Ethylbenzene	< 1	< 1	< 1	< 1
mp-Xylene	< 1	< 1	< 1	< 1
o-Xylene	< 1	< 1	< 1	< 1
Styrene	< 1	< 1	< 1	< 1
Bromoform	< 2	< 2	< 2	< 2
IsoPropylbenzene	< 1	< 1	< 1	< 1
Bromobenzene	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	< 1	< 1	< 1	< 1
2-Chlorotoluene	< 1	< 1	< 1	< 1
4-Chlorotoluene	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	< 1	< 1	< 1	< 1
tert-Butylbenzene	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	< 1	< 1	< 1	< 1
sec-Butylbenzene	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	< 1	< 1	< 1	< 1
p-Isopropyltoluene	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	< 1	< 1	< 1	< 1
n-Butylbenzene	< 1	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	< 2	< 2	< 2	< 2
1,3,5-Trichlorobenzene	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	< 1	< 1	< 1	< 1
Hexachlorobutadiene	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	< 2	< 2	< 2	< 2
1,2,3-Trichlorobenzene	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr)	92 %R	89 %R	90 %R	90 %R
1,2-Dichlorobenzene-d4 (surr)	102 %R	102 %R	101 %R	102 %R
Toluene-d8 (surr)	103 %R	102 %R	103 %R	103 %R
1,2-Dichloroethane-d4 (surr)	104 %R	105 %R	105 %R	105 %R



LABORATORY REPORT

EAI ID#: 251747

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

Client Designation: NCES | Groundwater / 2637.09

Sample ID:	B-928U_20221102	B-928D_20221102	TB-GW-02_20221102
Lab Sample ID:	251747.13	251747.14	251747.15
Matrix:	aqueous	aqueous	aqueous
Date Sampled:	11/2/22	11/2/22	11/2/22
Date Received:	11/3/22	11/3/22	11/3/22
Units:	ug/L	ug/L	ug/L
Date of Analysis:	11/5/22	11/5/22	11/5/22
Analyst:	JAK	JAK	JAK
Method:	8260C	8260C	8260C
Dilution Factor:	1	1	1
Dichlorodifluoromethane	< 2	< 2	< 2
Chloromethane	< 2	< 2	< 2
Vinyl chloride	< 1	< 1	< 1
Bromomethane	< 2	< 2	< 2
Chloroethane	< 2	< 2	< 2
Trichlorofluoromethane	< 2	< 2	< 2
Diethyl Ether	< 2	< 2	< 2
Acetone	< 10	< 10	< 10
1,1-Dichloroethene	< 0.5	< 0.5	< 0.5
tert-Butyl Alcohol (TBA)	< 30	< 30	< 30
Methylene chloride	< 1	< 1	< 1
Carbon disulfide	< 2	< 2	< 2
Methyl-t-butyl ether(MTBE)	< 1	< 1	< 1
Ethyl-t-butyl ether(ETBE)	< 2	< 2	< 2
Isopropyl ether(DIPE)	< 2	< 2	< 2
tert-amyl methyl ether(TAME)	< 2	< 2	< 2
trans-1,2-Dichloroethene	< 1	< 1	< 1
1,1-Dichloroethane	< 1	< 1	< 1
2,2-Dichloropropane	< 1	< 1	< 1
cls-1,2-Dichloroethene	< 1	< 1	< 1
2-Butanone(MEK)	< 10	< 10	< 10
Bromochloromethane	< 1	< 1	< 1
Tetrahydrofuran(THF)	< 10	< 10	< 10
Chloroform	< 1	< 1	< 1
1,1,1-Trichloroethane	< 1	< 1	< 1
Carbon tetrachloride	< 1	< 1	< 1
1,1-Dichloropropene	< 1	< 1	< 1
Benzene	< 1	< 1	< 1
1,2-Dichloroethane	< 1	< 1	< 1
Trichloroethene	< 1	< 1	< 1
1,2-Dichloropropane	< 1	< 1	< 1
Dibromomethane	< 1	< 1	< 1
Bromodichloromethane	< 0.5	< 0.5	< 0.5
1,4-Dioxane	< 50	< 50	< 50
4-Methyl-2-pentanone(MIBK)	< 10	< 10	< 10
cis-1,3-Dichloropropene	< 0.5	< 0.5	< 0.5
Toluene	< 1	< 1	< 1
trans-1,3-Dichloropropene	< 0.5	< 0.5	< 0.5
1,1,2-Trichloroethane	< 1	< 1	< 1
2-Hexanone	< 10	< 10	< 10
Tetrachloroethene	< 1	< 1	< 1
1,3-Dichloropropane	< 1	< 1	< 1
Dibromochloromethane	< 1	< 1	< 1
1,2-Dibromoethane(EDB)	< 0.5	< 0.5	< 0.5
Chlorobenzene	< 1	< 1	< 1
1,1,1,2-Tetrachloroethane	< 1	< 1	< 1



LABORATORY REPORT

EAI ID#: 251747

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

Client Designation: NCES | Groundwater / 2637.09

Sample ID:	B-928U_20221102	B-928D_20221102	TB-GW-02_20221102
Lab Sample ID:	251747.13	251747.14	251747.15
Matrix:	aqueous	aqueous	aqueous
Date Sampled:	11/2/22	11/2/22	11/2/22
Date Received:	11/3/22	11/3/22	11/3/22
Units:	ug/L	ug/L	ug/L
Date of Analysis:	11/5/22	11/5/22	11/5/22
Analyst:	JAK	JAK	JAK
Method:	8260C	8260C	8260C
Dilution Factor:	1	1	1
Ethylbenzene	< 1	< 1	< 1
mp-Xylene	< 1	< 1	< 1
o-Xylene	< 1	< 1	< 1
Styrene	< 1	< 1	< 1
Bromoform	< 2	< 2	< 2
IsoPropylbenzene	< 1	< 1	< 1
Bromobenzene	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	< 1	< 1	< 1
1,2,3-Trichloropropane	< 0.5	< 0.5	< 0.5
n-Propylbenzene	< 1	< 1	< 1
2-Chlorotoluene	< 1	< 1	< 1
4-Chlorotoluene	< 1	< 1	< 1
1,3,5-Trimethylbenzene	< 1	< 1	< 1
tert-Butylbenzene	< 1	< 1	< 1
1,2,4-Trimethylbenzene	< 1	< 1	< 1
sec-Butylbenzene	< 1	< 1	< 1
1,3-Dichlorobenzene	< 1	< 1	< 1
p-Isopropyltoluene	< 1	< 1	< 1
1,4-Dichlorobenzene	< 1	< 1	< 1
1,2-Dichlorobenzene	< 1	< 1	< 1
n-Butylbenzene	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	< 2	< 2	< 2
1,3,5-Trichlorobenzene	< 1	< 1	< 1
1,2,4-Trichlorobenzene	< 1	< 1	< 1
Hexachlorobutadiene	< 0.5	< 0.5	< 0.5
Naphthalene	< 2	< 2	< 2
1,2,3-Trichlorobenzene	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr)	90 %R	90 %R	93 %R
1,2-Dichlorobenzene-d4 (surr)	103 %R	102 %R	100 %R
Toluene-d8 (surr)	103 %R	103 %R	103 %R
1,2-Dichloroethane-d4 (surr)	106 %R	105 %R	101 %R



QC REPORT

EAI ID#: 251747

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

Batch ID: 638031-82209/A110422V82603

Client Designation: NCES | Groundwater / 2637.09

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
Dichlorodifluoromethane	< 2	22 (112 %R)	21 (106 %R) (6 RPD)	11/5/2022	ug/L	40 - 160	20	8260C
Chloromethane	< 2	20 (98 %R)	18 (92 %R) (6 RPD)	11/5/2022	ug/L	40 - 160	20	8260C
Vinyl chloride	< 1	25 (126 %R)	23 (117 %R) (7 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
Bromomethane	< 2	22 (109 %R)	20 (102 %R) (7 RPD)	11/5/2022	ug/L	40 - 160	20	8260C
Chloroethane	< 2	21 (104 %R)	19 (97 %R) (7 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
Trichlorofluoromethane	< 2	21 (106 %R)	20 (100 %R) (6 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
Diethyl Ether	< 2	19 (94 %R)	18 (91 %R) (3 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
Acetone	< 10	19 (94 %R)	18 (91 %R) (3 RPD)	11/5/2022	ug/L	40 - 160	20	8260C
1,1-Dichloroethene	< 0.5	21 (105 %R)	20 (99 %R) (5 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
tert-Butyl Alcohol (TBA)	< 30	86 (86 %R)	84 (84 %R) (2 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
Methylene chloride	< 1	21 (107 %R)	20 (101 %R) (6 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
Carbon disulfide	< 2	20 (99 %R)	19 (95 %R) (4 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
Methyl-t-butyl ether(MTBE)	< 1	19 (95 %R)	18 (92 %R) (3 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
Ethyl-t-butyl ether(ETBE)	< 2	20 (100 %R)	20 (98 %R) (3 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
Isopropyl ether(DIPE)	< 2	19 (93 %R)	18 (90 %R) (3 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
tert-amyl methyl ether(TAME)	< 2	19 (97 %R)	19 (94 %R) (3 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
trans-1,2-Dichloroethene	< 1	20 (98 %R)	19 (93 %R) (5 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
1,1-Dichloroethane	< 1	21 (105 %R)	20 (100 %R) (5 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
2,2-Dichloropropane	< 1	18 (92 %R)	17 (87 %R) (5 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
cis-1,2-Dichloroethene	< 1	21 (105 %R)	20 (100 %R) (5 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
2-Butanone(MEK)	< 10	18 (88 %R)	17 (87 %R) (2 RPD)	11/5/2022	ug/L	40 - 160	20	8260C
Bromochloromethane	< 1	21 (106 %R)	20 (102 %R) (4 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
Tetrahydrofuran(THF)	< 10	16 (78 %R)	15 (76 %R) (2 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
Chloroform	< 1	21 (105 %R)	20 (100 %R) (5 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
1,1,1-Trichloroethane	< 1	22 (109 %R)	21 (103 %R) (6 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
Carbon tetrachloride	< 1	21 (105 %R)	20 (99 %R) (5 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
1,1-Dichloropropene	< 1	21 (106 %R)	20 (100 %R) (5 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
Benzene	< 1	21 (104 %R)	20 (100 %R) (5 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
1,2-Dichloroethane	< 1	21 (106 %R)	21 (103 %R) (3 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
Trichloroethene	< 1	21 (105 %R)	20 (100 %R) (5 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
1,2-Dichloropropane	< 1	21 (106 %R)	20 (101 %R) (4 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
Dibromomethane	< 1	21 (105 %R)	20 (102 %R) (2 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
Bromodichloromethane	< 0.5	20 (102 %R)	20 (98 %R) (3 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
1,4-Dioxane	< 50	< 50 (101 %R)	< 50 (104 %R) (2 RPD)	11/5/2022	ug/L	40 - 160	20	8260C
4-Methyl-2-pentanone(MIBK)	< 10	16 (79 %R)	16 (78 %R) (2 RPD)	11/5/2022	ug/L	40 - 160	20	8260C
cis-1,3-Dichloropropene	< 0.5	20 (101 %R)	20 (98 %R) (3 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
Toluene	< 1	21 (104 %R)	20 (100 %R) (4 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
trans-1,3-Dichloropropene	< 0.5	21 (105 %R)	21 (103 %R) (2 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
1,1,2-Trichloroethane	< 1	20 (102 %R)	20 (100 %R) (3 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
2-Hexanone	< 10	17 (86 %R)	17 (85 %R) (1 RPD)	11/5/2022	ug/L	40 - 160	20	8260C
Tetrachloroethene	< 1	20 (102 %R)	20 (98 %R) (4 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
1,3-Dichloropropane	< 1	21 (103 %R)	20 (100 %R) (2 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
Dibromochloromethane	< 1	18 (92 %R)	18 (90 %R) (2 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
1,2-Dibromoethane(EDB)	< 0.5	21 (104 %R)	21 (103 %R) (1 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
Chlorobenzene	< 1	21 (106 %R)	20 (102 %R) (4 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
1,1,1,2-Tetrachloroethane	< 1	21 (105 %R)	20 (102 %R) (3 RPD)	11/5/2022	ug/L	70 - 130	20	8260C



QC REPORT

EAI ID#: 251747

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

Batch ID: 638031-82209/A110422V82603

Client Designation: NCES | Groundwater / 2637.09

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
Ethylbenzene	< 1	21 (103 %R)	20 (99 %R) (4 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
mp-Xylene	< 1	38 (94 %R)	36 (90 %R) (5 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
o-Xylene	< 1	21 (107 %R)	21 (103 %R) (5 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
Styrene	< 1	21 (104 %R)	20 (99 %R) (4 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
Bromoform	< 2	19 (93 %R)	18 (92 %R) (1 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
IsoPropylbenzene	< 1	21 (105 %R)	20 (100 %R) (5 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
Bromobenzene	< 1	22 (112 %R)	22 (110 %R) (1 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
1,1,2,2-Tetrachloroethane	< 1	20 (101 %R)	20 (101 %R) (1 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
1,2,3-Trichloropropane	< 0.5	20 (98 %R)	20 (100 %R) (2 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
n-Propylbenzene	< 1	23 (113 %R)	22 (111 %R) (2 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
2-Chlorotoluene	< 1	22 (111 %R)	22 (112 %R) (1 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
4-Chlorotoluene	< 1	23 (113 %R)	22 (108 %R) (4 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
1,3,5-Trimethylbenzene	< 1	21 (105 %R)	21 (103 %R) (2 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
tert-Butylbenzene	< 1	22 (110 %R)	21 (107 %R) (3 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
1,2,4-Trimethylbenzene	< 1	21 (105 %R)	21 (104 %R) (2 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
sec-Butylbenzene	< 1	22 (111 %R)	22 (109 %R) (2 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
1,3-Dichlorobenzene	< 1	22 (110 %R)	22 (108 %R) (1 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
p-Isopropyltoluene	< 1	21 (104 %R)	20 (102 %R) (2 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
1,4-Dichlorobenzene	< 1	21 (107 %R)	21 (106 %R) (1 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
1,2-Dichlorobenzene	< 1	21 (105 %R)	21 (104 %R) (1 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
n-Butylbenzene	< 1	20 (100 %R)	20 (98 %R) (2 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
1,2-Dibromo-3-chloropropane	< 2	18 (89 %R)	18 (89 %R) (0 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
1,3,5-Trichlorobenzene	< 1	20 (98 %R)	19 (97 %R) (1 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
1,2,4-Trichlorobenzene	< 1	18 (92 %R)	18 (91 %R) (2 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
Hexachlorobutadiene	< 0.5	19 (94 %R)	19 (95 %R) (0 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
Naphthalene	< 2	19 (93 %R)	18 (91 %R) (2 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
1,2,3-Trichlorobenzene	< 0.5	19 (94 %R)	19 (93 %R) (2 RPD)	11/5/2022	ug/L	70 - 130	20	8260C
4-Bromofluorobenzene (surr)	91 %R	100 %R	100 %R	11/5/2022	% Rec	70 - 130	20	8260C
1,2-Dichlorobenzene-d4 (surr)	102 %R	96 %R	96 %R	11/5/2022	% Rec	70 - 130	20	8260C
Toluene-d8 (surr)	103 %R	100 %R	100 %R	11/5/2022	% Rec	70 - 130	20	8260C
1,2-Dichloroethane-d4 (surr)	105 %R	101 %R	100 %R	11/5/2022	% Rec	70 - 130	20	8260C

*// Flagged analyte recoveries deviated from the QA/QC limits. Data that impacts sample results are noted on the sample report.



QC REPORT

EAI ID#: 251747

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

Batch ID: 638033-52870/A110622V82601

Client Designation: NCES | Groundwater / 2637.09

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
Dichlorodifluoromethane	< 2	23 (116 %R)	22 (112 %R) (4 RPD)	11/6/2022	ug/L	40 - 160	20	8260C
Chloromethane	< 2	20 (98 %R)	18 (92 %R) (6 RPD)	11/6/2022	ug/L	40 - 160	20	8260C
Vinyl chloride	< 1	26 (128 %R)	25 (124 %R) (3 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
Bromomethane	< 2	22 (108 %R)	21 (107 %R) (1 RPD)	11/6/2022	ug/L	40 - 160	20	8260C
Chloroethane	< 2	20 (101 %R)	20 (101 %R) (0 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
Trichlorofluoromethane	< 2	21 (107 %R)	21 (106 %R) (1 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
Diethyl Ether	< 2	18 (89 %R)	19 (93 %R) (3 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
Acetone	< 10	16 (78 %R)	17 (83 %R) (5 RPD)	11/6/2022	ug/L	40 - 160	20	8260C
1,1-Dichloroethene	< 0.5	21 (104 %R)	21 (105 %R) (1 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
tert-Butyl Alcohol (TBA)	< 30	78 (78 %R)	81 (81 %R) (4 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
Methylene chloride	< 1	21 (105 %R)	21 (104 %R) (1 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
Carbon disulfide	< 2	20 (99 %R)	20 (101 %R) (3 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
Methyl-t-butyl ether(MTBE)	< 1	18 (89 %R)	19 (93 %R) (4 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
Ethyl-t-butyl ether(ETBE)	< 2	19 (95 %R)	20 (99 %R) (4 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
Isopropyl ether(DIPE)	< 2	18 (89 %R)	18 (92 %R) (3 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
tert-amyl methyl ether(TAME)	< 2	18 (91 %R)	19 (95 %R) (5 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
trans-1,2-Dichloroethene	< 1	20 (98 %R)	20 (98 %R) (0 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
1,1-Dichloroethane	< 1	21 (104 %R)	21 (105 %R) (1 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
2,2-Dichloropropane	< 1	26 (129 %R)	26 (128 %R) (1 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
cis-1,2-Dichloroethene	< 1	21 (104 %R)	21 (105 %R) (1 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
2-Butanone(MEK)	< 10	16 (80 %R)	17 (85 %R) (6 RPD)	11/6/2022	ug/L	40 - 160	20	8260C
Bromochloromethane	< 1	21 (103 %R)	21 (107 %R) (3 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
Tetrahydrofuran(THF)	< 10	14 (70 %R)	15 (75 %R) (6 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
Chloroform	< 1	21 (104 %R)	21 (106 %R) (2 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
1,1,1-Trichloroethane	< 1	22 (109 %R)	22 (110 %R) (1 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
Carbon tetrachloride	< 1	21 (107 %R)	21 (107 %R) (0 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
1,1-Dichloropropene	< 1	21 (106 %R)	21 (106 %R) (1 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
Benzene	< 1	21 (104 %R)	21 (105 %R) (1 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
1,2-Dichloroethane	< 1	21 (105 %R)	22 (108 %R) (3 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
Trichloroethene	< 1	21 (106 %R)	21 (106 %R) (1 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
1,2-Dichloropropane	< 1	21 (104 %R)	21 (106 %R) (2 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
Dibromomethane	< 1	21 (103 %R)	21 (107 %R) (4 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
Bromodichloromethane	< 0.5	21 (103 %R)	21 (105 %R) (2 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
1,4-Dioxane	< 50	< 50 (91 %R)	< 50 (95 %R) (4 RPD)	11/6/2022	ug/L	40 - 160	20	8260C
4-Methyl-2-pentanone(MIBK)	< 10	15 (73 %R)	15 (77 %R) (6 RPD)	11/6/2022	ug/L	40 - 160	20	8260C
cis-1,3-Dichloropropene	< 0.5	21 (105 %R)	22 (108 %R) (3 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
Toluene	< 1	21 (104 %R)	21 (105 %R) (1 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
trans-1,3-Dichloropropene	< 0.5	22 (108 %R)	23 (113 %R) (4 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
1,1,2-Trichloroethane	< 1	20 (100 %R)	21 (104 %R) (4 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
2-Hexanone	< 10	15 (77 %R)	17 (83 %R) (8 RPD)	11/6/2022	ug/L	40 - 160	20	8260C
Tetrachloroethene	< 1	21 (105 %R)	21 (106 %R) (0 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
1,3-Dichloropropane	< 1	20 (99 %R)	21 (104 %R) (4 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
Dibromochloromethane	< 1	18 (92 %R)	19 (95 %R) (3 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
1,2-Dibromoethane(EDB)	< 0.5	18 (91 %R)	19 (95 %R) (4 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
Chlorobenzene	< 1	21 (105 %R)	21 (107 %R) (2 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
1,1,1,2-Tetrachloroethane	< 1	21 (105 %R)	22 (108 %R) (3 RPD)	11/6/2022	ug/L	70 - 130	20	8260C



QC REPORT

EAI ID#: 251747

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

Batch ID: 638033-52870/A110622V82601

Client Designation: NCES | Groundwater / 2637.09

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
Ethylbenzene	< 1	21 (104 %R)	21 (105 %R) (1 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
m-p-Xylene	< 1	38 (94 %R)	38 (95 %R) (1 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
o-Xylene	< 1	21 (106 %R)	21 (107 %R) (2 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
Styrene	< 1	20 (102 %R)	21 (103 %R) (1 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
Bromoform	< 2	19 (93 %R)	19 (97 %R) (4 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
Isopropylbenzene	< 1	21 (104 %R)	21 (106 %R) (1 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
Bromobenzene	< 1	22 (109 %R)	22 (112 %R) (3 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
1,1,2,2-Tetrachloroethane	< 1	19 (97 %R)	20 (101 %R) (5 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
1,2,3-Trichloropropane	< 0.5	19 (93 %R)	20 (98 %R) (5 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
n-Propylbenzene	< 1	23 (114 %R)	23 (117 %R) (2 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
2-Chlorotoluene	< 1	23 (114 %R)	23 (117 %R) (2 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
4-Chlorotoluene	< 1	22 (111 %R)	23 (113 %R) (2 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
1,3,5-Trimethylbenzene	< 1	21 (104 %R)	21 (107 %R) (3 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
tert-Butylbenzene	< 1	21 (107 %R)	22 (110 %R) (3 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
1,2,4-Trimethylbenzene	< 1	21 (105 %R)	22 (108 %R) (3 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
sec-Butylbenzene	< 1	22 (111 %R)	23 (115 %R) (3 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
1,3-Dichlorobenzene	< 1	22 (109 %R)	23 (113 %R) (3 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
p-Isopropyltoluene	< 1	21 (105 %R)	22 (108 %R) (3 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
1,4-Dichlorobenzene	< 1	21 (106 %R)	22 (110 %R) (4 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
1,2-Dichlorobenzene	< 1	21 (104 %R)	22 (108 %R) (4 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
n-Butylbenzene	< 1	21 (106 %R)	22 (108 %R) (2 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
1,2-Dibromo-3-chloropropane	< 2	17 (85 %R)	18 (88 %R) (4 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
1,3,5-Trichlorobenzene	< 1	20 (101 %R)	21 (103 %R) (2 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
1,2,4-Trichlorobenzene	< 1	18 (90 %R)	19 (93 %R) (3 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
Hexachlorobutadiene	< 0.5	20 (101 %R)	21 (105 %R) (4 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
Naphthalene	< 2	17 (85 %R)	17 (87 %R) (2 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
1,2,3-Trichlorobenzene	< 0.5	18 (91 %R)	19 (93 %R) (2 RPD)	11/6/2022	ug/L	70 - 130	20	8260C
4-Bromofluorobenzene (surr)	89 %R	101 %R	100 %R	11/6/2022	% Rec	70 - 130	20	8260C
1,2-Dichlorobenzene-d4 (surr)	104 %R	95 %R	95 %R	11/6/2022	% Rec	70 - 130	20	8260C
Toluene-d8 (surr)	103 %R	102 %R	101 %R	11/6/2022	% Rec	70 - 130	20	8260C
1,2-Dichloroethane-d4 (surr)	107 %R	99 %R	101 %R	11/6/2022	% Rec	70 - 130	20	8260C

*// Flagged analyte recoveries deviated from the QA/QC limits. Data that impacts sample results are noted on the sample report.



LABORATORY REPORT

EAI ID#: **251747**

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

Client Designation: **NCES | Groundwater / 2637.09**

Sample ID:	B-304UR_20221102	B-304DR_20221102	DUP-1_20221102	MW-603_20221102
Lab Sample ID:	251747.01	251747.02	251747.03	251747.04
Matrix:	aqueous	aqueous	aqueous	aqueous
Date Sampled:	11/2/22	11/2/22	11/2/22	11/2/22
Date Received:	11/3/22	11/3/22	11/3/22	11/3/22
Units:	ug/L	ug/L	ug/L	ug/L
Date of Analysis:	11/4/22	11/4/22	11/4/22	11/4/22
Analyst:	MLW	MLW	MLW	MLW
Method:	8260B SIM	8260B SIM	8260B SIM	8260B SIM
Dilution Factor:	1	1	1	1
1,4-Dioxane	0.38	0.43	0.41	< 0.25
4-Bromofluorobenzene (surr)	101 %R	105 %R	105 %R	102 %R
Toluene-d8 (surr)	98 %R	100 %R	100 %R	99 %R



LABORATORY REPORT

EAI ID#: **251747**

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

Client Designation: **NCES | Groundwater / 2637.09**

Sample ID:	MW-604_20221102	MW-701_20221102	B-918M_20221102	B-919U_20221102
Lab Sample ID:	251747.05	251747.06	251747.07	251747.08
Matrix:	aqueous	aqueous	aqueous	aqueous
Date Sampled:	11/2/22	11/2/22	11/2/22	11/2/22
Date Received:	11/3/22	11/3/22	11/3/22	11/3/22
Units:	ug/L	ug/L	ug/L	ug/L
Date of Analysis:	11/4/22	11/4/22	11/4/22	11/4/22
Analyst:	MLW	MLW	MLW	MLW
Method:	8260B SIM	8260B SIM	8260B SIM	8260B SIM
Dilution Factor:	1	1	1	1
1,4-Dioxane	< 0.25	< 0.25	< 0.25	< 0.25
4-Bromofluorobenzene (surr)	101 %R	100 %R	101 %R	101 %R
Toluene-d8 (surr)	99 %R	99 %R	98 %R	99 %R



LABORATORY REPORT

EAI ID#: **251747**

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

Client Designation: **NCES | Groundwater / 2637.09**

Sample ID:	B-919M_20221102	B-919D_20221102	B-923U_20221102	B-925U_20221102
Lab Sample ID:	251747.09	251747.1	251747.11	251747.12
Matrix:	aqueous	aqueous	aqueous	aqueous
Date Sampled:	11/2/22	11/2/22	11/2/22	11/2/22
Date Received:	11/3/22	11/3/22	11/3/22	11/3/22
Units:	ug/L	ug/L	ug/L	ug/L
Date of Analysis:	11/4/22	11/4/22	11/4/22	11/4/22
Analyst:	MLW	MLW	MLW	MLW
Method:	8260B SIM	8260B SIM	8260B SIM	8260B SIM
Dilution Factor:	1	1	1	1
1,4-Dioxane	< 0.25	< 0.25	< 0.25	< 0.25
4-Bromofluorobenzene (surr)	105 %R	101 %R	101 %R	102 %R
Toluene-d8 (surr)	102 %R	99 %R	98 %R	100 %R



LABORATORY REPORT

EAI ID#: 251747

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

Client Designation: **NCES | Groundwater / 2637.09**

Sample ID: B-928U_20221102 B-928D_20221102 TB-LL-GW-02_20221102

Lab Sample ID:	251747.13	251747.14	251747.16
Matrix:	aqueous	aqueous	aqueous
Date Sampled:	11/2/22	11/2/22	11/2/22
Date Received:	11/3/22	11/3/22	11/3/22
Units:	ug/L	ug/L	ug/L
Date of Analysis:	11/4/22	11/4/22	11/4/22
Analyst:	MLW	MLW	MLW
Method:	8260B SIM	8260B SIM	8260B SIM
Dilution Factor:	1	1	1
1,4-Dioxane	< 0.25	0.71	< 0.25
4-Bromofluorobenzene (surr)	101 %R	104 %R	100 %R
Toluene-d8 (surr)	99 %R	101 %R	98 %R



QC REPORT

EAI ID#: **251747**

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

Batch ID: 638030-84461/A110322DIOX2

Client Designation: **NCES | Groundwater / 2637.09**

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
1,4-Dioxane	< 0.2	4.7 (93 %R)	4.8 (95 %R) (2 RPD)	11/4/2022	ug/L	70 - 130	20	8260B
4-Bromofluorobenzene (surr)	102 %R	102 %R	101 %R	11/4/2022	% Rec	70 - 130	50	8260B
Toluene-d8 (surr)	99 %R	101 %R	100 %R	11/4/2022	% Rec	70 - 130	50	8260B

*! Flagged analyte recoveries deviated from the QA/QC limits. Data that impacts sample results are noted on the sample report.



QC REPORT

EAI ID#: **251747**

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

Batch ID: 638031-61591/A110422DIOX1

Client Designation: **NCES | Groundwater / 2637.09**

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
1,4-Dioxane	< 0.2	4.8 (96 %R)	4.7 (95 %R) (2 RPD)	11/4/2022	ug/L	70 - 130	20	8260B
4-Bromofluorobenzene (surr)	103 %R	102 %R	103 %R	11/4/2022	% Rec	70 - 130	50	8260B
Toluene-d8 (surr)	101 %R	102 %R	102 %R	11/4/2022	% Rec	70 - 130	50	8260B

*! Flagged analyte recoveries deviated from the QA/QC limits. Data that impacts sample results are noted on the sample report.



LABORATORY REPORT

EAI ID#: **251747**

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

Client Designation: **NCES | Groundwater / 2637.09**

Sample ID:	B-304UR_20221102	B-304DR_20221102	DUP-1_20221102	MW-603_20221102
Lab Sample ID:	251747.01	251747.02	251747.03	251747.04
Matrix:	aqueous	aqueous	aqueous	aqueous
Date Sampled:	11/2/22	11/2/22	11/2/22	11/2/22
Date Received:	11/3/22	11/3/22	11/3/22	11/3/22
Units:	ug/L	ug/L	ug/L	ug/L
Date of Extraction/Prep:	11/7/22	11/7/22	11/7/22	11/7/22
Date of Analysis:	11/7/22	11/7/22	11/7/22	11/7/22
Analyst:	WOD	WOD	WOD	WOD
Method:	8011/504	8011/504	8011/504	8011/504
Dilution Factor:	1	1	1	1
1,2-Dibromoethane(EDB)	< 0.02	< 0.02	< 0.02	< 0.02
Dibromochloropropane (DBCP)	< 0.02	< 0.02	< 0.02	< 0.02
1,1,1,2-Tetrachloroethane (surr)	90 %R	92 %R	91 %R	90 %R



LABORATORY REPORT

EAI ID#: **251747**

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

Client Designation: **NCES | Groundwater / 2637.09**

Sample ID:	MW-604_20221102	MW-701_20221102	B-918M_20221102	B-919U_20221102
Lab Sample ID:	251747.05	251747.06	251747.07	251747.08
Matrix:	aqueous	aqueous	aqueous	aqueous
Date Sampled:	11/2/22	11/2/22	11/2/22	11/2/22
Date Received:	11/3/22	11/3/22	11/3/22	11/3/22
Units:	ug/L	ug/L	ug/L	ug/L
Date of Extraction/Prep:	11/7/22	11/7/22	11/7/22	11/7/22
Date of Analysis:	11/7/22	11/7/22	11/7/22	11/7/22
Analyst:	WOD	WOD	WOD	WOD
Method:	8011/504	8011/504	8011/504	8011/504
Dilution Factor:	1	1	1	1
1,2-Dibromoethane(EDB)	< 0.02	< 0.02	< 0.02	< 0.02
Dibromochloropropane (DBCP)	< 0.02	< 0.02	< 0.02	< 0.02
1,1,1,2-Tetrachloroethane (surr)	90 %R	91 %R	92 %R	91 %R



LABORATORY REPORT

EAI ID#: **251747**

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

Client Designation: **NCES | Groundwater / 2637.09**

Sample ID:	B-919M_20221102	B-919D_20221102	B-923U_20221102	B-925U_20221102
Lab Sample ID:	251747.09	251747.1	251747.11	251747.12
Matrix:	aqueous	aqueous	aqueous	aqueous
Date Sampled:	11/2/22	11/2/22	11/2/22	11/2/22
Date Received:	11/3/22	11/3/22	11/3/22	11/3/22
Units:	ug/L	ug/L	ug/L	ug/L
Date of Extraction/Prep:	11/7/22	11/7/22	11/7/22	11/7/22
Date of Analysis:	11/7/22	11/7/22	11/7/22	11/7/22
Analyst:	WOD	WOD	WOD	WOD
Method:	8011/504	8011/504	8011/504	8011/504
Dilution Factor:	1	1	1	1
1,2-Dibromoethane(EDB)	< 0.02	< 0.02	< 0.02	< 0.02
Dibromochloropropane (DBCP)	< 0.02	< 0.02	< 0.02	< 0.02
1,1,1,2-Tetrachloroethane (surr)	90 %R	91 %R	92 %R	90 %R



LABORATORY REPORT

EAI ID#: 251747

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

Client Designation: **NCES | Groundwater / 2637.09**

Sample ID:	B-928U_20221102	B-928D_20221102
Lab Sample ID:	251747.13	251747.14
Matrix:	aqueous	aqueous
Date Sampled:	11/2/22	11/2/22
Date Received:	11/3/22	11/3/22
Units:	ug/L	ug/L
Date of Extraction/Prep:	11/7/22	11/7/22
Date of Analysis:	11/7/22	11/7/22
Analyst:	WOD	WOD
Method:	8011/504	8011/504
Dilution Factor:	1	1
1,2-Dibromoethane(EDB)	< 0.02	< 0.02
Dibromochloropropane (DBCP)	< 0.02	< 0.02
1,1,1,2-Tetrachloroethane (surr)	91 %R	94 %R



QC REPORT

EAI ID#: 251747

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

Batch ID: 638034-17533/A110722E5041

Client Designation: NCES | Groundwater / 2637.09

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
1,2-Dibromoethane(EDB)	< 0.02	0.10 (100 %R)	0.096 (96 %R) (4 RPD)	11/7/2022	ug/L	70 - 130	20	8011/504
Dibromochloropropane (DBCP)	< 0.02	0.093 (93 %R)	0.088 (88 %R) (5 RPD)	11/7/2022	ug/L	70 - 130	20	8011/504
1,1,1,2-Tetrachloroethane (surr)	91 %R	93 %R	88 %R	11/7/2022	% Rec	65 - 135	20	8011/504

*! Flagged analyte recoveries deviated from the QA/QC limits. Data that impacts sample results are noted on the sample report.



LABORATORY REPORT

EAI ID#: 251747

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

Client Designation: NCES | Groundwater / 2637.09

Sample ID:	B-304UR_20221102	B -304DR_2022 1102	DUP -1_20221102	MW -603_20221102		Analysis				
Lab Sample ID:	251747.01	251747.02	251747.03	251747.04		Units	Date	Time	Method	Analyst
Matrix:	aqueous	aqueous	aqueous	aqueous						
Date Sampled:	11/2/22	11/2/22	11/2/22	11/2/22						
Date Received:	11/3/22	11/3/22	11/3/22	11/3/22						
Bromide	0.10	0.11	0.11	< 0.1	mg/L	11/03/22	12:33		300.0	KD
Chloride	22	37	37	2.3	mg/L	11/03/22	12:33		300.0	KD
Nitrate-N	1.9	1.2	1.2	< 0.5	mg/L	11/03/22	12:33		300.0	KD
TKN	< 0.5	< 0.5	< 0.5	< 0.5	mg/L	11/07/22	15:15		4500N _{org} C/NH3D	GRS
COD	< 10	< 10	< 10	< 10	mg/L	11/03/22	15:50		H8000	JCS

Sample ID:	MW-604_20221102	B -919U_202211 02	B -919M_202211 02	B -919D_202211 02		Analysis				
Lab Sample ID:	251747.05	251747.08	251747.09	251747.1		Units	Date	Time	Method	Analyst
Matrix:	aqueous	aqueous	aqueous	aqueous						
Date Sampled:	11/2/22	11/2/22	11/2/22	11/2/22						
Date Received:	11/3/22	11/3/22	11/3/22	11/3/22						
Bromide	< 0.1	< 0.1	< 0.1	< 0.1	mg/L	11/03/22	13:31		300.0	KD
Chloride	25	5.3	2.9	2.3	mg/L	11/03/22	13:31		300.0	KD
Nitrate-N	< 0.5	1.3	< 0.5	< 0.5	mg/L	11/03/22	13:31		300.0	KD
TKN	< 0.5	< 0.5	< 0.5	< 0.5	mg/L	11/07/22	15:26		4500N _{org} C/NH3D	GRS
COD	< 10	< 10	< 10	< 10	mg/L	11/03/22	15:50		H8000	JCS



LABORATORY REPORT

EAI ID#: 251747

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

Client Designation: **NCES | Groundwater / 2637.09**

Sample ID:	B-923U_20221102		B		B		B				
			-925U_20221102	-928U_20221102	-928D_20221102						
Lab Sample ID:	251747.11	251747.12	251747.13	251747.14							
Matrix:	aqueous	aqueous	aqueous	aqueous							
Date Sampled:	11/2/22	11/2/22	11/2/22	11/2/22							
Date Received:	11/3/22	11/3/22	11/3/22	11/3/22	Analysis			Method	Analyst		
					Units	Date	Time				
Bromide	< 0.1	< 0.1	< 0.1	0.16	mg/L	11/03/22	17:08	300.0	KD		
Chloride	< 1	< 1	22	31	mg/L	11/03/22	17:08	300.0	KD		
Nitrate-N	< 0.5	< 0.5	1.5	1.3	mg/L	11/03/22	17:08	300.0	KD		
TKN	< 0.5	< 0.5	< 0.5	0.64	mg/L	11/07/22	15:56	4500N _{org} C/NH3D	GRS		
COD	< 10	< 10	< 10	< 10	mg/L	11/03/22	15:50	H8000	JCS		

Sample ID:	MW-701_20221102		B		B		B				
			-918M_20221102								
Lab Sample ID:	251747.06	251747.07									
Matrix:	aqueous	aqueous									
Date Sampled:	11/2/22	11/2/22									
Date Received:	11/3/22	11/3/22				Analysis			Method	Analyst	
					Units	Date	Time				
Bromide	< 0.1	< 0.1			mg/L	11/03/22	13:45	300.0	KD		
Sulfate	18	13			mg/L	11/03/22	13:45	300.0	KD		
Chloride	8.5	20			mg/L	11/03/22	13:45	300.0	KD		
Nitrate-N	0.52	< 0.5			mg/L	11/03/22	13:45	300.0	KD		
TKN	0.71	< 0.5			mg/L	11/07/22	15:28	4500N _{org} C/NH3D	GRS		
COD	< 10	< 10			mg/L	11/03/22	15:50	H8000	JCS		



QC REPORT

EAI ID#: 251747

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

Client Designation: **NCES | Groundwater / 2637.09**

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
Bromide	< 0.1	2.1 (104 %R)	2.2 (109 %R) (4 RPD)	mg/L	11/4/22	90 - 110	20	300.0
Sulfate	< 1	20 (102 %R)	21 (107 %R) (4 RPD)	mg/L	11/4/22	90 - 110	20	300.0
Chloride	< 1	20 (102 %R)	21 (107 %R) (4 RPD)	mg/L	11/4/22	90 - 110	20	300.0
Nitrate-N	< 0.5	1.9 (97 %R)	2.0 (102 %R) (5 RPD)	mg/L	11/4/22	90 - 110	20	300.0
TKN	< 0.5	10 (100 %R)	10 (103 %R) (3 RPD)	mg/L	11/7/22	90 - 111	20	4500N _{org} C/NH3D-11
COD	< 10	110 (107 %R)	110 (106 %R) (2 RPD)	mg/L	11/3/22	85 - 115	20	H8000

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



LABORATORY REPORT

EAI ID#: **251747**

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

Client Designation: **NCES | Groundwater / 2637.09**

Sample ID:	B	B	MW	B					
	-304UR_20221102	-304DR_2022	-604_2022110	-919U_202211					
		1102	2	02					
Lab Sample ID:	251747.01	251747.02	251747.05	251747.08					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	11/2/22	11/2/22	11/2/22	11/2/22	Analytical		Date of		
Date Received:	11/3/22	11/3/22	11/3/22	11/3/22	Matrix	Units	Analysis	Method	Analyst
Antimony	< 0.001	< 0.001	< 0.001	< 0.001	AqDis	mg/L	11/4/22	200.8	DS
Arsenic	< 0.0005	< 0.0005	0.00061	< 0.0005	AqDis	mg/L	11/4/22	200.8	DS
Barium	0.018	0.035	0.091	0.010	AqDis	mg/L	11/4/22	200.8	DS
Beryllium	< 0.001	< 0.001	< 0.001	< 0.001	AqDis	mg/L	11/4/22	200.8	DS
Cadmium	< 0.001	< 0.001	< 0.001	< 0.001	AqDis	mg/L	11/4/22	200.8	DS
Chromium	< 0.001	< 0.001	< 0.001	0.0011	AqDis	mg/L	11/4/22	200.8	DS
Copper	0.0017	0.0061	0.0065	0.0051	AqDis	mg/L	11/4/22	200.8	DS
Iron	0.097	< 0.05	< 0.05	< 0.05	AqDis	mg/L	11/4/22	200.8	DS
Lead	< 0.001	< 0.001	< 0.001	< 0.001	AqDis	mg/L	11/4/22	200.8	DS
Manganese	< 0.005	2.4	0.052	< 0.005	AqDis	mg/L	11/4/22	200.8	DS
Mercury	< 0.0001	< 0.0001	< 0.0001	< 0.0001	AqDis	mg/L	11/4/22	200.8	DS
Molybdenum	< 0.001	0.0013	0.0015	< 0.001	AqDis	mg/L	11/4/22	200.8	DS
Nickel	0.0010	0.010	< 0.001	< 0.001	AqDis	mg/L	11/4/22	200.8	DS
Selenium	< 0.001	< 0.001	< 0.001	< 0.001	AqDis	mg/L	11/4/22	200.8	DS
Silver	< 0.001	< 0.001	< 0.001	< 0.001	AqDis	mg/L	11/4/22	200.8	DS
Sodium	45	11	8.6	12	AqDis	mg/L	11/4/22	200.8	DS
Thallium	< 0.001	< 0.001	< 0.001	< 0.001	AqDis	mg/L	11/4/22	200.8	DS
Zinc	< 0.005	< 0.005	< 0.005	< 0.005	AqDis	mg/L	11/4/22	200.8	DS



LABORATORY REPORT

EAI ID#: **251747**

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

Client Designation: **NCES | Groundwater / 2637.09**

Sample ID:	B-919M_20221102	B-919D_20221102	B-928U_20221102	B-928D_20221102					
Lab Sample ID:	251747.09	251747.1	251747.13	251747.14					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	11/2/22	11/2/22	11/2/22	11/2/22	Analytical		Date of		
Date Received:	11/3/22	11/3/22	11/3/22	11/3/22	Matrix	Units	Analysis	Method	Analyst
Antimony	< 0.001	< 0.001	< 0.001	< 0.001	AqDis	mg/L	11/4/22	200.8	DS
Arsenic	0.045	0.0012	< 0.0005	< 0.0005	AqDis	mg/L	11/4/22	200.8	DS
Barium	0.016	0.013	0.016	0.017	AqDis	mg/L	11/4/22	200.8	DS
Beryllium	< 0.001	< 0.001	< 0.001	< 0.001	AqDis	mg/L	11/4/22	200.8	DS
Cadmium	< 0.001	< 0.001	< 0.001	< 0.001	AqDis	mg/L	11/4/22	200.8	DS
Chromium	< 0.001	< 0.001	< 0.001	< 0.001	AqDis	mg/L	11/4/22	200.8	DS
Copper	< 0.001	< 0.001	< 0.001	< 0.001	AqDis	mg/L	11/4/22	200.8	DS
Iron	9.4	0.076	< 0.05	< 0.05	AqDis	mg/L	11/4/22	200.8	DS
Lead	< 0.001	< 0.001	< 0.001	< 0.001	AqDis	mg/L	11/4/22	200.8	DS
Manganese	4.5	0.026	< 0.005	< 0.005	AqDis	mg/L	11/4/22	200.8	DS
Mercury	< 0.0001	< 0.0001	< 0.0001	< 0.0001	AqDis	mg/L	11/4/22	200.8	DS
Molybdenum	0.0050	0.0019	< 0.001	< 0.001	AqDis	mg/L	11/4/22	200.8	DS
Nickel	0.0010	< 0.001	< 0.001	< 0.001	AqDis	mg/L	11/4/22	200.8	DS
Selenium	< 0.001	< 0.001	< 0.001	< 0.001	AqDis	mg/L	11/4/22	200.8	DS
Silver	< 0.001	< 0.001	< 0.001	< 0.001	AqDis	mg/L	11/4/22	200.8	DS
Sodium	3.9	4.0	15	14	AqDis	mg/L	11/4/22	200.8	DS
Thallium	< 0.001	< 0.001	< 0.001	< 0.001	AqDis	mg/L	11/4/22	200.8	DS
Zinc	< 0.005	< 0.005	< 0.005	< 0.005	AqDis	mg/L	11/4/22	200.8	DS



LABORATORY REPORT

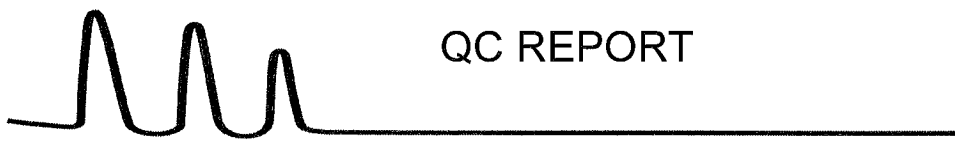
EAI ID#: 251747

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

Client Designation: **NCES | Groundwater / 2637.09**

Sample ID:	DUP-1_20221102	MW -603_20221102	MW -701_20221102	B -918M_20221102					
Lab Sample ID:	251747.03	251747.04	251747.06	251747.07					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	11/2/22	11/2/22	11/2/22	11/2/22					
Date Received:	11/3/22	11/3/22	11/3/22	11/3/22					
Iron	< 0.05	< 0.05	< 0.05	< 0.05	AqDis	mg/L	11/4/22	200.8	DS
Manganese	2.3	< 0.005	1.2	0.016	AqDis	mg/L	11/4/22	200.8	DS

Sample ID:	B-923U_20221102	B -925U_20221102							
Lab Sample ID:	251747.11	251747.12							
Matrix:	aqueous	aqueous							
Date Sampled:	11/2/22	11/2/22							
Date Received:	11/3/22	11/3/22							
Iron	< 0.05	0.41			AqDis	mg/L	11/4/22	200.8	DS
Manganese	< 0.005	0.015			AqDis	mg/L	11/4/22	200.8	DS



QC REPORT

EAI ID#: 251747

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

Client Designation: NCES | Groundwater / 2637.09

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
Antimony	< 0.001	0.20 (98 %R)	NA	mg/L	11/3/22	85 - 115	20	200.8
Arsenic	< 0.0005	0.19 (95 %R)	NA	mg/L	11/3/22	85 - 115	20	200.8
Barium	< 0.001	0.21 (104 %R)	NA	mg/L	11/3/22	85 - 115	20	200.8
Beryllium	< 0.001	0.21 (105 %R)	NA	mg/L	11/3/22	85 - 115	20	200.8
Cadmium	< 0.001	0.20 (99 %R)	NA	mg/L	11/3/22	85 - 115	20	200.8
Chromium	< 0.001	0.19 (97 %R)	NA	mg/L	11/3/22	85 - 115	20	200.8
Copper	< 0.001	0.19 (97 %R)	NA	mg/L	11/3/22	85 - 115	20	200.8
Iron	< 0.05	9.7 (97 %R)	NA	mg/L	11/3/22	85 - 115	20	200.8
Lead	< 0.001	0.21 (104 %R)	NA	mg/L	11/3/22	85 - 115	20	200.8
Manganese	< 0.005	0.20 (99 %R)	NA	mg/L	11/3/22	85 - 115	20	200.8
Mercury	< 0.0001	0.00095 (96 %R)	NA	mg/L	11/3/22	85 - 115	20	200.8
Molybdenum	< 0.001	0.19 (97 %R)	NA	mg/L	11/3/22	85 - 115	20	200.8
Nickel	< 0.001	0.19 (96 %R)	NA	mg/L	11/3/22	85 - 115	20	200.8
Selenium	< 0.001	0.20 (98 %R)	NA	mg/L	11/3/22	85 - 115	20	200.8
Silver	< 0.001	0.0097 (97 %R)	NA	mg/L	11/3/22	85 - 115	20	200.8
Sodium	< 0.5	10 (101 %R)	NA	mg/L	11/3/22	85 - 115	20	200.8
Thallium	< 0.001	0.21 (103 %R)	NA	mg/L	11/3/22	85 - 115	20	200.8
Zinc	< 0.005	0.20 (98 %R)	NA	mg/L	11/3/22	85 - 115	20	200.8

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



Eastern Analytical, Inc.

professional laboratory and drilling services

Matt Estabrooks
Sanborn, Head & Associates, Inc. (NH)
20 Foundry Street
Concord, NH 03301



Subject: Laboratory Report

Eastern Analytical, Inc. ID: 251746

Client Identification: NCES | PFAS | 2637.09

Date Received: 11/3/2022

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 537mod

Subcontractor Lab: Vista Analytical Laboratory

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

12-19-22

Date



SAMPLE CONDITIONS PAGE

EAI ID#: 251746

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

Client Designation: **NCES | PFAS | 2637.09**

Temperature upon receipt (°C): 1.7

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)
251746.01	MW-604_20221102	11/3/22	11/2/22 12:00	aqueous		Adheres to Sample Acceptance Policy
251746.02	MW-701_20221102	11/3/22	11/2/22 13:52	aqueous		Adheres to Sample Acceptance Policy
251746.03	B-304UR_20221102	11/3/22	11/2/22 10:39	aqueous		Adheres to Sample Acceptance Policy
251746.04	B-304DR_20221102	11/3/22	11/2/22 10:55	aqueous		Adheres to Sample Acceptance Policy
251746.05	B-918M_20221102	11/3/22	11/2/22 13:25	aqueous		Adheres to Sample Acceptance Policy
251746.06	B-919U_20221102	11/3/22	11/2/22 08:50	aqueous		Adheres to Sample Acceptance Policy
251746.07	B-919M_20221102	11/3/22	11/2/22 13:00	aqueous		Adheres to Sample Acceptance Policy
251746.08	B-919D_20221102	11/3/22	11/2/22 09:55	aqueous		Adheres to Sample Acceptance Policy
251746.09	B-928U_20221102	11/3/22	11/2/22 11:35	aqueous		Adheres to Sample Acceptance Policy
251746.1	B-928D_20221102	11/3/22	11/2/22 11:42	aqueous		Adheres to Sample Acceptance Policy
251746.11	FB-PFAS-01_20221102	11/3/22	11/2/22 14:00	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.



December 14, 2022

Vista Work Order No. 2211082

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 Vista Analytical Laboratory on November 09, 2022 under your Project Name '251746 NH 2089'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at frschwebel@enthalpy.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Frieda Schwebel
Project Manager



Vista Analytical Laboratory 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 Vista.

Vista Work Order No. 2211082

Case Narrative

Sample Condition on Receipt:

Eleven aqueous samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology. The samples were received in good condition and within the recommended temperature requirements.

Analytical Notes:

PFAS Isotope Dilution/LC-MSMS Method Compliant with Table B-15 of DoD QSM 5.3 (Aqueous)

Samples "MW-604_20221102", "B-304DR_20221102", "B-919U_20221102" and "B-928D_20221102" contained particulate and were centrifuged prior to extraction.

The samples were extracted and analyzed for a selected list of PFAS using Isotope Dilution and LC-MS/MS compliant with Table B-15 of DoD QSM 5.3. The results for PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Results for all other analytes include the linear isomers 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 and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above the Reporting Limits (RL). The OPR recoveries were within the method acceptance criteria.

The labeled standard recoveries outside the acceptance criteria are flagged with an "H" qualifier. The responses of the internal standards with low recoveries were greater than 10:1 signal-to-noise, which is the limit generally considered acceptable for accurate quantitation by isotope dilution analysis.

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Sample Inventory Report



Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
2211082-01	MW-604_20221102	02-Nov-22 12:00	09-Nov-22 11:05	Polypropylene, 250mL Polypropylene, 250mL
2211082-02	MW-701_20221102	02-Nov-22 13:52	09-Nov-22 11:05	Polypropylene, 250mL Polypropylene, 250mL
2211082-03	B-304UR_20221102	02-Nov-22 10:39	09-Nov-22 11:05	Polypropylene, 250mL Polypropylene, 250mL
2211082-04	B-304DR_20221102	02-Nov-22 10:55	09-Nov-22 11:05	Polypropylene, 250mL Polypropylene, 250mL
2211082-05	B-918M_20221102	02-Nov-22 13:25	09-Nov-22 11:05	Polypropylene, 250mL Polypropylene, 250mL
2211082-06	B-919U_20221102	02-Nov-22 08:50	09-Nov-22 11:05	Polypropylene, 250mL Polypropylene, 250mL
2211082-07	B-919M_20221102	02-Nov-22 13:00	09-Nov-22 11:05	Polypropylene, 250mL Polypropylene, 250mL
2211082-08	B-919D_20221102	02-Nov-22 09:55	09-Nov-22 11:05	Polypropylene, 250mL Polypropylene, 250mL
2211082-09	B-928U_20221102	02-Nov-22 11:35	09-Nov-22 11:05	Polypropylene, 250mL Polypropylene, 250mL
2211082-10	B-928D_20221102	02-Nov-22 11:42	09-Nov-22 11:05	Polypropylene, 250mL Polypropylene, 250mL
2211082-11	FB-PFAS-01_20221102	02-Nov-22 14:00	09-Nov-22 11:05	Polypropylene, 250mL Polypropylene, 250mL

ANALYTICAL RESULTS

Sample ID: Method Blank

PFAS Isotope Dilution Table B-15

Client Data
Name: Eastern Analytical, Inc.
Project: 251746 NH 2089

Laboratory Data
Matrix: Aqueous
Lab Sample: B22K115-BLK1
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	4.00	B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1	
PFPeA	2706-90-3	ND	4.00	B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1	
PFBs	375-73-5	ND	4.00	B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1	
4:2 FTS	757124-72-4	ND	4.00	B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1	
PFHxA	307-24-4	ND	4.00	B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1	
PFPeS	2706-91-4	ND	4.00	B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1	
PFHpA	375-85-9	ND	4.00	B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1	
PFHxS	355-46-4	ND	4.00	B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1	
6:2 FTS	27619-97-2	ND	4.00	B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1	
PFOA	335-67-1	ND	4.00	B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1	
PFHpS	375-92-8	ND	4.00	B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1	
PFNA	375-95-1	ND	4.00	B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1	
PFOSA	754-91-6	ND	4.00	B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1	
PFOS	1763-23-1	ND	4.00	B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1	
PFDA	335-76-2	ND	4.00	B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1	
8:2 FTS	39108-34-4	ND	4.00	B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1	
PFNS	68259-12-1	ND	4.00	B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1	
MeFOSAA	2355-31-9	ND	4.00	B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1	
EtFOSAA	2991-50-6	ND	4.00	B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1	
PFUha	2058-94-8	ND	4.00	B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1	
PFDS	335-77-3	ND	4.00	B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1	
PFDOA	307-55-1	ND	4.00	B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1	
MeFOSA	31506-32-8	ND	20.0	B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1	
PFTDA	72629-94-8	ND	4.00	B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1	
PFTeDA	376-06-7	ND	4.00	B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1	
Labeled Standards									
13C3-PFBa	IS	91.9	50 - 150	B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1	
13C3-PFPeA	IS	85.8	50 - 150	B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1	
13C3-PFBs	IS	84.2	50 - 150	B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1	
13C2-4:2 FTS	IS	74.7	50 - 150	B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1	
13C2-PFHxA	IS	79.5	50 - 150	B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1	
13C4-PFHpA	IS	77.5	50 - 150	B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1	
13C3-PFHxS	IS	72.7	50 - 150	B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1	
13C2-6:2 FTS	IS	92.4	50 - 150	B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1	
13C2-PFOA	IS	81.9	50 - 150	B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1	
13C5-PFNA	IS	87.6	50 - 150	B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1	
13C8-PFOA	IS	61.4	50 - 150	B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1	
13C8-PFOS	IS	73.6	50 - 150	B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1	

Sample ID: Method Blank

PFAS Isotope Dilution Table B-15

Client Data		Laboratory Data	
Name: Eastern Analytical, Inc.	Matrix: Aqueous	Lab Sample: B22K115-BLK1	Column: BEH C18
Project: 251746 NH 2089			

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFDA	IS	80.0	50 - 150		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1
13C2-8:2 FTs	IS	66.3	50 - 150		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1
d3-MeFOSAA	IS	75.3	50 - 150		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1
d5-EtFOSAA	IS	73.0	50 - 150		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1
13C2-PFUnA	IS	68.1	50 - 150		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1
13C2-PFDooA	IS	68.2	50 - 150		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1
d3-MeFOSA	IS	17.2	50 - 150		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1
13C2-PFTeDA	IS	65.2	50 - 150	H	B22K115	21-Nov-22	0.250 L	29-Nov-22 03:44	1

RL - Reporting limit
Results reported to RL.

When reported, PFHxS, PFOA, PFOs, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: OPR

PFAS Isotope Dilution Table B-15

Client Data		Laboratory Data	
Name: Eastern Analytical, Inc.	Matrix: Aqueous	Lab Sample: B22K115-BS1	Column: BEH C18
Project: 251746 NH 2089			

Analyte	CAS Number	Amt Found (ng/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	41.1	40.0	103	73 - 129		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
PFPeA	2706-90-3	41.3	40.0	103	72 - 129		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
PFBS	375-73-5	39.3	40.4	97.4	72 - 130		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
4-2-FTS	757124-72-4	48.8	40.0	122	63 - 143		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
PFHxA	307-24-4	40.3	40.0	101	72 - 129		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
PFPeS	2706-91-4	40.1	40.4	99.2	71 - 127		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
PFHpA	375-85-9	41.2	40.0	103	72 - 130		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
PFHxS	355-46-4	42.2	40.0	106	68 - 131		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
6:2-FTS	27619-97-2	40.9	40.0	102	64 - 140		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
PFOA	335-67-1	37.7	40.0	94.3	71 - 133		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
PFHpS	375-92-8	38.5	40.0	96.3	69 - 134		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
PFNA	375-95-1	41.1	40.0	103	69 - 130		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
PFOSA	754-91-6	44.2	40.0	111	67 - 137		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
PFOA	1763-23-1	36.3	40.0	90.8	65 - 140		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
PFDA	335-76-2	41.7	40.0	104	71 - 129		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
8:2-FTS	39108-34-4	42.9	40.0	107	67 - 138		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
PFNS	68259-12-1	40.4	40.0	101	69 - 127		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
MeFOSAA	2355-31-9	44.4	40.0	111	65 - 136		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
MeFOSAA	2991-50-6	40.4	40.0	101	61 - 135		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
PFUnA	2058-94-8	40.7	40.0	102	69 - 133		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
PFDS	335-77-3	32.5	40.0	81.1	53 - 142		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
PFDoA	307-55-1	41.7	40.0	104	72 - 134		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
MeFOSA	31506-32-8	50.8	40.0	127	68 - 141		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
PFTDA	72629-94-8	43.9	40.0	110	65 - 144		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
PFTeDA	376-06-7	40.5	40.0	101	71 - 132		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	85.4	50 - 150		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
13C3-PFPeA	IS	79.0	50 - 150		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
13C3-PFBS	IS	75.1	50 - 150		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
13C2-4:2-FTS	IS	60.2	50 - 150		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
13C2-PFHxA	IS	79.2	50 - 150		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
13C4-PFHpA	IS	74.4	50 - 150		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
13C3-PFHxS	IS	64.5	50 - 150		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
13C2-6:2-FTS	IS	86.0	50 - 150		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
13C2-PFOA	IS	80.3	50 - 150		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1

Work Order 2211082

Sample ID: OPR

PFAS Isotope Dilution Table B-15

Client Data		Laboratory Data	
Name:	Eastern Analytical, Inc.	Lab Sample:	B22K115-BS1
Project:	251746 NH 2089	Column:	BEH C18
Matrix:	Aqueous		

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C5-PFNA	IS	79.7	50 - 150		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
13C8-PFOA	IS	56.8	50 - 150		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
13C8-PFOS	IS	71.5	50 - 150		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
13C2-PFDA	IS	72.5	50 - 150		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
13C2-8:2-FTS	IS	61.2	50 - 150		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
d3-MeFOSAA	IS	69.9	50 - 150		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
d5-EFOSAA	IS	67.4	50 - 150		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
13C2-PFUnA	IS	65.3	50 - 150		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
13C2-PFD0A	IS	64.3	50 - 150		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
d3-MeFOSA	IS	19.0	50 - 150	H	B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1
13C2-PFT&DA	IS	64.3	50 - 150		B22K115	21-Nov-22	0.250 L	29-Nov-22 03:54	1

Sample ID: MW-604_20221102

PFAS Isotope Dilution Table B-15

Client Data			Laboratory Data		
Name:	Eastern Analytical, Inc.	Matrix:	Aqueous	Lab Sample:	2211082-01
Project:	251746 NH 2089	Date Collected:	02-Nov-22 12:00	Date Received:	09-Nov-22 11:05
Location:	251746			Column:	BEH C18

Analyte	CAS Number	Conc (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	4.01	4.00		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
PFPeA	2706-90-3	4.38	4.00		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
PFBS	375-73-5	ND	4.00		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
4:2 FTS	757124-72-4	ND	4.00		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
PFHxA	307-24-4	6.58	4.00		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
PFPeS	2706-91-4	ND	4.00		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
PFHpA	375-85-9	5.87	4.00		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
PFHxS	355-46-4	ND	4.00		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
6:2 FTS	27619-97-2	ND	4.00		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
PFOA	335-67-1	11.0	4.00		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
PFHpS	375-92-8	ND	4.00		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
PFNA	375-95-1	ND	4.00		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
PFOSA	754-91-6	ND	4.00		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
PFOS	1763-23-1	ND	4.00		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
PFDA	335-76-2	ND	4.00		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
8:2 FTS	39108-34-4	ND	4.00		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
PFNS	68259-12-1	ND	4.00		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
MeFOSAA	2355-31-9	ND	4.00		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
EtFOSAA	2991-50-6	ND	4.00		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
PFUnA	2058-94-8	ND	4.00		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
PFDS	335-77-3	ND	4.00		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
PFDoA	307-55-1	ND	4.00		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
MeFOSA	31506-32-8	ND	20.0		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
PFTDA	72629-94-8	ND	4.00		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
PFTeDA	376-06-7	ND	4.00		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1

Labelled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	80.7	50 - 150		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
13C3-PFPeA	IS	80.3	50 - 150		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
13C3-PFBS	IS	78.4	50 - 150		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
13C2-4:2 FTS	IS	66.8	50 - 150		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
13C2-PFHxA	IS	78.2	50 - 150		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
13C4-PFHpA	IS	73.2	50 - 150		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
13C3-PFHxS	IS	65.8	50 - 150		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
13C2-6:2 FTS	IS	83.9	50 - 150		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
13C2-PFOA	IS	74.7	50 - 150		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
13C5-PFNA	IS	78.3	50 - 150		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
13C8-PFOA	IS	56.6	50 - 150		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1

Work Order 2211082

Sample ID: MW-604_20221102

PFAS Isotope Dilution Table B-15

Client Data			Laboratory Data		
Name:	Eastern Analytical, Inc.	Matrix:	Aqueous	Lab Sample:	2211082-01
Project:	251746 NH 2089	Date Collected:	02-Nov-22 12:00	Date Received:	09-Nov-22 11:05
Location:	251746			Column:	BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C8-PFOS	IS	74.3	50 - 150		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
13C2-PFDA	IS	77.9	50 - 150		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
13C2-8:2 FTS	IS	67.9	50 - 150		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
d3-MeFOSAA	IS	71.6	50 - 150		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
d5-EtFOSAA	IS	68.6	50 - 150		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
13C2-PFUnA	IS	69.7	50 - 150		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
13C2-PFD0A	IS	63.6	50 - 150		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
d3-MeFOSA	IS	28.7	50 - 150	H	B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1
13C2-PFTeDA	IS	54.9	50 - 150		B22K115	21-Nov-22	0.245 L	29-Nov-22 04:05	1

RL - Reporting limit Results reported to RL.

When reported, PFHxS, PROA, PFOA, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: MW-701_20221102

PFAS Isotope Dilution Table B-15

Client Data			Laboratory Data		
Name:	Eastern Analytical, Inc.	Matrix:	Aqueous	Lab Sample:	2211082-02
Project:	251746 NH 2089	Date Collected:	02-Nov-22 13:52	Date Received:	09-Nov-22 11:05
Location:	251746			Column:	BEH C18

Analyte	CAS Number	Conc (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	6.75	4.00		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1
PFPeA	2706-90-3	8.68	4.00		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1
PFBS	375-73-5	ND	4.00		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1
4:2 FTS	757124-72-4	ND	4.00		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1
PFHxA	307-24-4	9.90	4.00		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1
PFPeS	2706-91-4	ND	4.00		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1
PFHpA	375-85-9	4.04	4.00		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1
PFHxS	355-46-4	ND	4.00		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1
6:2 FTS	27619-97-2	ND	4.00		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1
PFOA	335-67-1	6.10	4.00		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1
PFHpS	375-92-8	ND	4.00		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1
PFNA	375-95-1	ND	4.00		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1
PFOSA	754-91-6	ND	4.00		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1
PFOs	1763-23-1	4.96	4.00		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1
PFDA	335-76-2	ND	4.00		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1
8:2 FTS	39108-34-4	ND	4.00		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1
PFNS	68259-12-1	ND	4.00		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1
MeFOSAA	2355-31-9	ND	4.00		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1
EtFOSAA	2991-50-6	ND	4.00		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1
PFUnA	2058-94-8	ND	4.00		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1
PFDS	335-77-3	ND	4.00		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1
PFDoA	307-55-1	ND	4.00		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1
MeFOSA	31506-32-8	ND	20.0		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1
PFTDA	72629-94-8	ND	4.00		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1
PFTeDA	376-06-7	ND	4.00		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1
Labeled Standards									
Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
13C3-PFBA	IS	50 - 150		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1	
13C3-PFPeA	IS	50 - 150		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1	
13C3-PFBS	IS	50 - 150		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1	
13C2-4:2 FTS	IS	50 - 150		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1	
13C2-PFHxA	IS	50 - 150		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1	
13C4-PFHpA	IS	50 - 150		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1	
13C3-PFHxS	IS	50 - 150		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1	
13C2-6:2 FTS	IS	50 - 150		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1	
13C2-PFOA	IS	50 - 150		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1	
13C5-PFNA	IS	50 - 150		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1	
13C8-PFOA	IS	50 - 150		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1	

Sample ID: MW-701_20221102

PFAS Isotope Dilution Table B-15

Client Data			Laboratory Data		
Name:	Eastern Analytical, Inc.	Matrix:	Aqueous	Lab Sample:	2211082-02
Project:	251746 NH 2089	Date Collected:	02-Nov-22 13:52	Date Received:	09-Nov-22 11:05
Location:	251746			Column:	BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Sampl Size	Analyzed	Dilution
13C8-PFOS	IS	63.4	50 - 150		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1
13C2-PFDA	IS	74.2	50 - 150		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1
13C2-8:2 FTS	IS	64.4	50 - 150		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1
d3-MeFOSAA	IS	72.6	50 - 150		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1
d5-ElFOSAA	IS	68.8	50 - 150		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1
13C2-PFUnA	IS	67.3	50 - 150		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1
13C2-PFD0A	IS	68.6	50 - 150		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1
d3-MeFOSA	IS	20.6	50 - 150	H	B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1
13C2-PFTeDA	IS	64.6	50 - 150		B22K115	21-Nov-22	0.254 L	29-Nov-22 04:15	1

RL - Reporting limit Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and ElFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: B-304UR_20221102

PFAS Isotope Dilution Table B-15

Client Data		Laboratory Data	
Name: Eastern Analytical, Inc.	Matrix: Aqueous	Lab Sample: 2211082-03	Column: BEH C18
Project: 251746 NH 2089	Date Collected: 02-Nov-22 10:39	Date Received: 09-Nov-22 11:05	
Location: 251746			

Analyte	CAS Number	Conc (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	27.0	4.00		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
PFPeA	2706-90-3	19.2	4.00		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
PFBS	375-73-5	22.9	4.00		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
4:2 FTS	757124-72-4	ND	4.00		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
PFHxA	307-24-4	26.1	4.00		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
PFPeS	2706-91-4	ND	4.00		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
PFHpA	375-85-9	7.04	4.00		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
PFHxS	355-46-4	ND	4.00		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
6:2 FTS	27619-97-2	ND	4.00		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
PFOA	335-67-1	8.34	4.00		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
PFHpS	375-92-8	ND	4.00		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
PFNA	375-95-1	ND	4.00		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
PFOSA	754-91-6	ND	4.00		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
PFOS	1763-23-1	ND	4.00		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
PFDA	335-76-2	ND	4.00		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
8:2 FTS	39108-34-4	ND	4.00		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
PFNS	68259-12-1	ND	4.00		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
MeFOSAA	2355-31-9	ND	4.00		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
EtFOSAA	2991-50-6	ND	4.00		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
PFUnA	2058-94-8	ND	4.00		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
PFDS	335-77-3	ND	4.00		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
PFDOA	307-55-1	ND	4.00		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
MeFOSA	31506-32-8	ND	20.0		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
PFTDA	72629-94-8	ND	4.00		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
PFTeDA	376-06-7	ND	4.00		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	73.8	50 - 150		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
13C3-PFPeA	IS	78.4	50 - 150		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
13C3-PFBS	IS	80.1	50 - 150		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
13C2-4:2 FTS	IS	72.0	50 - 150		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
13C2-PFHxA	IS	76.8	50 - 150		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
13C4-PFHpA	IS	74.6	50 - 150		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
13C3-PFHxS	IS	65.7	50 - 150		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
13C2-6:2 FTS	IS	73.4	50 - 150		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
13C2-PFOA	IS	78.7	50 - 150		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
13C5-PFNA	IS	82.0	50 - 150		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
13C8-PFOA	IS	46.9	50 - 150	H	B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1

Sample ID: B-304UR_20221102

PFAS Isotope Dilution Table B-15

Client Data			Laboratory Data		
Name:	Eastern Analytical, Inc.	Matrix:	Aqueous	Lab Sample:	2211082-03
Project:	251746 NH 2089	Date Collected:	02-Nov-22 10:39	Date Received:	09-Nov-22 11:05
Location:	251746			Column:	BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Sampl Size	Analyzed	Dilution
13C8-PFOS	IS	73.6	50 - 150		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
13C2-PFDA	IS	77.0	50 - 150		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
13C2-8:2 FTS	IS	66.1	50 - 150		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
d3-MeFOSAA	IS	68.6	50 - 150		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
d5-EFOSAA	IS	71.8	50 - 150		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
13C2-PFUnA	IS	70.3	50 - 150		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
13C2-PFD0A	IS	70.2	50 - 150		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
d3-MeFOSA	IS	10.1	50 - 150	H	B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1
13C2-PTEdA	IS	67.0	50 - 150		B22K115	21-Nov-22	0.259 L	29-Nov-22 04:26	1

RL - Reporting limit Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: B-304DR_20221102

PFAS Isotope Dilution Table B-15

Client Data		Matrix:		Laboratory Data	
Name:	Eastern Analytical, Inc.	Aqueous		Lab Sample:	2211082-04
Project:	251746 NH 2089	Date Collected:	02-Nov-22 10:55	Date Received:	09-Nov-22 11:05
Location:	251746			Column:	BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Sample Size	Analyzed	Dilution
PFBA	375-22-4	19.7	4.00		B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
PFPeA	2706-90-3	21.8	4.00		B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
PFBS	375-73-5	12.9	4.00		B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
4:2 FTS	757124-72-4	ND	4.00		B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
PFHxA	307-24-4	26.8	4.00		B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
PFPeS	2706-91-4	ND	4.00		B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
PFHpA	375-85-9	18.3	4.00		B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
PFHxS	355-46-4	18.8	4.00		B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
6:2 FTS	27619-97-2	6.99	4.00		B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
PFOA	335-67-1	63.4	4.00		B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
PFHpS	375-92-8	ND	4.00		B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
PFNA	375-95-1	ND	4.00		B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
PFOSA	754-91-6	ND	4.00		B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
PFOS	1763-23-1	ND	4.00		B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
PFDA	335-76-2	ND	4.00		B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
8:2 FTS	39108-34-4	ND	4.00		B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
PfNS	68259-12-1	ND	4.00		B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
MeFOSAA	2355-31-9	ND	4.00		B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
EtFOSAA	2991-50-6	ND	4.00		B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
PFUnA	2058-94-8	ND	4.00		B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
PFDS	335-77-3	ND	4.00		B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
PFDoA	307-55-1	ND	4.00		B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
MeFOSA	31506-32-8	ND	20.0		B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
PFTHA	72629-94-8	ND	4.00		B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
PFtDA	376-06-7	ND	4.00		B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
Labeled Standards									
	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Sample Size	Analyzed	Dilution
13C3-PFBA	IS	74.2	50 - 150		B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
13C3-PFPeA	IS	69.1	50 - 150		B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
13C3-PFBS	IS	69.0	50 - 150		B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
13C2-4:2 FTS	IS	59.1	50 - 150		B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
13C2-PFHxA	IS	64.6	50 - 150		B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
13C4-PFHpA	IS	64.5	50 - 150		B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
13C3-PFHxS	IS	60.9	50 - 150		B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
13C2-6:2 FTS	IS	73.6	50 - 150		B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
13C2-PFOA	IS	63.0	50 - 150		B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
13C5-PFNA	IS	71.2	50 - 150		B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
13C8-PFOA	IS	39.3	50 - 150	H	B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1

Sample ID: B-304DR_20221102

PFAS Isotope Dilution Table B-15

Client Data			Laboratory Data		
Name:	Eastern Analytical, Inc.	Matrix:	Aqueous	Lab Sample:	2211082-04
Project:	251746 NH 2089	Date Collected:	02-Nov-22 10:55	Date Received:	09-Nov-22 11:05
Location:	251746			Column:	BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Sampl Size	Analyzed	Dilution
13C8-PFOS	IS	69.5	50 - 150		B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
13C2-PFDA	IS	66.3	50 - 150		B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
13C2-8:2 FTS	IS	55.7	50 - 150		B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
d3-MeFOSAA	IS	54.4	50 - 150		B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
d5-ElFOSAA	IS	49.6	50 - 150	H	B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
13C2-PFUnA	IS	57.3	50 - 150		B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
13C2-PFD0A	IS	44.9	50 - 150	H	B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
d3-MeFOSA	IS	11.6	50 - 150	H	B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1
13C2-PFTeDA	IS	16.3	50 - 150	H	B22K115	21-Nov-22	0.289 L	29-Nov-22 04:36	1

RL - Reporting limit Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and ElFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: B-918M_20221102

PFAS Isotope Dilution Table B-15

Client Data		Laboratory Data	
Name: Eastern Analytical, Inc.	Matrix: Aqueous	Lab Sample: 2211082-05	Column: BEH C18
Project: 251746 NH 2089	Date Collected: 02-Nov-22 13:25	Date Received: 09-Nov-22 11:05	
Location: 251746			

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Sampl Size	Analyzed	Dilution
PFBA	375-22-4	10.1	4.00		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
PFPeA	2706-90-3	18.1	4.00		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
PFBS	375-73-5	ND	4.00		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
4:2 FTS	757124-72-4	ND	4.00		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
PFHxA	307-24-4	24.1	4.00		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
PFPeS	2706-91-4	ND	4.00		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
PFHpA	375-85-9	11.9	4.00		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
PFHxS	355-46-4	ND	4.00		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
6:2 FTS	27619-97-2	ND	4.00		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
PFOA	335-67-1	34.9	4.00		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
PFHhS	375-92-8	ND	4.00		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
PFNA	375-95-1	5.83	4.00		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
PFOSA	754-91-6	ND	4.00		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
PFOS	1763-23-1	9.59	4.00		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
PFDA	335-76-2	ND	4.00		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
8:2 FTS	39108-34-4	ND	4.00		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
PFNS	68259-12-1	ND	4.00		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
MeFOSAA	2355-31-9	ND	4.00		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
EtFOSAA	2991-50-6	ND	4.00		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
PFUnA	2058-94-8	ND	4.00		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
PFDS	335-77-3	ND	4.00		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
PFDoA	307-55-1	ND	4.00		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
MeFOA	31506-32-8	ND	20.0		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
PFTDA	72629-94-8	ND	4.00		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
PFTeDA	376-06-7	ND	4.00		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Sampl Size	Analyzed	Dilution
13C3-PFBA	IS	72.7	50 - 150		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
13C3-PFPeA	IS	68.9	50 - 150		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
13C3-PFBS	IS	73.8	50 - 150		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
13C2-4:2 FTS	IS	62.2	50 - 150		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
13C2-PFHxA	IS	68.5	50 - 150		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
13C4-PFHhA	IS	66.1	50 - 150		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
13C3-PFHxS	IS	68.3	50 - 150		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
13C2-6:2 FTS	IS	73.9	50 - 150		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
13C2-PFOA	IS	73.6	50 - 150		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
13C5-PFNA	IS	72.6	50 - 150		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
13C8-PFOA	IS	44.2	50 - 150	H	B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1

Sample ID: B-918M_20221102

PFAS Isotope Dilution Table B-15

Client Data			Laboratory Data		
Name:	Eastern Analytical, Inc.	Matrix:	Aqueous	Lab Sample:	2211082-05
Project:	251746 NH 2089	Date Collected:	02-Nov-22 13:25	Date Received:	09-Nov-22 11:05
Location:	251746			Column:	BEH C18

Labelled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C8-PFOS	IS	64.0	50 - 150		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
13C2-PFDA	IS	65.8	50 - 150		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
13C2-8:2 FTS	IS	57.3	50 - 150		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
d3-MeFOSAA	IS	63.5	50 - 150		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
d5-BFOSAA	IS	61.6	50 - 150		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
13C2-PFUnA	IS	60.0	50 - 150		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
13C2-PFD _o A	IS	66.0	50 - 150		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
d3-MeFOSA	IS	14.7	50 - 150	H	B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1
13C2-PFTeDA	IS	62.5	50 - 150		B22K115	21-Nov-22	0.263 L	29-Nov-22 04:47	1

RL - Reporting limit Results reported to RL.

When reported, PFHs, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: B-919U_20221102

PFAS Isotope Dilution Table B-15

Client Data		Matrix:		Laboratory Data	
Name:	Eastern Analytical, Inc.	Aqueous		Lab Sample:	2211082-06
Project:	251746 NH 2089	Date Collected:	02-Nov-22 08:50	Date Received:	09-Nov-22 11:05
Location:	251746			Column:	BEH C18

Analyte	CAS Number	Conc (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	10.8	4.00		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
PFPeA	2706-90-3	15.6	4.00		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
PFBS	375-73-5	14.8	4.00		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
4:2 FTS	757124-72-4	ND	4.00		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
PFHxA	307-24-4	19.9	4.00		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
PFPeS	2706-91-4	ND	4.00		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
PFHpA	375-85-9	13.1	4.00		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
PFHxS	355-46-4	ND	4.00		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
6:2 FTS	27619-97-2	ND	4.00		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
PFOA	335-67-1	23.4	4.00		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
PFHpS	375-92-8	ND	4.00		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
PFNA	375-95-1	ND	4.00		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
PFOSA	754-91-6	ND	4.00		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
PFOS	1763-23-1	ND	4.00		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
PFDA	335-76-2	ND	4.00		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
8:2 FTS	39108-34-4	ND	4.00		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
PFNS	68259-12-1	ND	4.00		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
MeFOSAA	2355-31-9	ND	4.00		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
EtFOSAA	2991-50-6	ND	4.00		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
PFUnA	2058-94-8	ND	4.00		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
PFDS	335-77-3	ND	4.00		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
PFDoA	307-55-1	ND	4.00		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
MeFOSA	31506-32-8	ND	20.0		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
PFTDA	72629-94-8	ND	4.00		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
PFTeDA	376-06-7	ND	4.00		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
Labelled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	81.0	50 - 150		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
13C3-PFPeA	IS	75.4	50 - 150		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
13C3-PFBS	IS	75.4	50 - 150		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
13C2-4:2 FTS	IS	70.4	50 - 150		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
13C2-PFHxA	IS	76.0	50 - 150		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
13C4-PFHpA	IS	70.9	50 - 150		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
13C3-PFHxS	IS	71.8	50 - 150		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
13C2-6:2 FTS	IS	84.0	50 - 150		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
13C2-PFOA	IS	79.9	50 - 150		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
13C5-PFNA	IS	82.4	50 - 150		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
13C8-PFOA	IS	55.2	50 - 150		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1

Sample ID: B-919U_20221102

PFAS Isotope Dilution Table B-15

Client Data			Laboratory Data		
Name:	Eastern Analytical, Inc.	Matrix:	Aqueous	Lab Sample:	2211082-06
Project:	251746 NH 2089	Date Collected:	02-Nov-22 08:50	Date Received:	09-Nov-22 11:05
Location:	251746			Column:	BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Sampl Size	Analyzed	Dilution
13C8-PFOS	IS	74.5	50 - 150		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
13C2-PFDA	IS	74.2	50 - 150		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
13C2-8:2 FTS	IS	68.6	50 - 150		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
d3-MeFOSAA	IS	73.4	50 - 150		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
d5-ElFOSAA	IS	65.0	50 - 150		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
13C2-PFUnA	IS	67.9	50 - 150		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
13C2-PFD0A	IS	66.7	50 - 150		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
d3-MeFOSA	IS	26.2	50 - 150	H	B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1
13C2-PFTeDA	IS	57.4	50 - 150		B22K115	21-Nov-22	0.261 L	29-Nov-22 04:58	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PROA, PFOS, MeFOSAA and ElFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: B-919M_20221102

PFAS Isotope Dilution Table B-15

Client Data			Laboratory Data		
Name:	Eastern Analytical, Inc.	Matrix:	Aqueous	Lab Sample:	2211082-07
Project:	251746 NH 2089	Date Collected:	02-Nov-22 13:00	Date Received:	09-Nov-22 11:05
Location:	251746			Column:	BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Sample Size	Analyzed	Dilution
PBBA	375-22-4	ND	4.00		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
PPPeA	2706-90-3	ND	4.00		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
PPBS	375-73-5	ND	4.00		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
4:2 FTS	757124-72-4	ND	4.00		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
PFHxA	307-24-4	ND	4.00		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
PPeS	2706-91-4	ND	4.00		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
PFHpA	375-85-9	ND	4.00		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
PFHxS	355-46-4	ND	4.00		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
6:2 FTS	27619-97-2	ND	4.00		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
PFOA	335-67-1	ND	4.00		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
PFHpS	375-92-8	ND	4.00		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
PFNA	375-95-1	ND	4.00		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
PFOSA	754-91-6	ND	4.00		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
PFOS	1763-23-1	ND	4.00		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
PFDA	335-76-2	ND	4.00		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
8:2 FTS	39108-34-4	ND	4.00		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
PFNS	68259-12-1	ND	4.00		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
MeFOSAA	2355-31-9	ND	4.00		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
MeFOSAA	2991-50-6	ND	4.00		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
PFUnA	2058-94-8	ND	4.00		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
PFDS	335-77-3	ND	4.00		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
PFDoA	307-55-1	ND	4.00		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
MeFOSA	31506-32-8	ND	20.0		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
PFTtDA	72629-94-8	ND	4.00		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
PFTeDA	376-06-7	ND	4.00		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Sample Size	Analyzed	Dilution
13C3-PBBA	IS	67.4	50 - 150		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
13C3-PPeA	IS	78.6	50 - 150		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
13C3-PHBS	IS	82.9	50 - 150		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
13C2-4:2 FTS	IS	69.5	50 - 150		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
13C2-PFHxA	IS	77.5	50 - 150		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
13C4-PFHpA	IS	72.6	50 - 150		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
13C3-PFHxS	IS	67.8	50 - 150		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
13C2-6:2 FTS	IS	77.1	50 - 150		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
13C2-PFOA	IS	74.1	50 - 150		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
13C5-PFNA	IS	77.9	50 - 150		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
13C8-PFOA	IS	56.3	50 - 150		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1

Work Order 2211082

Sample ID: B-919M_20221102

PFAS Isotope Dilution Table B-15

Client Data			Laboratory Data		
Name:	Eastern Analytical, Inc.	Matrix:	Aqueous	Lab Sample:	2211082-07
Project:	251746 NH 2089	Date Collected:	02-Nov-22 13:00	Date Received:	09-Nov-22 11:05
Location:	251746			Column:	BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Sampl Size	Analyzed	Dilution
13C8-PFOS	IS	80.5	50 - 150		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
13C2-PFDA	IS	80.8	50 - 150		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
13C2-8-2-FTS	IS	73.9	50 - 150		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
43-MeFOSAA	IS	68.2	50 - 150		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
45-EtFOSAA	IS	72.0	50 - 150		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
13C2-PFUnA	IS	71.1	50 - 150		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
13C2-PFD0A	IS	70.3	50 - 150		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
43-MeFOSA	IS	31.1	50 - 150	H	B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1
13C2-PFTeDA	IS	66.0	50 - 150		B22K115	21-Nov-22	0.258 L	30-Nov-22 01:59	1

RL - Reporting limit Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: B-919D_20221102

PFAS Isotope Dilution Table B-15

Client Data			Matrix:			Laboratory Data			
Name:	Eastern Analytical, Inc.		Aqueous			Lab Sample:	2211082-08	Column:	BEH C18
Project:	251746 NH 2089		Date Collected:	02-Nov-22 09:55		Date Received:	09-Nov-22 11:05		
Location:	251746								

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	4.00		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
PFPeA	2706-90-3	ND	4.00		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
PFBS	375-73-5	ND	4.00		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
4:2 FTS	757124-72-4	ND	4.00		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
PFHxA	307-24-4	ND	4.00		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
PFPeS	2706-91-4	ND	4.00		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
PFHpA	375-85-9	ND	4.00		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
PFHxS	355-46-4	ND	4.00		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
6:2 FTS	27619-97-2	ND	4.00		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
PFOA	335-67-1	ND	4.00		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
PFHps	375-92-8	ND	4.00		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
PENa	375-95-1	ND	4.00		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
PFOSA	754-91-6	ND	4.00		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
PFOS	1763-23-1	ND	4.00		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
PFDA	335-76-2	ND	4.00		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
8:2 FTS	39108-34-4	ND	4.00		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
PFNS	68259-12-1	ND	4.00		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
MeFOSAA	2355-31-9	ND	4.00		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
EtFOSAA	2991-50-6	ND	4.00		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
PFUnA	2058-94-8	ND	4.00		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
PFDS	335-77-3	ND	4.00		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
PFDOA	307-55-1	ND	4.00		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
MeFOSA	31506-32-8	ND	20.0		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
PFTDA	72629-94-8	ND	4.00		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
PFTeDA	376-06-7	ND	4.00		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	70.7	50 - 150		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
13C3-PFPeA	IS	76.8	50 - 150		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
13C3-PFBS	IS	87.5	50 - 150		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
13C2-4:2 FTS	IS	74.0	50 - 150		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
13C2-PFHxA	IS	78.8	50 - 150		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
13C4-PFHpA	IS	73.7	50 - 150		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
13C3-PFHxS	IS	72.2	50 - 150		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
13C2-6:2 FTS	IS	78.5	50 - 150		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
13C2-PFOA	IS	78.9	50 - 150		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
13C5-PFNA	IS	80.7	50 - 150		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
13C8-PFOA	IS	57.9	50 - 150		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1

Sample ID: B-919D_20221102

PFAS Isotope Dilution Table B-15

Client Data			Laboratory Data		
Name:	Eastern Analytical, Inc.	Matrix:	Aqueous	Lab Sample:	2211082-08
Project:	251746 NH 2089	Date Collected:	02-Nov-22 09:55	Date Received:	09-Nov-22 11:05
Location:	251746			Column:	BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C8-PFOS	IS	82.3	50 - 150		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
13C2-PFDA	IS	84.2	50 - 150		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
13C2-8:2-FTS	IS	69.4	50 - 150		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
d3-MeFOSAA	IS	76.8	50 - 150		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
d5-EHFOsAA	IS	71.0	50 - 150		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
13C2-PFUoA	IS	73.4	50 - 150		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
13C2-PFD0A	IS	73.6	50 - 150		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
d3-MeFOSA	IS	21.5	50 - 150	H	B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1
13C2-PFTeDA	IS	73.5	50 - 150		B22K115	21-Nov-22	0.263 L	30-Nov-22 02:10	1

RL - Reporting limit Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EHFOsAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: B-928U_20221102

PFAS Isotope Dilution Table B-15

Client Data			Laboratory Data		
Name:	Eastern Analytical, Inc.	Matrix:	Aqueous	Lab Sample:	2211082-09
Project:	251746 NH 2089	Date Collected:	02-Nov-22 11:35	Date Received:	09-Nov-22 11:05
Location:	251746			Column:	BEH C18

Analyte	CAS Number	Conc (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	13.3	4.00		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
PFPeA	2706-90-3	13.2	4.00		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
PFBS	375-73-5	10.4	4.00		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
4:2 FTS	757124-72-4	ND	4.00		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
PFHxA	307-24-4	18.0	4.00		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
PFPeS	2706-91-4	ND	4.00		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
PFHpA	375-85-9	13.3	4.00		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
PFHxS	355-46-4	ND	4.00		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
6:2 FTS	27619-97-2	ND	4.00		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
PFOA	335-67-1	19.1	4.00		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
PFHpS	375-92-8	ND	4.00		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
PFNA	375-95-1	ND	4.00		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
PFOSA	754-91-6	ND	4.00		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
PFOS	1763-23-1	ND	4.00		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
PFDA	335-76-2	ND	4.00		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
8:2 FTS	39108-34-4	ND	4.00		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
PFNS	68259-12-1	ND	4.00		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
MeFOSAA	2355-31-9	ND	4.00		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
EtFOSAA	2991-50-6	ND	4.00		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
PFUnA	2058-94-8	ND	4.00		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
PFDS	335-77-3	ND	4.00		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
PFDoA	307-55-1	ND	4.00		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
MeFOSA	31506-32-8	ND	20.0		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
PFTDA	72629-94-8	ND	4.00		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
PFTeDA	376-06-7	ND	4.00		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1

Labelled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	69.4	50 - 150		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
13C3-PFPeA	IS	76.3	50 - 150		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
13C3-PFBS	IS	80.3	50 - 150		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
13C2-4:2 FTS	IS	75.8	50 - 150		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
13C2-PFHxA	IS	76.6	50 - 150		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
13C4-PFHpA	IS	70.1	50 - 150		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
13C3-PFHxS	IS	77.2	50 - 150		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
13C2-6:2 FTS	IS	73.2	50 - 150		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
13C2-PFOA	IS	71.8	50 - 150		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
13C5-PFNA	IS	76.5	50 - 150		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
13C8-PFOA	IS	54.5	50 - 150		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1

Work Order 2211082

Sample ID: B-928U_20221102

PFAS Isotope Dilution Table B-15

Client Data				Laboratory Data			
Name:	Eastern Analytical, Inc.	Matrix:	Aqueous	Lab Sample:	2211082-09	Column:	BEH C18
Project:	251746 NH 2089	Date Collected:	02-Nov-22 11:35	Date Received:	09-Nov-22 11:05		
Location:	251746						

Labelled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C8-PFOS	IS	73.3	50 - 150		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
13C2-PPDA	IS	81.2	50 - 150		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
13C2-8:2-FTS	IS	69.2	50 - 150		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
d3-MeFOSAA	IS	67.0	50 - 150		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
d5-ElFOSAA	IS	64.2	50 - 150		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
13C2-PFUa	IS	69.1	50 - 150		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
13C2-PFD0A	IS	61.7	50 - 150		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
d3-MeFOSA	IS	18.6	50 - 150	H	B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1
13C2-PFTeDA	IS	57.0	50 - 150		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:20	1

RL - Reporting limit Results reported to RL.

When reported, PFHS, PFOA, PFOS, MeFOSAA and ElFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: B-928D_20221102

PFAS Isotope Dilution Table B-15

Client Data		Laboratory Data	
Name:	Eastern Analytical, Inc.	Matrix:	Aqueous
Project:	251746 NH 2089	Date Collected:	02-Nov-22 11:42
Location:	251746	Lab Sample:	2211082-10
		Date Received:	09-Nov-22 11:05
		Column:	BEH C18

Analyte	CAS Number	Conc. (ng/L)	RT	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	25.1	4.00	B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1	1
PFPeA	2706-90-3	16.3	4.00	B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1	1
PFBS	375-73-5	14.7	4.00	B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1	1
4:2 FTS	757124-72-4	ND	4.00	B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1	1
PFHxA	307-24-4	20.8	4.00	B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1	1
PFPeS	2706-91-4	ND	4.00	B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1	1
PFHpA	375-85-9	8.39	4.00	B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1	1
PFHxS	355-46-4	ND	4.00	B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1	1
6:2 FTS	27619-97-2	ND	4.00	B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1	1
PFOA	335-67-1	8.49	4.00	B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1	1
PFHps	375-92-8	ND	4.00	B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1	1
PENa	375-95-1	ND	4.00	B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1	1
PFOSA	754-91-6	ND	4.00	B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1	1
PFOs	1763-23-1	ND	4.00	B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1	1
PFDA	335-76-2	ND	4.00	B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1	1
8:2 FTS	39108-34-4	ND	4.00	B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1	1
PENS	68259-12-1	ND	4.00	B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1	1
MeFOSAA	2355-31-9	ND	4.00	B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1	1
EtFOSAA	2991-50-6	ND	4.00	B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1	1
PFUnA	2058-94-8	ND	4.00	B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1	1
PFDS	335-77-3	ND	4.00	B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1	1
PFDOA	307-55-1	ND	4.00	B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1	1
MeFOSA	31506-32-8	ND	20.0	B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1	1
PFTDA	72629-94-8	ND	4.00	B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1	1
PFTeDA	376-06-7	ND	4.00	B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	66.6	50 - 150	B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1	1
13C3-PFPeA	IS	74.6	50 - 150	B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1	1
13C3-PFBS	IS	87.7	50 - 150	B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1	1
13C2-4:2 FTS	IS	71.4	50 - 150	B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1	1
13C2-PFHxA	IS	78.2	50 - 150	B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1	1
13C4-PFHpA	IS	71.0	50 - 150	B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1	1
13C3-PFHxS	IS	67.1	50 - 150	B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1	1
13C2-6:2 FTS	IS	79.5	50 - 150	B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1	1
13C2-PFOA	IS	72.7	50 - 150	B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1	1
13C5-PFNA	IS	79.1	50 - 150	B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1	1
13C8-PFOA	IS	56.0	50 - 150	B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1	1

Work Order 2211082

Sample ID: B-928D_20221102

PFAS Isotope Dilution Table B-15

Client Data			Laboratory Data		
Name:	Eastern Analytical, Inc.	Matrix:	Aqueous	Lab Sample:	2211082-10
Project:	251746 NH 2089	Date Collected:	02-Nov-22 11:42	Date Received:	09-Nov-22 11:05
Location:	251746			Column:	BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C8-PFOS	IS	76.7	50 - 150		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1
13C2-PPDA	IS	81.2	50 - 150		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1
13C2-8:2 FTs	IS	70.5	50 - 150		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1
d3-MeFOSAA	IS	69.9	50 - 150		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1
d5-EtFOSAA	IS	62.6	50 - 150		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1
13C2-PFUnA	IS	68.9	50 - 150		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1
13C2-PPDoA	IS	63.7	50 - 150		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1
d3-MeFOSA	IS	22.4	50 - 150	H	B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1
13C2-PTeDA	IS	50.6	50 - 150		B22K115	21-Nov-22	0.261 L	30-Nov-22 02:31	1

RL - Reporting limit Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: FB-PFAS-01_20221102

PFAS Isotope Dilution Table B-15

Client Data		Laboratory Data	
Name: Eastern Analytical, Inc.	Matrix: Aqueous	Lab Sample: 2211082-11	Column: BEH C18
Project: 251746 NH 2089	Date Collected: 02-Nov-22 14:00	Date Received: 09-Nov-22 11:05	
Location: 251746			

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	4.00		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
PFPeA	2706-90-3	ND	4.00		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
PFBS	375-73-5	ND	4.00		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
4:2 FTS	757124-72-4	ND	4.00		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
PFHxA	307-24-4	ND	4.00		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
PFPeS	2706-91-4	ND	4.00		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
PFHpA	375-85-9	ND	4.00		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
PFHxS	355-46-4	ND	4.00		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
6:2 FTS	27619-97-2	ND	4.00		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
PFOA	335-67-1	ND	4.00		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
PFHsS	375-92-8	ND	4.00		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
PFNA	375-95-1	ND	4.00		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
PFOA	754-91-6	ND	4.00		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
PFOS	1763-23-1	ND	4.00		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
PFDA	335-76-2	ND	4.00		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
8:2 FTS	39108-34-4	ND	4.00		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
PFNS	68259-12-1	ND	4.00		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
MeFOSAA	2355-31-9	ND	4.00		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
MeFOSAA	2991-50-6	ND	4.00		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
PFUnA	2058-94-8	ND	4.00		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
PFDS	335-77-3	ND	4.00		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
PFDoA	307-55-1	ND	4.00		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
MeFOSA	31506-32-8	ND	20.0		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
PFHDA	72629-94-8	ND	4.00		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
PFtEDA	376-06-7	ND	4.00		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1

Labelled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PBBA	IS	67.7	50 - 150		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
13C3-PFPeA	IS	76.8	50 - 150		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
13C3-PFBS	IS	78.6	50 - 150		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
13C2-4:2-FTS	IS	64.7	50 - 150		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
13C2-PFHxA	IS	74.1	50 - 150		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
13C4-PFHpA	IS	67.5	50 - 150		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
13C3-PFHxS	IS	68.3	50 - 150		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
13C2-6:2-FTS	IS	67.2	50 - 150		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
13C2-PFOA	IS	68.9	50 - 150		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
13C5-PFNA	IS	73.6	50 - 150		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
13C8-PFOA	IS	54.8	50 - 150		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1

Work Order 2211082

Sample ID: FB-PFAS-01_20221102

PFAS Isotope Dilution Table B-15

Client Data			Laboratory Data		
Name:	Eastern Analytical, Inc.	Matrix:	Aqueous	Lab Sample:	2211082-11
Project:	251746 NH 2089	Date Collected:	02-Nov-22 14:00	Date Received:	09-Nov-22 11:05
Location:	251746			Column:	BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C8-PFOS	IS	69.9	50 - 150		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
13C2-PFDA	IS	76.1	50 - 150		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
13C2-8:2 FTS	IS	67.6	50 - 150		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
d3-MeFOSAA	IS	65.6	50 - 150		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
d5-EtFOSAA	IS	66.8	50 - 150		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
13C2-PFUaA	IS	68.1	50 - 150		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
13C2-PFD0A	IS	66.7	50 - 150		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
d3-MeFOSA	IS	15.6	50 - 150	H	B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1
13C2-PFTeDA	IS	62.3	50 - 150		B22K115	21-Nov-22	0.259 L	30-Nov-22 03:13	1

RL - Reporting limit Results reported to RL.

When reported, PFHxS, PROA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

DATA QUALIFIERS & ABBREVIATIONS

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
H	Recovery and/or RPD was outside laboratory acceptance limits
I	Chemical Interference
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	The ion transition ratio is outside of the acceptance criteria.
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.

Vista Analytical Laboratory 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 17025:2005	3091.01
Florida Department of Health	E87777
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2020018
Massachusetts Department of Environmental Protection	M-CA413
Michigan Department of Environmental Quality	9932
Minnesota Department of Health	2211390
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
Pennsylvania Department of Environmental Protection	018
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 are located in the Quality Assurance office and are available upon request.

NELAP Accredited Test Methods

MATRIX: Air	
Description of Test	Method
Determination of Polychlorinated p- Dioxins & Polychlorinated Dibenzofurans	EPA 23
Polychlorinated Dibenzodioxins in Ambient Air by GC/HRMS	EPA TO-9A

MATRIX: Biological Tissue	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	PFAS Isotope Dilution
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Drinking Water	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613/1613B
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	PFAS Isotope Dilution
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537.1
Determination of Per- and Polyfluoroalkyl Substances in Drinking Water by Isotope Dilution Anion Exchange Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry	EPA 533
Perfluorooctanesulfonate (PFOS) and Perfluorooctanoate (PFOA) - Method for Unfiltered Samples Using Solid Phase Extraction and Liquid Chromatography/Mass Spectrometry	ISO 25101 2009

MATRIX: Non-Potable Water	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	PFAS Isotope Dilution
Dioxin by GC/HRMS	EPA 613
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Solids	
Description of Test	Method
Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	PFAS Isotope Dilution
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

CHAIN-OF-CUSTODY RECORD

2211082 00°C, 30°C



Eastern Analytical, Inc.
Professional laboratory and drilling services

EAI ID# 251746

Page 1

Sample ID Date Sampled Matrix aParameters

MMW-604_20221102 | 11/12/2022 | 12:00 | aqueous | Subcontract - Perfluorinated Compounds EPA Method 537 modified

MMW-701_20221102 | 11/12/2022 | 13:52 | aqueous | Subcontract - Perfluorinated Compounds EPA Method 537 modified

B-304UR_20221102 | 11/12/2022 | 10:39 | aqueous | Subcontract - Perfluorinated Compounds EPA Method 537 modified

B-304DR_20221102 | 11/12/2022 | 10:55 | aqueous | Subcontract - Perfluorinated Compounds EPA Method 537 modified

EAI ID# 251746 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

QC Deliverables RUSH Due Date:
 A A+ B B+ C MA MCP

Notes about project:
Email login confirmation, pdf of results and invoice to customerservice@easternanalytical.com.
See attached 25 compound PFAS List Report standard project RLS: ~20 ng/l for MeFOSA; ~4 ng/l for all other compounds

PO #: 58598 EAI ID# 251746

Data Deliverable (circle) Excel NH EMD EQUIS ME EGAD

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

Sample# Collected by: Jan Johnson 11/8/22 1600 WPS
Relinquished by: WJS 11/11/22 11:35 Received by: Kayla
Relinquished by: _____ Date/Time Received by: _____

Eastern Analytical, Inc. 51 Antim 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 the subcontract lab, your officers, agents or employees 36 of 43

CHAIN-OF-CUSTODY RECORD



Eastern Analytical, Inc.
Professional laboratory and drilling services

221082

EAI ID# 251746

Page 2

Sample ID Date Sampled Matrix aParameters

B-918M_20221102 | 11/2/2022 | 13:25 | aqueous | Subcontract - Perfluorinated Compounds EPA Method 537 modified

B-919U_20221102 | 11/2/2022 | 08:50 | aqueous | Subcontract - Perfluorinated Compounds EPA Method 537 modified

B-919M_20221102 | 11/2/2022 | 13:00 | aqueous | Subcontract - Perfluorinated Compounds EPA Method 537 modified

B-919D_20221102 | 11/2/2022 | 09:55 | aqueous | Subcontract - Perfluorinated Compounds EPA Method 537 modified

EAI ID# 251746 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

QC Deliverables RUSH Due Date:
 A A+ B B+ C MA MCP

Notes about project:
Email login confirmation, pdf of results and invoice to customerservice@easternanalytical.com.
See attached 25 compound PFAS List Report standard project RLS: ~20 ng/l for MeFOSA; ~4 ng/l for all other compounds

PO #: 58598 EAI ID# 251746

Data Deliverable (circle)
Excel NH EMD EQUIS ME EGAD

Call prior to analyzing. RUSH charges will be applied.

Samples Collected by: [Signature] 11/8/22 11:00 AM
Relinquished by: [Signature] 11/8/22 11:00 AM
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 the subcontract lab, your officers, agents or employees

CHAIN-OF-CUSTODY RECORD

2211082



Eastern Analytical, Inc.
Professional laboratory and drilling services

EAI ID# 251746

Page 3

Sample ID Date Sampled Matrix aParameters

B-928U_20221102 11/2/2022 11:35 aqueous Subcontract - Perfluorinated Compounds EPA Method 537 modified

B-928D_20221102 11/2/2022 11:42 aqueous Subcontract - Perfluorinated Compounds EPA Method 537 modified

FB-PFAS-01_20221102 11/2/2022 14:00 aqueous Subcontract - Perfluorinated Compounds EPA Method 537 modified

EAI ID# 251746 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

QC Deliverables RUSH Due Date:
 A A+ B B+ C MA MCP

Notes about project:
Email login confirmation, pdf of results and invoice to customerservice@easternanalytical.com.
See attached 25 compound PFAS List Report standard project RLS: ~20 ng/l for MeFOSA; ~4 ng/l for all other compounds

PO #: 58598 EAI ID# 251746

Data Deliverable (circle)
Excel NH EMD EQUIS ME EGAD

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

Samples Collected by: [Signature] 11/8/22 16:00 WMS
Relinquished by: [Signature] 11/8/22 11:05
Relinquished by: WMS Date/Time 11/8/22 11:05
Received by: [Signature]

Eastern Analytical, Inc. 51 Anttrim 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 omission of subcontract lab, your officers, agents or employees

PFAS DoD 25 Compounds

EAI # 251746
2211082

Analyte Name	CAS #	Analyte
4:2 Fluorotelomer sulfonate	757124-72-4	4:2-FTS
6:2 Fluorotelomer sulfonate	27619-97-2	6:2-FTS
8:2 Fluorotelomer sulfonate	39108-34-4	8:2-FTS
N-ethyl perfluorooctanesulfonamidoacetic acid	2991-50-6	NEtFOSAA
N-methyl perfluorooctanesulfonamidoacetic acid	2355-31-9	NMeFOSAA
Perfluorooctanesulfonic acid	1763-23-1	PFOS
Perfluorobutanesulfonic acid	375-73-5	PFBS
Perfluorobutanoic acid	375-22-4	PFBA
Perfluorodecanesulfonic acid	335-77-3	PFDS
Perfluorodecanoic acid	335-76-2	PFDA
Perfluorododecanoic acid	307-55-1	PFDoA
Perfluoroheptanesulfonic acid	375-92-8	PFHpS
Perfluoroheptanoic acid	375-85-9	PFHpA
Perfluorohexanesulfonic acid	355-46-4	PFHxS
Perfluorohexanoic acid	307-24-4	PFHxA
Perfluorononane sulfonic acid	68259-12-1	PFNS
Perfluorononanoic acid	375-95-1	PFNA
Perfluorooctanoic acid	335-67-1	PFOA
Perfluoropentane sulfonic acid	2706-91-4	PFPeS
Perfluoropentanoic acid	2706-90-3	PFPeA
Perfluorotetradecanoic acid	376-06-7	PFTeDA
Perfluorotridecanoic acid	72629-94-8	PFTrDA
Perfluoroundecanoic acid	2058-94-8	PFUnA/PFUdA
N-methylperfluorooctanesulfonamide	31506-32-8	N-MeFOSA
Perfluorooctanesulfonamide	754-91-6	PFOSA



Sample Log-In Checklist

Page # 1 of 2

Vista Work Order #: 2211082

TAT std

Samples Arrival:	Date/Time <u>11/09/22 11:05</u>	Initials: <u>ks</u>	Location: <u>WR-2</u>
			Shelf/Rack: <u>WR-2</u>
Delivered By:	FedEx	<input checked="" type="checkbox"/> UPS	On Trac
		GLS	DHL
		Hand Delivered	Other
Preservation:	<input checked="" type="checkbox"/> Ice	Blue Ice	Techni Ice
		Dry Ice	None
Temp °C: <u>0.1</u> (uncorrected)	Probe used: Y / <input checked="" type="checkbox"/> N		Thermometer ID: <u>FR-3</u>
Temp °C: <u>0.0</u> (corrected)			

	YES	NO	NA
Shipping Container(s) Intact?	<input checked="" type="checkbox"/>		
Shipping Custody Seals Intact?			<input checked="" type="checkbox"/>
Airbill <u>D</u> Trk # <u>18 X 46 599 01 9377 4535</u>	<input checked="" type="checkbox"/>		
Shipping Documentation Present?	<input checked="" type="checkbox"/>		
Shipping Container	<input checked="" type="checkbox"/> Vista	Client	<input checked="" type="checkbox"/> Retain
		Return	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 <u>11/09/22 1652</u>	Initials: <u>WWS</u>	Location: <u>R-13, WR-2</u>
			Shelf/Rack: <u>0-3, 0-3, 0-6</u>
COC Anomaly/Sample Acceptance Form completed?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Comments:

Sample Log-In Checklist

Page # 2 of 2

Vista Work Order #: 2211082

TAT std

Samples Arrival:	Date/Time <u>11/09/22 11:05</u>		Initials: <u>WWS</u>		Location: <u>WR-2</u>			
Delivered By:		FedEx	<u>UPS</u>	On Trac	GLS	DHL	Hand Delivered	Other
Preservation:		<u>Ice</u>	Blue Ice		Techni Ice	Dry Ice	None	
Temp °C: <u>3.1</u> (uncorrected)		Probe used: Y <u>1</u>			Thermometer ID: <u>Jan-3</u>			
Temp °C: <u>3.0</u> (corrected)								

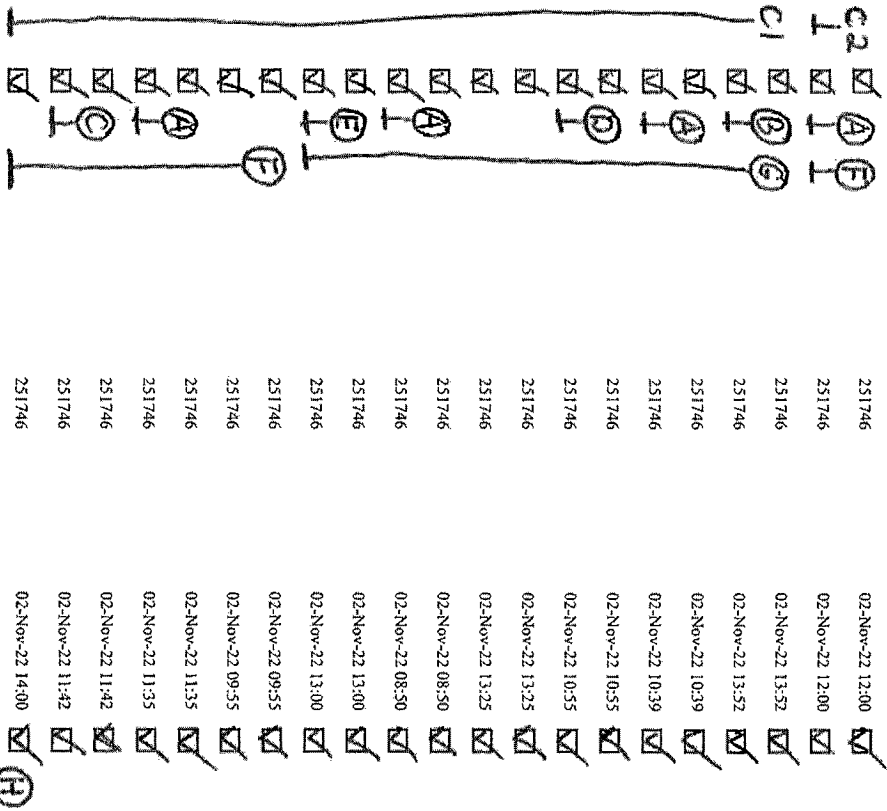
	YES	NO	NA
Shipping Container(s) Intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shipping Custody Seals Intact?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Airbill <u>2</u> Trk # <u>1Z X46 589 01 9401 0982</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shipping Documentation Present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shipping Container	<u>Vista</u>	Client	<u>Retain</u>
Chain of Custody / Sample Documentation Present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chain of Custody / Sample Documentation Complete?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Holding Time Acceptable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Logged In:	Date/Time <u>11/09/22 1652</u>		Initials: <u>WWS</u>
		Location: <u>R-13, WR-2</u>	
		Shelf/Rack: <u>8-3, 8-3, F-6</u>	
COC Anomaly/Sample Acceptance Form completed?		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments:

CoC/Label Reconciliation Report WO# 2211082

LabNumber	CoC Sample ID	Sample Alias	Sample Date/Time	Container	BaseMatrix	Sample Comments
2211082-01	A MW-604_20221102		02-Nov-22 12:00	Polypropylene, 250mL	Aqueous	
2211082-01	B MW-604_20221102		02-Nov-22 12:00	Polypropylene, 250mL	Aqueous	
2211082-02	A MW-701_20221102		02-Nov-22 13:52	Polypropylene, 250mL	Aqueous	
2211082-02	B MW-701_20221102		02-Nov-22 13:52	Polypropylene, 250mL	Aqueous	
2211082-03	A B-304UR_20221102		02-Nov-22 10:39	Polypropylene, 250mL	Aqueous	
2211082-03	B B-304UR_20221102		02-Nov-22 10:39	Polypropylene, 250mL	Aqueous	
2211082-04	A B-304DR_20221102		02-Nov-22 10:55	Polypropylene, 250mL	Aqueous	
2211082-04	B B-304DR_20221102		02-Nov-22 10:55	Polypropylene, 250mL	Aqueous	
2211082-05	A B-918M_20221102		02-Nov-22 13:25	Polypropylene, 250mL	Aqueous	
2211082-05	B B-918M_20221102		02-Nov-22 13:25	Polypropylene, 250mL	Aqueous	
2211082-06	A B-919U_20221102		02-Nov-22 08:50	Polypropylene, 250mL	Aqueous	
2211082-06	B B-919U_20221102		02-Nov-22 08:50	Polypropylene, 250mL	Aqueous	
2211082-07	A B-919M_20221102		02-Nov-22 13:00	Polypropylene, 250mL	Aqueous	
2211082-07	B B-919M_20221102		02-Nov-22 13:00	Polypropylene, 250mL	Aqueous	
2211082-08	A B-919D_20221102		02-Nov-22 09:55	Polypropylene, 250mL	Aqueous	
2211082-08	B B-919D_20221102		02-Nov-22 09:55	Polypropylene, 250mL	Aqueous	
2211082-09	A B-928U_20221102		02-Nov-22 11:35	Polypropylene, 250mL	Aqueous	
2211082-09	B B-928U_20221102		02-Nov-22 11:35	Polypropylene, 250mL	Aqueous	
2211082-10	A B-928D_20221102		02-Nov-22 11:42	Polypropylene, 250mL	Aqueous	
2211082-10	B B-928D_20221102		02-Nov-22 11:42	Polypropylene, 250mL	Aqueous	
2211082-11	A FB-PFAS-01_20221102		02-Nov-22 14:00	Polypropylene, 250mL	Aqueous	

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 checked="" 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"/>

Preservation Documented: Na2S2O3 Trizma NH4CH3CO2 None Other

T5, T6

Verified by/Date: BAC 11/10/22

Comments:

- A ~ 5% particulate present
- B Solid black particulate present
- C ~ 15% particulate present
- D ~ 30% particulate present
- E Light Rusty Color
- C1 = Cooler 1 of 2
- C2 = Cooler 2 of 2
- A underlined, not on sample label
- F Trizma T5
- G Trizma T6
- H No Backup

Chain-of-Custody Record

251746

Sample ID	Sampling Date/Time *If Composite, Indicate Both Start & Finish Date/Time	Matrix (see below)	Grab/*Composite	Analyses Requested										Field Turbidity (NTU)	# of Containers	NOTES MeOH Vial #			
				PFAS- Mod 537 - DoD 25 Compound List															
MW-604_20221102	11/02/22 1200	GW	G	X															
MW-701_20221102	11/02/22 1352	GW	G	X															
B-304UR_20221102	11/02/22 1059	GW	G	X															
B-304DR_20221102	11/02/22 1055	GW	G	X															
B-918M_20221102	11/02/22 1325	GW	G	X															
B-919U_20221102	11/02/22 0850	GW	G	X															
B-919M_20221102	11/02/22 1300	GW	G	X															
B-919D_20221102	11/02/22 0955	GW	G	X															
B-928U_20221102	11/02/22 1135	GW	G	X															
B-928D_20221102	11/02/22 1142	GW	G	X															
FB-PFAS-01_20221102	11/02/22 1400	Aq	G	X															

Matrix: A-Air; S-Soil; GW-Ground Water; SW-Surface Water; DW-Drinking Water; WW-Waste Water; AQ-Aqueous; L-Leadate; Preservative: HHCl; NH4NO3; SH2SO4; Na-MeOH; M-MeOH; NSQ-Na2S2O3

Project Manager: M. Estabrooks / T. White

Company: Sanborn, Head & Associates, Inc.

Address: 20 Foundry Street

City: Concord State: NH Zip: 03301

Phone: 603-229-1900 Ext.:

Fax: 603-229-1919

E-Mail: mestabrooks@sanbornhead.com

Site Name: NCEM | PFAS

Project #: 2637.09

State: NH

Regulatory Program: NPDES, RGP POTW Stormwater or GWP, Oil Fund, Brownfield or Other:

Quote #: PO#:

Date Needed:

QA/QC

Reporting Level

A or B or C

Presumptive Certainty

Electronic Options

No Fax E-Mail PDF Equis

Temp: 17.7 °C

Metal: Samples Field Filtered:

Reporting Options

Prelims: Yes or No

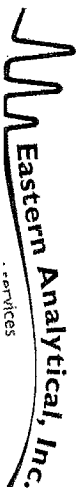
Temp: 17.7 °C

Reporting Level: B

Presumptive Certainty: A

Electronic Options: PDF

Report standard project Rls: ~20 ng/l for MeFOXA; ~4 ng/L for all other compounds

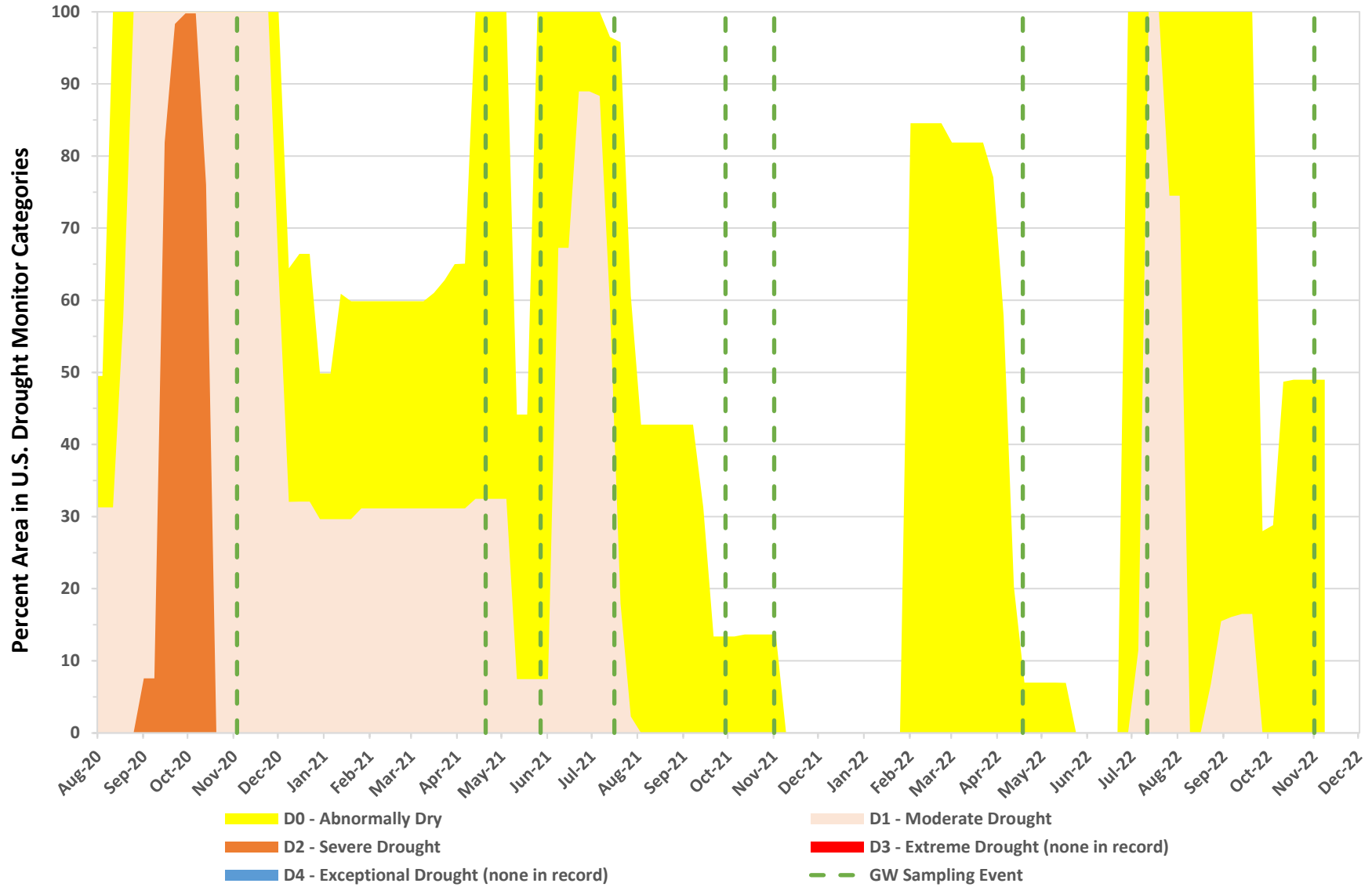


25 Chenell Drive | Concord, NH 03301 | Tel: 603.228.0525 | 1.800.287.0525 | Fax: 603.228.4591 | E-Mail: customerservice@ealabs.com | www.ealabs.com

Attachment 4

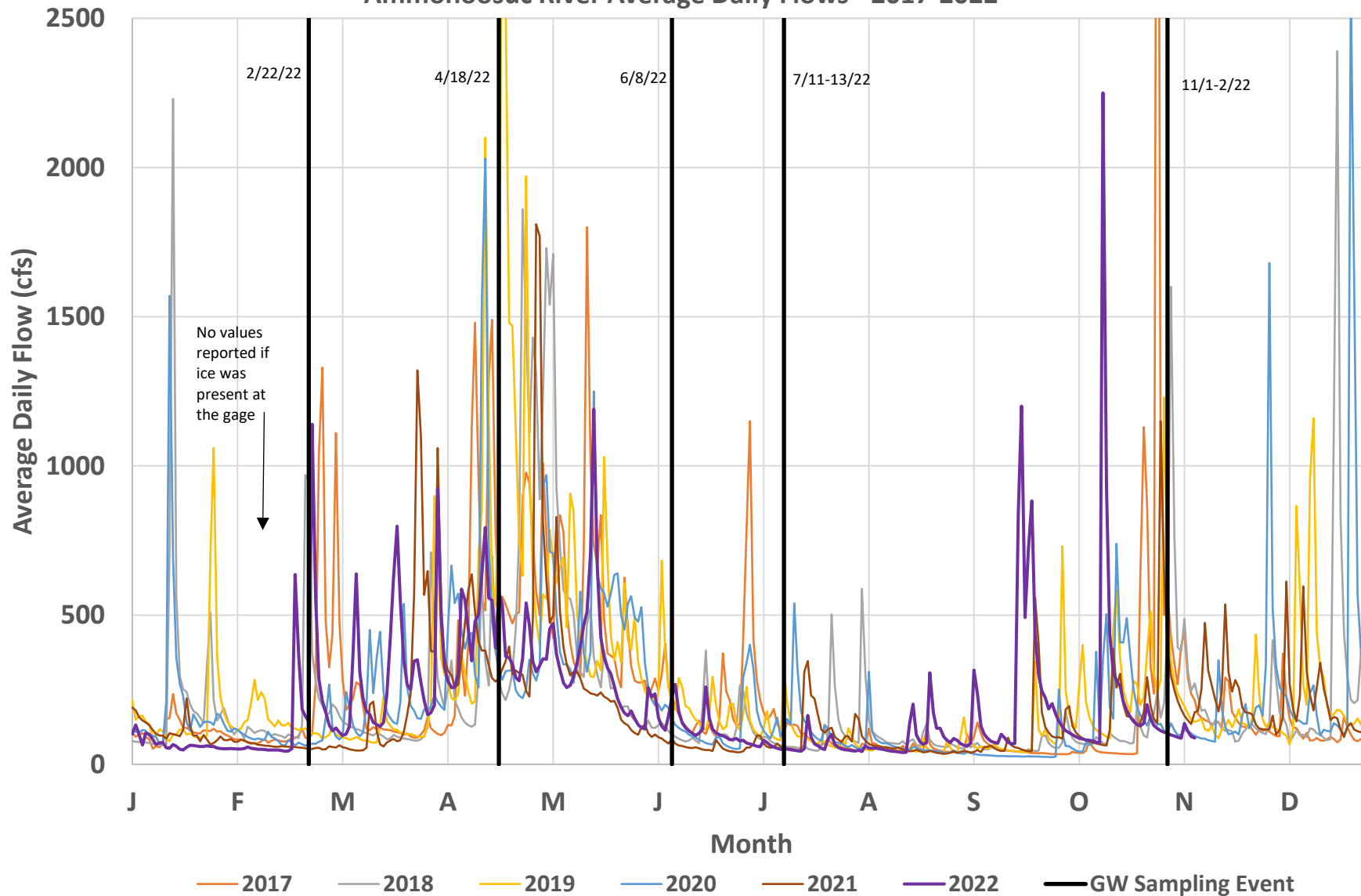
Evaluation of Drought Conditions

Figure 4.1
 U.S. Drought Monitor Data - Grafton County, New Hampshire



Data obtained from U.S. Drought Monitor: <https://droughtmonitor.unl.edu/DmData/TimeSeries.aspx>
 Accessed: November 10, 2022

Figure 4.2
Ammonoosuc River Average Daily Flows - 2017-2022



Data recorded at USGS gage 01137500 Ammonoosuc River at Bethlehem Junction, NH https://waterdata.usgs.gov/nwis/uv?site_no=01137500;
 2022 data from USGS are provisional and subject to revision; Accessed November 10, 2022