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March 31, 2022

New Hampshire Site Evaluation Committee (NHSEC)
Attn: NHSEC Administrator
21 South Fruit Street, Suite 10
Concord, NH
03301-2429

Dear Sir/Madam:

RE: Docket No. 2015-02 - Antrim Wind Energy – Post-Construction Water Quality Monitoring Program Report - 2021

TransAlta has completed a post-construction surface water quality monitoring program for the Antrim Wind Energy (AWE) facility. A report has been prepared in accordance with the Antrim Wind Energy Water Quality Monitoring Plan submitted as part of the NHSEC Order and Certificate of Site and Facility with Conditions, Docket No. 2015-02, March 17, 2017.

Please note that the original Antrim Wind Energy Water Quality Monitoring Plan report submission date was scheduled for December 31, 2021. TransAlta apologizes for this clerical error.

We trust that you will find this submission satisfactory. Should you require additional information, please contact the undersigned.

Yours truly,

TRANSALTA CORPORATION

Gavin MacPhee
Specialist, Environmental – Wind and Solar Operations

Technical Memorandum

Date: March 30, 2022

To: Gavin McPhee, TransAlta

From: Dana Valleau

Project: 275802.2020.5041

Subject: Water Quality Report: Summary Report of Post-Construction Water Quality Results

This technical memorandum provides a summary report of water quality data collected post-construction during 2021 at the Project.

Antrim Wind Energy, LLC, (AWE) has received a Certificate of Site and Facility (Certificate) 2015-02 from the New Hampshire Site Evaluation Committee (NHSEC) which included Alteration of Terrain and Dredge and Fill permits from New Hampshire Department of Environmental Services (NHDES) to construct the Antrim Wind Energy Project (Project), located in Antrim, New Hampshire. As part of these approvals the Project developed a water quality sampling plan as outlined in *Guidance for SWPPS, BMP Inspection and Maintenance, Turbidity and Sediment Monitoring for NHDOT Projects with 401 Water Quality Certifications* (2013). Specifically, Condition 17 of the Alteration of Terrain recommendation in the NHSEC approval required AWE to perform sampling to confirm that operation of the facility is not causing or contributing to violations of state surface water quality standards, including pre- and post-construction sampling.

A wetland and waterbody delineation was performed during August, September, and November 2011 and October 2014 and identified a perennial stream, Stream AN-17 as an unnamed, small, shallow perennial stream with a steep gradient that originates from ground- and surface water on the northern slope of Tuttle Hill and flows northerly across the Project site, eventually discharging to the North Branch River. This stream was selected for the pre- and post-construction sampling, with two locations for sampling selected, one sampling station located upstream from Project disturbance, AWE-B-1, and one located downstream from Project disturbance, AWE-C-1.

Sampling consisted of four rounds of pre- and post-construction, with two wet and two dry weather sampling events. Sampling for wet-weather events occurred within 4-hours of events that produce at least 0.5-inches of precipitation within 24-hours and sampling during dry weather will occur when no precipitation (i.e., < 0.1-inches) has been recorded for at least 72-hours. Physicochemical parameters were collected and included temperature, dissolved oxygen, pH, and specific conductance.

Continuous summer water quality sampling was conducted with the use of a data sonde during pre- and post-construction during periods of low flow (≤3 X 7Q10) and high temperatures (preferably over 23 degrees C). United States Geologic Service stream gage data from the gage on the Ashuelot River in Gilsum, NH (USGS 01157000) was used to determine low flow periods. The 3 X 7Q10 value for USGS stream gage 1157000 is 10.3 cfs.

Water chemistry samples were also taken during sampling events, and analytical parameters tested for included aluminum (total), aluminum (acid-soluble), iron (total), nitrate+nitrite-nitrogen, total kjeldahl nitrogen, total phosphorus, and chloride.

This summary report includes the monitoring data collected with a comparison of pre- and post-construction monitoring, included as the following attachments:

- Attachment 1: Antecedent weather data,
- Attachment 2: Field data sheets for turbidity monitoring and water chemistry and physicochemical measurement, including QA/QC samples,
- Attachment 3: Photographic documentation,
- Attachment 4: Analytical lab results, including QA/QC samples,
- Attachment 5: Chain-of-Custody documents,
- Attachment 6: Calibration/Verification documentation,
- Attachment 7: Data interpretation comparing study results to State surface water quality criteria (Env-Wq 1700), as well as a comparison of pre- and post-construction results.

The water quality data, including digitized field and lab forms, are included with this submittal as attachments. Data sonde data is included in separate electronic files and in a spreadsheet format that can be compatible with NHDES Environmental Monitoring Database (EMD).

Results Interpretation Discussion

Results for both physicochemical and analytical parameters are found in tabular form in Attachment 7.

Physicochemical parameter sampling indicated that most data collected met NHDES WQ Standards for temperature, dissolved oxygen, and specific conductance. The exception was pH, which varied widely during both dry and wet sampling and pre- and post-construction sampling. In order to meet NHDES WQ Standards for pH, the values need to fall within a pH level range between 6.5 and 8.0. The range of pH levels documented during the dry and wet sampling events ranged from a low of 4.9 during a dry pre-construction sampling on June 14, 2018 at the background station, AWE-B-1, located upstream of the construction limit of disturbance, to a high of 8.9 during a post-construction sampling on May 31, 2021, also at the AWE-B-1. Results were also variable at the construction sampling site, AWE-C-1, which was located downstream of the construction limit of disturbance. pH levels at AWE-C-1 ranged from a low of 5.4 to a high of 8.0. Low pH in this stream is not entirely unexpected, given the granitic rock, mixed conifer tree cover, and organic soils found in the small drainage area. In addition, the low flow, discontinuous flow and dry stream bed observed during the field sampling indicates the hydrology of the stream is likely driven by rain, which typically has a low pH value. Low pH values, below the NHDES WQ Standard of 6.5, were observed during pre-construction sampling on May 2, 2018 (6.2) at AWE-B-1, June 14, 2018 (4.9) at AWE-B-1, June 14, 2018 (5.6) at AWE-C-1, May 20, 2018 (6.3), July 27, 2018 (5.3), and July 27, 2018 (5.4). During post-construction sampling, pH values were all above the low NHDES WQ Standard. In addition to the high pH of 8.9 described above, there was one other pH value above 8.0, a pH level of 8.1 on June 17, 2021 at AWE-B-1 during a dry sampling event. These values were both at the background station and it is not likely that construction of the Project influenced the pH values. Natural causes of higher pH levels can include naturally occurring calcium carbonate; however the geology of the area is not likely to have deposits of calcium carbonate. Another explanation could be that these values are erroneous, as the downstream sampling site, AWE-C-1, had significantly lower pH values during the same sampling events, being 8.0 and 6.6, respectively.

Analytical parameters also generally met NHDES WQ Standards with the exception of aluminum (acid-soluble) which narrowly exceeded the standard during pre-construction sampling May 2,

2018 at AWE-B-1 (0.104 mg), May 2, 2018 at AWE-C-1 (0.088 mg), May 20, 2018 at AWE-C-1 (0.095 mg), July 27, 2018 at AWE-B-1 (0.132 mg), and July 27, 2018 at AWE-C-1 (0.091 mg). Results were similar for aluminum (acid-soluble) during post-construction sampling with exceedances detected on June 17, 2021 at AWE-B-1 (0.121 mg), June 17, 2021 at AWE-C-1 (0.161 mg), May 31, 2021 at AWE-B-1 (0.106 mg), May 31, 2021 at AWE-C-1 (0.102 mg), and July 6, 2021 at AWE-B-1 (0.101 mg). Given the consistency between values found pre-construction and post-construction and between background samples at AWE-B-1 and the construction sample site at AWE-C-1, these levels are likely naturally occurring. Aluminum levels found in surface waters are typically influenced by pH, with higher values found in lower pH systems. pH values in this stream, though varying widely, as described above, were low during several of the sampling events and may influence the aluminum levels that were detected.

Attachment 1 Antecedent Weather Data

Antecedent Weather Data

Pre-Construction Sampling				
Field	**Event 1**	**Event 2**	**Event 3**	**Event 4**
Date	5/2/2018	5/20/2018	6/14/2018	7/27/2018
Total Precipitation from Last Sampling (inches)	0.00	0.9	0.03	4.58
Precipitation Start Time	6:20 AM on 4/29 (0.1 in)	1:45 PM on 5/19 (0.28 in)	12:00 PM on 6/13 (0.05 in)	12:44 AM on 7/26 (0.36 in)
Wet or Dry Sample	Dry	Wet	Dry	Wet
Sample Time	11:00 AM - 12:00 PM	10:30 AM – 11:12 AM	9:42 AM – 10:01 AM	2:01 PM – 3:08 PM
Post-Construction Sampling				
Field	**Event 1**	**Event 2**	**Event 3**	**Event 4**
Date	5/13/2021	5/31/2021	6/17/2021	7/6/2021
Total Precipitation from Last Sampling (inches)	0.00	2.2	1.48	4.39
Precipitation Start Time	N/A	12:30 PM on 5/30 (0.71 in)	10:30 on 6/15 (0.1 in)	4:00 PM on 7/6 (0.23 in)
Wet or Dry Sample	Dry	Wet	Dry	Wet
Sample Time	10:10 AM – 10:25 AM	9:10 AM – 9:20 AM	10:40 AM – 11:30 AM	8:55 AM – 9:10 AM

Attachment 2
Field Data Sheets
Water Chemistry and Physicochemical Measurement
QA/QC Results

NH Department of Environmental Services

Water Quality Monitoring Program

DIRECTIONS: Use this form when obtaining TEMP./D.O. Please fill out completely.

STREAM NAME: AWE-C-2 SD-1

TOWN Antrim

(Circle): Upstream/Midstream/Downstream

WATER LEVEL (circle): Full Top of Bank / Mid-way / Low / Dry

FLOW (circle): High / Moderate / Low / None

Avg. Stream Depth (in) _____

COUNTY Hillsborough

LOCATION DESCRIPTION

MONTH DAY YEAR: 05 02 2018

MONITORS 1 & 2 (Last name, First name): ROBERTS, KALINDA; THOMAS, JOHN

STATION: LAT 43.076028

LONG -72.007126

DATUM _____

MIDAS _____

STATION # 01

-WEATHER OBSERVATIONS- CIRCLE ONE:

SKY CONDITION AT TIME OF SAMPLING: Clear / Partly sunny / Partly cloudy / Overcast / Foggy / Drizzle / Light Rain / Heavy Rain / Snow / Sleet

-WIND CONDITIONS- CIRCLE ONE:

Calm (0–2 km/h) / Slight breeze (2-8 km/h) / Moderate wind (8-15 km/h) / Gusty (15–25 km/h) Strong gusts (25-40 km/h) Storm winds (>40 km/h)

WIND DIRECTION (CIRCLE ONE:): N / NE / E / SE / S / SW / W / NW

-AIR TEMPERATURE (°C)- (CIRCLE ONE:)

< 0 / 0 – 5 / 5 – 10 / 10 – 15 / 15 – 20 / 20 – 25 / 25 – 30 / > 30

IF PRECIPITATING, EVENT BEGAN:

Date _____

Time _____

ADDITIONAL WEATHER COMMENTS: Dry Event Sampling

METERS USED:

Meter (enter model):

YSI Meter: 650

Hach Meter: _____

Other Meter: _____

		WATER TEMP (°C)	DO % SAT	DO % mg/L
PRE-Sampling Calibration:	Hand-held			
	Data Logger			
POST-Sampling Calibration:	Hand-held			
	Data Logger			

TEMPERATURE/DISSOLVED OXYGEN

MILITARY TIME: 12:00

WATER TEMP (°C): 8.4

DO % SAT: 87.3

DO % mg/L: 10.2

SAMPLE #

REQUIRED QA/QC Duplicate (1 for every 10 samples)

MILITARY TIME: _____

WATER TEMP (°C): _____

DO % SAT: _____

DO % mg/L: _____

SAMPLE #

ADDITIONAL GRAB SAMPLING:

pH: 6.1 COMMENTS: _____

SPECIFIC CONDUCTANCE (UMHO/CM): 1110 COMMENTS: _____

TURBIDITY (NTU): -1.8 COMMENTS: _____

LABORATORY SAMPLES COLLECTED: (if applicable:) _____

METHODS USED: _____

LABORATORY USED: _____

Description of construction activity in area and implemented BMPs:

Other Field/Wildlife Observations:

Photos Taken:

Field Form Prepared By TRC Environmental Solutions
14 Gabriel Drive Augusta, ME 04330

NH Department of Environmental Services

Water Quality Monitoring Program

DIRECTIONS: Use this form when obtaining TEMP./D.O. Please fill out completely.

STREAM NAME: AWE-B1SD-A

TOWN: Antrim

(Circle): Upstream/Midstream/Downstream

WATER LEVEL (circle): Full Top of Bank / (Mid-way) / Low / Dry

FLOW (circle): High / (Moderate) / Low / None

Avg. Stream Depth (in): _____

COUNTY: Hillsborough

STATION DESCRIPTION: _____

	MONTH	DAY	YEAR
	05	02	2018

MONITORS 1 & 2 (Last name, First name):
ROBERTS, KALINDA
THOMAS, JOHN

STATION: LAT 43.070698
LONG -72.005733
DATUM _____
MIDAS _____

STATION #: 02

-WEATHER OBSERVATIONS- CIRCLE ONE:

SKY CONDITION AT TIME OF SAMPLING: Clear / Partly sunny / (Partly cloudy) / Overcast / Foggy; Drizzle / Light Rain / Heavy Rain / Snow / Sleet

-WIND CONDITIONS- CIRCLE ONE:

Calm (0–2 km/h) / (Slight breeze (2-8 km/h)) / Moderate wind (8-15 km/h) / Gusty (15–25 km/h) Strong gusts (25-40 km/h) Storm winds (>40 km/h)

WIND DIRECTION (CIRCLE ONE:): N / NE / E / SE / S / (SW) / W / NW

-AIR TEMPERATURE (°C)- (CIRCLE ONE:)

< 0 / 0 – 5 / 5 – 10 / 10 – 15 / 15 – 20 / 20 – 25 / (25 – 30) / > 30

IF PRECIPITATING, EVENT BEGAN:
Date _____
Time _____

ADDITIONAL WEATHER COMMENTS: Dry Event Sampling

METERS USED:

Meter (enter model):
YSI Meter: 650
Hach Meter: _____
Other Meter: _____

		WATER TEMP (°C)	DO % SAT	DO % mg/L
PRE-Sampling Calibration:	Hand-held	25.7	100.8	8.1
	Data Logger			
POST-Sampling Calibration:	Hand-held			
	Data Logger			

TEMPERATURE/DISSOLVED OXYGEN

MILITARY TIME: 1100
WATER TEMP (°C): 8.3
DO % SAT: 97.1
DO % mg/L: 11.4
SAMPLE #:

REQUIRED QA/QC Duplicate (1 for every 10 samples)

MILITARY TIME:
WATER TEMP (°C):
DO % SAT:
DO % mg/L:
SAMPLE #:

ADDITIONAL GRAB SAMPLING:

pH: 6.2 COMMENTS: _____

SPECIFIC CONDUCTANCE (UMHO/CM): 117.2 COMMENTS: _____

TURBIDITY (NTU): -1.7 COMMENTS: _____

LABORATORY SAMPLES COLLECTED: (if applicable:) _____

METHODS USED: _____

LABORATORY USED: _____

Description of construction activity in area and implemented BMPs:

Other Field/Wildlife Observations:

Photos Taken:

Field Form Prepared By TRC Environmental Solutions
14 Gabriel Drive Augusta, ME 04330

NH Department of Environmental Services

Water Quality Monitoring Program

DIRECTIONS: Use this form when obtaining TEMP./D.O. Please fill out completely.

STREAM NAME: AWE-C1 SD-4

TOWN Antrim

(Circle): Upstream/Midstream/Downstream

WATER LEVEL (circle): Full Top of Bank / Mid-way / Low / Dry

FLOW (circle): High / Moderate / Low / None

Avg. Stream Depth (in): _____

COUNTY Hillsborough

STATION DESCRIPTION: _____

MONTH	DAY	YEAR
05	02	2018

MONITORS 1 & 2 (Last name, First name): ROBERTS, KALINDA; THOMAS, JOHN

STATION: LAT 43.071684

LONG -72.006647

DATUM _____

MIDAS _____

STATION # 03

-WEATHER OBSERVATIONS- CIRCLE ONE:

SKY CONDITION AT TIME OF SAMPLING: Clear / Partly sunny / **Partly cloudy** / Overcast / Foggy / Drizzle / Light Rain / Heavy Rain / Snow / Sleet

-WIND CONDITIONS- CIRCLE ONE:

Slight breeze (2-8 km/h)

Calm (0–2 km/h) / Moderate wind (8-15 km/h) / Gusty (15–25 km/h) / Strong gusts (25-40 km/h) / Storm winds (>40 km/h)

-AIR TEMPERATURE (°C)- (CIRCLE ONE:)

< 0 / 0 – 5 / 5 – 10 / 10 – 15 / 15 – 20 / 20 – 25 / **25 – 30** / > 30

IF PRECIPITATING, EVENT BEGAN:

Date _____

Time _____

WIND DIRECTION (CIRCLE ONE:) N / NE / E / SE / S / **SW** / W / NW

ADDITIONAL WEATHER COMMENTS: Dry Event Sampling

METERS USED:

Meter (enter model):

YSI Meter: 650

Hach Meter: _____

Other Meter: _____

		WATER TEMP (°C)	DO % SAT	DO % mg/L
PRE-Sampling Calibration:	Hand-held			
	Data Logger			
POST-Sampling Calibration:	Hand-held			
	Data Logger			

TEMPERATURE/DISSOLVED OXYGEN

MILITARY TIME: 1130

WATER TEMP (°C): 9.3

DO % SAT: 101.6

DO % mg/L: 1.1.7

SAMPLE #: _____

ADDITIONAL GRAB SAMPLING:

pH: 6.6 COMMENTS: _____

SPECIFIC CONDUCTANCE (UMHO/CM): 1027 COMMENTS: _____

TURBIDITY (NTU): -1.6 COMMENTS: _____

REQUIRED QA/QC Duplicate (1 for every 10 samples)

MILITARY TIME: _____

WATER TEMP (°C): _____

DO % SAT: _____

DO % mg/L: _____

SAMPLE #: _____

LABORATORY SAMPLES COLLECTED: (if applicable:) _____

METHODS USED: _____

LABORATORY USED: _____

Description of construction activity in area and implemented BMPs:

Other Field/Wildlife Observations:

Photos Taken:

NH Department of Environmental Services

Antrim Wind Energy Project
Water Quality Monitoring Program

DIRECTIONS: Use this form when obtaining TEMP./D.O. Please fill out completely.

STREAM NAME: AWE - C2 SD-1

TOWN: Antrim

(Circle): Upstream/Midstream/Downstream

WATER LEVEL (circle): Full Top of Bank / Mid-way / Low / Dry

FLOW (circle): High / Moderate / Low / None

Avg. Stream Depth (in): 8

COUNTY: Hillsborough

STATION DESCRIPTION: Control

MONTH DAY YEAR: 05 20 2018

MONITORS 1 & 2 (Last name, First name): ROBERTS, KALINDA

STATION: LAT 43.076028
LONG -72.007126
DATUM
MIDAS

STATION #: 01

-WEATHER OBSERVATIONS- CIRCLE ONE:

SKY CONDITION AT TIME OF SAMPLING: Clear / Partly sunny / Partly cloudy / Overcast / Foggy / Drizzle / Light Rain / Heavy Rain / Snow / Sleet

-WIND CONDITIONS- CIRCLE ONE:

Calm (0–2 km/h) / Slight breeze (2-8 km/h) / Moderate wind (8-15 km/h) / Gusty (15–25 km/h) Strong gusts (25-40 km/h) Storm winds (>40 km/h)

WIND DIRECTION (CIRCLE ONE:): N / NE / E / SE / S / SW / W / NW

-AIR TEMPERATURE (°C)- (CIRCLE ONE:)

< 0 / 0 – 5 / 5 – 10 / 10 – 15 / 15 – 20 / 20 – 25 / 25 – 30 / > 30

IF PRECIPITATING, EVENT BEGAN:
Date 5/19/18
Time 13:00

ADDITIONAL WEATHER COMMENTS: Wet-Event Sampling

METERS USED:

Meter (enter model):
YSI Meter: 650
Hach Meter:
Other Meter:

		WATER TEMP (°C)	DO % SAT	DO % mg/L
PRE-Sampling Calibration:	Hand-held			
	Data Logger			
POST-Sampling Calibration:	Hand-held			
	Data Logger			

TEMPERATURE/DISSOLVED OXYGEN

SAMPLE #: 1

MILITARY TIME: 10:27
WATER TEMP (°C): 13.2
DO % SAT: 75.8
DO % mg/L: 8.0

REQUIRED QA/QC Duplicate (1 for every 10 samples)

SAMPLE #:
MILITARY TIME:
WATER TEMP (°C):
DO % SAT:
DO % mg/L:

ADDITIONAL GRAB SAMPLING:

pH: 5.6 COMMENTS:

SPECIFIC CONDUCTANCE (UMHO/CM): COMMENTS:

TURBIDITY (NTU): 0.7 COMMENTS:

LABORATORY SAMPLES COLLECTED: (if applicable:)

METHODS USED:

LABORATORY USED:

Description of construction activity in area and implemented BMPs:

Other Field/Wildlife Observations:

Photos Taken:

NH Department of Environmental Services

Antrim Wind Energy Project
Water Quality Monitoring Program

DIRECTIONS: Use this form when obtaining TEMP./D.O. Please fill out completely.

STREAM NAME: AWE - B1 SD- 4

TOWN: Antrim

(Circle): Upstream/Midstream/Downstream

WATER LEVEL (circle): Full Top of Bank / Mid-way / Low / Dry

FLOW (circle): High / Moderate / Low / None

Avg. Stream Depth (in): 6

COUNTY: Hillsborough

STATION DESCRIPTION: Upstream

MONTH DAY YEAR: 05 21 2018

STATION: LAT 43.070698

LONG -72.005733

DATUM

MIDAS

STATION # 02

MONITORS 1 & 2 (Last name, First name)

ROBERTS, KALINDA

THOMAS, JOHN

-WEATHER OBSERVATIONS- CIRCLE ONE:

SKY CONDITION AT TIME OF SAMPLING

Clear / Partly sunny / Partly cloudy / Overcast / Foggy

Drizzle / Light Rain / Heavy Rain / Snow / Sleet

-WIND CONDITIONS- CIRCLE ONE:

Calm (0–2 km/h) / Slight breeze (2-8 km/h) / Moderate wind (8-15 km/h) / Gusty (15–25 km/h) Strong gusts (25-40 km/h) Storm winds (>40 km/h)

WIND DIRECTION (CIRCLE ONE:)

N / NE / E / SE / S / SW / W / NW

-AIR TEMPERATURE (°C)- (CIRCLE ONE:)

< 0 / 0 – 5 / 5 – 10 / 10 – 15 / 15 – 20 / 20 – 25 / 25 – 30 / > 30

IF PRECIPITATING EVENT BEGAN:

Date 5/19/18

Time 13:00

ADDITIONAL WEATHER COMMENTS: Wet - Event Sampling

METERS USED:

Meter (enter model):

YSI Meter: 650

Hach Meter:

Other Meter:

	WATER TEMP (°C)	DO % SAT	DO % mg/L
PRE-Sampling Calibration: Hand-held			
PRE-Sampling Calibration: Data Logger			
POST-Sampling Calibration: Hand-held			
POST-Sampling Calibration: Data Logger			

TEMPERATURE/DISSOLVED OXYGEN

SAMPLE # 1

MILITARY TIME: 11:12

WATER TEMP (°C): 10.8

DO % SAT: 84.5

DO % mg/L: 9.4

REQUIRED QA/QC Duplicate (1 for every 10 samples)

SAMPLE #

MILITARY TIME:

WATER TEMP (°C):

DO % SAT:

DO % mg/L:

ADDITIONAL GRAB SAMPLING:

pH: 6.3 COMMENTS:

SPECIFIC CONDUCTANCE (UMHO/CM): COMMENTS:

TURBIDITY (NTU): 0.60 COMMENTS:

LABORATORY SAMPLES COLLECTED: (if applicable:)

METHODS USED:

LABORATORY USED:

Description of construction activity in area and implemented BMPs:

Other Field/Wildlife Observations:

Photos Taken:

NH Department of Environmental Services

Antrim Wind Energy Project
Water Quality Monitoring Program

DIRECTIONS: Use this form when obtaining TEMP./D.O. Please fill out completely.

STREAM NAME: AWE - C1 SD-4

TOWN: Antrim

(Circle): Upstream/Midstream/**Downstream**

WATER LEVEL (circle): Full Top of Bank / **Mid-way** / Low / Dry

FLOW (circle): High / **Moderate** / Low / None

Avg. Stream Depth (in): 6

COUNTY: Hillsborough

STATION DESCRIPTION: Downstream

MONTH DAY YEAR: 05 20 2018

MONITORS 1 & 2 (Last name, First name): ROBERTS, KALINDA; THOMAS, JOHN

STATION: LAT 43.071684
LONG -72.006647
DATUM
MIDAS

STATION #: 03

-WEATHER OBSERVATIONS- CIRCLE ONE:

SKY CONDITION AT TIME OF SAMPLING: Clear / Partly sunny / **Partly cloudy** / Overcast / Foggy / Drizzle / Light Rain / Heavy Rain / Snow / Sleet

-WIND CONDITIONS- CIRCLE ONE:

Calm (0–2 km/h) / **Slight breeze (2-8 km/h)** / Moderate wind (8-15 km/h) / Gusty (15–25 km/h) Strong gusts (25-40 km/h) Storm winds (>40 km/h)

WIND DIRECTION (CIRCLE ONE:) N / NE / E / SE / S / **SW** / W / NW

-AIR TEMPERATURE (°C)- (CIRCLE ONE:)

< 0 / 0 – 5 / 5 – 10 / 10 – 15 / **15 – 20** / 20 – 25 / 25 – 30 / > 30

IF PRECIPITATING, EVENT BEGAN:
Date 5/19/18
Time 13:00

ADDITIONAL WEATHER COMMENTS: Wet-Event Sampling High humidity

METERS USED:

Meter (enter model):
YSI Meter: 650
Hach Meter:
Other Meter:

		WATER TEMP (°C)	DO % SAT	DO % mg/L
PRE-Sampling Calibration:	Hand-held			
	Data Logger			
POST-Sampling Calibration:	Hand-held			
	Data Logger			

TEMPERATURE/DISSOLVED OXYGEN

SAMPLE #: 1

MILITARY TIME: 10:50
WATER TEMP (°C): 11.5
DO % SAT: 94.7
DO % mg/L: 10.3

REQUIRED QA/QC Duplicate (1 for every 10 samples)

SAMPLE #:
MILITARY TIME:
WATER TEMP (°C):
DO % SAT:
DO % mg/L:

ADDITIONAL GRAB SAMPLING:

pH: 6.6 COMMENTS:

SPECIFIC CONDUCTANCE (UMHO/CM): COMMENTS:

TURBIDITY (NTU): 0.57 COMMENTS:

LABORATORY SAMPLES COLLECTED: (if applicable:)

METHODS USED:

LABORATORY USED:

Description of construction activity in area and implemented BMPs:

Other Field/Wildlife Observations:

Photos Taken:

NH Department of Environmental Services

Antrim Wind Energy Project
Water Quality Monitoring Program

DIRECTIONS: Use this form when obtaining TEMP./D.O. Please fill out completely.

STREAM NAME: AWE – C2 SD-1

TOWN: Antrim

(Circle): Upstream/Midstream/Downstream

WATER LEVEL (circle): Full Top of Bank / Mid-way / Low / (Dry)

FLOW (circle): High / Moderate / Low / (None)

Avg. Stream Depth (in): 0

COUNTY: Hillsborough

STATION DESCRIPTION: Control

MONTH: 06 DAY: 14 YEAR: 2018

MONITORS 1 & 2 (Last name, First name): ROBERTS, KALINDA

STATION: LAT 43.076028
LONG -72.007126
DATUM
MIDAS

STATION #: 01

-WEATHER OBSERVATIONS-
CIRCLE ONE:

SKY CONDITION AT TIME OF SAMPLING: (Clear) / Partly sunny / Partly cloudy / Overcast / Foggy / Drizzle / Light Rain / Heavy Rain / Snow / Sleet

-WIND CONDITIONS-
CIRCLE ONE:

Calm (0–2 km/h)
Slight breeze (2-8 km/h)
Moderate wind (8-15 km/h)
(Gusty (15–25 km/h) Strong) gusts (25-40 km/h) Storm winds (>40 km/h)

WIND DIRECTION (CIRCLE ONE:): N / NE / E / SE / S / SW / (W) / NW

-AIR TEMPERATURE (°C)-
(CIRCLE ONE:)

< 0 / 0 – 5 / 5 – 10 / 10 – 15 / (15 – 20) / 20 – 25 / 25 – 30 / > 30

IF PRECIPITATING, EVENT BEGAN:
Date
Time

ADDITIONAL WEATHER COMMENTS: Dry-Event Sampling

METERS USED:

Meter (enter model):
YSI Meter: 650
Hach Meter:
Other Meter:

		WATER TEMP (°C)	DO % SAT	DO % mg/L
PRE-Sampling Calibration:	Hand-held	N/A		
	Data Logger			
POST-Sampling Calibration:	Hand-held	N/A		
	Data Logger			

TEMPERATURE/DISSOLVED OXYGEN

MILITARY TIME: N/A
WATER TEMP (°C):
DO % SAT:
DO % mg/L:

SAMPLE #: 1

REQUIRED QA/QC Duplicate (1 for every 10 samples)

MILITARY TIME:
WATER TEMP (°C):
DO % SAT:
DO % mg/L:

SAMPLE #:

ADDITIONAL GRAB SAMPLING:

pH : COMMENTS:

SPECIFIC CONDUCTANCE (UMHO/CM): COMMENTS:

TURBIDITY (NTU): COMMENTS:

LABORATORY SAMPLES COLLECTED: (if applicable:)

METHODS USED:

LABORATORY USED:

Description of construction activity in area and implemented BMPs:

Other Field/Wildlife Observations:

Photos Taken:

NH Department of Environmental Services

Antrim Wind Energy Project
Water Quality Monitoring Program

DIRECTIONS: Use this form when obtaining TEMP./D.O. Please fill out completely.

STREAM NAME: AWE - B1 SD-4

TOWN: Antrim

(Circle): Upstream/Midstream/Downstream

WATER LEVEL (circle): Full Top of Bank / Mid-way / (Low) / Dry

FLOW (circle): High / Moderate / (Low) / None

Avg. Stream Depth (in): 3

COUNTY: Hillsborough

STATION DESCRIPTION: Upstream

MONTH DAY YEAR: 06 14 2018

MONITORS 1 & 2 (Last name, First name): ROBERTS, KALINDA

STATION: LAT 43.070698
LONG -72.005733
DATUM
MIDAS

STATION #: 02

-WEATHER OBSERVATIONS-
CIRCLE ONE:

SKY CONDITION AT TIME OF SAMPLING

(Clear)	Drizzle
Partly sunny	Light Rain
Partly cloudy	Heavy Rain
Overcast	Snow
Foggy	Sleet

-WIND CONDITIONS-
CIRCLE ONE:

Calm (0–2 km/h)
Slight breeze (2-8 km/h)
Moderate wind (8-15 km/h)
(Gusty (15–25 km/h) Strong) gusts (25-40 km/h) Storm winds (>40 km/h)

WIND DIRECTION (CIRCLE ONE:)

N	S
NE	SW
E	(W)
SE	NW

-AIR TEMPERATURE (°C)-
(CIRCLE ONE:)

< 0	(15 – 20)
0 – 5	20 – 25
5 – 10	25 – 30
10 – 15	> 30

IF PRECIPITATING, EVENT BEGAN:
Date
Time

ADDITIONAL WEATHER COMMENTS: Dry-Event Sampling

METERS USED:

Meter (enter model):
YSI Meter: 650
Hach Meter:
Other Meter:

	WATER TEMP (°C)	DO % SAT	DO % mg/L
PRE-Sampling Calibration: Hand-held	13.3	86.3	9.0
PRE-Sampling Calibration: Data Logger	.	.	.
POST-Sampling Calibration: Hand-held	12.8	28.1	3.0
POST-Sampling Calibration: Data Logger	.	.	.

TEMPERATURE/DISSOLVED OXYGEN

MILITARY TIME: 10:01
WATER TEMP (°C): 12.8
DO % SAT: 28.1
DO % mg/L: 3.0

SAMPLE #: 1

REQUIRED QA/QC Duplicate (1 for every 10 samples)

MILITARY TIME:
WATER TEMP (°C): .
DO % SAT: .
DO % mg/L: .

SAMPLE #:

ADDITIONAL GRAB SAMPLING:

pH: 4.9 COMMENTS:

SPECIFIC CONDUCTANCE (UMHO/CM): COMMENTS:

TURBIDITY (NTU): COMMENTS:

LABORATORY SAMPLES COLLECTED: (if applicable:)

METHODS USED:

LABORATORY USED:

Description of construction activity in area and implemented BMPs:

Other Field/Wildlife Observations:

Photos Taken:

NH Department of Environmental Services

Antrim Wind Energy Project
Water Quality Monitoring Program

DIRECTIONS: Use this form when obtaining TEMP./D.O. Please fill out completely.

STREAM NAME: AWE - C1 SD-4

TOWN: Antrim

(Circle): Upstream/Midstream/Downstream

WATER LEVEL (circle): Full Top of Bank / Mid-way / Low / Dry

FLOW (circle): High / Moderate / Low / None

Avg. Stream Depth (in): 4

COUNTY: Hillsborough

STATION DESCRIPTION:

MONTH: 06 DAY: 14 YEAR: 2018

MONITORS 1 & 2 (Last name, First name): ROBERTS, KALINDA

STATION: LAT 43.071684
LONG -72.006647
DATUM
MIDAS

STATION #: 0.3

-WEATHER OBSERVATIONS-
CIRCLE ONE:

SKY CONDITION AT TIME OF SAMPLING: (Clear) / Partly sunny / Partly cloudy / Overcast / Foggy

Drizzle / Light Rain / Heavy Rain / Snow / Sleet

IF PRECIPITATING, EVENT BEGAN:
Date
Time

-WIND CONDITIONS-
CIRCLE ONE:

Calm (0–2 km/h)
Slight breeze (2-8 km/h)
Moderate wind (8-15 km/h)
(Gusty (15–25 km/h) Strong gusts (25-40 km/h) Storm winds (>40 km/h)

WIND DIRECTION (CIRCLE ONE:): N / NE / E / SE / S / SW / (W) / NW

-AIR TEMPERATURE (°C)-
(CIRCLE ONE:)

< 0 / 0 – 5 / 5 – 10 / 10 – 15 / (15 – 20) / 20 – 25 / 25 – 30 / > 30

ADDITIONAL WEATHER COMMENTS: Dry-Event Sampling

METERS USED:

Meter (enter model):
YSI Meter: 650
Hach Meter:
Other Meter:

		WATER TEMP (°C)	DO % SAT	DO % mg/L
PRE-Sampling Calibration:	Hand-held	18.7	93.8	8.8
	Data Logger			
POST-Sampling Calibration:	Hand-held	13.3	86.3	9.0
	Data Logger			

TEMPERATURE/DISSOLVED OXYGEN

MILITARY TIME: 9:42
WATER TEMP (°C): 13.5
DO % SAT: 77.8
DO % mg/L: 8.1

SAMPLE #: 1

REQUIRED QA/QC Duplicate (1 for every 10 samples)

MILITARY TIME:
WATER TEMP (°C):
DO % SAT:
DO % mg/L:

SAMPLE #:

ADDITIONAL GRAB SAMPLING:

pH: 5.6 COMMENTS:

SPECIFIC CONDUCTANCE (UMHO/CM): COMMENTS:

TURBIDITY (NTU): COMMENTS:

LABORATORY SAMPLES COLLECTED: (if applicable:)

METHODS USED:

LABORATORY USED:

Description of construction activity in area and implemented BMPs:

Other Field/Wildlife Observations:

Photos Taken:

NH Department of Environmental Services

Antrim Wind Energy Project
Water Quality Monitoring Program

DIRECTIONS: Use this form when obtaining TEMP./D.O. Please fill out completely.

STREAM NAME: AWE-C-2 SD-1

TOWN: Antrim

(Circle): Upstream/Midstream/Downstream

WATER LEVEL (circle): Full Top of Bank / Mid-way / Low / Dry

FLOW (circle): High / Moderate / Low / None

Avg. Stream Depth (in): 1.5

COUNTY: Hillsborough

STATION DESCRIPTION: Control

MONTH DAY YEAR: 07 27 2018

STATION: LAT 43.076028

LONG -72.007126

DATUM

MIDAS

STATION #: 01

MONITORS 1 & 2 (Last name, First name): ROBERTS, KALINDA; Dodd, MEG

-WEATHER OBSERVATIONS- CIRCLE ONE:

SKY CONDITION AT TIME OF SAMPLING: Clear / Partly sunny / Partly cloudy / Overcast / Foggy; Drizzle / Light Rain / Heavy Rain / Snow / Sleet

-WIND CONDITIONS- CIRCLE ONE:

Calm (0–2 km/h) / Slight breeze (2-8 km/h) / Moderate wind (8-15 km/h) / Gusty (15–25 km/h) Strong gusts (25-40 km/h) Storm winds (>40 km/h)

WIND DIRECTION (CIRCLE ONE:): N / NE / E / SE / S / SW / W / NW

-AIR TEMPERATURE (°C)- (CIRCLE ONE:)

< 0 / 0 – 5 / 5 – 10 / 10 – 15 / 15 – 20 / 20 – 25 / 25 – 30 / > 30

IF PRECIPITATING, EVENT BEGAN:
Date 7/26/18
Time 1:50 AM

ADDITIONAL WEATHER COMMENTS: Wet Event Sampling

METERS USED:

Meter (enter model):
YSI Meter: 650
Hach Meter:
Other Meter:

		WATER TEMP (°C)	DO % SAT	DO % mg/L
PRE-Sampling Calibration:	~~Hand-held~~ control	.	0.0.0	0.0.0
	Data Logger	.	0.0.2	0.0.0
POST-Sampling Calibration:	Hand-held	.	.	.
	Data Logger	.	0.0	0.0

TEMPERATURE/DISSOLVED OXYGEN

SAMPLE #: 1

MILITARY TIME: 14:01
WATER TEMP (°C): 19.7
DO % SAT: 8.0.3
DO % mg/L: 7.3

REQUIRED QA/QC Duplicate (1 for every 10 samples)

SAMPLE #:
MILITARY TIME:
WATER TEMP (°C): .
DO % SAT: .
DO % mg/L: .

ADDITIONAL GRAB SAMPLING:

pH: 7.3 COMMENTS:

SPECIFIC CONDUCTANCE (UMHO/CM): 39.7 COMMENTS:

TURBIDITY (NTU): -3.7 COMMENTS:

LABORATORY SAMPLES COLLECTED: (if applicable:)

METHODS USED:

LABORATORY USED:

Description of construction activity in area and implemented BMPs:

Other Field/Wildlife Observations: NO flow int culvert, Sample from pool

Photos Taken:

NH Department of Environmental Services

Antrim Wind Energy Project
Water Quality Monitoring Program

DIRECTIONS: Use this form when obtaining TEMP./D.O. Please fill out completely.

STREAM NAME: AWE -B-1 SD-4

TOWN: Antrim

(Circle): Upstream/Midstream/Downstream

WATER LEVEL (circle): Full Top of Bank / Mid-way / Low / Dry

FLOW (circle): High / Moderate / Low / None

Avg. Stream Depth (in): 4

COUNTY: Hillsborough

STATION DESCRIPTION: Upstream

MONTH DAY YEAR: 07 27 2018

STATION: LAT 43.070698
LONG -72.005733
DATUM
MIDAS

STATION #: 02

MONITORS 1 & 2 (Last name, First name): ROBERTS, KALINDA; DODD, MEG

-WEATHER OBSERVATIONS- CIRCLE ONE:

SKY CONDITION AT TIME OF SAMPLING: Clear, Partly sunny, Partly cloudy, Overcast, Foggy, Drizzle, Light Rain, Heavy Rain, Snow, Sleet

-WIND CONDITIONS- CIRCLE ONE:

Calm (0–2 km/h), Slight breeze (2-8 km/h), Moderate wind (8-15 km/h), Gusty (15–25 km/h) Strong gusts (25-40 km/h) Storm winds (>40 km/h)

WIND DIRECTION (CIRCLE ONE:): N, NE, E, SE, S, SW, W, NW

-AIR TEMPERATURE (°C)- (CIRCLE ONE:)

< 0, 0 – 5, 5 – 10, 10 – 15, 15 – 20, 20 – 25, 25 – 30, > 30

IF PRECIPITATING, EVENT BEGAN:
Date 7/26/18
Time 1:50 AM

ADDITIONAL WEATHER COMMENTS: Wet Event Sampling

METERS USED:

Meter (enter model):
YSI Meter: 650
Hach Meter:
Other Meter:

		WATER TEMP (°C)	DO % SAT	DO % mg/L
PRE-Sampling Calibration:	Hand-held	.	.	.
	Data Logger	.	00.2	00.0
POST-Sampling Calibration:	Hand-held	.	00.0	0.0
	Data Logger	.	0.0	0.0

TEMPERATURE/DISSOLVED OXYGEN

MILITARY TIME: 15:08
WATER TEMP (°C): 17.7
DO % SAT: 72.9
SAMPLE #: 1
DO % mg/L: 6.9

REQUIRED QA/QC Duplicate (1 for every 10 samples)

MILITARY TIME:
WATER TEMP (°C):
DO % SAT:
SAMPLE #:
DO % mg/L:

ADDITIONAL GRAB SAMPLING:

pH: 5.3 COMMENTS:

SPECIFIC CONDUCTANCE (UMHO/CM): 26.0 COMMENTS:

TURBIDITY (NTU): COMMENTS:

LABORATORY SAMPLES COLLECTED: (if applicable:)

METHODS USED:

LABORATORY USED:

Description of construction activity in area and implemented BMPs:

Other Field/Wildlife Observations: Discontinuous flow downstream Minimal flow

Photos Taken:

Field Form Prepared By TRC Environmental Solutions
14 Gabriel Drive Augusta, ME 04330

NH Department of Environmental Services

Antrim Wind Energy Project
Water Quality Monitoring Program

DIRECTIONS: Use this form when obtaining TEMP./D.O. Please fill out completely.

STREAM NAME: AWE-C-1 SD-4

TOWN: Antrim

(Circle): Upstream/Midstream/Downstream

WATER LEVEL (circle): Full Top of Bank / Mid-way / Low / Dry

FLOW (circle): High / Moderate / Low / None

Avg. Stream Depth (in): 3.5

COUNTY: Hillsborough

STATION DESCRIPTION: Downstream

MONTH: 07 DAY: 27 YEAR: 2018

STATION: LAT 43.071684
LONG -72.006647
DATUM
MIDAS

STATION #: 03

MONITORS 1 & 2 (Last name, First name)
ROBERTS, KALINDA
DOOD, MEG

-WEATHER OBSERVATIONS- CIRCLE ONE:

SKY CONDITION AT TIME OF SAMPLING

Clear	Drizzle
Partly sunny	(Light Rain)
Partly cloudy	Heavy Rain
Overcast	Snow
Foggy	Sleet

IF PRECIPITATING, EVENT BEGAN:
Date 7/26/18
Time 1:50 AM

-WIND CONDITIONS- CIRCLE ONE:

(Calm (0–2 km/h))
Slight breeze (2-8 km/h)
Moderate wind (8-15 km/h)
Gusty (15–25 km/h) Strong gusts (25-40 km/h) Storm winds (>40 km/h)

WIND DIRECTION (CIRCLE ONE:)

N	(S)	
NE	SW	
E	W	
SE	NW	

-AIR TEMPERATURE (°C)- (CIRCLE ONE:)

< 0	15 – 20
0 – 5	20 – 25
5 – 10	(25 – 30)
10 – 15	> 30

ADDITIONAL WEATHER COMMENTS: Wet Event Sampling

METERS USED:

Meter (enter model):
YSI Meter: 650
Hach Meter:
Other Meter:

		WATER TEMP (°C)	DO % SAT	DO % mg/L
PRE-Sampling Calibration:	Hand-held			
	Data Logger		00.2	00.0
POST-Sampling Calibration:	Hand-held			
	Data Logger		00.0	00.0

TEMPERATURE/DISSOLVED OXYGEN

MILITARY TIME: 14:45
WATER TEMP (°C): 19.0
DO % SAT: 88.3
DO % mg/L: 8.2
SAMPLE #: 1

REQUIRED QA/QC Duplicate (1 for every 10 samples)

MILITARY TIME:
WATER TEMP (°C):
DO % SAT:
DO % mg/L:
SAMPLE #:

ADDITIONAL GRAB SAMPLING:

pH: 5.4 COMMENTS:

SPECIFIC CONDUCTANCE (UMHO/CM): 218 COMMENTS:

TURBIDITY (NTU): COMMENTS:

LABORATORY SAMPLES COLLECTED: (if applicable:)

METHODS USED:

LABORATORY USED:

Description of construction activity in area and implemented BMPs:

Other Field/Wildlife Observations: Minimal flow

Photos Taken:

NH Department of Environmental Services

Antrim Wind Energy Project
Water Quality Monitoring Program

DIRECTIONS: Use this form when obtaining TEMP./D.O. Please fill out completely.

STREAM NAME: AWE-B-1

TOWN: Antrim

(Circle): Upstream/Midstream/Downstream

WATER LEVEL (circle): Full Top of Bank / Mid-way / (Low) / Dry

FLOW (circle): High / Moderate / (Low) / None

Avg. Stream Depth (in): _____

COUNTY: Hillsborough

STATION DESCRIPTION: _____

MONTH: 05 DAY: 13 YEAR: 2021

MONITORS 1 & 2 (Last name, First name): FERGUSON, KEVIN

STATION: LAT 43.070698

LONG -72.005733

DATUM _____

MIDAS _____

STATION #: 02

-WEATHER OBSERVATIONS- CIRCLE ONE:

SKY CONDITION AT TIME OF SAMPLING

(Clear) / Partly sunny / Partly cloudy / Overcast / Foggy

Drizzle / Light Rain / Heavy Rain / Snow / Sleet

-WIND CONDITIONS- CIRCLE ONE:

Calm (0–2 km/h)
(Slight breeze (2-8 km/h))
Moderate wind (8-15 km/h)
Gusty (15–25 km/h) Strong gusts (25-40 km/h) Storm winds (>40 km/h)

WIND DIRECTION (CIRCLE ONE:)

N / NE / E / SE / S / SW / (W) / NW

-AIR TEMPERATURE (°C)- (CIRCLE ONE:)

< 0 / 0 – 5 / 5 – 10 / 10 – 15 / (15 – 20) / 20 – 25 / 25 – 30 / > 30

IF PRECIPITATING, EVENT BEGAN:
Date _____
Time _____

ADDITIONAL WEATHER COMMENTS:
Dry sampling event 1 (2021)

METERS USED:

Meter (enter model):
YSI Meter: 650
Hach Meter: _____
Other Meter: _____

		WATER TEMP (°C)	DO % SAT	DO % mg/L
PRE-Sampling Calibration:	Hand-held			
	Data Logger			
POST-Sampling Calibration:	Hand-held			
	Data Logger			

TEMPERATURE/DISSOLVED OXYGEN

MILITARY TIME: 10:10

WATER TEMP (°C): 10.3

DO % SAT: 88.6

DO % mg/L: 9.9

SAMPLE #: _____

REQUIRED QA/QC Duplicate (1 for every 10 samples)

MILITARY TIME: _____

WATER TEMP (°C): _____

DO % SAT: _____

DO % mg/L: _____

SAMPLE #: _____

ADDITIONAL GRAB SAMPLING:

pH: 7.7 COMMENTS: _____

SPECIFIC CONDUCTANCE (UMHO/CM): 929 COMMENTS: _____

TURBIDITY (NTU): _____ COMMENTS: Not collected

LABORATORY SAMPLES COLLECTED: (if applicable:) _____

METHODS USED: _____

LABORATORY USED: _____

Description of construction activity in area and implemented BMPs:

Other Field/Wildlife Observations:

Photos Taken:

Field Form Prepared By TRC Environmental Solutions
14 Gabriel Drive Augusta, ME 04330

NH Department of Environmental Services

Antrim Wind Energy Project
Water Quality Monitoring Program

DIRECTIONS: Use this form when obtaining TEMP./D.O. Please fill out completely.

STREAM NAME: AWE-C-1

TOWN: Antrim

(Circle): Upstream/Midstream/Downstream

WATER LEVEL (circle): Full Top of Bank / Mid-way / **Low** / Dry

FLOW (circle): High / Moderate / **Low** / None

Avg. Stream Depth (in): _____

COUNTY: Hillsborough

STATION DESCRIPTION: _____

MONTH: 05 DAY: 13 YEAR: 2021

MONITORS 1 & 2 (Last name, First name): FERGUSON, KEVIN

STATION: LAT 43.071684
LONG -72.006647
DATUM _____
MIDAS _____

STATION #: 03

-WEATHER OBSERVATIONS- CIRCLE ONE:

SKY CONDITION AT TIME OF SAMPLING

Clear / Partly sunny / Partly cloudy / Overcast / Foggy

Drizzle / Light Rain / Heavy Rain / Snow / Sleet

IF PRECIPITATING, EVENT BEGAN:
Date _____
Time _____

-WIND CONDITIONS- CIRCLE ONE:

Calm (0–2 km/h)
Slight breeze (2-8 km/h)
Moderate wind (8-15 km/h)
Gusty (15–25 km/h) Strong gusts (25-40 km/h) Storm winds (>40 km/h)

WIND DIRECTION (CIRCLE ONE:)

N / NE / E / SE / S / SW / **W** / NW

-AIR TEMPERATURE (°C)- (CIRCLE ONE:)

< 0 / 0 – 5 / 5 – 10 / 10 – 15 / **15 – 20** / 20 – 25 / 25 – 30 / > 30

ADDITIONAL WEATHER COMMENTS:
Dry sampling event 1 (2021)

METERS USED:

Meter (enter model):
YSI Meter: 650
Hach Meter: _____
Other Meter: _____

		WATER TEMP (°C)	DO % SAT	DO % mg/L
PRE-Sampling Calibration:	Hand-held			
	Data Logger			
POST-Sampling Calibration:	Hand-held			
	Data Logger			

TEMPERATURE/DISSOLVED OXYGEN

MILITARY TIME: 10:25
WATER TEMP (°C): 8.7
DO % SAT: 80.3
DO % mg/L: 9.4
SAMPLE #:

REQUIRED QA/QC Duplicate (1 for every 10 samples)

MILITARY TIME:
WATER TEMP (°C):
DO % SAT:
DO % mg/L:
SAMPLE #:

ADDITIONAL GRAB SAMPLING:

pH: 6.7 COMMENTS: _____

SPECIFIC CONDUCTANCE (UMHO/CM): 117.0 COMMENTS: _____

TURBIDITY (NTU): _____ COMMENTS: Not collected

LABORATORY SAMPLES COLLECTED: (if applicable:) _____

METHODS USED: _____

LABORATORY USED: _____

Description of construction activity in area and implemented BMPs:	Other Field/Wildlife Observations:	Photos Taken:

Field Form Prepared By TRC Environmental Solutions
14 Gabriel Drive Augusta, ME 04330

NH Department of Environmental Services

Antrim Wind Energy Project
Water Quality Monitoring Program

DIRECTIONS: Use this form when obtaining TEMP./D.O. Please fill out completely.

STREAM NAME: AWE-B-1

TOWN: Antrim

(Circle): Upstream/Midstream/Downstream

WATER LEVEL (circle): Full Top of Bank / (Mid-way) / Low / Dry

FLOW (circle): High / (Moderate) / Low / None

Avg. Stream Depth (in): _____

COUNTY: Hillsborough

STATION DESCRIPTION: _____

MONTH	DAY	YEAR
05	31	2021

MONITORS 1 & 2 (Last name, First name): FERGUSON, KEVIN

STATION: LAT 43.070698

LONG -72.005733

DATUM _____

MIDAS _____

STATION # 02

-WEATHER OBSERVATIONS- CIRCLE ONE:

SKY CONDITION AT TIME OF SAMPLING

Clear / Partly sunny / Partly cloudy / (Overcast) / Foggy

Drizzle / Light Rain / Heavy Rain / Snow / Sleet

IF PRECIPITATING, EVENT BEGAN:

Date _____

Time _____

-WIND CONDITIONS- CIRCLE ONE:

Calm (0–2 km/h)
Slight breeze (2-8 km/h)
(Moderate wind) (8-15 km/h)
Gusty (15–25 km/h) Strong gusts (25-40 km/h) Storm winds (>40 km/h)

WIND DIRECTION (CIRCLE ONE:)

N / NE / E / SE / (S) / SW / W / NW

-AIR TEMPERATURE (°C)- (CIRCLE ONE:)

< 0 / 0 – 5 / 5 – 10 / (10 – 15) / 15 – 20 / 20 – 25 / 25 – 30 / > 30

ADDITIONAL WEATHER COMMENTS: Wet sampling event 1 (2021)

METERS USED:

Meter (enter model):
YSI Meter: 650
Hach Meter: _____
Other Meter: _____

		WATER TEMP (°C)	DO % SAT	DO % mg/L
PRE-Sampling Calibration:	Hand-held			
	Data Logger			
POST-Sampling Calibration:	Hand-held			
	Data Logger			

TEMPERATURE/DISSOLVED OXYGEN

MILITARY TIME: 09:10

WATER TEMP (°C): 9.3

DO % SAT: 89.7

DO % mg/L: 10.3

SAMPLE #: _____

REQUIRED QA/QC Duplicate (1 for every 10 samples)

MILITARY TIME: _____

WATER TEMP (°C): _____

DO % SAT: _____

DO % mg/L: _____

SAMPLE #: _____

ADDITIONAL GRAB SAMPLING:

pH: 8.9 COMMENTS: _____

SPECIFIC CONDUCTANCE (UMHO/CM): 73.5 COMMENTS: _____

TURBIDITY (NTU): _____ COMMENTS: Not collected

LABORATORY SAMPLES COLLECTED: (if applicable:) _____

METHODS USED: _____

LABORATORY USED: _____

Description of construction activity in area and implemented BMPs:

Other Field/Wildlife Observations:

Photos Taken:

Field Form Prepared By TRC Environmental Solutions
14 Gabriel Drive Augusta, ME 04330

NH Department of Environmental Services

Antrim Wind Energy Project
Water Quality Monitoring Program

DIRECTIONS: Use this form when obtaining TEMP./D.O. Please fill out completely.

STREAM NAME: AWE-C-1

TOWN: Antrim

(Circle): Upstream/Midstream/Downstream

WATER LEVEL (circle): Full Top of Bank / **Mid-way** / Low / Dry

FLOW (circle): High / **Moderate** / Low / None

Avg. Stream Depth (in): _____

COUNTY: Hillsborough

STATION DESCRIPTION: _____

MONTH: 05 DAY: 31 YEAR: 2021

MONITORS 1 & 2 (Last name, First name): FERGUSON, KEVIN

STATION: LAT 43.071684
LONG -72.006647
DATUM _____
MIDAS _____

STATION #: 03

-WEATHER OBSERVATIONS- CIRCLE ONE:

SKY CONDITION AT TIME OF SAMPLING

Clear / Partly sunny / Partly cloudy / **Overcast** / Foggy

Drizzle / Light Rain / Heavy Rain / Snow / Sleet

-WIND CONDITIONS- CIRCLE ONE:

Calm (0–2 km/h)
Slight breeze (2-8 km/h)
Moderate wind (8-15 km/h)
Gusty (15–25 km/h) Strong gusts (25-40 km/h) Storm winds (>40 km/h)

WIND DIRECTION (CIRCLE ONE:)

N / NE / E / SE / **S** / SW / W / NW

-AIR TEMPERATURE (°C)- (CIRCLE ONE:)

< 0 / 0 – 5 / 5 – 10 / **10 – 15** / 15 – 20 / 20 – 25 / 25 – 30 / > 30

IF PRECIPITATING, EVENT BEGAN:
Date _____
Time _____

ADDITIONAL WEATHER COMMENTS:
Wet sampling event 1 (2021)

METERS USED:

Meter (enter model):
YSI Meter: 650
Hach Meter: _____
Other Meter: _____

		WATER TEMP (°C)	DO % SAT	DO % mg/L
PRE-Sampling Calibration:	Hand-held			
	Data Logger			
POST-Sampling Calibration:	Hand-held			
	Data Logger			

TEMPERATURE/DISSOLVED OXYGEN

MILITARY TIME: 09:20
WATER TEMP (°C): 9.3
DO % SAT: 90.5
DO % mg/L: 10.4
SAMPLE #:

REQUIRED QA/QC Duplicate (1 for every 10 samples)

MILITARY TIME:
WATER TEMP (°C):
DO % SAT:
DO % mg/L:
SAMPLE #:

ADDITIONAL GRAB SAMPLING:

pH: 8.0 COMMENTS: _____

SPECIFIC CONDUCTANCE (UMHO/CM): 941 COMMENTS: _____

TURBIDITY (NTU): _____ COMMENTS: Not collected

LABORATORY SAMPLES COLLECTED: (if applicable:) _____

METHODS USED: _____

LABORATORY USED: _____

Description of construction activity in area and implemented BMPs:	Other Field/Wildlife Observations:	Photos Taken:

NH Department of Environmental Services

Antrim Wind Energy Project
Water Quality Monitoring Program

DIRECTIONS: Use this form when obtaining TEMP./D.O. Please fill out completely.

STREAM NAME: AWE-B-1

TOWN: Antrim

(Circle): Upstream/Midstream/Downstream

WATER LEVEL (circle): Full Top of Bank / Mid-way / **Low** / Dry

FLOW (circle): High / Moderate / **Low** / None

Avg. Stream Depth (in): _____

COUNTY: Hillsborough

STATION DESCRIPTION: _____

MONTH	DAY	YEAR
06	17	2021

MONITORS 1 & 2 (Last name, First name): FERGUSON, KEVIN

STATION: LAT 43.070698

LONG -72.005733

DATUM _____

MIDAS _____

STATION #: 02

-WEATHER OBSERVATIONS- CIRCLE ONE:

SKY CONDITION AT TIME OF SAMPLING

- **Clear**
- Partly sunny
- Partly cloudy
- Overcast
- Foggy
- Drizzle
- Light Rain
- Heavy Rain
- Snow
- Sleet

IF PRECIPITATING, EVENT BEGAN:

Date _____

Time _____

-WIND CONDITIONS- CIRCLE ONE:

- **Calm (0–2 km/h)**
- Slight breeze (2-8 km/h)
- Moderate wind (8-15 km/h)
- Gusty (15–25 km/h) Strong gusts (25-40 km/h) Storm winds (>40 km/h)

WIND DIRECTION (CIRCLE ONE:): N, NE, E, SE, S, SW, W, NW

-AIR TEMPERATURE (°C)- (CIRCLE ONE:)

- < 0
- 0 – 5
- 5 – 10
- 10 – 15
- 15 – 20
- 20 – 25
- **25 – 30**
- > 30

ADDITIONAL WEATHER COMMENTS: Dry sampling event 2 (2021)

METERS USED:

Meter (enter model):

YSI Meter: 650

Hach Meter: _____

Other Meter: _____

		WATER TEMP (°C)	DO % SAT	DO % mg/L
PRE-Sampling Calibration:	Hand-held			
	Data Logger			
POST-Sampling Calibration:	Hand-held			
	Data Logger			

TEMPERATURE/DISSOLVED OXYGEN

MILITARY TIME: 10:40

WATER TEMP (°C): 12.7

DO % SAT: 58.5

DO % mg/L: 6.2

SAMPLE #: _____

REQUIRED QA/QC Duplicate (1 for every 10 samples)

MILITARY TIME: _____

WATER TEMP (°C): _____

DO % SAT: _____

DO % mg/L: _____

SAMPLE #: _____

ADDITIONAL GRAB SAMPLING:

pH: 8.1 COMMENTS: _____

SPECIFIC CONDUCTANCE (UMHO/CM): 563 COMMENTS: _____

TURBIDITY (NTU): _____ COMMENTS: Not collected

LABORATORY SAMPLES COLLECTED: (if applicable:) _____

METHODS USED: _____

LABORATORY USED: _____

Description of construction activity in area and implemented BMPs:

Other Field/Wildlife Observations:

Photos Taken:

Field Form Prepared By TRC Environmental Solutions
14 Gabriel Drive Augusta, ME 04330

NH Department of Environmental Services

Antrim Wind Energy Project
Water Quality Monitoring Program

DIRECTIONS: Use this form when obtaining TEMP./D.O. Please fill out completely.

STREAM NAME: AWE-C-1

TOWN: Antrim

(Circle): Upstream/Midstream/Downstream

WATER LEVEL (circle): Full Top of Bank / Mid-way / **Low** / Dry

FLOW (circle): High / Moderate / **Low** / None

Avg. Stream Depth (in): _____

COUNTY: Hillsborough

STATION DESCRIPTION: _____

MONTH: 06 DAY: 17 YEAR: 2021

MONITORS 1 & 2 (Last name, First name): FERGUSON, KEVIN

STATION: LAT 43.071684
LONG -72.006647
DATUM _____
MIDAS _____

STATION #: 03

-WEATHER OBSERVATIONS- CIRCLE ONE:

SKY CONDITION AT TIME OF SAMPLING

Clear / Partly sunny / Partly cloudy / Overcast / Foggy

Drizzle / Light Rain / Heavy Rain / Snow / Sleet

IF PRECIPITATING, EVENT BEGAN:
Date _____
Time _____

-WIND CONDITIONS- CIRCLE ONE:

Calm (0–2 km/h) / Slight breeze (2-8 km/h) / Moderate wind (8-15 km/h) / Gusty (15–25 km/h) Strong gusts (25-40 km/h) Storm winds (>40 km/h)

WIND DIRECTION (CIRCLE ONE:): N / NE / E / SE / S / SW / W / NW

-AIR TEMPERATURE (°C)- (CIRCLE ONE:)

< 0 / 0 – 5 / 5 – 10 / 10 – 15 / 15 – 20 / 20 – 25 / **25 – 30** / > 30

ADDITIONAL WEATHER COMMENTS: Dry sampling event 2 (2021)

METERS USED:

Meter (enter model):
YSI Meter: 650
Hach Meter: _____
Other Meter: _____

		WATER TEMP (°C)	DO % SAT	DO % mg/L
PRE-Sampling Calibration:	Hand-held			
	Data Logger			
POST-Sampling Calibration:	Hand-held			
	Data Logger			

TEMPERATURE/DISSOLVED OXYGEN

MILITARY TIME: 11:30
WATER TEMP (°C): 14.0
DO % SAT: 70.8
DO % mg/L: 7.3

SAMPLE #: _____

REQUIRED QA/QC Duplicate (1 for every 10 samples)

MILITARY TIME: _____
WATER TEMP (°C): _____
DO % SAT: _____
DO % mg/L: _____

SAMPLE #: _____

ADDITIONAL GRAB SAMPLING:

pH: 6.6 COMMENTS: _____

SPECIFIC CONDUCTANCE (UMHO/CM): 611 COMMENTS: _____

TURBIDITY (NTU): _____ COMMENTS: Not collected

LABORATORY SAMPLES COLLECTED: (if applicable:) _____

METHODS USED: _____

LABORATORY USED: _____

Description of construction activity in area and implemented BMPs:

Other Field/Wildlife Observations:

Photos Taken:

Field Form Prepared By TRC Environmental Solutions
14 Gabriel Drive Augusta, ME 04330

NH Department of Environmental Services

Antrim Wind Energy Project
Water Quality Monitoring Program

DIRECTIONS: Use this form when obtaining TEMP./D.O. Please fill out completely.

STREAM NAME: AWE-B-1

TOWN: Antrim

(Circle): Upstream/Midstream/Downstream

WATER LEVEL (circle): Full Top of Bank / Mid-way / Low / Dry

FLOW (circle): High / Moderate / Low / None

Avg. Stream Depth (in): _____

COUNTY: Hillsborough

STATION DESCRIPTION: _____

MONTH: 07 DAY: 06 YEAR: 2021

MONITORS 1 & 2 (Last name, First name): FERGUSON, KEVIN

STATION: LAT 43.070698

LONG -72.005733

DATUM _____

MIDAS _____

STATION # 02

-WEATHER OBSERVATIONS- CIRCLE ONE:

SKY CONDITION AT TIME OF SAMPLING

Clear / Partly sunny / Partly cloudy / Overcast / Foggy

Drizzle / Light Rain / Heavy Rain / Snow / Sleet

-WIND CONDITIONS- CIRCLE ONE:

Calm (0–2 km/h)
Slight breeze (2-8 km/h)
Moderate wind (8-15 km/h)
Gusty (15–25 km/h) Strong gusts (25-40 km/h) Storm winds (>40 km/h)

WIND DIRECTION (CIRCLE ONE:)

N / NE / E / SE / S / SW / W / NW

-AIR TEMPERATURE (°C)- (CIRCLE ONE:)

< 0 / 0 – 5 / 5 – 10 / 10 – 15 / 15 – 20 / 20 – 25 / 25 – 30 / > 30

IF PRECIPITATING, EVENT BEGAN:
Date _____
Time _____

ADDITIONAL WEATHER COMMENTS:
Wet sampling event 2 (2021)

METERS USED:

Meter (enter model):
YSI Meter: 650
Hach Meter: _____
Other Meter: _____

		WATER TEMP (°C)	DO % SAT	DO % mg/L
PRE-Sampling Calibration:	Hand-held			
	Data Logger			
POST-Sampling Calibration:	Hand-held			
	Data Logger			

TEMPERATURE/DISSOLVED OXYGEN

MILITARY TIME: 08:55

WATER TEMP (°C): 15.5

DO % SAT: 112.4

DO % mg/L: 11.2

SAMPLE #: _____

REQUIRED QA/QC Duplicate (1 for every 10 samples)

MILITARY TIME: _____

WATER TEMP (°C): _____

DO % SAT: _____

DO % mg/L: _____

SAMPLE #: _____

ADDITIONAL GRAB SAMPLING:

pH: 7.7 COMMENTS: _____

SPECIFIC CONDUCTANCE (UMHO/CM): 116.3 COMMENTS: _____

TURBIDITY (NTU): _____ COMMENTS: Not collected

LABORATORY SAMPLES COLLECTED: (if applicable:) _____

METHODS USED: _____

LABORATORY USED: _____

Description of construction activity in area and implemented BMPs:

Other Field/Wildlife Observations:

Photos Taken:

Field Form Prepared By TRC Environmental Solutions
14 Gabriel Drive Augusta, ME 04330

NH Department of Environmental Services

Antrim Wind Energy Project
Water Quality Monitoring Program

DIRECTIONS: Use this form when obtaining TEMP./D.O. Please fill out completely.

STREAM NAME: AWE-C-1

TOWN: Antrim

(Circle): Upstream/Midstream/Downstream

WATER LEVEL (circle): Full Top of Bank / (Mid-way) / Low / Dry

FLOW (circle): High / (Moderate) / Low / None

Avg. Stream Depth (in): _____

COUNTY: Hillsborough

STATION DESCRIPTION: _____

MONTH: 07 DAY: 06 YEAR: 2021

MONITORS 1 & 2 (Last name, First name): FERGUSON, KEVIN

STATION: LAT 43.071684

LONG -72.006647

DATUM _____

MIDAS _____

STATION #: 03

-WEATHER OBSERVATIONS- CIRCLE ONE:

SKY CONDITION AT TIME OF SAMPLING

Clear	Drizzle
Partly sunny	Light Rain
Partly cloudy	Heavy Rain
(Overcast)	Snow
Foggy	Sleet

-WIND CONDITIONS- CIRCLE ONE:

(Calm (0–2 km/h))
Slight breeze (2-8 km/h)
Moderate wind (8-15 km/h)
Gusty (15–25 km/h) Strong gusts (25-40 km/h) Storm winds (>40 km/h)

WIND DIRECTION (CIRCLE ONE:)

N	S
NE	SW
E	W
SE	NW

-AIR TEMPERATURE (°C)- (CIRCLE ONE:)

< 0	15 – 20
0 – 5	(20 – 25)
5 – 10	25 – 30
10 – 15	> 30

IF PRECIPITATING, EVENT BEGAN:
Date _____
Time _____

ADDITIONAL WEATHER COMMENTS:
Wet sampling event 2 (2021)

METERS USED:

Meter (enter model):
YSI Meter: 650
Hach Meter: _____
Other Meter: _____

		WATER TEMP (°C)	DO % SAT	DO % mg/L
PRE-Sampling Calibration:	Hand-held			
	Data Logger			
POST-Sampling Calibration:	Hand-held			
	Data Logger			

TEMPERATURE/DISSOLVED OXYGEN

MILITARY TIME: 09:10

WATER TEMP (°C): 15.2

DO % SAT: 77.2

DO % mg/L: 7.7

SAMPLE #:

REQUIRED QA/QC Duplicate (1 for every 10 samples)

MILITARY TIME:

WATER TEMP (°C):

DO % SAT:

DO % mg/L:

SAMPLE #:

ADDITIONAL GRAB SAMPLING:

pH: 7.0 COMMENTS: _____

SPECIFIC CONDUCTANCE (UMHO/CM): 143.0 COMMENTS: _____

TURBIDITY (NTU): _____ COMMENTS: Not collected

LABORATORY SAMPLES COLLECTED: (if applicable:) _____

METHODS USED: _____

LABORATORY USED: _____

Description of construction activity in area and implemented BMPs:

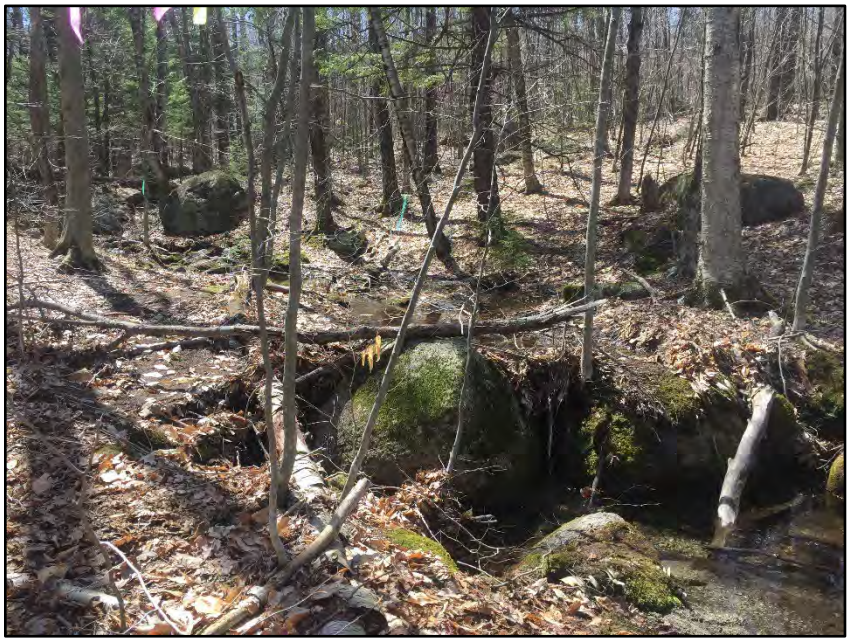
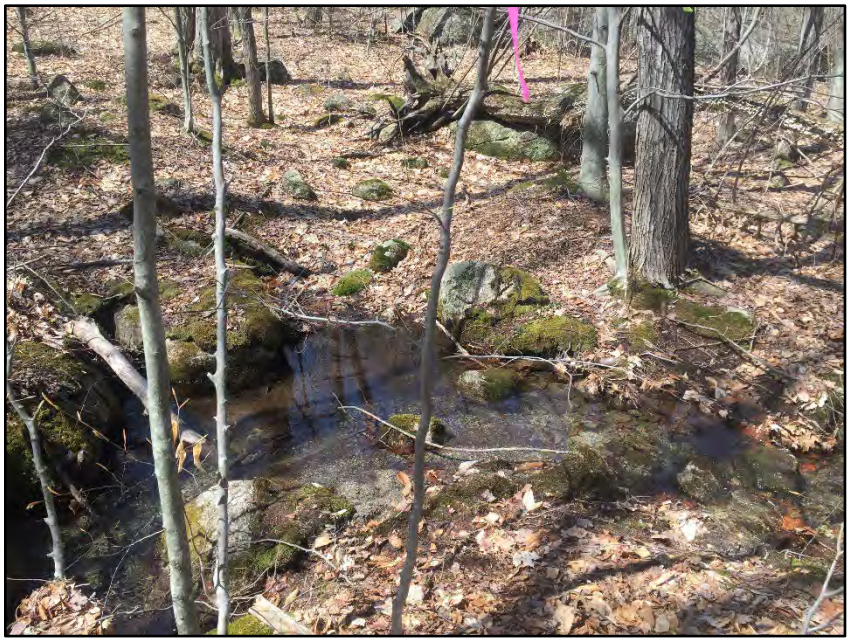
Other Field/Wildlife Observations:

Photos Taken:

Attachment 3
Photographic Documentation

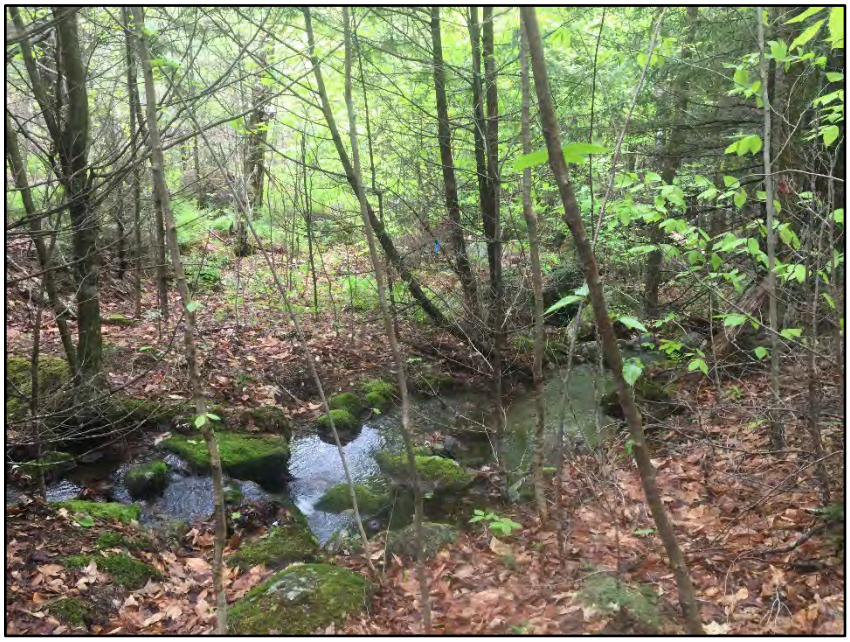
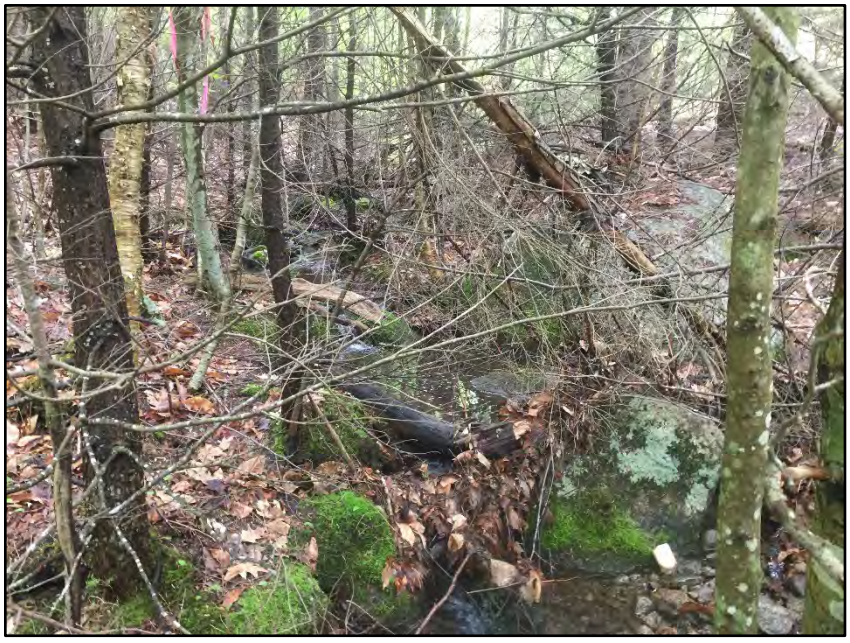
ANTRIM WIND

ANTRIM, NEW HAMPSHIRE

Photograph: 1 Date: 5/2/2018 Direction: Southeast Description: Conditions observed at sampling location AWE-B-1 during the pre-construction dry sampling event 1.	
Photograph: 2 Date: 5/2/2018 Direction: West Description: Conditions observed at sampling location AWE-C-1 during the pre-construction dry sampling event 1.	

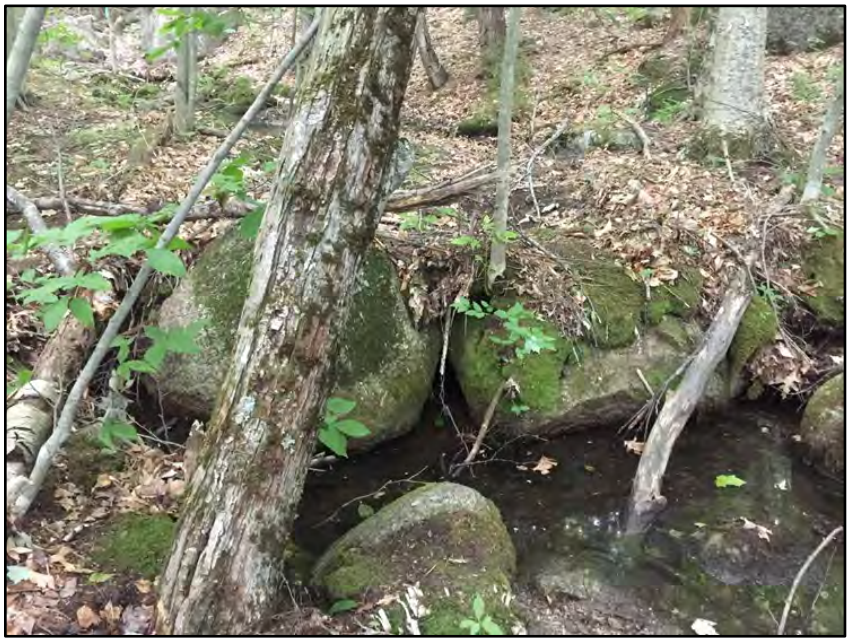
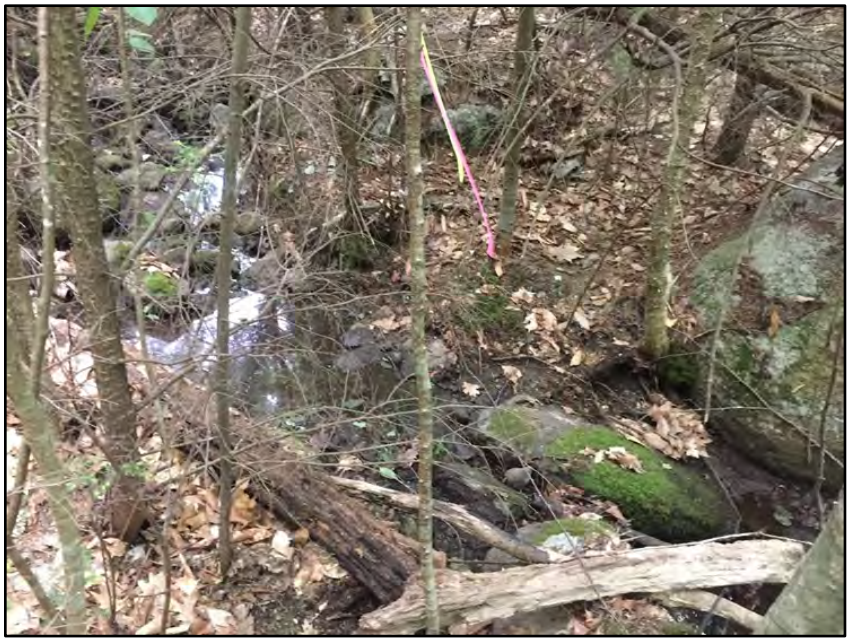
ANTRIM WIND

ANTRIM, NEW HAMPSHIRE

Photograph: 3 Date: 5/20/2018 Direction: West Description: Conditions observed at sampling location AWE-B-1 during the pre-construction wet sampling event 1.	
Photograph: 4 Date: 5/20/2018 Direction: Southeast Description: Conditions observed at sampling location AWE-C-1 during the pre-construction wet sampling event 1.	

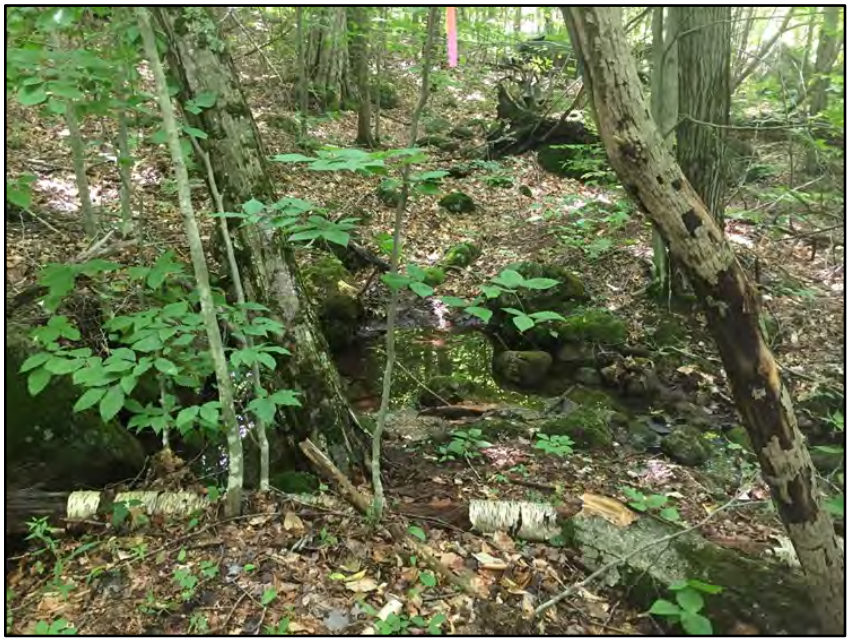
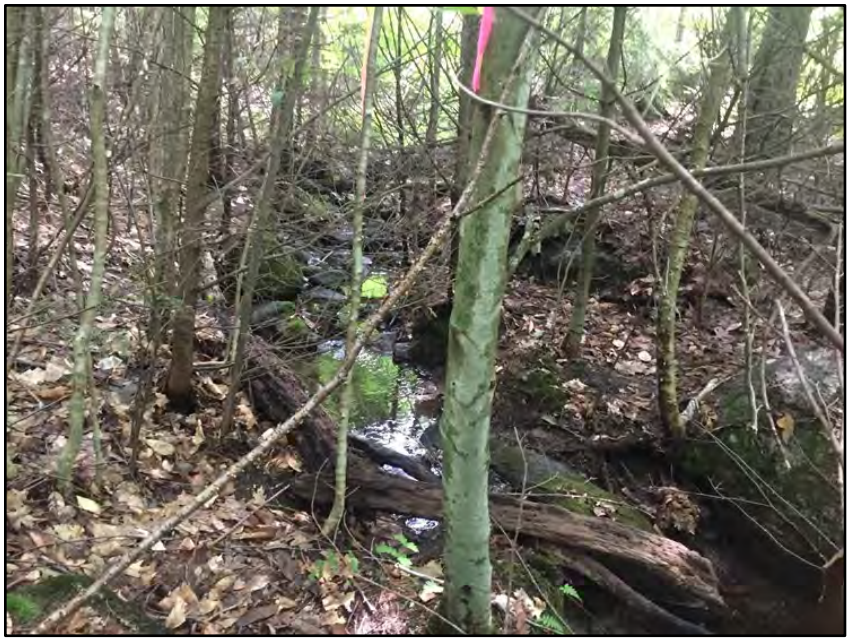
ANTRIM WIND

ANTRIM, NEW HAMPSHIRE

Photograph: 5 Date: 6/14/2018 Direction: Southeast Description: Conditions observed at sampling location AWE-B-1 during the pre-construction dry sampling event 2.	
Photograph: 6 Date: 6/14/2018 Direction: East Description: Conditions observed at sampling location AWE-C-1 during the pre-construction dry sampling event 2.	

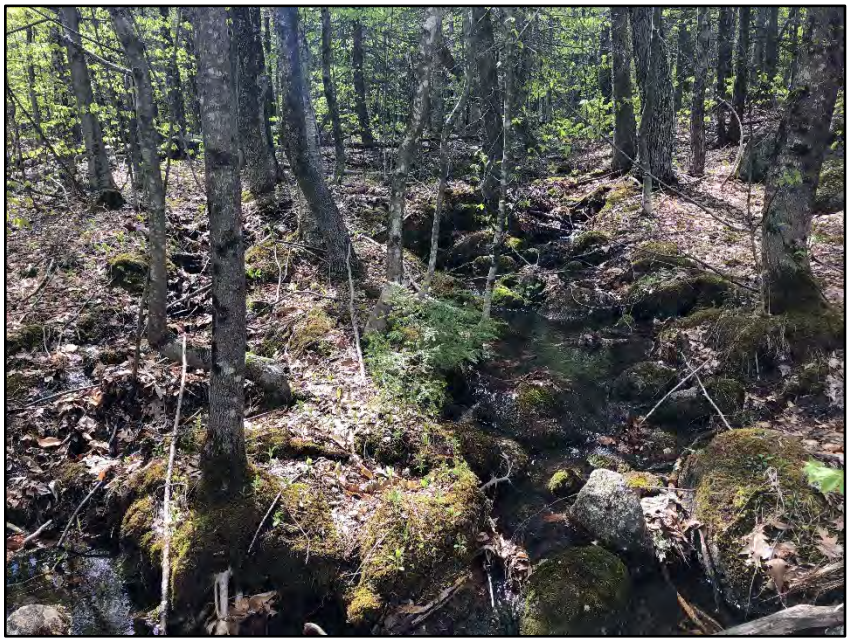
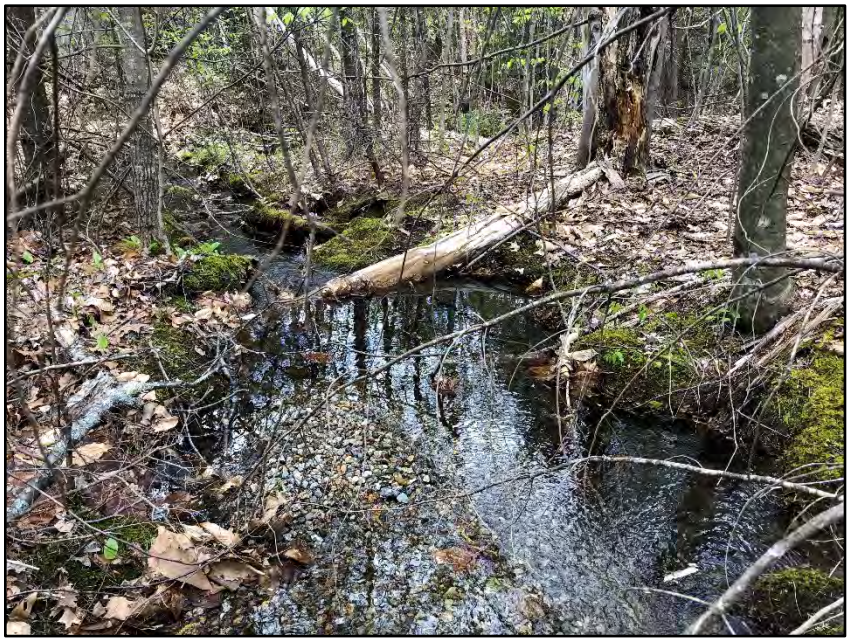
ANTRIM WIND

ANTRIM, NEW HAMPSHIRE

Photograph: 7 Date: 7/27/2018 Direction: West Description: Conditions observed at sampling location AWE-B-1 during the pre-construction wet sampling event 2.	
Photograph: 8 Date: 7/27/2018 Direction: Southeast Description: Conditions observed at sampling location AWE-C-1 during the pre-construction wet sampling event 2.	

ANTRIM WIND

ANTRIM, NEW HAMPSHIRE

Photograph: 9 Date: 5/13/2021 Direction: Southeast Description: Conditions observed at sampling location AWE-B-1 during the post-construction dry sampling event 1.	
Photograph: 10 Date: 5/13/2021 Direction: Northwest Description: Conditions observed at sampling location AWE-C-1 during the post-construction dry sampling event 1.	

ANTRIM WIND

ANTRIM, NEW HAMPSHIRE

Photograph: 11 Date: 5/31/2021 Direction: Southeast Description: Conditions observed at sampling location AWE-B-1 during the post-construction wet sampling event 1.	
Photograph: 12 Date: 5/31/2021 Direction: Northwest Description: Conditions observed at sampling location AWE-C-1 during the post-construction wet sampling event 1.	

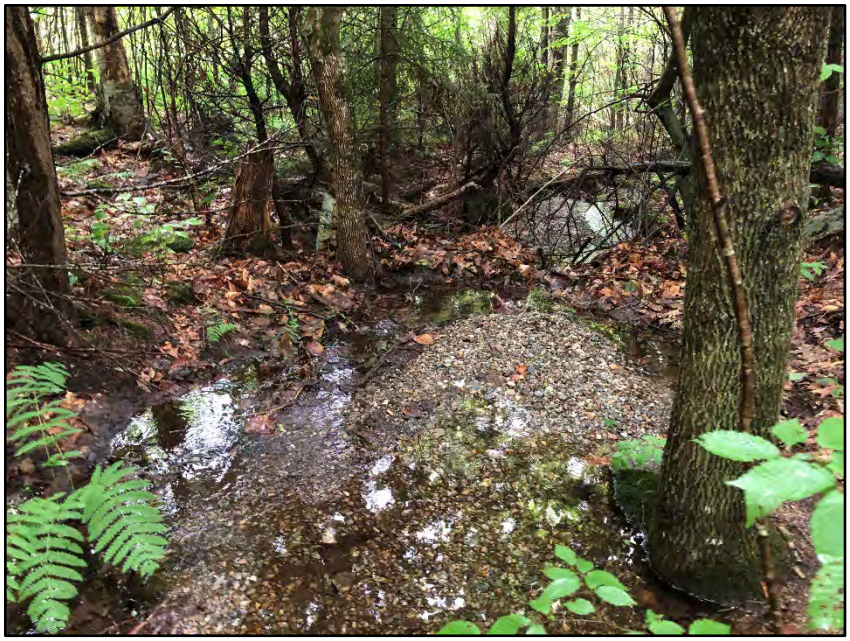
ANTRIM WIND

ANTRIM, NEW HAMPSHIRE

Photograph: 13 Date: 6/17/2021 Direction: Northwest Description: Conditions observed at sampling location AWE-B-1 during the post-construction dry sampling event 2.	
Photograph: 14 Date: 6/17/2021 Direction: Northwest Description: Conditions observed at sampling location AWE-C-1 during the post-construction dry sampling event 2.	

ANTRIM WIND

ANTRIM, NEW HAMPSHIRE

Photograph: 15 Date: 7/6/2021 Direction: West Description: Conditions observed at sampling location AWE-B-1 during the post-construction wet sampling event 2.	
Photograph: 16 Date: 7/6/2021 Direction: Northwest Description: Conditions observed at sampling location AWE-C-1 during the post-construction wet sampling event 2.	

Attachment 4
Analytical Lab Results
QA/QC Results

317 Elm Street
Milford, NH 03055

(603) 673-5440
Fax (603) 673-0366
Sales@chemservelab.com

Wednesday, May 16, 2018

Kalinda Roberts
TRC Environmental
650 Suffolk St.
Lowell MA

Project Name: Atrim
Project #: 275802
Project Location: Antrim NH
Control #: 110969

Lab ID: 18050026
Date Received: 5/2/2018

Dear Kalinda Roberts

Enclosed please find the laboratory results for the above referenced samples that were received by the ChemServe sample custodian on the above referenced date. Any abnormalities to the samples upon receipt would be noted on the enclosed chain of custody document. This report is not valid without a completed chain of custody with the corresponding control number, attached.

All samples analyzed by ChemServe are subject to quality standards. These standards are as stringent or more stringent than those established under NELAC, 40 CFR Part 136, state certification programs, and corresponding methodologies. ChemServe has a written QA/QC Procedures Manual that outlines these standards, and is available for your reference, upon request. Unless otherwise stated on the Chain of Custody or within the report, all holding times, preservation techniques, container types, and analytical methods are analogous with those outlined by NELAC. All units are based on “as received” weight unless denoted “dry”.

Residual chlorine, sulfite and pH are intended to be performed as an immediate field analysis. Should any of these analyses be performed in the lab instead of in the field it will result in those analyses being performed out of holding time.

I certify that I have reviewed the above referenced analytical data and state forms, and I have found this report within compliance with the procedures outlined within NELAC. ChemServe’s certified parameter list can be found at http://www.chemservelab.com/Laboratory-Information-and-Documentation.aspx

Jay Chrystal - President/Laboratory Director

Certificate Number 1008

317 Elm Street
Milford, NH 03055
(603) 673-5440
Sales@chemservelab.com

TRC Environmental
Kalinda Roberts
650 Suffolk St.
Lowell MA

Control #: 110969
Project Number: 275802
Project Name: Atrim
Project Location: Antrim NH

Lab ID: 18050026
Date: 5/16/2018

Lab ID: 18050026

Sample Receiving and Comment Summary

Were samples submitted with a chain of custody?	Yes
Do all samples received match the chain of custody?	Yes
Were all samples received within applicable holding times?	Yes
Were all containers intact when received?	Yes
Were samples for volatile organic analysis free of headspace (per method)?	N/A
Was there evidence of cooling or were samples received on the same day as collection?	Yes
If the sample pH was not correct was it adjusted where applicable?	Yes
Were samples for dissolved metals already filtered by the client or field sampling?	Yes
Were Samples for O-phos filtered in the field?	N/A
Were samples received in the appropriate containers?	Yes
Were samples submitted with a chain of custody?	Yes

Sample	Method	Client Identity	Matrix	Analyst
18050026-001	EPA 200.7	AWE-B1	Wastewater	CharleneF

Comment: no comment

**** Blank comment sections denote "No Comment"***

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TRC Environmental
Kalinda Roberts
650 Suffolk St.
Lowell MA

Control #: 110969
Project Number: 275802
Project Name: Atrim
Project Location: Antrim NH

Analytical Results

Lab ID: 18050026
Date: 5/16/2018

Sample	Client Sample Identity	Start Date/Time Sampled:	Matrix
18050026-001	AWE-B1	5/2/2018 10:00:00 AM	Wastewater

Composite Start Date and Time 5/2/2018 10:00:00 AM **Composite End Date and Time**

Parameter	Method	Result	Qualifier	Date/Time Analyzed	Dilution Factor	RDL
Aluminum	EPA 200.7	0.109 mg/L		5/9/2018	1	0.05
Hot Plate Digestion	EPA 200.7			5/3/2018	1	0
Iron	EPA 200.7	< 0.05 mg/L		5/9/2018	1	0.05
Phosphorous-P Total	EPA 200.7	0.011 mg/L		5/9/2018	1	0.01
Nitrate/Nitrite	EPA 300.0	< 1 mg/L		5/8/2018 5:14:00 PM	1	1
Total Nitrogen	In House	< 1 mg/L		5/14/2018	1	1
Kjeldahl-N	SM4500-Norg/NH3-B	< 0.5 mg/L		5/14/2018	1	0.5

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TRC Environmental
Kalinda Roberts
650 Suffolk St.
Lowell MA

Control #: 110969
Project Number: 275802
Project Name: Atrim
Project Location: Antrim NH

Analytical Results

Lab ID: 18050026
Date: 5/16/2018

Sample	Client Sample Identity	Start Date/Time Sampled:	Matrix
18050026-002	AWE-B1 (dissolved)	5/2/2018 10:00:00 AM	Wastewater

Composite Start Date and Time 5/2/2018 10:00:00 AM **Composite End Date and Time**

Parameter	Method	Result	Qualifier	Date/Time Analyzed	Dilution Factor	RDL
Aluminum	EPA 200.7	0.104 mg/L		5/9/2018	1	0.05
Hot Plate Digestion	EPA 200.7			5/3/2018	1	0

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TRC Environmental
Kalinda Roberts
650 Suffolk St.
Lowell MA

Control #: 110969
Project Number: 275802
Project Name: Atrim
Project Location: Antrim NH

Analytical Results

Lab ID: 18050026
Date: 5/16/2018

Sample	Client Sample Identity	Start Date/Time Sampled:	Matrix
18050026-003	AWE-C1	5/2/2018 11:40:00 AM	Wastewater

Composite Start Date and Time 5/2/2018 11:40:00 AM **Composite End Date and Time**

Parameter	Method	Result	Qualifier	Date/Time Analyzed	Dilution Factor	RDL
Aluminum	EPA 200.7	0.094 mg/L		5/9/2018	1	0.05
Hot Plate Digestion	EPA 200.7			5/3/2018	1	0
Iron	EPA 200.7	< 0.05 mg/L		5/9/2018	1	0.05
Phosphorous-P Total	EPA 200.7	< 0.01 mg/L		5/9/2018	1	0.01
Nitrate/Nitrite	EPA 300.0	< 1 mg/L		5/8/2018 5:39:00 PM	1	1
Total Nitrogen	In House	< 1 mg/L		5/14/2018	1	1
Kjeldahl-N	SM4500-Norg/NH3-B	0.528 mg/L		5/14/2018	1	0.5

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TRC Environmental
Kalinda Roberts
650 Suffolk St.
Lowell MA

Control #: 110969
Project Number: 275802
Project Name: Atrim
Project Location: Antrim NH

Analytical Results

Lab ID: 18050026
Date: 5/16/2018

Sample	Client Sample Identity	Start Date/Time Sampled:	Matrix
18050026-004	AWE-C1 (dissolved)	5/2/2018 11:40:00 AM	Wastewater

Composite Start Date and Time 5/2/2018 11:40:00 AM **Composite End Date and Time**

Parameter	Method	Result	Qualifier	Date/Time Analyzed	Dilution Factor	RDL
Aluminum	EPA 200.7	0.088 mg/L		5/9/2018	1	0.05
Hot Plate Digestion	EPA 200.7			5/3/2018	1	0

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TRC Environmental
Kalinda Roberts
650 Suffolk St.
Lowell MA

Control #: 110969
Project Number: 275802
Project Name: Atrim
Project Location: Antrim NH

Analytical Results

Lab ID: 18050026
Date: 5/16/2018

Sample	Client Sample Identity	Start Date/Time Sampled:	Matrix
18050026-005	AWE-C2	5/2/2018 12:15:00 PM	Wastewater

Composite Start Date and Time 5/2/2018 12:15:00 PM **Composite End Date and Time**

Parameter	Method	Result	Qualifier	Date/Time Analyzed	Dilution Factor	RDL
Aluminum	EPA 200.7	0.138 mg/L		5/9/2018	1	0.05
Hot Plate Digestion	EPA 200.7			5/3/2018	1	0
Iron	EPA 200.7	0.101 mg/L		5/9/2018	1	0.05
Phosphorous-P Total	EPA 200.7	< 0.01 mg/L		5/9/2018	1	0.01
Nitrate/Nitrite	EPA 300.0	< 1 mg/L		5/8/2018 6:04:00 PM	1	1
Total Nitrogen	In House	< 1 mg/L		5/14/2018	1	1
Kjeldahl-N	SM4500-Norg/NH3-B	0.780 mg/L		5/14/2018	1	0.5

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Sales@chemservelab.com

TRC Environmental
Kalinda Roberts
650 Suffolk St.
Lowell MA

Control #: 110969
Project Number: 275802
Project Name: Atrim
Project Location: Antrim NH

Analytical Results

Lab ID: 18050026
Date: 5/16/2018

Sample	Client Sample Identity	Start Date/Time Sampled:	Matrix
18050026-006	AWE-C2 (dissolved)	5/2/2018 12:15:00 PM	Wastewater

Composite Start Date and Time 5/2/2018 12:15:00 PM **Composite End Date and Time**

Parameter	Method	Result	Qualifier	Date/Time Analyzed	Dilution Factor	RDL
Aluminum	EPA 200.7	0.204 mg/L		5/9/2018	1	0.05
Hot Plate Digestion	EPA 200.7			5/3/2018	1	0

Qualifier:	Description:
B-	Method blank contaminated with target analyte.
B1-	BOD had total oxygen loss. Result reported as ">"the highest dilution.
B2-	BOD had no oxygen loss. Result reported as "<" the lowest dilution.
G-	Reporting limit elevated due to matrix interference.
H-	Method prescribed holding time exceeded.
J-	Indicates an estimated value. Value is less than the quantitation limit.
IL-	Internal Standard(s) recovery was low due to matrix. Result may be biased high.
IH-	Internal Standard(s) recovery was high due to matrix. Result may be biased low.
LH-	Laboratory control spike(s) was high. Results may be biased high.
LL-	Laboratory control spike(s) was low. Results may be biased low.
MH-	Matrix spike recovery high due to matrix. Results may be biased high.
ML-	Matrix spike recovery low due to matrix. Results may be biased low.
N-	Non-target compound. Reported as a TIC.
NC-	Spike recovery was not calculated due to the concentration of the analyte being >4 times the concentration of the spike added.
R-	RPD outside acceptable recovery limits.
RO-	Sample received out of holding time.
SH-	Surrogate recovery high due to matrix
SL-	Surrogate recovery low due to matrix
U-	BOD/CBOD blank had an oxygen depletion greater than the suggested amount of 0.200.
V-	Sample pH for analysis was not within the required range when checked at time of analysis.
Z	Too numerous to count (TNTC)

An "A" in the result column on the report indicates absent for presence/absent bacteria and a "P" indicates present for presence/absent bacteria.

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Friday, June 08, 2018

John Thomas
TRC Environmental
650 Suffolk St.
Lowell MA

Project Name: Atrim
Project #: 275802
Project Location: Antrim NH
Control #: 111129

Lab ID: 18050262
Date Received: 5/21/2018

Dear John Thomas

Enclosed please find the laboratory results for the above referenced samples that were received by the ChemServe sample custodian on the above referenced date. Any abnormalities to the samples upon receipt would be noted on the enclosed chain of custody document. This report is not valid without a completed chain of custody with the corresponding control number, attached.

All samples analyzed by ChemServe are subject to quality standards. These standards are as stringent or more stringent than those established under NELAC, 40 CFR Part 136, state certification programs, and corresponding methodologies. ChemServe has a written QA/QC Procedures Manual that outlines these standards, and is available for your reference, upon request. Unless otherwise stated on the Chain of Custody or within the report, all holding times, preservation techniques, container types, and analytical methods are analogous with those outlined by NELAC. All units are based on “as received” weight unless denoted “dry”.

Residual chlorine, sulfite and pH are intended to be performed as an immediate field analysis. Should any of these analyses be performed in the lab instead of in the field it will result in those analyses being performed out of holding time.

I certify that I have reviewed the above referenced analytical data and state forms, and I have found this report within compliance with the procedures outlined within NELAC. ChemServe’s certified parameter list can be found at http://www.chemservelab.com/Laboratory-Information-and-Documentation.aspx

Jay Chrystal - President/Laboratory Director

Certificate Number 1008

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TRC Environmental
John Thomas
650 Suffolk St.
Lowell MA

Control #: 111129
Project Number: 275802
Project Name: Atrim
Project Location: Antrim NH

Lab ID: 18050262
Date: 6/8/2018

Lab ID: 18050262

Sample Receiving and Comment Summary

Were samples submitted with a chain of custody?	Yes
Do all samples received match the chain of custody?	Yes
Were all samples received within applicable holding times?	Yes
Were all containers intact when received?	Yes
Were samples for volatile organic analysis free of headspace (per method)?	N/A
Was there evidence of cooling or were samples received on the same day as collection?	Yes
If the sample pH was not correct was it adjusted where applicable?	Yes
Were samples for dissolved metals already filtered by the client or field sampling?	Yes
Were Samples for O-phos filtered in the field?	N/A
Were samples received in the appropriate containers?	Yes
Were samples submitted with a chain of custody?	Yes

Sample	Method	Client Identity	Matrix	Analyst
18050262-001	EPA 200.7	Keene Rd - Control	Wastewater	CharleneF

Comment: no comment

**** Blank comment sections denote "No Comment"***

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TRC Environmental
John Thomas
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Control #: 111129
Project Number: 275802
Project Name: Atrim
Project Location: Antrim NH

Analytical Results

Lab ID: 18050262
Date: 6/8/2018

Sample	Client Sample Identity	Start Date/Time Sampled:	Matrix
18050262-001	Keene Rd - Control	5/20/2018 10:30:00 AM	Wastewater

Composite Start Date and Time 5/20/2018 10:30:00 AM **Composite End Date and Time**

Parameter	Method	Result	Qualifier	Date/Time Analyzed	Dilution Factor	RDL
Aluminum	EPA 200.7	0.148 mg/L		5/25/2018	0.3	0.015
Hot Plate Digestion	EPA 200.7			5/23/2018	1	0
Iron	EPA 200.7	0.134 mg/L		5/25/2018	1	0.05
Phosphorous-P Total	EPA 200.7	0.010 mg/L		5/25/2018	0.5	0.005
Nitrate/Nitrite	EPA 300.0	7.21 mg/L		6/3/2018 4:13:00 AM	0.05	0.05
Total Nitrogen	In House	7.17 mg/L		6/4/2018	1	1
Kjeldahl-N	SM4500-Norg/NH3-B	0.507 mg/L		6/4/2018	1	0.5

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Control #: 111129
Project Number: 275802
Project Name: Atrim
Project Location: Antrim NH

Analytical Results

Lab ID: 18050262
Date: 6/8/2018

Sample	Client Sample Identity	Start Date/Time Sampled:	Matrix
18050262-002	Keene Rd - Control (Dissolved)	5/20/2018 10:30:00 AM	Wastewater

Composite Start Date and Time 5/20/2018 10:30:00 AM **Composite End Date and Time**

Parameter	Method	Result	Qualifier	Date/Time Analyzed	Dilution Factor	RDL
Aluminum	EPA 200.7	0.167 mg/L		5/25/2018	0.3	0.015
Hot Plate Digestion	EPA 200.7			5/23/2018	1	0

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Control #: 111129
Project Number: 275802
Project Name: Atrim
Project Location: Antrim NH

Analytical Results

Lab ID: 18050262
Date: 6/8/2018

Sample	Client Sample Identity	Start Date/Time Sampled:	Matrix
18050262-003	Upstream	5/20/2018 11:30:00 AM	Wastewater

Composite Start Date and Time 5/20/2018 11:30:00 AM **Composite End Date and Time**

Parameter	Method	Result	Qualifier	Date/Time Analyzed	Dilution Factor	RDL
Aluminum	EPA 200.7	0.083 mg/L		5/25/2018	0.3	0.015
Hot Plate Digestion	EPA 200.7			5/23/2018	1	0
Iron	EPA 200.7	< 0.05 mg/L		5/25/2018	1	0.05
Phosphorous-P Total	EPA 200.7	< 0.005 mg/L		5/25/2018	0.5	0.005
Nitrate/Nitrite	EPA 300.0	7.62 mg/L		6/3/2018 4:04:00 AM	0.05	0.05
Total Nitrogen	In House	7.62 mg/L		6/4/2018	1	1
Kjeldahl-N	SM4500-Norg/NH3-B	< 0.5 mg/L		6/4/2018	1	0.5

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Control #: 111129
Project Number: 275802
Project Name: Atrim
Project Location: Antrim NH

Analytical Results

Lab ID: 18050262
Date: 6/8/2018

Sample	Client Sample Identity	Start Date/Time Sampled:	Matrix
18050262-004	Upstream (dissolved)	5/20/2018 11:30:00 AM	Wastewater

Composite Start Date and Time 5/20/2018 11:30:00 AM **Composite End Date and Time**

Parameter	Method	Result	Qualifier	Date/Time Analyzed	Dilution Factor	RDL
Aluminum	EPA 200.7	0.084 mg/L		5/25/2018	0.3	0.015
Hot Plate Digestion	EPA 200.7			5/23/2018	1	0

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Control #: 111129
Project Number: 275802
Project Name: Atrim
Project Location: Antrim NH

Analytical Results

Lab ID: 18050262
Date: 6/8/2018

Sample	Client Sample Identity	Start Date/Time Sampled:	Matrix
18050262-005	Downstream	5/20/2018 12:00:00 PM	Wastewater

Composite Start Date and Time 5/20/2018 12:00:00 PM **Composite End Date and Time**

Parameter	Method	Result	Qualifier	Date/Time Analyzed	Dilution Factor	RDL
Aluminum	EPA 200.7	0.090 mg/L		5/25/2018	0.3	0.015
Hot Plate Digestion	EPA 200.7			5/23/2018	1	0
Iron	EPA 200.7	< 0.05 mg/L		5/25/2018	1	0.05
Phosphorous-P Total	EPA 200.7	< 0.005 mg/L		5/25/2018	0.5	0.005
Nitrate/Nitrite	EPA 300.0	0.440 mg/L		6/5/2018 4:29:00 AM	0.05	0.05
Total Nitrogen	In House	0.440 mg/L		6/4/2018	0.05	0.05
Kjeldahl-N	SM4500-Norg/NH3-B	< 0.5 mg/L		6/4/2018	1	0.5

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Control #: 111129
Project Number: 275802
Project Name: Atrim
Project Location: Antrim NH

Analytical Results

Lab ID: 18050262
Date: 6/8/2018

Sample	Client Sample Identity	Start Date/Time Sampled:	Matrix
18050262-006	Downstream (dissolved)	5/20/2018 12:00:00 PM	Wastewater

Composite Start Date and Time 5/20/2018 12:00:00 PM **Composite End Date and Time**

Parameter	Method	Result	Qualifier	Date/Time Analyzed	Dilution Factor	RDL
Aluminum	EPA 200.7	0.095 mg/L		5/25/2018	0.3	0.015
Hot Plate Digestion	EPA 200.7			5/23/2018	1	0

Qualifier:	Description:
B-	Method blank contaminated with target analyte.
B1-	BOD had total oxygen loss. Result reported as ">"the highest dilution.
B2-	BOD had no oxygen loss. Result reported as "<" the lowest dilution.
G-	Reporting limit elevated due to matrix interference.
H-	Method prescribed holding time exceeded.
J-	Indicates an estimated value. Value is less than the quantitation limit.
IL-	Internal Standard(s) recovery was low due to matrix. Result may be biased high.
IH-	Internal Standard(s) recovery was high due to matrix. Result may be biased low.
LH-	Laboratory control spike(s) was high. Results may be biased high.
LL-	Laboratory control spike(s) was low. Results may be biased low.
MH-	Matrix spike recovery high due to matrix. Results may be biased high.
ML-	Matrix spike recovery low due to matrix. Results may be biased low.
N-	Non-target compound. Reported as a TIC.
NC-	Spike recovery was not calculated due to the concentration of the analyte being >4 times the concentration of the spike added.
R-	RPD outside acceptable recovery limits.
RO-	Sample received out of holding time.
SH-	Surrogate recovery high due to matrix
SL-	Surrogate recovery low due to matrix
U-	BOD/CBOD blank had an oxygen depletion greater than the suggested amount of 0.200.
V-	Sample pH for analysis was not within the required range when checked at time of analysis.
Z	Too numerous to count (TNTC)

An "A" in the result column on the report indicates absent for presence/absent bacteria and a "P" indicates present for presence/absent bacteria.

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Tuesday, June 26, 2018

Kalinda Roberts
TRC Environmental
650 Suffolk St.
Lowell MA

Project Name: Atrim
Project #: 275802
Project Location: Antrim NH
Control #: 111371

Lab ID: 18060196
Date Received: 6/14/2018

Dear Kalinda Roberts

Enclosed please find the laboratory results for the above referenced samples that were received by the ChemServe sample custodian on the above referenced date. Any abnormalities to the samples upon receipt would be noted on the enclosed chain of custody document. This report is not valid without a completed chain of custody with the corresponding control number, attached.

All samples analyzed by ChemServe are subject to quality standards. These standards are as stringent or more stringent than those established under NELAC, 40 CFR Part 136, state certification programs, and corresponding methodologies. ChemServe has a written QA/QC Procedures Manual that outlines these standards, and is available for your reference, upon request. Unless otherwise stated on the Chain of Custody or within the report, all holding times, preservation techniques, container types, and analytical methods are analogous with those outlined by NELAC. All units are based on “as received” weight unless denoted “dry”.

Residual chlorine, sulfite and pH are intended to be performed as an immediate field analysis. Should any of these analyses be performed in the lab instead of in the field it will result in those analyses being performed out of holding time.

I certify that I have reviewed the above referenced analytical data and state forms, and I have found this report within compliance with the procedures outlined within NELAC. ChemServe’s certified parameter list can be found at http://www.chemservelab.com/Laboratory-Information-and-Documentation.aspx

Jay Chrystal - President/Laboratory Director

Certificate Number 1008

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TRC Environmental
Kalinda Roberts
650 Suffolk St.
Lowell MA

Control #: 111371
Project Number: 275802
Project Name: Atrim
Project Location: Antrim NH

Lab ID: 18060196
Date: 6/26/2018

Lab ID: 18060196

Sample Receiving and Comment Summary

Were samples submitted with a chain of custody?	Yes
Do all samples received match the chain of custody?	Yes
Were all samples received within applicable holding times?	Yes
Were all containers intact when received?	Yes
Were samples for volatile organic analysis free of headspace (per method)?	N/A
Was there evidence of cooling or were samples received on the same day as collection?	Yes
If the sample pH was not correct was it adjusted where applicable?	Yes
Were samples for dissolved metals already filtered by the client or field sampling?	N/A
Were Samples for O-phos filtered in the field?	N/A
Were samples received in the appropriate containers?	Yes
Were samples submitted with a chain of custody?	Yes

Sample	Method	Client Identity	Matrix	Analyst
18060196-001	EPA 200.7	AWE C-1 SD-4	Wastewater	CharleneF

Comment: no comment

**** Blank comment sections denote "No Comment"***

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TRC Environmental
Kalinda Roberts
650 Suffolk St.
Lowell MA

Control #: 111371
Project Number: 275802
Project Name: Atrim
Project Location: Antrim NH

Analytical Results

Lab ID: 18060196
Date: 6/26/2018

Sample	Client Sample Identity	Start Date/Time Sampled:	Matrix
18060196-001	AWE C-1 SD-4	6/14/2018 9:42:00 AM	Wastewater

Composite Start Date and Time 6/14/2018 9:42:00 AM **Composite End Date and Time**

Parameter	Method	Result	Qualifier	Date/Time Analyzed	Dilution Factor	RDL
Aluminum	EPA 200.7	0.129 mg/L		6/18/2018	0.3	0.015
Hot Plate Digestion	EPA 200.7			6/18/2018	1	0
Iron	EPA 200.7	0.101 mg/L		6/18/2018	1	0.05
Phosphorous-P Total	EPA 200.7	0.028 mg/L		6/18/2018	0.5	0.005
Nitrate/Nitrite	EPA 300.0	< 0.05 mg/L		6/19/2018 1:23:00 AM	0.05	0.05
Total Nitrogen	In House	< 1 mg/L		6/21/2018	1	1
Kjeldahl-N	SM4500-Norg/NH3-B	0.738 mg/L		6/21/2018	1	0.5

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Control #: 111371
Project Number: 275802
Project Name: Atrim
Project Location: Antrim NH

Analytical Results

Lab ID: 18060196
Date: 6/26/2018

Sample	Client Sample Identity	Start Date/Time Sampled:	Matrix
18060196-002	AWE C-1 SD-4 (dissolved)	6/14/2018 9:42:00 AM	Wastewater

Composite Start Date and Time 6/14/2018 9:42:00 AM **Composite End Date and Time**

Parameter	Method	Result	Qualifier	Date/Time Analyzed	Dilution Factor	RDL
Aluminum	EPA 200.7	0.085 mg/L		6/18/2018	0.3	0.015
Hot Plate Digestion	EPA 200.7			6/18/2018	1	0

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Control #: 111371
Project Number: 275802
Project Name: Atrim
Project Location: Antrim NH

Analytical Results

Lab ID: 18060196
Date: 6/26/2018

Sample	Client Sample Identity	Start Date/Time Sampled:	Matrix
18060196-003	AWE B-1 SD-4	6/14/2018 10:01:00 AM	Wastewater

Composite Start Date and Time 6/14/2018 10:01:00 AM **Composite End Date and Time**

Parameter	Method	Result	Qualifier	Date/Time Analyzed	Dilution Factor	RDL
Aluminum	EPA 200.7	0.085 mg/L		6/18/2018	0.3	0.015
Hot Plate Digestion	EPA 200.7			6/18/2018	1	0
Iron	EPA 200.7	< 0.05 mg/L		6/18/2018	1	0.05
Phosphorous-P Total	EPA 200.7	0.012 mg/L		6/18/2018	0.5	0.005
Nitrate/Nitrite	EPA 300.0	< 0.05 mg/L		6/19/2018 7:07:00 PM	0.05	0.05
Total Nitrogen	In House	< 1 mg/L		6/21/2018	1	1
Kjeldahl-N	SM4500-Norg/NH3-B	0.843 mg/L		6/21/2018	1	0.5

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TRC Environmental
Kalinda Roberts
650 Suffolk St.
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Control #: 111371
Project Number: 275802
Project Name: Atrim
Project Location: Antrim NH

Analytical Results

Lab ID: 18060196
Date: 6/26/2018

Sample	Client Sample Identity	Start Date/Time Sampled:	Matrix
18060196-004	AWE B-1 SD-4 (dissolved)	6/14/2018 10:01:00 AM	Wastewater

Composite Start Date and Time 6/14/2018 10:01:00 AM **Composite End Date and Time**

Parameter	Method	Result	Qualifier	Date/Time Analyzed	Dilution Factor	RDL
Aluminum	EPA 200.7	0.081 mg/L		6/18/2018	0.3	0.015
Hot Plate Digestion	EPA 200.7			6/18/2018	1	0

Qualifier:	Description:
B-	Method blank contaminated with target analyte.
B1-	BOD had total oxygen loss. Result reported as ">"the highest dilution.
B2-	BOD had no oxygen loss. Result reported as "<" the lowest dilution.
G-	Reporting limit elevated due to matrix interference.
H-	Method prescribed holding time exceeded.
J-	Indicates an estimated value. Value is less than the quantitation limit.
IL-	Internal Standard(s) recovery was low due to matrix. Result may be biased high.
IH-	Internal Standard(s) recovery was high due to matrix. Result may be biased low.
LH-	Laboratory control spike(s) was high. Results may be biased high.
LL-	Laboratory control spike(s) was low. Results may be biased low.
MH-	Matrix spike recovery high due to matrix. Results may be biased high.
ML-	Matrix spike recovery low due to matrix. Results may be biased low.
N-	Non-target compound. Reported as a TIC.
NC-	Spike recovery was not calculated due to the concentration of the analyte being >4 times the concentration of the spike added.
R-	RPD outside acceptable recovery limits.
RO-	Sample received out of holding time.
SH-	Surrogate recovery high due to matrix
SL-	Surrogate recovery low due to matrix
U-	BOD/CBOD blank had an oxygen depletion greater than the suggested amount of 0.200.
V-	Sample pH for analysis was not within the required range when checked at time of analysis.
Z	Too numerous to count (TNTC)

An "A" in the result column on the report indicates absent for presence/absent bacteria and a "P" indicates present for presence/absent bacteria.

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Friday, August 10, 2018

Kalinda Roberts
TRC Environmental
650 Suffolk St.
Lowell MA

Project Name: Atrim
Project #: 275802
Project Location: Antrim NH
Control #: 111716

Lab ID: 18070433
Date Received: 7/27/2018

Dear Kalinda Roberts

Enclosed please find the laboratory results for the above referenced samples that were received by the ChemServe sample custodian on the above referenced date. Any abnormalities to the samples upon receipt would be noted on the enclosed chain of custody document. This report is not valid without a completed chain of custody with the corresponding control number, attached.

All samples analyzed by ChemServe are subject to quality standards. These standards are as stringent or more stringent than those established under NELAC, 40 CFR Part 136, state certification programs, and corresponding methodologies. ChemServe has a written QA/QC Procedures Manual that outlines these standards, and is available for your reference, upon request. Unless otherwise stated on the Chain of Custody or within the report, all holding times, preservation techniques, container types, and analytical methods are analogous with those outlined by NELAC. All units are based on “as received” weight unless denoted “dry”.

Residual chlorine, sulfite and pH are intended to be performed as an immediate field analysis. Should any of these analyses be performed in the lab instead of in the field it will result in those analyses being performed out of holding time.

I certify that I have reviewed the above referenced analytical data and state forms, and I have found this report within compliance with the procedures outlined within NELAC. ChemServe’s certified parameter list can be found at http://www.chemservelab.com/Laboratory-Information-and-Documentation.aspx

Jay Chrystal - President/Laboratory Director

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TRC Environmental
Kalinda Roberts
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Control #: 111716
Project Number: 275802
Project Name: Atrim
Project Location: Antrim NH

Lab ID: 18070433
Date: 8/10/2018

Lab ID: 18070433

Sample Receiving and Comment Summary

Were samples submitted with a chain of custody?	Yes
Do all samples received match the chain of custody?	Yes
Were all samples received within applicable holding times?	Yes
Were all containers intact when received?	Yes
Were samples for volatile organic analysis free of headspace (per method)?	N/A
Was there evidence of cooling or were samples received on the same day as collection?	Yes
If the sample pH was not correct was it adjusted where applicable?	Yes
Were samples for dissolved metals already filtered by the client or field sampling?	Yes
Were Samples for O-phos filtered in the field?	N/A
Were samples received in the appropriate containers?	Yes
Were Samples for O-phos filtered in the field?	N/A

Sample	Method	Client Identity	Matrix	Analyst
18070433-001	EPA 200.7	AWE C-1 SD-4	Wastewater	BenN

Comment: no comment

**** Blank comment sections denote "No Comment"***

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TRC Environmental
Kalinda Roberts
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Control #: 111716
Project Number: 275802
Project Name: Atrim
Project Location: Antrim NH

Analytical Results

Lab ID: 18070433
Date: 8/10/2018

Sample	Client Sample Identity	Start Date/Time Sampled:	Matrix
18070433-001	AWE C-1 SD-4	7/27/2018 3:08:00 PM	Wastewater

Composite Start Date and Time 7/27/2018 3:08:00 PM **Composite End Date and Time**

Parameter	Method	Result	Qualifier	Date/Time Analyzed	Dilution Factor	RDL
Turbidity	EPA 180.1	< 0.5 NTU		7/27/2018	1	0.5
Aluminum	EPA 200.7	0.185 mg/L		7/30/2018	0.3	0.015
Hot Plate Digestion	EPA 200.7			8/9/2018	1	0
Iron	EPA 200.7	0.129 mg/L		7/30/2018	1	0.05
Phosphorous-P Total	EPA 200.7	0.012 mg/L		7/30/2018	0.5	0.005
Nitrate/Nitrite	EPA 300.0	< 0.05 mg/L		8/8/2018 5:54:00 PM	0.05	0.05
Total Nitrogen	In House	< 1 mg/L		8/10/2018	1	1
Kjeldahl-N	SM4500-Norg/NH3-B	0.570 mg/L		8/6/2018	1	0.5

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Control #: 111716
Project Number: 275802
Project Name: Atrim
Project Location: Antrim NH

Analytical Results

Lab ID: 18070433
Date: 8/10/2018

Sample	Client Sample Identity	Start Date/Time Sampled:	Matrix
18070433-002	AWE C-1 SD-4 (dissolved)	7/27/2018 3:08:00 PM	Wastewater

Composite Start Date and Time 7/27/2018 3:08:00 PM **Composite End Date and Time**

Parameter	Method	Result	Qualifier	Date/Time Analyzed	Dilution Factor	RDL
Aluminum	EPA 200.7	0.091 mg/L		7/30/2018	0.3	0.015
Hot Plate Digestion	EPA 200.7			8/9/2018	1	0

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Kalinda Roberts
650 Suffolk St.
Lowell MA

Control #: 111716
Project Number: 275802
Project Name: Atrim
Project Location: Antrim NH

Analytical Results

Lab ID: 18070433
Date: 8/10/2018

Sample	Client Sample Identity	Start Date/Time Sampled:	Matrix
18070433-003	AWE B-1 SD-4	7/27/2018 2:45:00 PM	Wastewater

Composite Start Date and Time 7/27/2018 2:45:00 PM **Composite End Date and Time**

Parameter	Method	Result	Qualifier	Date/Time Analyzed	Dilution Factor	RDL
Turbidity	EPA 180.1	< 0.5 NTU		7/27/2018	1	0.5
Aluminum	EPA 200.7	0.113 mg/L		7/30/2018	0.3	0.015
Hot Plate Digestion	EPA 200.7			8/9/2018	1	0
Iron	EPA 200.7	< 0.05 mg/L		7/30/2018	1	0.05
Phosphorous-P Total	EPA 200.7	0.006 mg/L		7/30/2018	0.5	0.005
Nitrate/Nitrite	EPA 300.0	< 0.05 mg/L		8/8/2018 6:10:00 PM	0.05	0.05
Total Nitrogen	In House	< 1 mg/L		8/10/2018	1	1
Kjeldahl-N	SM4500-Norg/NH3-B	0.780 mg/L		8/6/2018	1	0.5

317 Elm Street
Milford, NH 03055
(603) 673-5440
Sales@chemservelab.com

TRC Environmental
Kalinda Roberts
650 Suffolk St.
Lowell MA

Control #: 111716
Project Number: 275802
Project Name: Atrim
Project Location: Antrim NH

Analytical Results

Lab ID: 18070433
Date: 8/10/2018

Sample	Client Sample Identity	Start Date/Time Sampled:	Matrix
18070433-004	AWE B-1 SD-4 (dissolved)	7/27/2018 2:45:00 PM	Wastewater

Composite Start Date and Time 7/27/2018 2:45:00 PM **Composite End Date and Time**

Parameter	Method	Result	Qualifier	Date/Time Analyzed	Dilution Factor	RDL
Aluminum	EPA 200.7	0.132 mg/L		7/30/2018	0.3	0.015
Hot Plate Digestion	EPA 200.7			8/9/2018	1	0

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Control #: 111716
Project Number: 275802
Project Name: Atrim
Project Location: Antrim NH

Analytical Results

Lab ID: 18070433
Date: 8/10/2018

Sample	Client Sample Identity	Start Date/Time Sampled:	Matrix
18070433-005	AWE C-2 SD-1	7/27/2018 2:01:00 PM	Wastewater

Composite Start Date and Time 7/27/2018 2:01:00 PM **Composite End Date and Time**

Parameter	Method	Result	Qualifier	Date/Time Analyzed	Dilution Factor	RDL
Turbidity	EPA 180.1	< 0.5 NTU		7/27/2018	1	0.5
Aluminum	EPA 200.7	0.259 mg/L		7/30/2018	0.3	0.015
Hot Plate Digestion	EPA 200.7			8/9/2018	1	0
Iron	EPA 200.7	0.139 mg/L		7/30/2018	1	0.05
Phosphorous-P Total	EPA 200.7	0.024 mg/L		7/30/2018	0.5	0.005
Nitrate/Nitrite	EPA 300.0	< 0.05 mg/L		8/8/2018 6:26:00 PM	0.05	0.05
Total Nitrogen	In House	< 1 mg/L		8/10/2018	1	1
Kjeldahl-N	SM4500-Norg/NH3-B	0.738 mg/L		8/6/2018	1	0.5

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Lowell MA

Control #: 111716
Project Number: 275802
Project Name: Atrim
Project Location: Antrim NH

Analytical Results

Lab ID: 18070433
Date: 8/10/2018

Sample	Client Sample Identity	Start Date/Time Sampled:	Matrix
18070433-006	AWE C-2 SD-1 (dissolved)	7/27/2018 2:01:00 PM	Wastewater

Composite Start Date and Time 7/27/2018 2:01:00 PM **Composite End Date and Time**

Parameter	Method	Result	Qualifier	Date/Time Analyzed	Dilution Factor	RDL
Aluminum	EPA 200.7	0.258 mg/L		7/30/2018	0.3	0.015
Hot Plate Digestion	EPA 200.7			8/9/2018	1	0

Qualifier:	Description:
B-	Method blank contaminated with target analyte.
B1-	BOD had total oxygen loss. Result reported as ">"the highest dilution.
B2-	BOD had no oxygen loss. Result reported as "<" the lowest dilution.
G-	Reporting limit elevated due to matrix interference.
H-	Method prescribed holding time exceeded.
J-	Indicates an estimated value. Value is less than the quantitation limit.
IL-	Internal Standard(s) recovery was low due to matrix. Result may be biased high.
IH-	Internal Standard(s) recovery was high due to matrix. Result may be biased low.
LH-	Laboratory control spike(s) was high. Results may be biased high.
LL-	Laboratory control spike(s) was low. Results may be biased low.
MH-	Matrix spike recovery high due to matrix. Results may be biased high.
ML-	Matrix spike recovery low due to matrix. Results may be biased low.
N-	Non-target compound. Reported as a TIC.
NC-	Spike recovery was not calculated due to the concentration of the analyte being >4 times the concentration of the spike added.
R-	RPD outside acceptable recovery limits.
RO-	Sample received out of holding time.
SH-	Surrogate recovery high due to matrix
SL-	Surrogate recovery low due to matrix
U-	BOD/CBOD blank had an oxygen depletion greater than the suggested amount of 0.200.
V-	Sample pH for analysis was not within the required range when checked at time of analysis.
Z	Too numerous to count (TNTC)

An "A" in the result column on the report indicates absent for presence/absent bacteria and a "P" indicates present for presence/absent bacteria.

NH DIVISION OF
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New Hampshire Public Health Laboratories
Department of Health and Human Services
29 Hazen Dr., Concord NH 03301
Phone: (603) 271-3445

Wednesday, June 02, 2021

KEVIN FERGUSON
TRC
670 NORTH COMMERCIAL ST
SUITE 203
MANCHESTER NH 03101

RE: Workorder: B102497 - SPECIAL
Project ID: 9999730 - TRC - MANCHESTER

Dear KEVIN FERGUSON:

Enclosed are the analytical results for the sample(s) received by the laboratory on Thursday, May 13, 2021. Unless indicated as exceptions, the sample(s) met EPA requirements for hold times, preservation techniques, container types and other receipt conditions. Please contact us if you need measurement uncertainty values associated with radiological parameters. Results reported conform to the most current NELAC standard, where applicable, unless otherwise narrated in the body of the report. Any results reported for samples subcontracted to another laboratory are indicated on the report. Please refer to https://www4.des.nh.gov/CertifiedLabs/Certified-Method.aspx for a copy of our current NELAP certificate and accredited parameters.

We appreciate the opportunity to provide this analytical service for you. If you have any questions regarding this report or your results, please feel free to contact us. We value your feedback please send comments to lucio.barinelli@dhhs.nh.gov.

The following signature indicates technical review and acceptance of the data.

Sincerely,

Lucio S. Barinelli, Ph.D.

Authorized Signature

Enclosures

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Fax: (603) 271-4783

DATA QUALIFIER DESCRIPTIONS

Workorder: B102497 - SPECIAL

Project ID: 9999730 - TRC - MANCHESTER

The following are a list of some column headers and abbreviations with their meanings as used throughout the analysis report. Referring to them will assist you in interpreting your report.

RDL= The lowest value the laboratory calibrates its instrumentation for this parameter. Any instrumental estimate of results below the Report Limit is reported as Not Detected (ND).

DF= For some heavily contaminated samples, the laboratory must dilute samples to keep the final number within its calibration scale. This is referred to as the Dilution Factor. Final results and reporting limits are adjusted relative to the DF used.

QUAL= Indicates that the result has been qualified. Refer to the Analytical Report Comments and Qualifiers page for details.

LIMIT= Reflects the Maximum Contamination Level (MCL), if one exists, a secondary or recommended level or another State or Federal action level.

Surrogates = For some analyses, the laboratory adds a number of compounds to monitor analytical performance. These results are provided for your information.

> = Greater than	< = Less than
mg/L = milligrams per Liter	ug/L = micrograms per Liter
mg/kg = milligrams per kilogram	ug/kg = micrograms per kilogram
P-A = Present/Absent	CTS/100 mL = Counts per 100 milliliters
CFU = Colony forming unit	MPN = Most Probable Number

pCi/L = picoCuries per Liter

J = Estimated value; analyte detected at less than the Reporting Limit but greater than the laboratory's Method Detection Limit.

B = Analyte detected in the method blank for the batch of samples. Its presence in the sample may be suspect.

E = Estimated value; result exceeded the upper calibration level for the parameter.

Radiological results are expressed as a number + an uncertainty factor. Uncertainty is a calculated measure of the precision around the reported value.

All results for pH and residual chlorine samples analyzed more than 15 minutes after time of collection shall be considered QUALIFIED.

For assistance in interpreting your lab results and obtaining information regarding water treatment; go to www.des.nh.gov and search "Be Well Informed." Or go to http://xml2.des.state.nh.us/DWITool/.

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SAMPLE SUMMARY

Workorder: B102497 - SPECIAL

Project ID: 9999730 - TRC - MANCHESTER

Lab ID	Sample ID	Ref ID	Matrix	Date Collected	Date Received	Misc Info
B102497001	AWE-B-1-DRY1	ANTRIM	WATER	5/13/2021 10:23	5/13/2021	
B102497002	AWE-B-1-DUP	ANTRIM	WATER	5/13/2021 10:30	5/13/2021	
B102497003	AWE-C-1-DRY1	ANTRIM	WATER	5/13/2021 10:45	5/13/2021	
B102497004	AWE-C-1-BLANK	ANTRIM	WATER	5/13/2021 10:49	5/13/2021	
B102497005	AWE-B-1-DRY1	ANTRIM	WATER	5/13/2021 10:23	5/13/2021	
B102497006	AWE-B-1-DUP	ANTRIM	WATER	5/13/2021 10:30	5/13/2021	
B102497007	AWE-C-1-DRY1	ANTRIM	WATER	5/13/2021 10:45	5/13/2021	
B102497008	AWE-C-1-BLANK	ANTRIM	WATER	5/13/2021 10:49	5/13/2021	

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ANALYTICAL RESULTS

Workorder: B102497 - SPECIAL
Project ID: 9999730 - TRC - MANCHESTER

Lab ID: **B102497001** Matrix: WATER
Sample ID: **AWE-B-1-DRY1** Sample Type: SAMPLE
Description: ANTRIM Collector : KEVIN FERGUSON

Parameters	Results	Units	RDL	DF	Prepared	Analyzed	Limit	Qual
Inorganics								
Analytical Method: EPA 200.7								
Aluminum	0.092	mg/L	0.015	1		5/26/2021 11:42		
Iron	ND	mg/L	0.050	1		5/26/2021 11:42	0.3	
Wet Chemistry								
Analytical Method: LACHAT 10-115-01-1-F								
Total Phosphorus	0.00528	mg/L	0.0050	1		5/19/2021 12:20		
Analytical Method: LACHAT 10-117-07-1-B								
Chloride	ND	mg/L	3.0	1		5/13/2021 14:57	250	
Analytical Method: LACHAT 10-107-06-2-E								
Total Kjeldahl Nitrogen	ND	mg/L	0.25	1		5/28/2021 16:12		
Analytical Method: LACHAT 10-107-04-1-C								
Nitrate+Nitrite-Nitrogen	0.066	mg/L	0.050	1		5/13/2021 14:57		

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ANALYTICAL RESULTS

Workorder: B102497 - SPECIAL
Project ID: 9999730 - TRC - MANCHESTER

Lab ID: **B102497002** Matrix: WATER
Sample ID: **AWE-B-1-DUP** Sample Type: SAMPLE
Description: ANTRIM Collector : KEVIN FERGUSON

Parameters	Results	Units	RDL	DF	Prepared	Analyzed	Limit	Qual
Inorganics								
Preparation Method: EPA 200.2								
Analytical Method: EPA 200.7								
Aluminum	0.098	mg/L	0.015	1	5/25/2021 08:51	5/26/2021 11:45		
Iron	ND	mg/L	0.050	1	5/25/2021 08:51	5/26/2021 11:45	0.3	
Wet Chemistry								
Analytical Method: LACHAT 10-115-01-1-F								
Total Phosphorus	0.00757	mg/L	0.0050	1		5/19/2021 12:22		
Analytical Method: LACHAT 10-117-07-1-B								
Chloride	ND	mg/L	3.0	1		5/13/2021 15:13	250	
Analytical Method: LACHAT 10-107-06-2-E								
Total Kjeldahl Nitrogen	ND	mg/L	0.25	1		5/28/2021 16:18		
Analytical Method: LACHAT 10-107-04-1-C								
Nitrate+Nitrite-Nitrogen	ND	mg/L	0.050	1		5/13/2021 15:13		

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ANALYTICAL RESULTS

Workorder: B102497 - SPECIAL
Project ID: 9999730 - TRC - MANCHESTER

Lab ID: **B102497003** Matrix: WATER
Sample ID: **AWE-C-1-DRY1** Sample Type: SAMPLE
Description: ANTRIM Collector : KEVIN FERGUSON

Parameters	Results	Units	RDL	DF	Prepared	Analyzed	Limit	Qual
Inorganics								
Analytical Method: EPA 200.7								
Aluminum	0.081	mg/L	0.015	1		5/26/2021 11:47		
Iron	ND	mg/L	0.050	1		5/26/2021 11:47	0.3	
Wet Chemistry								
Analytical Method: LACHAT 10-115-01-1-F								
Total Phosphorus	0.00570	mg/L	0.0050	1		5/19/2021 12:23		
Analytical Method: LACHAT 10-117-07-1-B								
Chloride	ND	mg/L	3.0	1		5/13/2021 15:15	250	
Analytical Method: LACHAT 10-107-06-2-E								
Total Kjeldahl Nitrogen	ND	mg/L	0.25	1		5/28/2021 16:19		
Analytical Method: LACHAT 10-107-04-1-C								
Nitrate+Nitrite-Nitrogen	0.42	mg/L	0.050	1		5/13/2021 15:15		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Workorder: B102497 - SPECIAL
Project ID: 9999730 - TRC - MANCHESTER

Lab ID: **B102497004** Matrix: WATER
Sample ID: **AWE-C-1-BLANK** Sample Type: SAMPLE
Description: ANTRIM Collector : KEVIN FERGUSON

Parameters	Results	Units	RDL	DF	Prepared	Analyzed	Limit	Qual
Inorganics								
Analytical Method: EPA 200.7								
Aluminum	ND	mg/L	0.015	1		5/26/2021 11:50		
Iron	ND	mg/L	0.050	1		5/26/2021 11:50	0.3	
Wet Chemistry								
Analytical Method: LACHAT 10-115-01-1-F								
Total Phosphorus	0.00692	mg/L	0.0050	1		5/19/2021 12:24		
Analytical Method: LACHAT 10-117-07-1-B								
Chloride	ND	mg/L	3.0	1		5/13/2021 15:17	250	
Analytical Method: LACHAT 10-107-06-2-E								
Total Kjeldahl Nitrogen	ND	mg/L	0.25	1		5/28/2021 16:21		
Analytical Method: LACHAT 10-107-04-1-C								
Nitrate+Nitrite-Nitrogen	ND	mg/L	0.050	1		5/13/2021 15:17		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Workorder: B102497 - SPECIAL
Project ID: 9999730 - TRC - MANCHESTER

Lab ID: **B102497005**
Sample ID: **AWE-B-1-DRY1**
Description: ANTRIM

Matrix: WATER
Sample Type: SAMPLE
Collector : KEVIN FERGUSON

Parameters	Results	Units	RDL	DF	Prepared	Analyzed	Limit	Qual
Inorganics								
Analytical Method: EPA 200.7								
Aluminum, Acid Soluble	0.0830	mg/L	0.0150	1		5/26/2021 12:07		

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ANALYTICAL RESULTS

Workorder: B102497 - SPECIAL
Project ID: 9999730 - TRC - MANCHESTER

Lab ID: **B102497006**
Sample ID: **AWE-B-1-DUP**
Description: ANTRIM

Matrix: WATER
Sample Type: SAMPLE
Collector : KEVIN FERGUSON

Parameters	Results	Units	RDL	DF	Prepared	Analyzed	Limit	Qual
Inorganics								
Analytical Method: EPA 200.7								
Aluminum, Acid Soluble	0.0840	mg/L	0.0150	1		5/26/2021 12:10		

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ANALYTICAL RESULTS

Workorder: B102497 - SPECIAL
Project ID: 9999730 - TRC - MANCHESTER

Lab ID: **B102497007**
Sample ID: **AWE-C-1-DRY1**
Description: ANTRIM

Matrix: WATER
Sample Type: SAMPLE
Collector : KEVIN FERGUSON

Parameters	Results	Units	RDL	DF	Prepared	Analyzed	Limit	Qual
Inorganics								
Analytical Method: EPA 200.7								
Aluminum, Acid Soluble	0.0710	mg/L	0.0150	1		5/26/2021 12:13		

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ANALYTICAL RESULTS

Workorder: B102497 - SPECIAL
Project ID: 9999730 - TRC - MANCHESTER

Lab ID: **B102497008**
Sample ID: **AWE-C-1-BLANK**
Description: ANTRIM

Matrix: WATER
Sample Type: SAMPLE
Collector : KEVIN FERGUSON

Parameters	Results	Units	RDL	DF	Prepared	Analyzed	Limit	Qual
Inorganics								
Analytical Method: EPA 200.7								
Aluminum, Acid Soluble	ND	mg/L	0.0150	1		5/26/2021 12:16		

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DEPARTMENT OF HEALTH AND HUMAN SERVICES
29 HAZEN DR., CONCORD NH 03301
PHONE (603) 271-3445
FAX (603) 271-4783

Invoice

Invoice To KEVIN FERGUSON
TRC
670 NORTH COMMERCIAL ST.
SUITE 203
Manchester NH 03101

Invoice Number 175532
Invoice Date 6/2/2021
Due Date 7/2/2021
Account ID 9999730
PO

CC

Workorder B102497
Project ID 9999730 - TRC - MANCHESTER

Charge Details

Lab ID	Sample ID	Collected	Test Description	Charge
B102497001	**AWE-B-1-DRY**	5/13/2021 10:23	CHLORIDE,AQUEOUS	$12.00
B102497001	**AWE-B-1-DRY**	5/13/2021 10:23	NITRATE+NITRITE-N,AQUEOUS	$12.00
B102497001	**AWE-B-1-DRY**	5/13/2021 10:23	ALUMINUM,EPA 200.7,ICP,AQUEOUS	$15.00
B102497001	**AWE-B-1-DRY**	5/13/2021 10:23	IRON,EPA 200.7,ICP,SOLID	$15.00
B102497001	**AWE-B-1-DRY**	5/13/2021 10:23	TOTAL PHOSPHORUS,AQUEOUS	$20.00
B102497001	**AWE-B-1-DRY**	5/13/2021 10:23	TOTAL KJELDAHL NITROGEN,AQ	$25.00
B102497002	**AWE-B-1-DUP**	5/13/2021 10:30	CHLORIDE,AQUEOUS	$12.00
B102497002	**AWE-B-1-DUP**	5/13/2021 10:30	NITRATE+NITRITE-N,AQUEOUS	$12.00
B102497002	**AWE-B-1-DUP**	5/13/2021 10:30	ALUMINUM,EPA 200.7,ICP,AQUEOUS	$15.00
B102497002	**AWE-B-1-DUP**	5/13/2021 10:30	IRON,EPA 200.7,ICP,SOLID	$15.00
B102497002	**AWE-B-1-DUP**	5/13/2021 10:30	TOTAL PHOSPHORUS,AQUEOUS	$20.00
B102497002	**AWE-B-1-DUP**	5/13/2021 10:30	TOTAL KJELDAHL NITROGEN,AQ	$25.00
B102497003	**AWE-C-1-DRY**	5/13/2021 10:45	CHLORIDE,AQUEOUS	$12.00
B102497003	**AWE-C-1-DRY**	5/13/2021 10:45	NITRATE+NITRITE-N,AQUEOUS	$12.00
B102497003	**AWE-C-1-DRY**	5/13/2021 10:45	ALUMINUM,EPA 200.7,ICP,AQUEOUS	$15.00
B102497003	**AWE-C-1-DRY**	5/13/2021 10:45	IRON,EPA 200.7,ICP,SOLID	$15.00
B102497003	**AWE-C-1-DRY**	5/13/2021 10:45	TOTAL PHOSPHORUS,AQUEOUS	$20.00
B102497003	**AWE-C-1-DRY**	5/13/2021 10:45	TOTAL KJELDAHL NITROGEN,AQ	$25.00
B102497004	**AWE-C-1-BLA**	5/13/2021 10:49	CHLORIDE,AQUEOUS	$12.00
B102497004	**AWE-C-1-BLA**	5/13/2021 10:49	NITRATE+NITRITE-N,AQUEOUS	$12.00
B102497004	**AWE-C-1-BLA**	5/13/2021 10:49	ALUMINUM,EPA 200.7,ICP,AQUEOUS	$15.00
B102497004	**AWE-C-1-BLA**	5/13/2021 10:49	IRON,EPA 200.7,ICP,SOLID	$15.00
B102497004	**AWE-C-1-BLA**	5/13/2021 10:49	TOTAL PHOSPHORUS,AQUEOUS	$20.00
B102497004	**AWE-C-1-BLA**	5/13/2021 10:49	TOTAL KJELDAHL NITROGEN,AQ	$25.00
B102497005	**AWE-B-1-DRY**	5/13/2021 10:23	ALUMINUM,ACID SOLUBLE,ICP	$15.00

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Invoice

Invoice To KEVIN FERGUSON
TRC
670 NORTH COMMERCIAL ST.
SUITE 203
Manchester NH 03101

Invoice Number 175532
Invoice Date 6/2/2021
Due Date 7/2/2021
Account ID 9999730
PO

CC

Workorder B102497
Project ID 9999730 - TRC - MANCHESTER

Charge Details

Lab ID	Sample ID	Collected	Test Description	Charge
B102497006	**AWE-B-1-DUP**	5/13/2021 10:30	ALUMINUM,ACID SOLUBLE,ICP	$15.00
B102497007	**AWE-C-1-DRY**	5/13/2021 10:45	ALUMINUM,ACID SOLUBLE,ICP	$15.00
B102497008	**AWE-C-1-BLA**	5/13/2021 10:49	ALUMINUM,ACID SOLUBLE,ICP	$15.00
			Invoice Total	$456.00

Payment Details

The laboratory is no longer accepting bacteria samples on days before an official state holiday.

PLEASE RETURN BOTTOM WITH PAYMENT

Make checks payable to:
Treasurer State of NH

Please pay this amount:
$456.00

Client: 9999730
Invoice 175532

Remit To New Hampshire Public Health Laboratories Laboratory Services
Department of Health and Human Services
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New Hampshire Public Health Laboratories
Department of Health and Human Services
29 Hazen Dr., Concord NH 03301
Phone: (603) 271-3445

Wednesday, June 23, 2021

KEVIN FERGUSON
TRC
670 NORTH COMMERCIAL ST
SUITE 203
MANCHESTER NH 03101

RE: Workorder: B102974 - SPECIAL
Project ID: 9999730 - TRC - MANCHESTER

Dear KEVIN FERGUSON:

Enclosed are the analytical results for the sample(s) received by the laboratory on Tuesday, Jun 01, 2021. Unless indicated as exceptions, the sample(s) met EPA requirements for hold times, preservation techniques, container types and other receipt conditions. Please contact us if you need measurement uncertainty values associated with radiological parameters. Results reported conform to the most current NELAC standard, where applicable, unless otherwise narrated in the body of the report. Any results reported for samples subcontracted to another laboratory are indicated on the report. Please refer to https://www4.des.nh.gov/CertifiedLabs/Certified-Method.aspx for a copy of our current NELAP certificate and accredited parameters.

We appreciate the opportunity to provide this analytical service for you. If you have any questions regarding this report or your results, please feel free to contact us. We value your feedback please send comments to lucio.barinelli@dhhs.nh.gov.

The following signature indicates technical review and acceptance of the data.

Sincerely,

Lucio S. Barinelli, Ph.D.
Authorized Signature

Enclosures

NH DIVISION OF
Public Health Services
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New Hampshire Public Health Laboratories
Department of Health and Human Services
29 Hazen Dr., Concord NH 03301
Phone: (603) 271-3445
Fax: (603) 271-4783

DATA QUALIFIER DESCRIPTIONS

Workorder: B102974 - SPECIAL

Project ID: 9999730 - TRC - MANCHESTER

The following are a list of some column headers and abbreviations with their meanings as used throughout the analysis report. Referring to them will assist you in interpreting your report.

RDL= The lowest value the laboratory calibrates its instrumentation for this parameter. Any instrumental estimate of results below the Report Limit is reported as Not Detected (ND).

DF= For some heavily contaminated samples, the laboratory must dilute samples to keep the final number within its calibration scale. This is referred to as the Dilution Factor. Final results and reporting limits are adjusted relative to the DF used.

QUAL= Indicates that the result has been qualified. Refer to the Analytical Report Comments and Qualifiers page for details.

LIMIT= Reflects the Maximum Contamination Level (MCL), if one exists, a secondary or recommended level or another State or Federal action level.

Surrogates = For some analyses, the laboratory adds a number of compounds to monitor analytical performance. These results are provided for your information.

> = Greater than	< = Less than
mg/L = milligrams per Liter	ug/L = micrograms per Liter
mg/kg = milligrams per kilogram	ug/kg = micrograms per kilogram
P-A = Present/Absent	CTS/100 mL = Counts per 100 milliliters
CFU = Colony forming unit	MPN = Most Probable Number
pCi/L = picoCuries per Liter	

J = Estimated value; analyte detected at less than the Reporting Limit but greater than the laboratory's Method Detection Limit.

B = Analyte detected in the method blank for the batch of samples. Its presence in the sample may be suspect.

E = Estimated value; result exceeded the upper calibration level for the parameter.

Radiological results are expressed as a number + an uncertainty factor. Uncertainty is a calculated measure of the precision around the reported value.

All results for pH and residual chlorine samples analyzed more than 15 minutes after time of collection shall be considered QUALIFIED.

For assistance in interpreting your lab results and obtaining information regarding water treatment; go to www.des.nh.gov and search "Be Well Informed." Or go to http://xml2.des.state.nh.us/DWITool/.

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SAMPLE SUMMARY

Workorder: B102974 - SPECIAL
Project ID: 9999730 - TRC - MANCHESTER

Lab ID	Sample ID	Ref ID	Matrix	Date Collected	Date Received	Misc Info
B102974001	AWE-B-1-WET1	ANTRIM	WATER	5/31/2021 09:19	6/1/2021	
B102974002	AWE-C-1-WET1	ANTRIM	WATER	5/31/2021 09:31	6/1/2021	
B102974003	AWE-B-1-WET1	ANTRIM	WATER	5/31/2021 09:19	6/1/2021	
B102974004	AWE-C-1-WET1	ANTRIM	WATER	5/31/2021 09:31	6/1/2021	

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ANALYTICAL REPORT COMMENTS AND QUALIFIERS

Workorder: B102974 - SPECIAL

Project ID: 9999730 - TRC - MANCHESTER

Parameter Footnotes

[1] Sample was filtered at lab; result is dissolved chloride.

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ANALYTICAL RESULTS

Workorder: B102974 - SPECIAL
Project ID: 9999730 - TRC - MANCHESTER

Lab ID: **B102974001**
Sample ID: **AWE-B-1-WET1**
Description: ANTRIM

Matrix: WATER
Sample Type: SAMPLE
Collector : KEVIN FERGUSON

Parameters	Results	Units	RDL	DF	Prepared	Analyzed	Limit	Qual
Inorganics								
Preparation Method: EPA 200.2								
Analytical Method: EPA 200.7								
Aluminum	0.143	mg/L	0.015	1	6/11/2021 10:30	6/16/2021 09:10		
Iron	ND	mg/L	0.050	1	6/11/2021 10:30	6/16/2021 09:10	0.3	
Wet Chemistry								
Analytical Method: LACHAT 10-115-01-1-F								
Total Phosphorus	0.00587	mg/L	0.0050	1		6/7/2021 09:15		
Analytical Method: LACHAT 10-117-07-1-B								
Chloride	ND	mg/L	3.0	1		6/1/2021 14:13	250	1
Analytical Method: LACHAT 10-107-06-2-E								
Total Kjeldahl Nitrogen	ND	mg/L	0.25	1		6/17/2021 15:50		
Analytical Method: LACHAT 10-107-04-1-C								
Nitrate+Nitrite-Nitrogen	ND	mg/L	0.050	1		6/1/2021 14:13		

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ANALYTICAL RESULTS

Workorder: B102974 - SPECIAL
Project ID: 9999730 - TRC - MANCHESTER

Lab ID: **B102974002**
Sample ID: **AWE-C-1-WET1**
Description: ANTRIM

Matrix: WATER
Sample Type: SAMPLE
Collector : KEVIN FERGUSON

Parameters	Results	Units	RDL	DF	Prepared	Analyzed	Limit	Qual
Inorganics								
Preparation Method: EPA 200.2								
Analytical Method: EPA 200.7								
Aluminum	0.134	mg/L	0.015	1	6/11/2021 10:30	6/16/2021 09:13		
Iron	0.057	mg/L	0.050	1	6/11/2021 10:30	6/16/2021 09:13	0.3	
Wet Chemistry								
Analytical Method: LACHAT 10-115-01-1-F								
Total Phosphorus	0.00635	mg/L	0.0050	1		6/7/2021 09:17		
Analytical Method: LACHAT 10-117-07-1-B								
Chloride	ND	mg/L	3.0	1		6/1/2021 14:15	250	1
Analytical Method: LACHAT 10-107-06-2-E								
Total Kjeldahl Nitrogen	ND	mg/L	0.25	1		6/17/2021 15:51		
Analytical Method: LACHAT 10-107-04-1-C								
Nitrate+Nitrite-Nitrogen	ND	mg/L	0.050	1		6/1/2021 14:15		

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ANALYTICAL RESULTS

Workorder: B102974 - SPECIAL
Project ID: 9999730 - TRC - MANCHESTER

Lab ID: **B102974003**
Sample ID: **AWE-B-1-WET1**
Description: ANTRIM

Matrix: WATER
Sample Type: SAMPLE
Collector : KEVIN FERGUSON

Parameters	Results	Units	RDL	DF	Prepared	Analyzed	Limit	Qual
Inorganics								
Analytical Method: EPA 200.7								
Aluminum, Acid Soluble	0.1060	mg/L	0.0150	1		6/17/2021 10:06		

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ANALYTICAL RESULTS

Workorder: B102974 - SPECIAL
Project ID: 9999730 - TRC - MANCHESTER

Lab ID: **B102974004**
Sample ID: **AWE-C-1-WET1**
Description: ANTRIM

Matrix: WATER
Sample Type: SAMPLE
Collector : KEVIN FERGUSON

Parameters	Results	Units	RDL	DF	Prepared	Analyzed	Limit	Qual
Inorganics								
Analytical Method: EPA 200.7								
Aluminum, Acid Soluble	0.1020	mg/L	0.0150	1		6/17/2021 10:09		

NEW HAMPSHIRE PUBLIC HEALTH LABORATORIES
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NH DIVISION OF Public Health Services

Invoice

Invoice To KEVIN FERGUSON
TRC
670 NORTH COMMERCIAL ST.
SUITE 203
Manchester NH 03101

Invoice Number 176339
Invoice Date 6/23/2021
Due Date 7/23/2021
Account ID 9999730
PO

CC

Workorder B102974
Project ID 9999730 - TRC - MANCHESTER

Charge Details

Lab ID	Sample ID	Collected	Test Description	Charge
B102974001	AWE-B-1-WET	5/31/2021 09:19	CHLORIDE,AQUEOUS	$12.00
B102974001	AWE-B-1-WET	5/31/2021 09:19	NITRATE+NITRITE-N,AQUEOUS	$12.00
B102974001	AWE-B-1-WET	5/31/2021 09:19	ALUMINUM,EPA 200.7,ICP,AQUEOUS	$15.00
B102974001	AWE-B-1-WET	5/31/2021 09:19	IRON,EPA 200.7,ICP,SOLID	$15.00
B102974001	AWE-B-1-WET	5/31/2021 09:19	TOTAL PHOSPHORUS,AQUEOUS	$20.00
B102974001	AWE-B-1-WET	5/31/2021 09:19	TOTAL KJELDAHL NITROGEN,AQ	$25.00
B102974002	AWE-C-1-WET	5/31/2021 09:31	CHLORIDE,AQUEOUS	$12.00
B102974002	AWE-C-1-WET	5/31/2021 09:31	NITRATE+NITRITE-N,AQUEOUS	$12.00
B102974002	AWE-C-1-WET	5/31/2021 09:31	ALUMINUM,EPA 200.7,ICP,AQUEOUS	$15.00
B102974002	AWE-C-1-WET	5/31/2021 09:31	IRON,EPA 200.7,ICP,SOLID	$15.00
B102974002	AWE-C-1-WET	5/31/2021 09:31	TOTAL PHOSPHORUS,AQUEOUS	$20.00
B102974002	AWE-C-1-WET	5/31/2021 09:31	TOTAL KJELDAHL NITROGEN,AQ	$25.00
B102974003	AWE-B-1-WET	5/31/2021 09:19	ALUMINUM,ACID SOLUBLE,ICP	$15.00
B102974004	AWE-C-1-WET	5/31/2021 09:31	ALUMINUM,ACID SOLUBLE,ICP	$15.00
			Invoice Total	$228.00

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Invoice Date 6/23/2021
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PO

CC

Workorder B102974
Project ID 9999730 - TRC - MANCHESTER

Payment Details

The laboratory is no longer accepting bacteria samples on days before an official state holiday.

PLEASE RETURN BOTTOM WITH PAYMENT

Make checks payable to:
Treasurer State of NH

Please pay this amount:
$228.00

Client: 9999730
Invoice Number: 176339

Remit To New Hampshire Public Health Laboratories Laboratory Services
Department of Health and Human Services
29 Hazen Dr., Concord NH 03301

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Thursday, July 08, 2021

KEVIN FERGUSON
TRC
670 NORTH COMMERCIAL ST
SUITE 203
MANCHESTER NH 03101

RE: Workorder: B103744 - SPECIAL
Project ID: 9999730 - TRC - MANCHESTER

Dear KEVIN FERGUSON:

Enclosed are the analytical results for the sample(s) received by the laboratory on Thursday, Jun 17, 2021. Unless indicated as exceptions, the sample(s) met EPA requirements for hold times, preservation techniques, container types and other receipt conditions. Please contact us if you need measurement uncertainty values associated with radiological parameters. Results reported conform to the most current NELAC standard, where applicable, unless otherwise narrated in the body of the report. Any results reported for samples subcontracted to another laboratory are indicated on the report. Please refer to https://www4.des.nh.gov/CertifiedLabs/Certified-Method.aspx for a copy of our current NELAP certificate and accredited parameters.

We appreciate the opportunity to provide this analytical service for you. If you have any questions regarding this report or your results, please feel free to contact us. We value your feedback please send comments to lucio.barinelli@dhhs.nh.gov.

The following signature indicates technical review and acceptance of the data.

Sincerely,

Lucio S. Barinelli, Ph.D.
Authorized Signature

Enclosures

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DATA QUALIFIER DESCRIPTIONS

Workorder: B103744 - SPECIAL

Project ID: 9999730 - TRC - MANCHESTER

The following are a list of some column headers and abbreviations with their meanings as used throughout the analysis report. Referring to them will assist you in interpreting your report.

RDL= The lowest value the laboratory calibrates its instrumentation for this parameter. Any instrumental estimate of results below the Report Limit is reported as Not Detected (ND).

DF= For some heavily contaminated samples, the laboratory must dilute samples to keep the final number within its calibration scale. This is referred to as the Dilution Factor. Final results and reporting limits are adjusted relative to the DF used.

QUAL= Indicates that the result has been qualified. Refer to the Analytical Report Comments and Qualifiers page for details.

LIMIT= Reflects the Maximum Contamination Level (MCL), if one exists, a secondary or recommended level or another State or Federal action level.

Surrogates = For some analyses, the laboratory adds a number of compounds to monitor analytical performance. These results are provided for your information.

> = Greater than	< = Less than
mg/L = milligrams per Liter	ug/L = micrograms per Liter
mg/kg = milligrams per kilogram	ug/kg = micrograms per kilogram
P-A = Present/Absent	CTS/100 mL = Counts per 100 milliliters
CFU = Colony forming unit	MPN = Most Probable Number

pCi/L = picoCuries per Liter

J = Estimated value; analyte detected at less than the Reporting Limit but greater than the laboratory's Method Detection Limit.

B = Analyte detected in the method blank for the batch of samples. Its presence in the sample may be suspect.

E = Estimated value; result exceeded the upper calibration level for the parameter.

Radiological results are expressed as a number + an uncertainty factor. Uncertainty is a calculated measure of the precision around the reported value.

All results for pH and residual chlorine samples analyzed more than 15 minutes after time of collection shall be considered QUALIFIED.

For assistance in interpreting your lab results and obtaining information regarding water treatment; go to www.des.nh.gov and search "Be Well Informed." Or go to http://xml2.des.state.nh.us/DWITool/.

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SAMPLE SUMMARY

Workorder: B103744 - SPECIAL
Project ID: 9999730 - TRC - MANCHESTER

Lab ID	Sample ID	Ref ID	Matrix	Date Collected	Date Received	Misc Info
B103744001	AWE-B1-DRY2	ANTRIM	WATER	6/17/2021 10:53	6/17/2021	
B103744002	AWE-C1-DRY2	ANTRIM	WATER	6/17/2021 13:00	6/17/2021	
B103744003	AWE-B1-DRY2	ANTRIM	WATER	6/17/2021 10:53	6/17/2021	
B103744004	AWE-C1-DRY2	ANTRIM	WATER	6/17/2021 13:00	6/17/2021	

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ANALYTICAL REPORT COMMENTS AND QUALIFIERS

Workorder: B103744 - SPECIAL
Project ID: 9999730 - TRC - MANCHESTER

Parameter Footnotes

[1] Sample was filtered at lab; result is dissolved chloride.

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ANALYTICAL RESULTS

Workorder: B103744 - SPECIAL
Project ID: 9999730 - TRC - MANCHESTER

Lab ID: **B103744001**
Sample ID: **AWE-B1-DRY2**
Description: ANTRIM

Matrix: WATER
Sample Type: SAMPLE
Collector : KEVIN FERGUSON

Parameters	Results	Units	RDL	DF	Prepared	Analyzed	Limit	Qual
Inorganics								
Preparation Method: EPA 200.2								
Analytical Method: EPA 200.7								
Aluminum	0.088	mg/L	0.015	1	6/24/2021 07:45	6/28/2021 11:31		
Iron	ND	mg/L	0.050	1	6/24/2021 07:45	6/28/2021 11:31	0.3	
Wet Chemistry								
Analytical Method: LACHAT 10-115-01-1-F								
Total Phosphorus	0.00738	mg/L	0.0050	1		6/28/2021 10:48		
Analytical Method: LACHAT 10-117-07-1-B								
Chloride	ND	mg/L	3.0	1		6/17/2021 15:26	250	1
Analytical Method: LACHAT 10-107-06-2-E								
Total Kjeldahl Nitrogen	ND	mg/L	0.25	1		6/29/2021 09:39		
Analytical Method: LACHAT 10-107-04-1-C								
Nitrate+Nitrite-Nitrogen	0.067	mg/L	0.050	1		6/17/2021 15:26		

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ANALYTICAL RESULTS

Workorder: B103744 - SPECIAL
Project ID: 9999730 - TRC - MANCHESTER

Lab ID: **B103744002**
Sample ID: **AWE-C1-DRY2**
Description: ANTRIM

Matrix: WATER
Sample Type: SAMPLE
Collector : KEVIN FERGUSON

Parameters	Results	Units	RDL	DF	Prepared	Analyzed	Limit	Qual
Inorganics								
Preparation Method: EPA 200.2								
Analytical Method: EPA 200.7								
Aluminum	0.132	mg/L	0.015	1	6/24/2021 07:45	6/28/2021 11:34		
Iron	0.091	mg/L	0.050	1	6/24/2021 07:45	6/28/2021 11:34	0.3	
Wet Chemistry								
Analytical Method: LACHAT 10-115-01-1-F								
Total Phosphorus	0.00642	mg/L	0.0050	1		6/28/2021 10:49		
Analytical Method: LACHAT 10-117-07-1-B								
Chloride	3.0	mg/L	3.0	1		6/17/2021 15:28	250	1
Analytical Method: LACHAT 10-107-06-2-E								
Total Kjeldahl Nitrogen	ND	mg/L	0.25	1		6/29/2021 09:41		
Analytical Method: LACHAT 10-107-04-1-C								
Nitrate+Nitrite-Nitrogen	ND	mg/L	0.050	1		6/17/2021 15:28		

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ANALYTICAL RESULTS

Workorder: B103744 - SPECIAL
Project ID: 9999730 - TRC - MANCHESTER

Lab ID: **B103744003**
Sample ID: **AWE-B1-DRY2**
Description: ANTRIM

Matrix: WATER
Sample Type: SAMPLE
Collector : KEVIN FERGUSON

Parameters	Results	Units	RDL	DF	Prepared	Analyzed	Limit	Qual
Inorganics								
Analytical Method: EPA 200.7								
Aluminum, Acid Soluble	0.1210	mg/L	0.0150	1		6/30/2021 15:35		

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ANALYTICAL RESULTS

Workorder: B103744 - SPECIAL
Project ID: 9999730 - TRC - MANCHESTER

Lab ID: **B103744004**
Sample ID: **AWE-C1-DRY2**
Description: ANTRIM

Matrix: WATER
Sample Type: SAMPLE
Collector : KEVIN FERGUSON

Parameters	Results	Units	RDL	DF	Prepared	Analyzed	Limit	Qual
Inorganics								
Analytical Method: EPA 200.7								
Aluminum, Acid Soluble	0.1610	mg/L	0.0150	1		6/30/2021 15:38		

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DEPARTMENT OF HEALTH AND HUMAN SERVICES
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Invoice

Invoice To KEVIN FERGUSON
TRC
670 NORTH COMMERCIAL ST.
SUITE 203
Manchester NH 03101

Invoice Number 176836
Invoice Date 7/8/2021
Due Date 8/7/2021
Account ID 9999730
PO

CC

Workorder B103744
Project ID 9999730 - TRC - MANCHESTER

Charge Details

Lab ID	Sample ID	Collected	Test Description	Charge
B103744001	**AWE-B1-DRY2**	6/17/2021 10:53	CHLORIDE,AQUEOUS	$12.00
B103744001	**AWE-B1-DRY2**	6/17/2021 10:53	NITRATE+NITRITE-N,AQUEOUS	$12.00
B103744001	**AWE-B1-DRY2**	6/17/2021 10:53	ALUMINUM,EPA 200.7,ICP,AQUEOUS	$15.00
B103744001	**AWE-B1-DRY2**	6/17/2021 10:53	IRON,EPA 200.7,ICP,SOLID	$15.00
B103744001	**AWE-B1-DRY2**	6/17/2021 10:53	TOTAL PHOSPHORUS,AQUEOUS	$20.00
B103744001	**AWE-B1-DRY2**	6/17/2021 10:53	TOTAL KJELDAHL NITROGEN,AQ	$25.00
B103744002	**AWE-C1-DRY2**	6/17/2021 13:00	CHLORIDE,AQUEOUS	$12.00
B103744002	**AWE-C1-DRY2**	6/17/2021 13:00	NITRATE+NITRITE-N,AQUEOUS	$12.00
B103744002	**AWE-C1-DRY2**	6/17/2021 13:00	ALUMINUM,EPA 200.7,ICP,AQUEOUS	$15.00
B103744002	**AWE-C1-DRY2**	6/17/2021 13:00	IRON,EPA 200.7,ICP,SOLID	$15.00
B103744002	**AWE-C1-DRY2**	6/17/2021 13:00	TOTAL PHOSPHORUS,AQUEOUS	$20.00
B103744002	**AWE-C1-DRY2**	6/17/2021 13:00	TOTAL KJELDAHL NITROGEN,AQ	$25.00
B103744003	**AWE-B1-DRY2**	6/17/2021 10:53	ALUMINUM,ACID SOLUBLE,ICP	$15.00
B103744004	**AWE-C1-DRY2**	6/17/2021 13:00	ALUMINUM,ACID SOLUBLE,ICP	$15.00
			Invoice Total	$228.00

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Account ID 9999730
PO

CC

Workorder B103744
Project ID 9999730 - TRC - MANCHESTER

Payment Details *The laboratory is no longer accepting bacteria samples on days before an official state holiday.*

PLEASE RETURN BOTTOM WITH PAYMENT

Make checks payable to:
Treasurer State of NH

Please pay this amount:
$228.00

Client: 9999730
Invoice Number: 176836

Remit To New Hampshire Public Health Laboratories Laboratory Services
Department of Health and Human Services
29 Hazen Dr., Concord NH 03301

REPRINT

NH DIVISION OF
Public Health Services
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New Hampshire Public Health Laboratories
Department of Health and Human Services
29 Hazen Dr., Concord NH 03301
Phone: (603) 271-3445

Wednesday, July 21, 2021

KEVIN FERGUSON
TRC
670 NORTH COMMERCIAL ST
SUITE 203
MANCHESTER NH 03101

RE: Workorder: B104326 - SPECIAL
Project ID: 9999730 - TRC - MANCHESTER

Dear KEVIN FERGUSON:

Enclosed are the analytical results for the sample(s) received by the laboratory on Tuesday, Jul 06, 2021. Unless indicated as exceptions, the sample(s) met EPA requirements for hold times, preservation techniques, container types and other receipt conditions. Please contact us if you need measurement uncertainty values associated with radiological parameters. Results reported conform to the most current NELAC standard, where applicable, unless otherwise narrated in the body of the report. Any results reported for samples subcontracted to another laboratory are indicated on the report. Please refer to https://www4.des.nh.gov/CertifiedLabs/Certified-Method.aspx for a copy of our current NELAP certificate and accredited parameters.

We appreciate the opportunity to provide this analytical service for you. If you have any questions regarding this report or your results, please feel free to contact us. We value your feedback please send comments to lucio.barinelli@dhhs.nh.gov.

The following signature indicates technical review and acceptance of the data.

Sincerely,

Authorized Signature: Lucio S. Barinelli, Ph.D.

Enclosures

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Department of Health and Human Services
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Fax: (603) 271-4783

DATA QUALIFIER DESCRIPTIONS

Workorder: B104326 - SPECIAL

Project ID: 9999730 - TRC - MANCHESTER

The following are a list of some column headers and abbreviations with their meanings as used throughout the analysis report. Referring to them will assist you in interpreting your report.

RDL= The lowest value the laboratory calibrates its instrumentation for this parameter. Any instrumental estimate of results below the Report Limit is reported as Not Detected (ND).

DF= For some heavily contaminated samples, the laboratory must dilute samples to keep the final number within its calibration scale. This is referred to as the Dilution Factor. Final results and reporting limits are adjusted relative to the DF used.

QUAL= Indicates that the result has been qualified. Refer to the Analytical Report Comments and Qualifiers page for details.

LIMIT= Reflects the Maximum Contamination Level (MCL), if one exists, a secondary or recommended level or another State or Federal action level.

Surrogates = For some analyses, the laboratory adds a number of compounds to monitor analytical performance. These results are provided for your information.

> = Greater than	< = Less than
mg/L = milligrams per Liter	ug/L = micrograms per Liter
mg/kg = milligrams per kilogram	ug/kg = micrograms per kilogram
P-A = Present/Absent	CTS/100 mL = Counts per 100 milliliters
CFU = Colony forming unit	MPN = Most Probable Number
pCi/L = picoCuries per Liter	

J = Estimated value; analyte detected at less than the Reporting Limit but greater than the laboratory's Method Detection Limit.

B = Analyte detected in the method blank for the batch of samples. Its presence in the sample may be suspect.

E = Estimated value; result exceeded the upper calibration level for the parameter.

Radiological results are expressed as a number + an uncertainty factor. Uncertainty is a calculated measure of the precision around the reported value.

All results for pH and residual chlorine samples analyzed more than 15 minutes after time of collection shall be considered QUALIFIED.

For assistance in interpreting your lab results and obtaining information regarding water treatment; go to www.des.nh.gov and search "Be Well Informed." Or go to http://xml2.des.state.nh.us/DWITool/.

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SAMPLE SUMMARY

Workorder: B104326 - SPECIAL
Project ID: 9999730 - TRC - MANCHESTER

Lab ID	Sample ID	Ref ID	Matrix	Date Collected	Date Received	Misc Info
B104326001	AWE-B1-WET 2		WATER	7/6/2021 09:01	7/6/2021	
B104326002	AWE-C1-WET 2		WATER	7/6/2021 09:12	7/6/2021	
B104326003	AWE-B1-WET 2		WATER	7/6/2021 09:01	7/6/2021	
B104326004	AWE-C1-WET 2		WATER	7/6/2021 09:12	7/6/2021	

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ANALYTICAL RESULTS

Workorder: B104326 - SPECIAL
Project ID: 9999730 - TRC - MANCHESTER

Lab ID: **B104326001**
Sample ID: **AWE-B1-WET 2**
Description:

Matrix: WATER
Sample Type: SAMPLE
Collector : KEVIN FERGUSON

Parameters	Results	Units	RDL	DF	Prepared	Analyzed	Limit	Qual
Inorganics								
Preparation Method: EPA 200.2								
Analytical Method: EPA 200.7								
Aluminum	0.103	mg/L	0.015	1	7/14/2021 07:30	7/15/2021 10:14		
Iron	ND	mg/L	0.050	1	7/14/2021 07:30	7/15/2021 10:14	0.3	
Wet Chemistry								
Analytical Method: LACHAT 10-115-01-1-F								
Total Phosphorus	0.00534	mg/L	0.0050	1		7/13/2021 09:55		
Analytical Method: LACHAT 10-117-07-1-B								
Chloride	ND	mg/L	3.0	1		7/7/2021 08:08	250	
Analytical Method: LACHAT 10-107-06-2-E								
Total Kjeldahl Nitrogen	ND	mg/L	0.25	1		7/14/2021 14:09		
Analytical Method: LACHAT 10-107-04-1-C								
Nitrate+Nitrite-Nitrogen	0.68	mg/L	0.050	1		7/7/2021 08:08		

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ANALYTICAL RESULTS

Workorder: B104326 - SPECIAL
Project ID: 9999730 - TRC - MANCHESTER

Lab ID: **B104326002**
Sample ID: **AWE-C1-WET 2**
Description:

Matrix: WATER
Sample Type: SAMPLE
Collector : KEVIN FERGUSON

Parameters	Results	Units	RDL	DF	Prepared	Analyzed	Limit	Qual
Inorganics								
Preparation Method: EPA 200.2								
Analytical Method: EPA 200.7								
Aluminum	0.107	mg/L	0.015	1	7/14/2021 07:30	7/15/2021 10:17		
Iron	ND	mg/L	0.050	1	7/14/2021 07:30	7/15/2021 10:17	0.3	
Wet Chemistry								
Analytical Method: LACHAT 10-115-01-1-F								
Total Phosphorus	0.00535	mg/L	0.0050	1		7/13/2021 09:56		
Analytical Method: LACHAT 10-117-07-1-B								
Chloride	ND	mg/L	3.0	1		7/7/2021 08:10	250	
Analytical Method: LACHAT 10-107-06-2-E								
Total Kjeldahl Nitrogen	ND	mg/L	0.25	1		7/14/2021 14:11		
Analytical Method: LACHAT 10-107-04-1-C								
Nitrate+Nitrite-Nitrogen	0.19	mg/L	0.050	1		7/7/2021 08:10		

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ANALYTICAL RESULTS

Workorder: B104326 - SPECIAL
Project ID: 9999730 - TRC - MANCHESTER

Lab ID: **B104326003**
Sample ID: **AWE-B1-WET 2**
Description:

Matrix: WATER
Sample Type: SAMPLE
Collector : KEVIN FERGUSON

Parameters	Results	Units	RDL	DF	Prepared	Analyzed	Limit	Qual
Inorganics								
Analytical Method: EPA 200.7								
Aluminum, Acid Soluble	0.1010	mg/L	0.0150	1		7/15/2021 11:52		

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ANALYTICAL RESULTS

Workorder: B104326 - SPECIAL
Project ID: 9999730 - TRC - MANCHESTER

Lab ID: **B104326004**
Sample ID: **AWE-C1-WET 2**
Description:

Matrix: WATER
Sample Type: SAMPLE
Collector : KEVIN FERGUSON

Parameters	Results	Units	RDL	DF	Prepared	Analyzed	Limit	Qual
Inorganics								
Analytical Method: EPA 200.7								
Aluminum, Acid Soluble	0.0860	mg/L	0.0150	1		7/15/2021 11:55		

Date: 07/21/2021

NEW HAMPSHIRE PUBLIC HEALTH LABORATORIES
DEPARTMENT OF HEALTH AND HUMAN SERVICES
29 HAZEN DR., CONCORD NH 03301
PHONE (603) 271-3445
FAX (603) 271-4783

NH DIVISION OF Public Health Services

Invoice

Invoice To KEVIN FERGUSON
TRC
670 NORTH COMMERCIAL ST.
SUITE 203
Manchester NH 03101

Invoice Number 177336
Invoice Date 7/21/2021
Due Date 8/20/2021
Account ID 9999730
PO

CC

Workorder B104326
Project ID 9999730 - TRC - MANCHESTER

Charge Details

Lab ID	Sample ID	Collected	Test Description	Charge
B104326001	**AWE-B1-WET**	7/6/2021 09:01	CHLORIDE,AQUEOUS	$12.00
B104326001	**AWE-B1-WET**	7/6/2021 09:01	NITRATE+NITRITE-N,AQUEOUS	$12.00
B104326001	**AWE-B1-WET**	7/6/2021 09:01	ALUMINUM,EPA 200.7,ICP,AQUEOUS	$15.00
B104326001	**AWE-B1-WET**	7/6/2021 09:01	IRON,EPA 200.7,ICP,SOLID	$15.00
B104326001	**AWE-B1-WET**	7/6/2021 09:01	TOTAL PHOSPHORUS,AQUEOUS	$20.00
B104326001	**AWE-B1-WET**	7/6/2021 09:01	TOTAL KJELDAHL NITROGEN,AQ	$25.00
B104326002	**AWE-C1-WET**	7/6/2021 09:12	CHLORIDE,AQUEOUS	$12.00
B104326002	**AWE-C1-WET**	7/6/2021 09:12	NITRATE+NITRITE-N,AQUEOUS	$12.00
B104326002	**AWE-C1-WET**	7/6/2021 09:12	ALUMINUM,EPA 200.7,ICP,AQUEOUS	$15.00
B104326002	**AWE-C1-WET**	7/6/2021 09:12	IRON,EPA 200.7,ICP,SOLID	$15.00
B104326002	**AWE-C1-WET**	7/6/2021 09:12	TOTAL PHOSPHORUS,AQUEOUS	$20.00
B104326002	**AWE-C1-WET**	7/6/2021 09:12	TOTAL KJELDAHL NITROGEN,AQ	$25.00
B104326003	**AWE-B1-WET**	7/6/2021 09:01	ALUMINUM,ACID SOLUBLE,ICP	$15.00
B104326004	**AWE-C1-WET**	7/6/2021 09:12	ALUMINUM,ACID SOLUBLE,ICP	$15.00
			Invoice Total	$228.00

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NH DIVISION OF Public Health Services

Invoice

Invoice To KEVIN FERGUSON
TRC
670 NORTH COMMERCIAL ST.
SUITE 203
Manchester NH 03101

Invoice Number 177336
Invoice Date 7/21/2021
Due Date 8/20/2021
Account ID 9999730
PO

CC

Workorder B104326
Project ID 9999730 - TRC - MANCHESTER

Payment Details

The laboratory is no longer accepting bacteria samples on days before an official state holiday.

PLEASE RETURN BOTTOM WITH PAYMENT

Make checks payable to:
Treasurer State of NH

Please pay this amount:
$228.00

Client: 9999730
Invoice Number: 177336

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Attachment 5
Chain-of-Custody Documents

Chain of Custody No. 110969
Multiple COC's Yes No

ChemServe ENVIRONMENTAL ANALYSTS

CHAIN OF CUSTODY

317 Elm Street Milford, NH 03055
(603) 673-5440/ Fax (603) 673-0366

A CUSTOMER INFORMATION

CUSTOMER: TRC Environmental
ADDRESS: 650 Suffolk St.
CITY/STATE/ZIP Lowell MA
TELEPHONE: 978 970 4018
REPORT TO:
EMAIL TO: KEROBERTS@trcsolutions.com

B PROJECT INFORMATION

JOB NAME: ANTRIM
JOB NUMBER: 275802
LOCATION: ANTRIM, NH
INVOICE EMAIL: jnthomas@trcsolutions.com
INVOICE TO: John Thomas
P.O. NUMBER:

C SAMPLE INFORMATION

TURNAROUND TIME: (CIRCLE ONE:)
10 DAY STANDARD RUSH (MUST BE PRE-APPROVED)
7day 5 day 4 day 3 day 2 day 1 day Same Day
MCP ☐ YES ☐ NO ☐GWI ☐GW2 ☐GW3

STATION # D	SAMPLE IDENTIFICATION & LOCATION E	COLLECTED DATE F	COLLECTED TIME G	SAMPLE TYPE GRAB H	SAMPLE TYPE COMP H	MATRIX I (SOLID (S) GROUND WATER (G) DRINKING WATER (D) WASTE WATER (W))	# OF CONTAINERS J	CONTAINER AND PRESERVATIVE K: Aluminum (Total)	Alum. (Acid-Sol)	Iron (Total)	Nitrate+Nitrite	TKN Nitrogen	Total Phosphorus	L ANALYSIS
	AWE-B1	5/2	10AM	X		W	3							
	AWE-C1	5/2	11:40	X		W	3							
	AWE-C2	5/2	12:15PM	X		W	3							

M CUSTODY

SAMPLER: (print name) Kglinda Roberts
SIGNATURE:

	DATE	MILITARY TIME
RELINQUISHED:	5/2/18	1345
RECEIVED:	5/2/18	1345
RELINQUISHED:	5/2/18	1395
RECEIVED FOR LAB:	5/2/18	1345

SAMPLE CHECK LIST:

RECEIVED WITHIN HOLD TIME YES OR NO
RECEIVED IN GOOD CONDITION YES OR NO
TEMP BLANK 1 °C
SHIPPED OR HAND DELIVERED
SAMPLES WERE PROPERLY PRESERVED YES NO N/A
SAMPLES WERE FILTERED IN FIELD LAB N/A DCB
IF NO EXPLAIN:

GROUP # 18050026 5/16

FIELD READING(S) & COMMENTS:

Chain of Custody No. 111129
Multiple COC's Yes No

ChemServe ENVIRONMENTAL ANALYSTS

CHAIN OF CUSTODY

317 Elm Street Milford, NH 03055
(603) 673-5440/ Fax (603) 673-0366

A CUSTOMER INFORMATION

CUSTOMER: TRC Solutions
ADDRESS: 650 Suffolk St
CITY/STATE/ZIP Lowell, MA 01854
TELEPHONE: 978-337-3335
REPORT TO:
EMAIL TO:

B PROJECT INFORMATION

JOB NAME: Antrim, NH
JOB NUMBER:
LOCATION: Antrim, NH
INVOICE EMAIL: KERUBERTS@TRCsolutions.com
INVOICE TO:
P.O. NUMBER:

C SAMPLE INFORMATION

TURNAROUND TIME: (CIRCLE ONE:)

10 DAY STANDARD RUSH (MUST BE PRE-APPROVED)

7day 5 day 4 day 3 day 2 day 1 day Same Day

MCP ☐ YES ☐ NO ☐ GWI ☐ GW2 ☐ GW3

STATION # (D)	SAMPLE IDENTIFICATION & LOCATION (E)	COLLECTED DATE (F)	COLLECTED TIME (G)	SAMPLE TYPE GRAB	SAMPLE TYPE COMP (H)	MATRIX (I)	# OF CONTAINERS (J)	CONTAINER AND PRESERVATIVE (K)	ANALYSIS (L)
	Keene Rd. - Control	5/20	10:30AM	X			X2	Nitrate/Nitrite, Total Nitrogen, TKN, Al, Fe, Mn, Dissolved Al.	
	Upstream	5/20	11:30AM	X			X2		
	Downstream	5/20	12:00PM	X			X2		

MATRIX: SOLID (S) GROUND WATER (G) DRINKING WATER (D) WASTE WATER (W)

Page 9 of 10

M CUSTODY

SAMPLER: (print name) John Thomas
SIGNATURE:

	DATE	MILITARY TIME
RELINQUISHED:	5/20	12:45
RECEIVED:	DATE	TIME
RELINQUISHED:	DATE	TIME
RECEIVED FOR LAB:	DATE 5/21/10	TIME 7:50

SAMPLE CHECK LIST:

RECEIVED WITHIN HOLD TIME YES OR NO
RECEIVED IN GOOD CONDITION YES OR NO
TEMP BLANK 0 °C
SHIPPED OR HAND DELIVERED
SAMPLES WERE PROPERLY PRESERVED YES NO N/A
SAMPLES WERE FILTERED IN FIELD LAB N/A
IF NO EXPLAIN:

GROUP # 18050262 6/5

FIELD READING(S) & COMMENTS:

Chain of Custody No. 111371
Multiple COC's Yes No

ChemServe ENVIRONMENTAL ANALYSTS

CHAIN OF CUSTODY

317 Elm Street Milford, NH 03055
(603) 673-5440/ Fax (603) 673-0366

A CUSTOMER INFORMATION

CUSTOMER: TRC Environmental
ADDRESS: 650 Suffolk St
CITY/STATE/ZIP Lowell, MA 01854
TELEPHONE: (978) 770-4018
REPORT TO: Kalinda Robert
EMAIL TO: Krobertson@trcsolutions.com

B PROJECT INFORMATION

JOB NAME: Antrim
JOB NUMBER: 275802
LOCATION: Antrim, NH
INVOICE EMAIL: jnthomas@trcsolutions.com
INVOICE TO: John Thomas
P.O. NUMBER:

C SAMPLE INFORMATION

TURNAROUND TIME: (CIRCLE ONE:)
10 DAY STANDARD RUSH (MUST BE PRE-APPROVED)
7day 5 day 4 day 3 day 2 day 1 day Same Day
MCP ☐ YES ☐ NO ☐ GWI ☐ GW2 ☐ GW3

STATION # (D)	SAMPLE IDENTIFICATION & LOCATION (E)	COLLECTED DATE (F)	COLLECTED TIME (G)	SAMPLE TYPE GRAB (H)	SAMPLE TYPE COMP (H)	MATRIX (I) SOLID (S) GROUND WATER (G) DRINKING WATER (D) WASTE WATER (W)	# OF CONTAINERS (J)	CONTAINER AND PRESERVATIVE (K) Aluminum (total)	Alum (Acid - Sol)	Iron (Total)	Nitrate Nitrite	TKN Nitrogen	Total Phosphorous	ANALYSIS (L)
	AWE G1 SD-4	6/14	9:42	X		W	1							
	AWE B-1 SD-4	6/14	10:01	X		W	1							

Page 7 of 8

M CUSTODY

SAMPLER: (print name) Kalinda Roberts
SIGNATURE:

	DATE	MILITARY TIME
RELINQUISHED:	6/14/18	1135
RECEIVED:		
RELINQUISHED:		
RECEIVED FOR LAB:	6/14/18	1135

SAMPLE CHECK LIST:
RECEIVED WITHIN HOLD TIME YES OR NO
RECEIVED IN GOOD CONDITION YES OR NO
TEMP BLANK 12 °C
SHIPPED OR HAND DELIVERED
SAMPLES WERE PROPERLY PRESERVED YES NO N/A
SAMPLES WERE FILTERED IN FIELD LAB N/A
IF NO EXPLAIN:

GROUP # 18060196

FIELD READING(S) & COMMENTS:
Spatial RDL's

Chain of Custody No. 111716

Multiple COC's Yes No

ChemServe ENVIRONMENTAL ANALYSTS

CHAIN OF CUSTODY

317 Elm Street Milford, NH 03055
(603) 673-5440/ Fax (603) 673-0366

A CUSTOMER INFORMATION

CUSTOMER: TRC Environmental
ADDRESS: 650 Suffolk St
CITY/STATE/ZIP Lowell, MA 01854
TELEPHONE: (978) 770-4018
REPORT TO: Kalinda Roberts
EMAIL TO: kroberts@trcsolutions.com

B PROJECT INFORMATION

JOB NAME: Antrim
JOB NUMBER: 275802
LOCATION: Antrim, NH
INVOICE EMAIL: kroberts@trcsolutions.com
INVOICE TO: Kalinda Roberts
P.O. NUMBER:

C SAMPLE INFORMATION

TURNAROUND TIME: (CIRCLE ONE:)

10 DAY STANDARD — RUSH (MUST BE PRE-APPROVED)

7day 5 day 4 day 3 day 2 day 1 day Same Day

MCP ☐ YES ☐ NO ☐ GWI ☐ GW2 ☐ GW3

STATION # (D)	SAMPLE IDENTIFICATION & LOCATION (E)	COLLECTED DATE (F)	COLLECTED TIME (G)	SAMPLE TYPE GRAB	SAMPLE TYPE COMP (H)	MATRIX (I)	# OF CONTAINERS (J)	CONTAINER AND PRESERVATIVE (K)	ANALYSIS (L)
	AWE C-1 SD-4	7/27	15:08	X		W	3		
	AWE B-1 SD-4	7/27	14:45	X		W	3		
	AWE C-2 SD-1	7/27	14:01	X		W	3		

Aluminum (Total)
Alum (Acid Sol.)
Iron (Total)
Nitrate Nitrite
TKN (Nitrogen)
Total Phosphorus
Turbidity

M CUSTODY

SAMPLER: (print name) Kalinda Roberts
SIGNATURE:

	DATE	MILITARY TIME
	7/27	4:34
RELINQUISHED:	DATE	TIME
RECEIVED:	DATE	TIME
RELINQUISHED:	DATE	TIME
RECEIVED FOR LAB:	27/jul/18	16:00

SAMPLE CHECK LIST:

RECEIVED WITHIN HOLD TIME YES OR NO
RECEIVED IN GOOD CONDITION YES OR NO
TEMP BLANK 10 °C
SHIPPED OR HAND DELIVERED
SAMPLES WERE PROPERLY PRESERVED YES NO N/A
SAMPLES WERE FILTERED IN FIELD LAB N/A
IF NO EXPLAIN:

GROUP # 18070433 8/10

FIELD READING(S) & COMMENTS:

NH PUBLIC HEALTH LABORATORIES-WATER ANALYSIS LAB LOGIN AND CUSTODY SHEET

(Laboratory Policy: Samples not meeting method requirements will be analyzed at the discretion of the DPHS, PHL.)

Samples must be delivered in a cooler with ice or ice packs.

LAB ACCOUNT (Billing) _9999730_ **One Stop Project:** __NA_____ **NHDES Site Number**____NA_____

Description : **TRC Water Quality**_____ **Town:** Antrim **Temp. ⁰C.** 62°F 4C (Tok)

Collected by: Kevin Ferguson **Contact & Phone #** _Kevin Ferguson 603-263-9402

Sample Location/Station ID	Date Time Sampled	# of Containers	Matrix	Total Aluminum, Iron	TKN, TP	Nitrate + Nitrite, Chloride	Acid Soluble Aluminum		Sampler Comments	Lab Login #
AWE-B-1-DRY1	5/13 10:23AM	4		x	x (1)	x	x	(5)	N/A	B102497001 AWE-B-1-DRY1 9999730 05/13/21 10:23 — B102497005 AWE-B-1-DRY1 9999730 05/13/21 10:23
AWE-B-1-DUP	5/13 10:30AM	4		x	x (2)	x	x	(6)	Duplicate	B102497002 AWE-B-1DUP 9999730 — B102497006 AWE-B-1-DUP 9999730 05/13/21 10:30
AWE-C-1-DRY1	5/13 10:45AM	4		x	x (3)	x	x	(7)	N/A	B102497003 AWE-C-1-DRY1 9999730 05/13/21 10:45 — B102497007 AWE-C-1-DRY1 9999730 05/13/21 10:45
AWE-C-1-BLANK	5/13 10:49AM	4		x	x (4)	x	x	(8)	Field Blank	B102497004 AWE-C-1-BLANK 9999730 05/13/21 10:49 — B102497008 AWE-C-1-BLANK 9999730 05/13/21 10:49

Relinquished By Kevin Ferguson Date and Time 5/13/21 11:45 Received By _____ Date and Time _____

Relinquished By _____ Date and Time _____ Received For Lab By TW Date and Time 5-13-21 11:45

Matrix: A= Air S= Soil AQ= Aqueous (Ground Water, Surface Water, Drinking Water, Waste Water) π Other: _____

Page _____ **of** _____ Data Reviewed By _____ Date 6/2/21

Sec. 22.0 Rev. 9 9-20-17

NH PUBLIC HEALTH LABORATORIES-WATER ANALYSIS LAB LOGIN AND CUSTODY SHEET

(Laboratory Policy: Samples not meeting method requirements will be analyzed at the discretion of the DPHS, PHL.)

Samples must be delivered in a cooler with ice or ice packs.

LAB ACCOUNT (Billing) _9999730_ **One Stop Project:** __NA_____ **NHDES Site Number**____NA_____

Description : TRC Water Quality_____ **Town:** Antrim **Temp. ⁰C.** 5 (TSK)

Collected by: Kevin Ferguson (TRC) **Contact & Phone #** _Kevin Ferguson 603-263-9402

Sample Location/Station ID	Date Time Sampled	# of Containers	Matrix	Total Aluminum, Iron	TKN, TP	Nitrate + Nitrite, Chloride	Acid Soluble Aluminum			Sampler Comments	Lab Login #
AWE-B1-WET1	5/31/21 9:19AM	4		X (1)	X	X	X (3)			—	B102974001 AWE-B-1-WET1 9999730 05/31/21 09:19 — B102974003 AWE-B-1-WET1 9999730 05/31/21 09:19
AWE-C-1-WET1	5/31/21 9:31AM	4		X (2)	X	X	X (4)			—	B102974002 AWE-C-1-WET1 9999730 05/31/21 09:31 — B102974004 AWE-C-1-WET1 9999730 05/31/21 09:31

Relinquished By Kevin F Date and Time 6/1/21 8:25AM Received By _____ Date and Time _____

Relinquished By _____ Date and Time _____ Received For Lab By TJS Date and Time 6-1-21 8:29

Matrix: A= Air S= Soil AQ= Aqueous (Ground Water, Surface Water, Drinking Water, Waste Water) π Other: _____

Page _____ **of** _____ Data Reviewed By _____ Date 6/23/21

Sec. 22.0 Rev. 9 9-20-17

C:\Users\kferguson\AppData\Local\Microsoft\Windows\INetCache\Content.Outlook\M9U09KJL\Login Form TRC_9999730.doc5/13/21 6:30 AM

NH PUBLIC HEALTH LABORATORIES-WATER ANALYSIS LAB LOGIN AND CUSTODY SHEET

(Laboratory Policy: Samples not meeting method requirements will be analyzed at the discretion of the DPHS, PHL.)

Samples must be delivered in a cooler with ice or ice packs.

LAB ACCOUNT (Billing) _9999730_ **One Stop Project:** __NA_ **NHDES Site Number**____NA_____

Description : **TRC Water Quality**_____ **Town:** Antrim **Temp. ⁰C.** 4 TOK

Collected by: Kevin Ferguson **Contact & Phone #** _Kevin Ferguson 603-263-9402

Sample Location/Station ID	Date Time Sampled	# of Containers	Matrix	Total Aluminum, Iron	TKN, TP	Nitrate + Nitrite, Chloride	Acid Soluble Aluminum			Sampler Comments	Lab Login #
AWE-B1-DRY2	6/17/21 10:53	4		X	X	X (1)	X (3)				
AWE-C1-DRY2	6/17/21 13:00	4		X	X	X (2)	X (4)				

B103744001 AWE-B1-DRY2 9999730 06/17/21 10:53

B103744003 AWE-B1-DRY2 9999730 06/17/21 10:53

B103744002 AWE-C1-DRY2 9999730 06/17/21 13:00

B103744004 AWE-C1-DRY2 9999730 06/17/21 10:53

Relinquished By Kevin Ferguson Date and Time 6/17/2021 14:15 Received By _____ Date and Time _____

Relinquished By _____ Date and Time _____ Received For Lab By LV Date and Time 6/17/21 14:17

Matrix: A= Air S= Soil AQ= Aqueous (Ground Water, Surface Water, Drinking Water, Waste Water) π Other: _____

Page 1 **of** 1 Data Reviewed By _____ Date 7/8/21

Sec. 22.0 Rev. 9 9-20-17

P:\TRC\Login Form TRC_9999730.doc 6/14/21 12:59 PM

NH PUBLIC HEALTH LABORATORIES-WATER ANALYSIS LAB LOGIN AND CUSTODY SHEET

(Laboratory Policy: Samples not meeting method requirements will be analyzed at the discretion of the DPHS, PHL.)
Samples must be delivered in a cooler with ice or ice packs.

LAB ACCOUNT (Billing) 9999730 **One Stop Projeet:** ——— **NHDES Site Number** ———

Description : Water Samples **Town:** Antrim, NH **Temp. ⁰C.** 1C (TaC)

Collected by: Kevin Ferguson **Contact & Phone #** 603-851-5770 KFerguson@TRCCompanies.com

Sample Location/Station ID	Date Time Sampled	# of Containers	Matrix	Al (Total)	Al (Acid-Soluble)	Fe (Total)	Nitrate+Nitrite Nitrogen	Total Kjeldahl Nitrogen	Total P	Chloride	Sampler Comments	Lab Login #
AWE-B1-WET2	7/6 9:01		W	X (1)	X (3)	X	X	X	X	X	Same as previous samples	B104326001 AWE-B1-WET 2 9999730 07/06/21 09:01
AWE-C1-WET2	7/6 9:12		W	X (2)	X (4)	X	X	X	X	X		B104326002 AWE-C1-WET 2 9999730 07/06/21 09:12
												B104326003 AWE-B1-WET 2 9999730 07/06/21 09:01
												B104326004 AWE-C1-WET 2 9999730 07/06/21 09:12

Relinquished By Kevin Ferguson Date and Time 7/6/21 10:35 Received By _____ Date and Time _____

Relinquished By _____ Date and Time _____ Received For Lab By TW Date and Time 7-6-21 10:35

Matrix: A= Air S= Soil AQ= Aqueous (Ground Water, Surface Water, Drinking Water, Waste Water) π Other: _____

Page 1 **of** 1 Data Reviewed By _____ Date 07/22/21

Sec. 22.0 Rev. 9 9-20-17

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Attachment 6

Calibration/Verification Documentation

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

24 Tower Office Park
Woburn, MA 01801
Toll-free: (800) 519-PINE (7463)

Pine Environmental Services, Inc.

Instrument ID 33186
Description YSI 556
Calibrated 6/15/2021 3:09:55PM

Manufacturer YSI
Model Number 556
Serial Number/ Lot Number 15F101565
Location Massachusetts
Department

State Certified
Status Pass
Temp °C 21.8

Humidity % 62

Calibration Specifications

Group # 1
Group Name PH
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
7.00 / 7.00	PH	7.00	PH	7.07	7.00	0.00%	Pass
4.00 / 4.00	PH	4.00	PH	4.02	4.00	0.00%	Pass
10.00 / 10.00	PH	10.00	PH	10.03	10.00	0.00%	Pass

Group # 2
Group Name Conductivity
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.000

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
1.413 / 1.413	ms/cm	1.413	ms/cm	1.425	1.413	0.00%	Pass

Group # 3
Group Name Redox (ORP)
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
240.00 / 240.00	mv	240.00	mv	238.60	240.00	0.00%	Pass

Group # 4
Group Name Disolved Oxygen Span
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
100.00 / 100.00	%	100.00	%	98.70	100.00	0.00%	Pass

INSTRUMENT QC/ PACKING LIST

Description	YSI 556 sonde and display Barometer equipped: ☐ Yes ☐ No
Sonde ID#	
Display ID#	33186
Date Calibrated	6/15/21

PINE
www.pine-environmental.com

Standard Items	**Prepared**	**QC check**	**Received by customer**	**Returned to Pine**
YSI 556 sonde w/ ___m cable and case	✓	✓		
YSI 556 Display	✓	✓		
Manual	✓	✓		
Quick reference card	✓	✓		
Probe Guard	✓	✓		
Calibration cup w/sponge	✓	✓		
Flow cell	✓			
• Cell adapter for older style cell (if applicable)	0	0		
2 of each barb size (1/4, 3/8, 1/2)	✓	✓		
DO_2 probe reconditioning kit	✓	✓		
4 C batteries	✓	✓		
556 Communications cable	✓	✓		
YSI Ecowatch Software	✓	✓		
Calibration kit, pH (4,7,10), conductivity, and ORP	✓	✓		
ProCal Calibration Sheet	✓	✓		

Prepared by: CC

QC checked by:

Date:

This packing list is to ensure that every item needed to operate the unit was sent and received. Upon receiving a shipment, please fill out the "Received by customer" column. Call Pine within 24 hours of receiving the equipment if any pieces are missing, damaged, or malfunctioning. Thank you for choosing Pine Environmental Services LLC

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC
24 Tower Office Park
Woburn, MA 01801
Toll-free: (800) 519-PINE (7463)

Pine Environmental Services, Inc.

Instrument ID 33186
Description YSI 556
Calibrated 5/10/2021 10:16:36AM

Test Instruments Used During the Calibration

Test Standard ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	(As Of Cal Entry Date) Last Cal Date/ Opened Date	Next Cal Date / Expiration Date
MA 1.413 COND OGG375	MA 1.413 COND OGG375	Pine Environmental Services, Inc.	31986	OGG375		7/31/2021
MA 240.0MV ORP 2062	Hanna instruments 240.0mV ORP	Hanna	HI7021L	2062		10/31/2022
MA PH 7 OGG378	MA PH 7 OGG378	Pine Environmental Services, Inc.	32025	OGG378		7/31/2022
MA PH10 LOT#9GB956	Pine Environmental PH10 Solution	Pine Environmental Services, Inc.	32034	9GB956		
MA PH4 9GJ702	Pine Environmental PH4 Solution	Pine Environmental Services, Inc.	32017	9GJ702		10/31/2021

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Christopher Conley

All instruments are calibrated by Pine Environmental Services LLC according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services LLC of any defect within 24 hours of receipt of equipment
Please call 800-301-9663 for Technical Assistance

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

24 Tower Office Park
Woburn, MA 01801
Toll-free: (800) 519-PINE (7463)

Pine Environmental Services, Inc.

Instrument ID 33186
Description YSI 556
Calibrated 5/10/2021 10:16:36AM

Manufacturer YSI
Model Number 556
Serial Number/ Lot Number 15F101565
Location Massachusetts
Department

State Certified
Status Pass
Temp °C 18.7
Humidity % 48

Calibration Specifications

Group # 1
Group Name PH
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
7.00 / 7.00	PH	7.00	PH	7.04	7.00	0.00%	Pass
4.00 / 4.00	PH	4.00	PH	4.02	4.00	0.00%	Pass
10.00 / 10.00	PH	10.00	PH	9.93	10.00	0.00%	Pass

Group # 2
Group Name Conductivity
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.000

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
1.413 / 1.413	ms/cm	1.413	ms/cm	1.425	1.413	0.00%	Pass

Group # 3
Group Name Redox (ORP)
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
240.00 / 240.00	mv	240.00	mv	241.00	240.00	0.00%	Pass

Group # 4
Group Name Disolved Oxygen Span
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
100.00 / 100.00	%	100.00	%	99.30	100.00	0.00%	Pass

INSTRUMENT QC/ PACKING LIST

Description	YSI 556 sonde and display Barometer equipped: ☐ Yes ☐ No
Sonde ID#	
Display ID#	33186
Date Calibrated	5/10/21

PINE
www.pine-environmental.com

Standard Items	**Prepared**	**QC check**	**Received by customer**	**Returned to Pine**
YSI 556 sonde w/ ___m cable and case	✓	✓		
YSI 556 Display	✓	✓		
Manual	✓	✓		
Quick reference card	✓	✓		
Probe Guard	✓	✓		
Calibration cup w/sponge	✓	✓		
Flow cell	✓	✓		
• Cell adapter for older style cell (if applicable)	0	0		
2 of each barb size (1/4, 3/8, 1/2)	✓	✓		
DO_2 probe reconditioning kit	✓	✓		
4 C batteries	✓	✓		
556 Communications cable	✓	✓		
YSI Ecowatch Software	✓	✓		
Calibration kit, pH (4,7,10), conductivity, and ORP	✓	✓		
ProCal Calibration Sheet	✓	✓		

Prepared by: CC

QC checked by: DM

Date: _____

This packing list is to ensure that every item needed to operate the unit was sent and received. Upon receiving a shipment, please fill out the "Received by customer" column. Call Pine within 24 hours of receiving the equipment if any pieces are missing, damaged, or malfunctioning. Thank you for choosing Pine Environmental Services LLC

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

24 Tower Office Park
Woburn, MA 01801
Toll-free: (800) 519-PINE (7463)

Pine Environmental Services, Inc.

Instrument ID 30782
Description YSI 6920 V2
Calibrated 6/14/2021 3:28:21PM

Manufacturer YSI
Model Number 6920 V2
Serial Number/ Lot Number 15D101947
Location Massachusetts
Department

State Certified
Status Pass
Temp °C 21.6
Humidity % 67

Calibration Specifications

Group # 1
Group Name Turbidity
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.0

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
0.0 / 0.0	NTU	0.0	NTU	0.0	0.0	0.00%	Pass
126.0 / 126.0	NTU	126.0	NTU	125.3	126.0	0.00%	Pass

Group # 2
Group Name PH
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
7.00 / 7.00	PH	7.00	PH	7.08	7.00	0.00%	Pass
4.00 / 4.00	PH	4.00	PH	4.02	4.00	0.00%	Pass
10.00 / 10.00	PH	10.00	PH	9.87	10.00	0.00%	Pass

Group # 3
Group Name Conductivity
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.000

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
1.413 / 1.413	ms/cm	1.413	ms/cm	1.421	1.413	0.00%	Pass

Group # 4
Group Name Redox (ORP)
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
240.00 / 240.00	mv	240.00	mv	238.20	240.00	0.00%	Pass

Group # 5
Group Name Disolved Oxygen Span
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail

INSTRUMENT QC/ PACKING LIST

Description	YSI 6920 and 650 MDS display
Sonde ID#	30782
650 MDS Display ID#	15969
✓ **NOTE**: If the 6920 is being used for long term unattended monitoring, a high memory capacity 650 display must be included.	
650 MDS memory capacity	☐ Low: 10kB ☐ High: 1.5mB
Date Calibrated	6/14/21

PINE

www.pine-environmental.com

Standard Items	**Prepared**	**QC check**	**Received by customer**	**Returned to Pine**
YSI 6920 sonde w/ ___' cable and case	✓	✓		
YSI 650 MDS Display	✓	✓		
Manual	✓	✓		
Quick reference card	✓	✓		
Stand (base, clamp, and rod)	✓	✓		
8.5" Probe Guard w/ black bottom	✓	✓		
Calibration cup w/ black bottom and sponge	✓	✓		
Flow cell (long, black bottom)	✓	✓		
• Cell adapter for older style cell (if applicable)	0	0		
2 of each barb size (1/4, 3/8, 1/2)	✓	✓		
DO_2 probe reconditioning kit	0			
Sonde cap (for long-term deployment)	✓	✓		
(4) C batteries	✓	✓		
(8) AA batteries	✓	✓		
6-series Communications cable	✓	✓		
Serial to USB adapter with driver software	✓	✓		
YSI Ecowatch Software (current version)	✓	✓		
Calibration kit, pH (4,7,10), conductivity, turb (0 and 126 NTU), and ORP.	✓	✓		
ProCal calibration sheet	✓			

Prepared by: CG

QC checked by:

Date:

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INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC
24 Tower Office Park
Woburn, MA 01801
Toll-free: (800) 519-PINE (7463)

Pine Environmental Services, Inc.

Instrument ID 100521
Description YSI 6920 V2
Calibrated 6/11/2021 1:06:05PM

Manufacturer YSI
Model Number 6920 V2
Serial Number/ Lot Number 07E101958
Location Massachusetts
Department

State Certified
Status Pass
Temp °C 21
Humidity % 41

Calibration Specifications

Group # 1
Group Name PH
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
7.00 / 7.00	PH	7.00	PH	7.21	7.00	0.00%	Pass
4.00 / 4.00	PH	4.00	PH	4.04	4.00	0.00%	Pass
10.00 / 10.00	PH	10.00	PH	10.08	10.00	0.00%	Pass

Group # 2
Group Name Turbidity
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.0

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
0.0 / 0.0	NTU	0.0	NTU	0.0	0.0	0.00%	Pass
126.0 / 126.0	NTU	126.0	NTU	125.3	126.0	0.00%	Pass

Group # 3
Group Name Conductivity
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.000

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
1.413 / 1.413	ms/cm	1.413	ms/cm	1.421	1.413	0.00%	Pass

Group # 4
Group Name Redox (ORP)
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.0

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
240.0 / 240.0	mv	240.0	mv	242.4	240.0	0.00%	Pass

Group # 5
Group Name Disolved Oxygen Span
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail

INSTRUMENT QC/ PACKING LIST

Description	YSI 6920 and 650 MDS display
Sonde ID#	100521
650 MDS Display ID#	R12819
✓ **NOTE**: If the 6920 is being used for long term unattended monitoring, a high memory capacity 650 display must be included.	
650 MDS memory capacity	☐ Low: 10kB ☐ High: 1.5mB
Date Calibrated	6/11/21

PINE
www.pine-environmental.com

Standard Items	**Prepared**	**QC check**	**Received by customer**	**Returned to Pine**
YSI 6920 sonde w/ ___' cable and case	✓	✓		
YSI 650 MDS Display	✓	✓		
Manual	✓			
Quick reference card	✓	✓		
Stand (base, clamp, and rod)	✓	✓		
8.5" Probe Guard w/ black bottom	✓	✓		
Calibration cup w/ black bottom and sponge	✓	✓		
Flow cell (long, black bottom)	✓			
• Cell adapter for older style cell (if applicable)	0	0		
2 of each barb size (1/4, 3/8, 1/2)	✓	✓		
DO_2 probe reconditioning kit	✓	✓		
Sonde cap (for long-term deployment)	✓	✓		
(4) C batteries	✓	✓		
(8) AA batteries	✓	✓		
6-series Communications cable	✓	✓		
Serial to USB adapter with driver software	✓	✓		
YSI Ecowatch Software (current version)	✓	✓		
Calibration kit, pH (4,7,10), conductivity, turb (0 and 126 NTU), and ORP.	✓	✓		
ProCal calibration sheet	✓	✓		

Prepared by: CC
QC checked by: [signature]
Date:

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Attachment 7

Comparison of Pre- and Post-construction Results

Physicochemical Parameters – Dry 1

Sampling Location AWE-B1			
Parameter	**Pre- (5/2/2018)**	**Post- (5/13/2021)**	**NHDES WQ Standard**
Temperature (°C)	8.3	10.3	no "appreciable" increase
Dissolved Oxygen Concentration (mg/L)	11.4	9.9	≥ 5 mg/L
Dissolved Oxygen Saturation (%)	97.1	88.6	≥ 75% of saturation on a daily average basis
pH	6.2	7.7	6.5 – 8.0 SU
Specific Conductance (µmhos/cm)	117.2	92.9	n/a
Sampling Location AWE-C1			
Parameter	**Pre- (5/2/2018)**	**Post- (5/13/2021)**	**NHDES WQ Standard**
Temperature (°C)	9.3	8.7	no "appreciable" increase
Dissolved Oxygen Concentration (mg/L)	11.7	9.4	≥ 5 mg/L
Dissolved Oxygen Saturation (%)	101.6	80.3	≥ 75% of saturation on a daily average basis
pH	6.6	6.7	6.5 – 8.0 SU
Specific Conductance (µmhos/cm)	102.7	117.0	n/a

Water Quality Analytical Parameters – Dry 1

Sampling Location AWE-B1					
Parameter	**MDL (Pre-)**	**Pre- (5/2/2018)**	**MDL (Post-)**	**Post- (5/13/2021)**	**NHDES WQ Standard (Fresh Chronic Criteria)**
Aluminum (Total) (mg/L)	0.05 mg/L	0.109	0.015 mg/L	0.092	n/a
Aluminum (Acid-Soluble) (mg/L)	0.05 mg/L	0.104	0.015 mg/L	0.083	87 µg/L
Iron (Total) (mg/L)	0.05 mg/L	< 0.05	0.05 mg/L	ND	1,000 µg/L
Nitrate+Nitrite-Nitrogen (mg/L)	1 mg/L	< 1	0.05 mg/L	0.066	Impairment
Total Kjeldahl Nitrogen (mg/L)	0.5 mg/L	< 0.5	0.25 mg/L	ND	Impairment
Total Phosphorous (mg/L)	0.01 mg/L	0.011	0.005 mg/L	0.005	Impairment
Chloride (mg/L)	N/C	Not tested	3.0 mg/L	ND	230,000 µg/L
Sampling Location AWE-C1					
Parameter	**MDL (Pre-)**	**Pre- (5/2/2018)**	**MDL (Post-)**	**Post- (5/13/2021)**	**NHDES WQ Standard (Fresh Chronic Criteria)**
Aluminum (Total) (mg/L)	0.05 mg/L	0.094	0.015 mg/L	0.081	n/a
Aluminum (Acid-Soluble) (mg/L)	0.05 mg/L	0.088	0.015 mg/L	0.071	87 µg/L
Iron (Total) (mg/L)	0.05 mg/L	< 0.05	0.05 mg/L	ND	1,000 µg/L
Nitrate+Nitrite-Nitrogen (mg/L)	1 mg/L	< 1	0.05 mg/L	0.42	Impairment
Total Kjeldahl Nitrogen (mg/L)	0.5 mg/L	0.528	0.25 mg/L	ND	Impairment
Total Phosphorous (mg/L)	0.01 mg/L	< 0.01	0.005 mg/L	0.006	Impairment
Chloride (mg/L)	N/C	Not tested	3.0 mg/L	ND	230,000 µg/L

* ND = Not Detected

Physicochemical Parameters – Dry 2

Sampling Location AWE-B1			
Parameter	**Pre- (6/14/2018)**	**Post- (6/17/2021)**	**NHDES WQ Standard**
Temperature (°C)	12.8	12.7	no "appreciable" increase
Dissolved Oxygen Concentration (mg/L)	3.0	6.2	≥ 5 mg/L
Dissolved Oxygen Saturation (%)	28.1	58.5	≥ 75% of saturation on a daily average basis
pH	4.9	8.1	6.5 – 8.0 SU
Specific Conductance (µmhos/cm)	Not recorded	56.3	n/a
Sampling Location AWE-C1			
Parameter	**Pre- (6/14/2018)**	**Post- (6/17/2021)**	**NHDES WQ Standard**
Temperature (°C)	13.5	14.0	no "appreciable" increase
Dissolved Oxygen Concentration (mg/L)	8.1	7.3	≥ 5 mg/L
Dissolved Oxygen Saturation (%)	77.8	70.8	≥ 75% of saturation on a daily average basis
pH	5.6	6.6	6.5 – 8.0 SU
Specific Conductance (µmhos/cm)	Not recorded	61.1	n/a

Water Quality Analytical Parameters – Dry 2

Sampling Location AWE-B1					
Parameter	**MDL (Pre-)**	**Pre- (6/14/2018)**	**MDL (Post-)**	**Post- (6/17/2021)**	**NHDES WQ Standard (Fresh Chronic Criteria)**
Aluminum (Total) (mg/L)	0.05 mg/L	0.085	0.015 mg/L	0.088	n/a
Aluminum (Acid-Soluble) (mg/L)	0.05 mg/L	0.081	0.015 mg/L	0.121	87 µg/L
Iron (Total) (mg/L)	0.05 mg/L	< 0.05	0.05 mg/L	ND	1,000 µg/L
Nitrate+Nitrite-Nitrogen (mg/L)	1 mg/L	< 0.05	0.05 mg/L	0.067	Impairment
Total Kjeldahl Nitrogen (mg/L)	0.5 mg/L	0.843	0.25 mg/L	ND	Impairment
Total Phosphorous (mg/L)	0.01 mg/L	0.012	0.005 mg/L	0.007	Impairment
Chloride (mg/L)	N/C	Not tested	3.0 mg/L	ND	230,000 µg/L
Sampling Location AWE-C1					
Parameter	**MDL (Pre-)**	**Pre- (6/14/2018)**	**MDL (Post-)**	**Post- (6/17/2021)**	**NHDES WQ Standard (Fresh Chronic Criteria)**
Aluminum (Total) (mg/L)	0.05 mg/L	0.129	0.015 mg/L	0.132	n/a
Aluminum (Acid-Soluble) (mg/L)	0.05 mg/L	0.085	0.015 mg/L	0.161	87 µg/L
Iron (Total) (mg/L)	0.05 mg/L	0.101	0.05 mg/L	0.091	1,000 µg/L
Nitrate+Nitrite-Nitrogen (mg/L)	1 mg/L	< 0.05	0.05 mg/L	ND	Impairment
Total Kjeldahl Nitrogen (mg/L)	0.5 mg/L	0.738	0.25 mg/L	ND	Impairment
Total Phosphorous (mg/L)	0.01 mg/L	0.028	0.005 mg/L	0.006	Impairment
Chloride (mg/L)	N/C	Not tested	3.0 mg/L	3.0	230,000 µg/L

Physicochemical Parameters – Wet 1

Sampling Location AWE-B1			
Parameter	**Pre- (5/20/2018)**	**Post- (5/31/2021)**	**NHDES WQ Standard**
Temperature (°C)	10.8	9.3	no "appreciable" increase
Dissolved Oxygen Concentration (mg/L)	9.4	10.3	≥ 5 mg/L
Dissolved Oxygen Saturation (%)	84.5	89.7	≥ 75% of saturation on a daily average basis
pH	6.3	8.9	6.5 – 8.0 SU
Specific Conductance (µmhos/cm)	Not recorded	73.5	n/a
Sampling Location AWE-C1			
Parameter	**Pre- (5/20/2018)**	**Post- (5/31/2021)**	**NHDES WQ Standard**
Temperature (°C)	11.5	9.3	no "appreciable" increase
Dissolved Oxygen Concentration (mg/L)	10.3	10.4	≥ 5 mg/L
Dissolved Oxygen Saturation (%)	94.7	90.5	≥ 75% of saturation on a daily average basis
pH	6.6	8.0	6.5 – 8.0 SU
Specific Conductance (µmhos/cm)	Not recorded	94.1	n/a

Water Quality Analytical Parameters – Wet 1

Sampling Location AWE-B1					
Parameter	**MDL (Pre-)**	**Pre- (5/20/2018)**	**MDL (Post-)**	**Post- (5/31/2021)**	**NHDES WQ Standard (Fresh Chronic Criteria)**
Aluminum (Total) (mg/L)	0.015 mg/L	0.083	0.015 mg/L	0.143	n/a
Aluminum (Acid-Soluble) (mg/L)	0.015 mg/L	0.084	0.015 mg/L	0.106	87 µg/L
Iron (Total) (mg/L)	0.05 mg/L	< 0.05	0.05 mg/L	ND	1,000 µg/L
Nitrate+Nitrite-Nitrogen (mg/L)	0.05 mg/L	7.62	0.05 mg/L	0.050	Impairment
Total Kjeldahl Nitrogen (mg/L)	0.5 mg/L	< 0.5	0.25 mg/L	0.25	Impairment
Total Phosphorous (mg/L)	0.005 mg/L	< 0.005	0.005 mg/L	0.005	Impairment
Chloride (mg/L)	N/C	Not tested	3.0 mg/L	3.0	230,000 µg/L
Sampling Location AWE-C1					
Parameter	**MDL (Pre-)**	**Pre- (5/20/2018)**	**MDL (Post-)**	**Post- (5/31/2021)**	**NHDES WQ Standard (Fresh Chronic Criteria)**
Aluminum (Total) (mg/L)	0.015 mg/L	0.090	0.015 mg/L	0.134	n/a
Aluminum (Acid-Soluble) (mg/L)	0.015 mg/L	0.095	0.015 mg/L	0.102	87 µg/L
Iron (Total) (mg/L)	0.05 mg/L	< 0.05	0.05 mg/L	0.057	1,000 µg/L
Nitrate+Nitrite-Nitrogen (mg/L)	0.05 mg/L	0.440	0.05 mg/L	ND	Impairment
Total Kjeldahl Nitrogen (mg/L)	0.5 mg/L	< 0.5	0.25 mg/L	ND	Impairment
Total Phosphorous (mg/L)	0.005 mg/L	< 0.005	0.005 mg/L	0.006	Impairment
Chloride (mg/L)	N/C	Not tested	3.0 mg/L	ND	230,000 µg/L

Physicochemical Parameters – Wet 2

Sampling Location AWE-B1			
Parameter	**Pre- (7/27/2018)**	**Post- (7/6/2021)**	**NHDES WQ Standard**
Temperature (°C)	17.7	15.5	no "appreciable" increase
Dissolved Oxygen Concentration (mg/L)	6.9	11.2	≥ 5 mg/L
Dissolved Oxygen Saturation (%)	72.9	112.4	≥ 75% of saturation on a daily average basis
pH	5.3	7.7	6.5 – 8.0 SU
Specific Conductance (µmhos/cm)	26.0	116.3	n/a
Sampling Location AWE-C1			
Parameter	**Pre- (7/27/2018)**	**Post- (7/6/2021)**	**NHDES WQ Standard**
Temperature (°C)	19.0	15.2	no "appreciable" increase
Dissolved Oxygen Concentration (mg/L)	8.2	7.7	≥ 5 mg/L
Dissolved Oxygen Saturation (%)	88.3	77.2	≥ 75% of saturation on a daily average basis
pH	5.4	7.0	6.5 – 8.0 SU
Specific Conductance (µmhos/cm)	21.8	143.0	n/a

Water Quality Analytical Parameters – Wet 2

Sampling Location AWE-B1					
Parameter	**MDL (Pre-)**	**Pre- (7/27/2018)**	**MDL (Post-)**	**Post- (7/6/2021)**	**NHDES WQ Standard (Fresh Chronic Criteria)**
Aluminum (Total) (mg/L)	0.015 mg/L	0.113	0.015 mg/L	0.103	n/a
Aluminum (Acid-Soluble) (mg/L)	0.015 mg/L	0.132	0.015 mg/L	0.101	87 µg/L
Iron (Total) (mg/L)	0.05 mg/L	< 0.05	0.05 mg/L	ND	1,000 µg/L
Nitrate+Nitrite-Nitrogen (mg/L)	0.05 mg/L	< 0.05	0.05 mg/L	0.68	Impairment
Total Kjeldahl Nitrogen (mg/L)	0.5 mg/L	0.780	0.25 mg/L	ND	Impairment
Total Phosphorous (mg/L)	0.005 mg/L	0.006	0.005 mg/L	0.005	Impairment
Chloride (mg/L)	N/C	Not tested	3.0 mg/L	ND	230,000 µg/L
Sampling Location AWE-C1					
Parameter	**MDL (Pre-)**	**Pre- (7/27/2018)**	**MDL (Post-)**	**Post- (7/6/2021)**	**NHDES WQ Standard (Fresh Chronic Criteria)**
Aluminum (Total) (mg/L)	0.015 mg/L	0.185	0.015 mg/L	0.107	n/a
Aluminum (Acid-Soluble) (mg/L)	0.015 mg/L	0.091	0.015 mg/L	0.086	87 µg/L
Iron (Total) (mg/L)	0.05 mg/L	0.129	0.05 mg/L	ND	1,000 µg/L
Nitrate+Nitrite-Nitrogen (mg/L)	0.05 mg/L	< 0.05	0.05 mg/L	0.19	Impairment
Total Kjeldahl Nitrogen (mg/L)	0.5 mg/L	0.570	0.25 mg/L	ND	Impairment
Total Phosphorous (mg/L)	0.005 mg/L	0.012	0.005 mg/L	0.005	Impairment
Chloride (mg/L)	N/C	Not tested	3.0 mg/L	ND	230,000 µg/L