TOWN OF RAYMOND

Planning Board Agenda
May 11, 2023
7 p.m. - Raymond High School
Media Center - 45 Harriman Hill

Public Announcement
*If this meeting is canceled or postponed for any reason the information can be found on our website, posted at Town Hall, Facebook Notification, and RCTV. **

1. Pledge of Allegiance

2. Public Hearing-

Application # 2022-008- Onyx Warehouse/Industrial Drive: A SITE PLAN application is being submitted by Wayne Morrill of Jones & Beach Engineers, Inc. on behalf of ONYX Partners LTD. They are proposing to construct a 550,025 S.F. industrial distribution warehouse with associated loading docks, truck parking, and employee vehicle parking. Property is located on Industrial Drive and Raymond Tax Map 22 / Lots 44,45,46,& 47 and Raymond Tax Map 28-3/Lot 120-1.

This public hearing is to discuss the findings of an environmental study provided by Steven Lamb of GZA with the applicants and the Planning Board.

3. Approval of Minutes

- **04/20/2023**

4. Other Business

- Staff Updates-
- Board Member Updates
- Any other business brought before the board-

5. Adjournment (NO LATER THAN 10:00 P.M.)

* Note: If you require personal assistance for audio, visual or other special aid, please contact the Selectmen's Office at least 72 hours prior to the meeting. If this meeting is postponed for any reason, it will be held at a time TBD.

TOWN OF RAYMOND

Planning Board Agenda
May 11, 2023
7 p.m. - Raymond High School
Media Center - 45 Harriman Hill

Planning Board 2023 Submittal and Meeting Dates

Submittal Deadline for Completed Application & Materials	Planning Board Meeting Dates (1st & 3rd Thursdays of the Month)
ADDED MEETING	May 11, 2023 **2022-008** Onyx Warehouse w/ GZA
April 20, 2023	May 18, 2023 **2022-010** ONYX EXCAVATION (cont.) & **2023-001** Inkberry Logistics (design review)
	May 25, 2023 **Work Session/no applications**
May 04, 2023	June 01, 2023 **2022-009** Jewett Warehouse
	June 8, 2023 **2022-013** Severino Excavation
May 18, 2023	June 15, 2023 **2022-015** White Rock LLA & **2022-008** Onyx Warehouse
June 01, 2023	July 06, 2023
June 15, 2023	July 20, 2023
July 06, 2023	August 03, 2023
July 20, 2023	August 17, 2023
August 03, 2023	September 07, 2023
August 17, 2023	September 21, 2023
September 07, 2023	October 05, 2023
September 21, 2023	October 19, 2023
October 05, 2023	November 02, 2023
October 19, 2023	November 16, 2023
November 02, 2023	December 07, 2023
November 16, 2023	December 21, 2023

* Note: If you require personal assistance for audio, visual or other special aid, please contact the Selectmen's Office at least 72 hours prior to the meeting. If this meeting is postponed for any reason, it will be held at a time TBD.

Known for excellence.
Built on trust.

GEOTECHNICAL
ENVIRONMENTAL
ECOLOGICAL
WATER
CONSTRUCTION MANAGEMENT

5 Commerce Park North
Suite 201
Bedford, NH 03110
T: 603.623.3600
F: 603.624.9463
www.gza.com

VIA EMAIL

April 6, 2023
File No. 04.0191548.00

Ms. Christina McCarthy
Tax Collector
Town of Raymond
4 Epping Street
Raymond NH 03077
603-895-7016
cmccarthy@raymondnh.gov

Re: Technical Review Summary Letter
Proposed Onyx Raymond LLC Development
Raymond, New Hampshire

Dear Ms. McCarthy;

GZA GeoEnvironmental, Inc. (GZA) has prepared this technical review summary letter (Summary Letter) to provide the Town of Raymond, New Hampshire (the Town) with a summary of our review and recommendations associated with historical environmental concerns regarding the proposed Onyx Raymond LLC Warehouse Building on and proximate to the Former Regis Tannery property in Raymond, New Hampshire (Site). Within this letter the Former Regis Tannery property is referred to as the Site and the property that is proposed for the construction of the Onyx Raymond LLC Warehouse Building is referred to as the Onyx Property. The northern portion of the Onyx Property is located within the Site boundary. GZA's technical support and review services were completed as described in our Proposal dated February 14, 2023. This Summary Letter provides our technical comments and opinions regarding the proposed redevelopment in the context of known or potential historical contamination issues associated with the Site.

We have developed this Summary Letter based on preliminary discussions with the Town, our review of documents provided to GZA by the Town, documents readily available on the New Hampshire Department of Environmental Services (NHDES) OneStop online database, and our experience working on the Site, as referenced in reports previously prepared by GZA. There have been numerous environmental studies and remedial activities over the years at the Site to assess and manage legacy environmental issues associated with the former tannery operation. Our review services included review or consideration of historical documents and evaluation of potential environmental concerns relative to encountering, mobilizing, or disturbing historical contamination conditions. A list of documents that were reviewed are provided in **Attachment A**.

This letter is subject to the Limitations in **Attachment B**.

SITE HISTORY AND BACKGROUND

The historical Site (*i.e.*, the Former Regis Tannery property) consists of two parcels identified as Lot 43 (formerly Lot 17) and Lot 120 (formerly Lot 50); located approximately 300 feet (ft.) south of the Lamprey River. **Figure 1** and **Figure 2** contained in **Attachment C** illustrates the location of the proposed warehouse project in context of the Site (Base map from the Jones and Beach development drawings). **Figure 2** depicts Lot 43 (4.24 acres), to the north of the B&M railroad bed which was the location of the former leather tannery buildings and a railroad loading dock. Lot 120, to the south of the B&M railroad bed, is 71.75 acres in size and was the location of two of the former tannery's wastewater settling lagoons identified as Lagoon 1 and Lagoon 2, and a wetland pond formerly dammed and identified as Lagoon 3. Based on previous site investigations, groundwater in the northern area of the Site where monitoring wells are present, is inferred to flow to the north/northwest, towards the Lamprey River. **Figures 1** and **2** are site plans at different scales illustrating certain geographic features, site boundaries, certain historical environmentally relevant features, and the proposed Onyx Raymond LLC proposed development (Onyx property; further defined in subsequent sections).

Prior to 1953, the Faulkner Shoe Company occupied the eastern portion of Lot 43. By 1953 the former Regis Tannery was in operation at the Site, and consisted of a main tannery building, three lagoons, a subsurface piping system associated with a former wastewater drainage, a septic tank, two petroleum underground storage tanks (USTs), a brine UST, and settling and buffing dust pits. Liquid wastes from the facility on Lot 43, consisting primarily of tanning vat solutions and coloring vat solutions from the buffing room, were washed down to a network of concrete and red brick-lined trench drains. Discharge from the drains entered a shallow concrete buffing dust pit, and subsequently overflowed into a concrete settling tank located about 50 ft. north of the main tannery building.

Between 1953 and 1961, wastewater (from the settling tank) was originally discharged into the Lamprey River via pipes under Old Manchester Road. After 1961, the wastewater was discharged into the three unlined lagoons on Lot 120. Reportedly, when storage capacity of Lagoons 1 and 2 were exceeded, wastewater from Lagoons 1 and 2 were pumped and transmitted via an aboveground pipe to Lagoon 3, or via Wetland A and following Lagoon 3 Trench that discharged to Lagoon 3. Lagoons 1 and 2 are located proximate to the northern boundary of the Onyx property and Lagoon 3 is located within the Onyx property. Discharge of liquids from the lagoons was primarily through infiltration into the ground, evaporation, and periodic overflow of the berms.

Leather scraps were generally shipped off Site for disposal; however, in the early 1970s, a deep depression to the north of the tannery building and adjacent to Old Manchester Road was filled with leather scraps to create a level area for use as a parking lot. Additionally, based upon previous investigations, leather scraps were incorporated into fill material to varying degrees throughout the former tannery building area and berms constructed on Lot 120 to create Lagoons 1, 2, and 3. Tannery operations ceased in 1972 when the building was destroyed by fire. Following the fire, the Site building was demolished and leveled.

The Site area had numerous phases of site investigation activities to evaluate the hydrogeology, and the environmental impacts associated with the former tannery operations. This work included characterization of subsurface soils and groundwater conditions, and the collection of sediment and surface water samples. These investigation activities informed the development of a remedial action plan (RAP) for the Site in 2007. Remedial actions were performed in 2008 and 2009 in accordance with the RAP and included excavation of impacted soils from Wetland A and Lagoon 3 trench, and also materials from Lagoon 2 including buffing dust and leather scraps. The materials from Lagoon 2 were excavated and relocated to the Consolidation Area within former Lagoon 1. An activity and use restriction (AUR) was established as an institutional control in 2012 to restrict soil disruption and maintain the integrity of the surface cap on the Consolidation Area.

A Groundwater Management Permit (GMP) with a Groundwater Management Zone (GMZ) was first issued for the Site in 2013 and monitoring has been ongoing. Groundwater monitoring for total chromium has been ongoing since the issuance of the GMP by NHDES. Concentrations of total chromium have been detected below the Ambient Groundwater Quality Standard (AGQS) for total chromium of 100 micrograms per liter (µg/L). Groundwater monitoring for per- and polyfluoroalkyl substances (PFAS) has been ongoing since 2018 with the detection of certain PFAS compounds above AGQS in certain monitoring wells. On October 19, 2017, NHDES issued a letter indicating that PFAS are to be sampled at the existing on-Site monitoring wells. PFAS concentrations exceeding the NHDES AGQS were detected in multiple wells during July 2019 (refer to **Figure 2**). The GMP requires the sampling of three wells on Lot 120 (MW-1, MW-2, and GZ-3) once every year in June for the analyses of PFAS substances; one well (MW-3) in June of each odd year for the analysis of PFAS substances; and two wells (MW-2 and GZ-3) in June 2023 and June 2026 for the analysis of dissolved chromium.

SUMMARY OF PROPOSED FUTURE SITE USE

GZA reviewed plans and other documentation regarding the proposed development that has been prepared by Jones and Beach Engineers Inc (Jones and Beach). The GZA review focused on gaining an understanding regarding the proposed development plans and the potential for encountering, disturbing, or influencing known or potential contamination conditions related to the Site. Based on information provided by the Raymond Planning Board, Onyx Raymond LLC is proposing the development of a 550,000 square foot warehouse structure on the Town of Raymond Tax Map referenced as Map 22 Lots 44, 45, 46, 47 and Map 28, Block 3 Lot 120-1 (Onyx property). The total paved area that is planned for the development is 775,185 square feet. The total land surface that is anticipated to be disturbed during the construction is 1,774,358 square feet.

SUMMARY OF DATA RELATED TO PROPOSED SITE AREA TO BE REDEVELOPED

Environmental data for the portion of the historical Site proposed for the construction of the warehouse is limited to previous site investigations by GZA and recent sampling documented in an Enviro North American Consulting LLC (ENAC) letter dated December 8, 2022. Relevant data from the March 3, 2005 GZA site investigation indicated chromium concentrations in sediment samples collected from Lagoon 3 and Wetland A exceeding the S-1 standard in the NHDES Risk Characterization and Management Policy (RCMP).

The ENAC December 8, 2022 letter presents results of surface water quality sampling on and proximate to the Onyx property. Low concentrations of chromium were detected in two of three samples collected. These chromium sampling data are the only environmental data that GZA is aware of for the proposed warehouse portion of the Onyx property. The analyses presented were for total chromium and did not include speciation to evaluate the type of chromium. The results for the three surface water samples were reviewed by GZA including: SFW-1 (former Lagoon 3 area detected 5.6 µg/L), SFW-2 (unnamed drainage west of the proposed warehouse <1.0 µg/L), and SFW-3 (Wetland A area detected 24 µg/L).

ENAC provided a comparison to the NHDES AGQS for total chromium of 100 µg/L. These data could also be compared to Env-Wq 1700 surface water standards which includes standards freshwater standards for acute and chronic criteria for hexavalent (16 µg/L acute; and 11 µg/L chronic) and trivalent (152 µg/L acute; and 19.8 µg/L chronic). Dependent upon the speciation of the total chromium detected by ENAC, the chromium could exceed surface water standards. The detection of chromium in these samples is inconclusive relative to the source of the chromium. The chromium detection may or may not be associated with the former tannery operational practices. GZA did not identify additional environmental data that would indicate the potential for encountering contamination conditions associated with the historical tannery activities during construction of the proposed

warehouse. The portion of the Onyx property where the proposed development is planned is situated to the south of the historical tannery operation and lagoon wastewater management areas. GZA did not identify groundwater or soil quality data for the specific area of the proposed earthwork activities for development of the warehouse.

The Remedial Action Implementation Report for the Site prepared by StoneHill Environmental Inc. dated September 30, 2011 and revised October 23, 2012 provides a summary of remedial actions performed at the Site. Important actions relative to the proposed warehouse redevelopment was remediation via excavation of contaminated soil in a former trench that contained elevated lead and chromium, and removal and off-site disposal of the former berm that created the ponding condition associated with Lagoon 3. The trench soil excavation was conducted (165 cubic yards removed) and moved to the Consolidation Area associated with Lagoon 1. Post excavation samples were compared with NHDES Soil Remediation Standards (SRS), and the results were well below SRS for total chromium. The results also were compared to Consensus-Based Threshold Effect Concentration (TEC) and Probable Effect Concentration (PEC). The applicability of these values was questionable since they are likely based on hexavalent chromium toxicity and that is a small fraction of the total chromium detected at the Site. The connecting trench was lined with a thick layer of stone rip rap which covers the drainage ditch soil containing residual chromium with concentration below SRS.

GZA notes that while groundwater impacts related to the operation of Lagoon 3 are not known, impacts to groundwater beneath Lagoon 1 and Lagoon 2 including the presence of PFAS in groundwater are known to have occurred. PFAS may or may not be present in surface waters and sediment associated with Wetland A and Lagoon 3 based upon general wastewater management that is known to have occurred.

There is very limited environmental sampling data for the Onyx property on which to base an opinion regarding the potential to encounter, disturb, or influence existing contamination conditions. Based on topography, the direction of groundwater flow beneath the Onyx property would likely be in a northerly to northwesterly direction towards the Lamprey River. It is unclear whether groundwater from beneath the Onyx property would flow in the direction of the GMZ associated with the historical tannery. Due to the creation of impervious surfaces associated with the proposed warehouse and paved surfaces, stormwater flow will be altered resulting in an increase in overland flow and the need for stormwater management systems.

The Jones and Beach design drawings provide details of the proposed stormwater management systems. The approach to manage the stormwater on the Onyx property includes discharge to stormwater ponds and infiltration galleries. Limited historical environmental data indicates sediment and surface water impacted with chromium is likely associated with the former Lagoon 3 (located to the north of and adjacent to the proposed development area). It is unclear whether stormwater generated from the proposed development would all infiltrate on the property proposed to be developed or if surface water could routinely or periodically leave the Onyx property during storm events.

It appears stormwater that would leave the Onyx property would follow existing drainage and travel in a generally northwesterly direction discharging to the Lamprey River. This existing drainage appears to be the same drainage channel that received flow from former Lagoon 3 and may also include sections of Lagoon 3 area. An increase in the magnitude of stormwater flow could result in mobilization of historical surface water or sediment contamination that may exist within drainage features. It is also unclear how the direction and rate of groundwater flow beneath the Onyx property would be altered from the focused recharge of the stormwater systems. Changes to groundwater flow dynamics beneath the Onyx property could also alter groundwater flow beneath adjacent properties. The Town has public water supply wells to the west of the Onyx property that could be sensitive to mobilization of potential contamination.

Due to the limited environmental data for the portion of the proposed property to be developed, and the presence and potential presence of contamination in off-site locations associated with the former tannery operation, as well as uncertainty with regard to the alteration of surface water and groundwater dynamics associated with the proposed development, GZA recommends additional hydrogeologic investigations and analysis be conducted to evaluate anticipated changes to groundwater and surface water flow and potential impacts to contaminated media with the implementation of new stormwater infiltration systems at the Onyx property. Based on GZA's review of historical information, and the current stormwater management design plans, we recommend the following:

1) Advance at least one soil boring within the footprint of each proposed stormwater infiltration gallery and infiltration pond.
    a. Field screen soil samples from the boring(s) using a photoionization detector.
    b. Collect soil sample(s) for analysis of volatile organic chemicals (VOCs) and Resource and Recovery Act (RCRA) metals.
    c. Collect soil sample(s) for grain size distribution and hydraulic conductivity estimation.
2) Complete the soil boring(s) as a groundwater monitoring well extending 10 ft. below the water table.
    a. Collect groundwater sample(s) from each monitoring well for analysis of VOCs, RCRA metals, and PFAS.
    b. Perform hydraulic conductivity testing at each newly installed monitoring well.
3) Perform hydrogeologic analysis.
    a. Develop a groundwater contour plan.
    b. Estimate hydraulic conductivity of subsurface soils.
    c. Develop soil boring logs.
    d. Develop a site conceptual model of subsurface conditions.
4) Perform numerical groundwater modeling, which should include simulations of:
    a. Predevelopment baseline conditions.
    b. Modelled stormwater infiltration conditions with proposed infiltration galleries.
    c. Numerical groundwater mounding assessment.
        i. Water table mounding.
        ii. Pre- and post-construction simulated groundwater contours.
5) Provide technical and engineering details to support the design of the stormwater infiltration galleries. The analyses will provide engineering estimates of the water balance for stormwater for each system detailing the amount of infiltration versus surface water leaving the Onyx property. The analyses should estimate the groundwater mounding beneath each stormwater system.
6) Provide key elements of a Soil and Groundwater Management Plan that will guide earthwork activities across the Onyx property in anticipation of encountering contaminated media if the investigation information indicates contamination conditions.
7) Provide a plan that describes how the existing monitoring well network will be protected during site development.

GZA greatly appreciates the opportunity to work on this technical review associated with this redevelopment project. If you have any questions regarding the Technical Review Summary Letter, please do not hesitate to contact Mr. Steven Lamb at (603) 494-6551.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

Megan E. Murphy
Project Manager

James M. Wieck, P.G.
Consultant / Reviewer

Steven R. Lamb P.G., CGWP
Principal

MEM/JMW/SRL:pca
\\gzabedford\jobs\04jobs\0191500s\04.0191548.00\report\final registannery-onyx - letter summary report 040623.docx

Attachments: Attachment A: Summary of Documents Provided for Review
Attachment B: Limitations
Attachment C: Figure 1 and Figure 2

Attachment A: Summary of Documents Provided for Review

SUMMARY OF DOCUMENTS PROVIDED FOR REVIEW

CLIENT-PROVIDED DOCUMENTS

StoneHill Environmental letter titled Groundwater Management Permit Renewal Application, dated October 29, 2019.

ENVIRO North American Consulting LLC (ENAC) letter dated December 8, 2022, titled Environmental Evaluation with Professional Opinion for Proposed Development.

ENVIRO North American Consulting LLC letter dated January 12, 2023, titled Contaminant Remedial Summary Lot 120-1: Wetland A, Lagoon 3, and Connecting Trench.

ENVIRO North American Consulting LLC Transmittal Record and Memorandum dated January 31, 2023.

GZA report dated March 18, 2005, titled Supplemental Site Investigation Former Rex Leather Site.

GZA report dated July 23, 2004, titled Site Investigation Former Rex Leather Site.

"Proposed Raymond Distribution site plan package and application revised January 2023."

NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES AVAILABLE DOCUMENTS

Underground Storage Tank Closure Report, dated June 25, 1997, by Total Waste Management Corp. (TWM).

Site Investigation Former Rex Leather Site, dated July 23, 2004, by GZA.

Draft Remedial Action Plan, dated July 20, 2007, by StoneHill Environmental Inc., and *Quality Assurance Project Plan*, dated October 2008, by StoneHill Environmental Inc.

Groundwater Management Permit Application, Former Regis Tannery- Lot 43, dated September 30, 2011, by StoneHill Environmental Inc.; *Groundwater Management Permit Application (Revised), Former Regis Tannery- Lot 120*, dated August 26, 2011, by StoneHill Environmental Inc.; *Application for Activity Use Restriction (AUR)* dated October 13, 2022, by Donahue, Tucker & Ciandella, PLLC (DTC); and R*emedial Action Implementation Report*, dated September 30, 2011, by StoneHill Environmental Inc.

Letter responses from NHDES regarding the GMP Applications for Lot 43 and Lot 120, AUR Application for Lot 120, and RAP, dated January 18, 2012; January 19, 2012; April 19, 2012; and January 23, 2012 respectively.

Letter responses from NHDES regarding the GMP Applications for Lot 43 and Lot 120, dated January 8, 2013.

Certificate of Completion from NHDES, dated March 20, 2013.
2016 Groundwater Monitoring Summary Report, Former Regis Tannery Property – Lot 120, dated August 4, 2016, by Exeter Environmental Associates, Inc (Exeter).

Letter response from NHDES regarding the 2016 Groundwater Monitoring Summary Report for Lot 120, dated April 11, 2017; and Groundwater Monitoring Data Transmittal (June 2017), Former Regis Lot 120 dated October 20, 2017, by StoneHill Environmental, Inc.

Email response from Samuele Quattrini regarding the June 2017 Data Transmittal for Lots 43 and 120, dated November 14, 2017.

Groundwater Management Permit Renewal Application, Former Regis Tannery – Lot 43, dated May 8, 2018, by StoneHill Environmental, Inc.

Groundwater Monitoring Data Transmittal (August 2018), Former Regis Tannery Property Lot 120, dated October 31, 2018, by StoneHill Environmental, Inc.

Letter response from NHDES regarding the GMP Renewal Application for Lot 43, dated January 25, 2019.

Water Well Receptor Survey, Former Regis Tannery Lot 43 and 120, dated February 1, 2019, by StoneHill Environmental.

Well Installation and Sampling Report, dated October 11, 2019, by StoneHill Environmental.

Groundwater Management Permit Renewal Application, Former Regis Tannery – Lot 120, dated October 29, 2019, by StoneHill Environmental, Inc.

Periodic Summary Report, dated January 8, 2020, by StoneHill Environmental.

Letter response from NHDES regarding the GMP Renewal Application for Lot 120, dated July 15, 2022.

Groundwater Monitoring Data Transmittal with Revised Figures (November 2022), dated December 28, 2022, by Tomforde Environmental Services, LLC.

AUR Self Certification (2022), dated January 19, 2023, by Tomforde Environmental Services, LLC.

Letter response from NHDES regarding the Town of Raymond Planning Board Questions regarding the Site, dated February 10, 2023.

Attachment B: Limitations

USE OF REPORT

1. GZA GeoEnvironmental, Inc. (GZA) prepared this report on behalf of, and for the exclusive use of our Client for the stated purpose(s) and location(s) identified in the Proposal for Services and/or Report. Use of this report, in whole or in part, at other locations, or for other purposes, may lead to inappropriate conclusions; and we do not accept any responsibility for the consequences of such use(s). Further, reliance by any party not expressly identified in the agreement, for any use, without our prior written permission, shall be at that party's sole risk, and without any liability to GZA.

STANDARD OF CARE

2. GZA's findings and conclusions are based on the work conducted as part of the Scope of Services set forth in the Proposal for Services and/or Report and reflect our professional judgment. These findings and conclusions must be considered not as scientific or engineering certainties, but rather as our professional opinions concerning the limited data gathered during the course of our work. Conditions other than described in this report may be found at the subject location(s).

3. GZA's services were performed using the degree of skill and care ordinarily exercised by qualified professionals performing the same type of services, at the same time, under similar conditions, at the same or a similar property. No warranty, expressed or implied, is made. Specifically, GZA does not and cannot represent that the Site contains no hazardous material, oil, or other latent condition beyond that observed by GZA during its study. Additionally, GZA makes no warranty that any response action or recommended action will achieve all of its objectives or that the findings of this study will be upheld by a local, state or federal agency.

4. In conducting our work, GZA relied upon certain information made available by public agencies, Client and/or others. GZA did not attempt to independently verify the accuracy or completeness of that information. Inconsistencies in this information which we have noted, if any, are discussed in the Report.

SUBSURFACE CONDITIONS

5. The generalized soil profile(s) provided in our Report are based on widely-spaced subsurface explorations and are intended only to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized, and were based on our assessment of subsurface conditions. The composition of strata, and the transitions between strata, may be more variable and more complex than indicated. For more specific information on soil conditions at a specific location refer to the exploration logs. The nature and extent of variations between these explorations may not become evident until further exploration or construction. If variations or other latent conditions then become evident, it will be necessary to reevaluate the conclusions and recommendations of this report.

6. Water level readings have been made, as described in this Report, in and monitoring wells at the specified times and under the stated conditions. These data have been reviewed and interpretations have been made in this report. Fluctuations in the level of the groundwater however occur due to temporal or spatial variations in areal recharge rates, soil heterogeneities, the presence of subsurface utilities, and/or natural or artificially induced perturbations. The observed water table may be other than indicated in the Report.

COMPLIANCE WITH CODES AND REGULATIONS

7. We used reasonable care in identifying and interpreting applicable codes and regulations necessary to execute our scope of work. These codes and regulations are subject to various, and possibly contradictory, interpretations. Interpretations and compliance with codes and regulations by other parties is beyond our control.

SCREENING AND ANALYTICAL TESTING

8. GZA collected environmental samples at the locations identified in the Report. These samples were analyzed for the specific parameters identified in the report. Additional constituents, for which analyses were not conducted, may be present in soil, groundwater, surface water, sediment and/or air. Future Site activities and uses may result in a requirement for additional testing.

9. Our interpretation of field screening and laboratory data is presented in the Report. Unless otherwise noted, we relied upon the laboratory's QA/QC program to validate these data.

10. Variations in the types and concentrations of contaminants observed at a given location or time may occur due to release mechanisms, disposal practices, changes in flow paths, and/or the influence of various physical, chemical, biological or radiological processes. Subsequently observed concentrations may be other than indicated in the Report.

INTERPRETATION OF DATA

11. Our opinions are based on available information as described in the Report, and on our professional judgment. Additional observations made over time, and/or space, may not support the opinions provided in the Report.

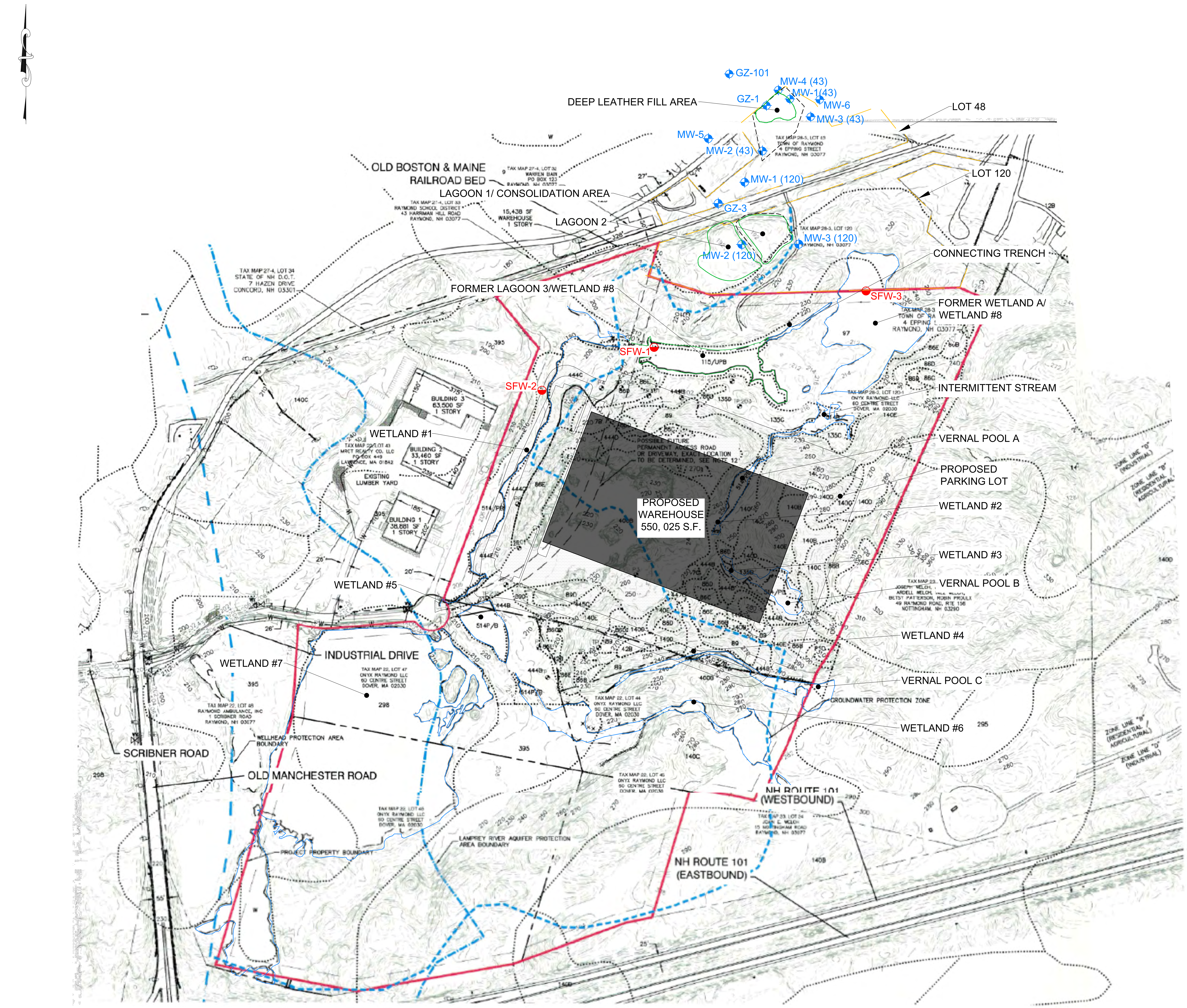
ADDITIONAL INFORMATION

12. In the event that the Client or others authorized to use this report obtain additional information on environmental or hazardous waste issues at the Site not contained in this report, such information shall be brought to GZA's attention forthwith. GZA will evaluate such information and, on the basis of this evaluation, may modify the conclusions stated in this report.

ADDITIONAL SERVICES

13. GZA recommends that we be retained to provide services during any future investigations, design, implementation activities, construction, and/or property development/ redevelopment at the Site. This will allow us the opportunity to: i) observe conditions and compliance with our design concepts and opinions; ii) allow for changes in the event that conditions are other than anticipated; iii) provide modifications to our design; and iv) assess the consequences of changes in technologies and/or regulations.

Attachment C: Figure 1 and Figure 2



LEGEND

Symbol	Description
	SOIL BOUNDARY
	WELLHEAD PROTECTION AREA
	LAMPREY RIVER PROTECTION AREA
	GROUNDWATER PROTECTION AREA
	PROJECT PROPERTY BOUNDARY
	PARCEL BOUNDARY
	APPROXIMATE WETLAND BOUNDARY
	REMEDIAL ACTION LAGOONS
	GROUNDWATER MANAGEMENT ZONE
	PROPOSED WAREHOUSE
	PROPOSED PARKING LOT AND DRIVEWAY
MW-1	GROUNDWATER MONITORING WELLS
SFW-1	SURFACE WATER MONITORING WELLS

NOTES:

1. BASE PLAN SET WAS OBTAINED FROM JONES & BEACH ENGINEERS, INC. OF STRATHAM, NH TITLED "WAREHOUSE BUILDING "RAYMOND DISTRIBUTION"" REVISED ON FEB. 11, 2023 AND "PROPOSED GRADING IMPACT PLAN" REVISED ON JUNE 30, 2022.
2. MONITORING WELLS, GROUNDWATER CONTOURS, PFAS CONCENTRATIONS AND CHROMIUM CONCENTRATIONS WERE OBTAINED FROM FIGURE SET TITLED "FORMER REGIS TANNERY SITE", PREPARED BY STONEHILL ENVIRONMENTAL, INC.

0 100 200 400 600
SCALE IN FEET

NO.	ISSUE/DESCRIPTION	BY	DATE

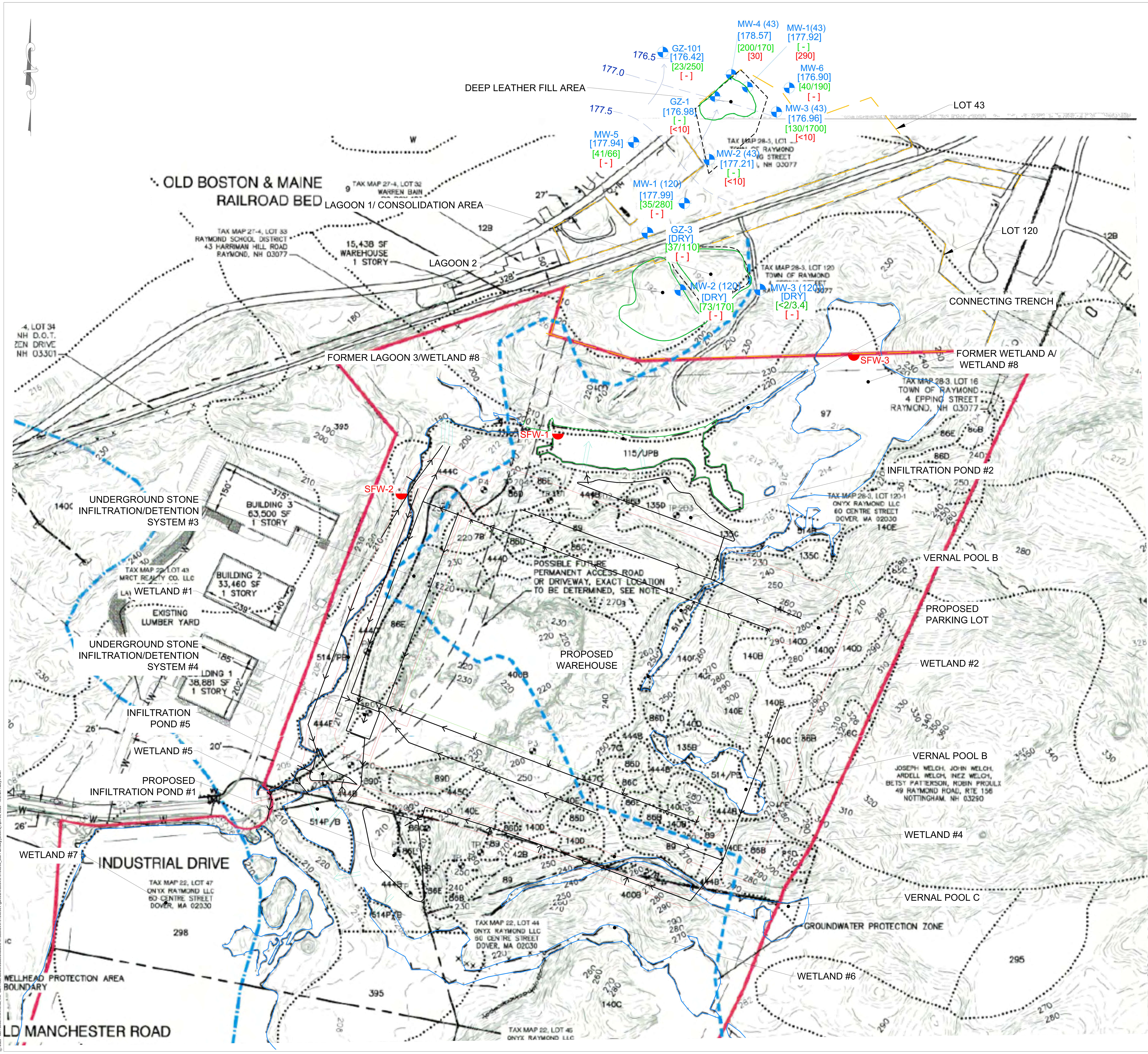
SITE DEVELOPMENT
INDUSTRIAL DRIVE,
RAYMOND, NEW HAMPSHIRE

OVERALL SITE PLAN

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com

PREPARED FOR: ONYX PARTNERS LTD

PROJ MGR: SL	REVIEWED BY: MD	CHECKED BY: SL	DRAWING
DESIGNED BY: HLP	DRAWN BY: HLP	SCALE: 1" = 200'	1
DATE: MARCH 2023	PROJECT NO. 04.0191548.00	REVISION NO. -	SHEET NO. 2 OF 2



LEGEND

- SOIL BOUNDARY
- WELLHEAD PROTECTION AREA
- LAMPREY RIVER PROTECTION AREA
- GROUNDWATER PROTECTION AREA
- PROJECT PROPERTY BOUNDARY
- PARCEL BOUNDARY
- APPROXIMATE WETLAND BOUNDARY
- REMEDIAL ACTION LAGOON
- GROUNDWATER MANAGEMENT ZONE
- STORMWATER DRAINAGE SYSTEM WITH FLOW DIRECTION
- OVERFLOW/EMERGENCY STORMWATER FLOW
- 177.0 — GROUNDWATER ELEVATION CONTOURS (FEET)(SEPT. 11, 2020)
- INFERRED GROUNDWATER FLOW DIRECTION
- PROPOSED WAREHOUSE
- PROPOSED PARKING LOT AND DRIVEWAY
- MW-3 — GROUNDWATER MONITORING WELL
- [176.96] — GROUNDWATER ELEVATION (FEET) (SEPT. 11, 2020)
- [130/1700] — PFOA/PFAS CONCENTRATIONS (ng/L) (JULY 5, 2019)
- [<10] — TOTAL CHROMIUM CONCENTRATION (ug/l) (SEPT. 11, 2020)
- SFW-1 — SURFACE WATER MONITORING WELL

NOTES:
1. BASE PLAN SET WAS OBTAINED FROM JONES & BEACH ENGINEERS, INC. OF STRATHAM, NH TITLED "WAREHOUSE BUILDING "RAYMOND DISTRIBUTION"" REVISED ON FEB. 11, 2023 AND "PROPOSED GRADING IMPACT PLAN" REVISED ON JUNE 30, 2022.
2. MONITORING WELLS, GROUNDWATER CONTOURS, PFAS CONCENTRATIONS AND CHROMIUM CONCENTRATIONS WERE OBTAINED FROM FIGURE SET TITLED "FORMER REGIS TANNERY SITE", PREPARED BY STONEHILL ENVIRONMENTAL, INC.

0 50 100 200 300
SCALE IN FEET

NO.	ISSUE/DESCRIPTION	BY	DATE

SITE DEVELOPMENT
INDUSTRIAL DRIVE,
RAYMOND, NEW HAMPSHIRE

ENLARGED SITE PLAN

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com

PREPARED FOR: ONYX PARTNERS LTD

PROJ MGR: SL	REVIEWED BY: MD	CHECKED BY: SL	DRAWING
DESIGNED BY: HLP	DRAWN BY: HLP	SCALE: 1" = 100'	2
DATE: MARCH 2023	PROJECT NO. 04.0191548.00	REVISION NO. -	SHEET NO. 2 OF 2

ENVIRO NORTH AMERICAN
CONSULTING, LLC

Riverbend Professional Building
P.O. Box 1075 Alton, NH 03809

Ph. (603) 875-8100
Fax (603) 875-8101
www.environorthamerican.com

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

LAGOON #3 AND WETLAND A SURFACE WATER AND SEDIMENT SAMPLING SUMMARY

ONYX RAYMOND LLC
INDUSTRIAL DRIVE
RAYMOND, NEW HAMPSHIRE

NHDES Site #:202302096
Hazardous Waste Site Evaluation
Project Number: 41468

Prepared for:
DOUGLAS RICHARDSON, EXECUTIVE V.P.
ONYX PARTNERS LTD.
200 RESERVOIR STREET, SUITE 306
NEEDHAM, MA 02494

Prepared by:

ENVIRO NORTH AMERICAN CONSULTING, LLC.
P.O. Box 1075
ALTON, NH 03809
(603) 875-8100
Contact Name: Todd Greenwood
Contact Email: tag@metrocast.net

April 14, 2023

Todd A. Greenwood

Digitally signed by Todd A. Greenwood
DN: cn=Todd A. Greenwood, o=Enviro North American Consulting LLC, ou, email=tag@metrocast.net, c=US
Date: 2023.04.14 09:42:52 -04'00'

ENVIRO NORTH AMERICAN
CONSULTING, LLC

Riverbend Professional Building
P.O. Box 1075 Alton, NH 03809

Ph. (603) 875-8100
Fax (603) 875-8101
www.environorthamerican.com

April 14, 2023
Project 1190-681

Douglas Richardson, Executive V.P.
Onyx Partners Ltd.
200 Reservoir Street, Suite 306
Needham, MA 02494

Re: **Lagoon #3 and Wetland A Surface Water and Sediment Sampling Summary – March 2023**

Subject: **Onyx Raymond LLC.**
Application #2022-010 – Town of Raymond Planning Board
Industrial Drive, Raymond, NH
NHDES Site #202302096
HW Project #41468

Dear Mr. Richardson:

Enviro North American Consulting, LLC (ENAC) has completed environmental surface water and sediment sampling at designated locations from Lagoon #3 and Wetland A pertaining to the proposed development of parcel(s) of land shown on an Existing Conditions Plan dated November 10, 2022 and referenced as the Onyx Raymond LLC – Raymond Distribution (subject Property).

ENAC representatives visited the subject Property on March 16, 2023 to collect surface water and sediment samples from designated locations as shown on the attached Water Sampling Plan prepared by Jones & Beach Engineers, Inc. (JBE). The environmental sample locations were selected in an effort to identify potential environmental conditions from areas previously investigated during past investigative and remedial activities conducted by others. The sample location coordinates were collected in the field by ENAC with a handheld global positioning systems (GPS) device during the March 2023 sampling. The collected latitude and longitude data are summarized in the attached Table 1.

During the 2023 sampling event, the subject Property target sampling locations were observed with significant snow-covered ground and ice across standing water in ponds and wetlands. The central portions of Lagoon #3 and Wetland A contained thin ice cover (less than 2-inches) across majority of the ponded surface water areas. Based on the observed capacities of standing water, the sampling event was conducted during wet conditions, reflective of recent snow and rain events in the general vicinity of southeastern New Hampshire. Weather conditions during March 16, 2023 included partial sun, light wind and an average temperature of 43°F over the 12-hour sampling period.

SURFACE WATER SAMPLING PROCEDURES

Surface water sampling from Lagoon #3 and Wetland A was conducted by ENAC on March 16, 2023 from the most downstream location first, moving sequentially toward upstream sample locations in an effort to minimize sample disturbance. Surface water samples were collected as grab samples by ENAC with use of an extension rod with attached sample bottle extending between 2- and 6-feet vertical distance away from the shoreline into the pond water. The sample bottle was dipped approximately 12-inches below the water surface. Collected water was decanted from the sample bottle directly into laboratory preserved containers. Surface water samples collected for RCRA-8 metals and chromium VI were filtered in the field using dedicated 0.45-micron filters prior to sample transfer into laboratory prepared containers.

Remaining surface water samples were collected as unfiltered, raw water samples for analysis of total hardness and PFAS compounds. The PFAS samples were collected in accordance with NHDES's PFAS Field Sample Collection Guidance document dated September 2022. Dedicated nitrile gloves were used by ENAC employees at each sample location, nitrile gloves were provided by PACE laboratories for in-field use during the Onyx sampling. Non-waterproof clothing (shirts, jackets, pants and boots) was worn by ENAC employees to eliminate concerns for cross-contamination from the presence of PFAS in clothing.

Sample collection bottle was decontaminated in-between each sample location with alconox rinse and deionized water. Surface water samples were placed inside a cooler with ice immediately upon collection and delivered same day to New Hampshire certified laboratories for the following analyses:

- Resource Conservation Recovery Act 8-dissolved metals (RCRA-8) & Chromium VI by EPA Method 200.8,
- Total Hardness by appropriate EPA method,
- PFAS compounds list by NHDES and EPA approved Method 537.1.

SEDIMENT SAMPLING PROCEDURES

Sediment samples were collected by ENAC on March 16, 2023 from Lagoon #3 and Wetland A. Where both water and sediment samples were collected from the same location, the water sample was collected sequentially first, followed by the sediment sample collected second. Lagoon and wetland sediment samples were collected utilizing an extended stainless-steel hand auger and stainless-steel spade. The sediment samples were collected approximately 2-feet vertically away from the shoreline at each location. The ice layer was broken and cleared prior to sample collection.

Sediment was encountered approximately 12-inches below the water surface and the hand auger was advanced approximately 6- to 8-inches into the sediment for sample collection. The steel

spade was used to transfer sediment from the auger into laboratory-prepared containers. The hand auger and steel spade were decontaminated in-between each sample location with alconox rinse and deionized water. Sediment samples were placed inside a cooler with ice immediately upon collection and delivered to New Hampshire certified laboratories for the following analyses:

- Resource Conservation Recovery Act 8-metals (RCRA-8) & Chromium VI by EPA Method 200.8,
- PFAS compounds list by approved Isotope Dilution method (SOP-466 PFAS).

SURFACE WATER AND SEDIMENT QUALITY ANALYTICAL RESULTS

Laboratory analytical results from the March 16, 2023 sampling event are summarized in the attached Tables 2 and 3. Surface water concentrations for dissolved metals are compared to applicable surface water criteria established by NHDES following New Hampshire Code of Administrative Rules Env-Wq 1700. Total hardness was analyzed for water samples and results were used to calculate the revised Acute and Chronic Criteria values for detected total hardness less than 20 mg/L for hardness dependent metals. The resulting adjusted Acute and Chronic Criteria values for hardness dependent metals are presented in Table 2.

Sediment concentrations are compared to the NHDES Soil Remediation Standards (SRS). Currently the NHDES has not adopted regulatory standards for PFAS concentrations in surface water or sediment.

A total of four surface water samples identified as L3-SW3-2023, L3-SW4-2023, L3-SW5-2023 and L3-SW2-2023 and five sediment samples identified as L3-SD8-2023, L3-SD9-2023, L3-SD10-2023, L3-SD11-2023 and L3-WSD2-2023 were collected from Lagoon #3. A total of three surface water samples identified as WA-WSW1-2023, WA-SW2-2023, WA-SFW3A-2023 and four sediment samples identified as WA-WSD1-2023, WA-SD3-2023, WA-SD4-2023, WA-SD5-2023 were collected from Wetland A.

Metals and total hardness samples were delivered under standard chain-of-custody to Eastern Analytical, Inc. (EAI) in Concord, NH.

Surface water and sediment samples collected for PFAS were delivered under standard chain-of-custody to Con-Test, a Pace Analytical Laboratory (PACE) in East Longmeadow, MA. Both environmental laboratories are New Hampshire certified and accredited through the National Environmental Laboratory Accreditation Program (NELAP). The complete laboratory reports are attached to this report.

TABLE 2 – Surface Water & Sediment Analytical – RCRA 8-Metals, Chromium, Hardness

Analytical results for RCRA 8-metals and chromium VI from surface water and sediment samples collected from Lagoon #3 and Wetland A are summarized in Table 2, pages 1 and 2,

respectively. Analytical results for total hardness as calcium carbonate ($CaCO_3$) for sediment samples are also summarized in Table 2. Table 2 includes water (dissolved metals) and sediment samples (total metals) and hexavalent chromium VI and chromium III (dissolved). The presence of chromium values was evaluated, where analytical results show below detection of chromium VI (non-detectable concentrations), indicative of the presence of chromium III for comparison to the NHDES standards for chromium III and total chromium. The surface water results are presented as dissolved metal concentrations in parts per billion (ppb) equivalent to micrograms per liter (ug/L). Sediment concentrations are presented in parts per million (ppm) equivalent to milligrams per kilogram (mg/kg). Total hardness results are presented as milligrams per liter (mg/L).

Three equipment blank samples were collected initially in the field during the March 16, 2023 sampling event identified as EB-Auger, EB-Spade and EB-SW. Laboratory supplied deionized water was poured over the sampling equipment including the stainless-steel hand auger, spade and the plastic surface water collection bottle. The equipment rinse waster was collected into laboratory-prepared containers for laboratory analyses. Analytical blank samples for RCRA 8-metals, chromium VI, and PFAS were non-detect from all three equipment blank samples.

Lagoon #3

As shown on Page 1 of Table 2, concentrations of RCRA 8-metals and chromium VI were detected below NHDES Surface Water Standards for Protection of Aquatic Life and the more stringent Standards for Protection of Human Heath from the surface water samples collected from Lagoon #3, with the exception of arsenic. Arsenic concentrations were detected above the Surface Water Standards for Protection of Human Health (specifically for human consumption of the surface water or fish from the surface water) from all four surface water samples collected from Lagoon #3. Total hardness was reported from each water sample at 15-mg/L.

The concentrations of arsenic in sediment samples L3-SD8-2023 and L3-WSD2-2023 collected from Lagoon #3 were detected above the NHDES SRS and concentrations of chromium III from sediment samples L3-SD11-2023 and L3-WSD2-2023 were detected above NHDES SRS. The concentrations of the other RCRA 8-metals and chromium VI from the five sediment samples collected from Lagoon #3 were below NHDES SRS.

Wetland A

As shown on Page 2 of Table 2, concentrations of RCRA-8 metals and chromium VI were detected below NHDES Surface Water Standards for Protection of Acute and Chronic Aquatic Life and the more stringent Standards for Protection of Human Health from all three surface water samples collected from Wetland A, with the exception of arsenic. Arsenic concentrations were above the Surface Water Standards for Protection of Human Health from two surface water samples; WA-SW2-2023 and WA-SFW3A-2023. Total hardness was reported at 9.3-mg/L from surface water sample WA-WSW1-2023 and 15-mg/L for the remaining two surface water samples collected from Wetland A. Concentrations of RCRA 8-metals and chromium VI from all four sediment samples collected from Wetland A were detected below NHDES SRS.

TABLE 3 – Surface Water & Sediment Analytical – PFAS

Analytical results for PFAS compounds from surface water and sediment samples collected from Lagoon #3 and Wetland A are summarized in Table 3, pages 1 and 2, respectively. The PFAS water samples were laboratory analyzed using NHDES accepted EPA Method 537.1. A total of 18-PFAS compounds were reported for surface water. The PFAS surface water sample results are presented as parts per trillion (ppt), equivalent to nanograms per liter (ng/L).

Three equipment blank samples identified as EB-Auger, EB-Spade and EB-SW were collected for laboratory analysis of PFAS. As shown on Page 3 of Table 3, PFAS concentrations were non-detect from all three equipment rinse blank samples.

Sediment samples were analyzed for PFAS using approved isotope dilution methods. The 32-PFAS compounds were reported for sediment. PFAS sediment results are presented as parts per billion (ppb), equivalent to micrograms/kilogram (ug/kg).

Lagoon #3

As shown on Page 1 of Table 3, five of 18-PFAS compounds were detected at low concentrations from surface water samples collected from Lagoon #3. Concentrations of perfluorooctanesulfonic acid (PFOS) were detected from all four surface water samples. Concentrations of perfluorooctanoic acid (PFOA) was detected from L3-SW3-2023, L3-SW4-2023 and L3-SW5-2023. Concentrations of perfluorohexanesulfonic acid (PFHxS) and perfluoroheptanoic acid (PFHpA) were also detected from L3-SW5-2023. Concentrations of n-ethyl perfluorooctanesulfonamido acetic acid (NEtFOSAA) were detected from L3-SW3-2023 and L3-SW4-2023.

Two out of 32-PFAS compounds were detected at low concentrations from sediment samples collected from Lagoon #3. Concentrations of NEtFOSAA were detected from L3-SD8-2023 (MS/MSD), L3-SD10-2023, L3-SD11-2023 and L3-WSD2-2023. Concentrations of PFOS were also detected from L3-SD10-2023 and L3-SD11-2023.

Wetland A

As shown on Page 2 of Table 3, PFAS compounds were non-detect, below laboratory reporting limits from all three surface water samples and four sediment samples collected from Wetland A.

CONCLUSIONS

Sampling of metals in surface water indicates that concentrations for all metals, except arsenic, meet NHDES standards for protection of human health and the environment. Arsenic concentrations in surface water of Lagoon #3 and Wetland A are consistent with previously collected sampling results collected as part of GZA's 2005 Supplemental Site Investigations (SSIs).

The 2023 sampling results of metals in sediment indicates that concentrations of all RCRA-8 metals, except arsenic and chromium III meet the NHDES standards for protection of human health and the environment. Additional discussion is provided below for concentrations of arsenic and chromium III detected in sediment samples during 2023.

Arsenic and Chromium

Arsenic concentrations detected in surface water and sediment are likely background and naturally occurring. Past investigations by others had discovered arsenic at the Property during remedial investigations in connection with the nearby Regis Tannery remedial site. Past investigations had associated the detected arsenic in sediment and water as naturally occurring. GZA's 2005 SSI notes an arsenic background concentration of 21 mg/kg in sediment and states that "*elevated background arsenic concentrations of this magnitude occur in New Hampshire due to the occurrence of arsenic in bedrock.*"

Chromium III (trivalent chromium) detected in Lagoon #3 surface water during March 2023 meets the NHDES Surface Water Standards for Protection of Acute and Chronic Criteria as well as the Criteria for Protection of Human Health. Chromium III is a hardness dependent metal where hardness was detected below 20 mg/L and the criteria was adjusted following guidance found in NHDES Env-Wq 1703.

Chromium III detected in sediment of Lagoon #3 was elevated above the NHDES Soil Remedial Standard (SRS) from two sediment sample locations: L3-SD11-2023 and L3-WSD2-2023. The elevated chromium III concentrations were found along the northern shoreline of Lagoon #3. Due to the sediment chromium III detections greater than SRS, the sediment analytical results are required to be reported to NHDES – Hazardous Waste Remediation Bureau as notification of the exceedance. ENAC will assist Onyx with the Notification requirements following the applicable Contaminated Sites Management rule governed by State of New Hampshire Administrative Rule Env-Or 600.

Based on the March 2023 environmental sampling results, chromium VI (hexavalent chromium) does not persist in sediment or surface water in the Lagoon #3 or Wetland A areas of the Property. Chromium VI concentrations were not detected above laboratory detection limits and remain below applicable SRS and surface water protection criteria regulated by the NHDES.

PFAS

PFAS concentrations were not detected in surface water or sediment from samples collected from Wetland A, and the occasional low concentrations of PFAS compounds detected in some of the samples in Lagoon #3 indicate that there does not appear to be a significant source of PFAS in the area tested during March of 2023. To date, the NHDES has not adopted regulatory standards for the presence of PFAS in surface water or sediment / soil quality. In ENAC's opinion, the NHDES would not likely require further evaluation or investigation based on the March 2023 detected sediment and surface water concentrations of PFAS.

It has been a pleasure to assist you with your needs for environmental consulting.

ENVIRO NORTH AMERICAN CONSULTING, LLC

Todd A. Greenwood, P.G.
President

Attachments: Water Sampling Plan – JBE Figure
Table 1 – Sample Location Coordinates
Table 2 – Surface Water and Sediment Analytical – RCRA 8-Metals, Chromium VI and Total Hardness
Table 3 –Surface Water and Sediment Analytical - PFAS
EAI and PACE Analytical Laboratory Reports

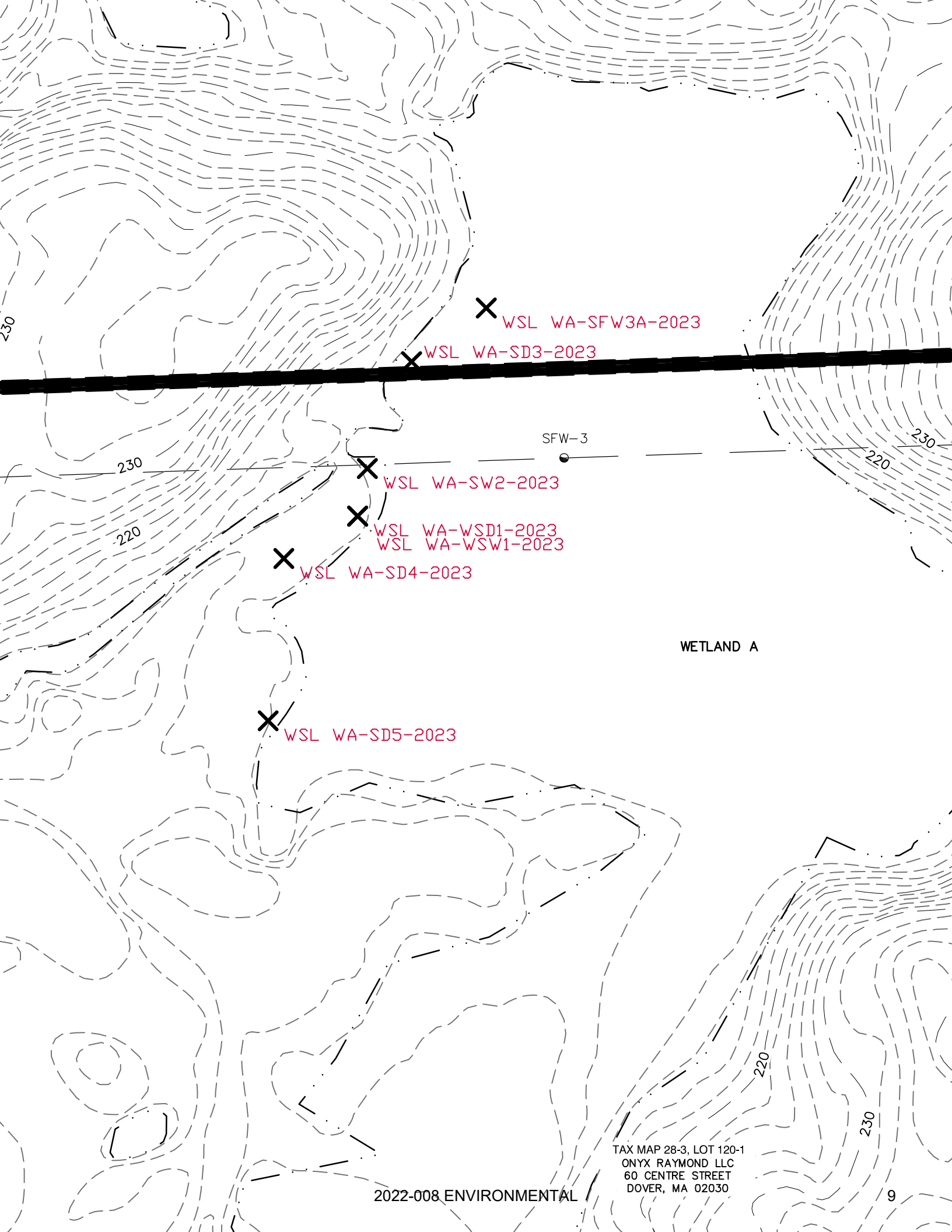

WSL WA-SFW3A-2023
WSL WA-SD3-2023
SFW-3
230
220
WSL WA-SW2-2023
WSL WA-WSD1-2023
WSL WA-WSW1-2023
WSL WA-SD4-2023
WETLAND A
WSL WA-SD5-2023
TAX MAP 28-3, LOT 120-1
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TABLE 1 - SAMPLE LOCATION COORDINATES
LAGOON 3 WETLAND A - MARCH 2023
ONYX RAYMOND
INDUSTRIAL DRIVE, RAYMOND, NH

LAGOON 3 SAMPLE LOCATIONS

SAMPLE LOCATION	LATITUDE	LONGITUDE
L3-SW4-2023	N 43° 01.9702'	W 071° 11.2939'
L3-SW3-2023	N 43° 01.9700'	W 071° 11.2822'
L3-SD11-2023	N 43° 01.9695'	W 071° 11.2559'
L3-SD10-2023	N 43° 01.9670'	W 071° 11.2386'
L3-WSW2-2023	N 43° 01.9622'	W 071° 11.1909'
L3-WSD2-2023	N 43° 01.9622'	W 071° 11.1909'
L3-SD8-2023	N 43° 01.9662'	W 071° 11.1774'
L3-SD9-2023	N 43° 01.9601'	W 071° 11.1823'
LS-SW5-2023	N 43° 01.9855'	W 071° 11.2371'

WETLAND A SAMPLE LOCATIONS

SAMPLE LOCATION	LATITUDE	LONGITUDE
WA-SFW3A-2023	N 43° 02.0107'	W 071° 11.0862'
WA-SD3-2023	N 43° 02.0060'	W 071° 11.0952'
WA-SW2-2023	N 43° 01.9966'	W 071° 11.1006'
WA-WSW1-2023	N 43° 01.9924'	W 071° 11.1018'
WA-WSD1-2023	N 43° 01.9924'	W 071° 11.1018'
WA-SD4-2023	N 43° 01.9887'	W 071° 11.1107'
WA-SD5-2023	N 43° 01.9744'	W 071° 11.1127'

MONITORING WELL LOCATION

SAMPLE LOCATION	LATITUDE	LONGITUDE
GZ-4C	N 43° 01.9750'	W 071° 11.1760'

NOTE: Location coordinates collected in the field by ENAC using handheld GPS on March 16, 2023.

TABLE 2 - LAGOON 3

SURFACE WATER AND SEDIMENT ANALYTICAL -RCRA 8-METALS, CHROMIUM VI, TOTAL HARDNESS
ONYX RAYMOND
INDUSTRIAL DRIVE, RAYMOND, NH

UND	DATE	SURFACE WATER SAMPLE LOCATIONS				NHDES Surface Water Standards Protection of Aquatic Life		NHDES Surface Water Standards Protection of Human Health	SEDIMENT SAMPLE LOCATIONS				
		L3-SW3-2023	L3-SW4-2023	L3-SW5-2023	L3-WSW2-2023	Fresh Acute	Fresh Chronic	Water & Fish Ingestion or MCL	L3-SD8-2023	L3-SD9-2023	L3-SD10-2023	L3-SD11-2023	L3-WSD2-202
		Surface Water presented as µg/L							*Sediment presented as mg/kg*				
						340	***150***	***0.018***					
	03/16/23	**0.74**	**0.84**	**0.54**	**0.77**				**34**	2.7	10	11	**52**
						NSA	***NSA***	***1,000***					
	03/16/23	13	13	37	12				84	28	81	230	170
						0.391	***0.21***	***5 (MCL)***					
	03/16/23	<1	<1	<1	<1				<0.5	<0.5	<0.5	<0.5	1.3
	03/16/23	6.7	6.3	16	4.8	***482.6***	***23.1***	***100 (Total Chromium as MCL)***	41	15	1,000	**6,100**	**3,000**
						10.5	***0.41***	***NSA***					
	03/16/23	<1	<1	<1	<1				33	3	9.9	24	49
						1.4	***0.77***	***0.05***					
	03/16/23	<0.1	<0.1	<0.1	<0.1				0.13	<0.1	<0.1	0.17	0.27
						NSA	***5***	***170***					
	03/16/23	<1	<1	<1	<1				2.8	<0.5	<0.5	0.91	7.8
						0.2	***NSA***	***105***					
	03/16/23	<1	<1	<1	<1				<0.5	<0.5	<0.5	<0.5	0.55
	03/16/23	<10	<10	<10	<10	***16***	***11***	***100 (Total Chromium as MCL)***	<0.67	<0.49	<0.49	<0.56	<3.7
aCO3)						***NSA***	***NSA***	***NSA***					
	03/16/23	15	15	15	15				NA	NA	NA	NA	NA
						NSA	***NSA***	***NSA***					
	03/16/23	NA	NA	NA	NA				6.38	6.55	4.17	4.24	6.06
						NSA	***NSA***	***NSA***					
	03/16/23	NA	NA	NA	NA				-43.8	-1.9	271	322	-129

Notes: 1. Surface water concentrations expressed as Dissolved Metals Concentrations in parts per billion (ppb) equivalent to micrograms per liter (µg/L); Water samples field filtered with 0.45-micron dedicated filters.
2. Sediment concentrations expressed in parts per million (ppm) equivalent to milligrams per kilogram (mg/kg).
3. <0.01 = Below laboratory reporting limits.
4. Surface water concentrations compared to NHDES Water Quality Criteria for Toxic Substances, Table 1703-1, 1703-2A.
5. Sediment concentrations compared to NHDES Soil Remediation Standards (SRS) Table 600-2.
6. NSA = No Standard Available for specific compound.
7. NA = Compound not analyzed for this sample.
8. 3 Equipment Rinsate Blank samples were submitted for laboratory analysis of RCRA-8 Metals and Chromium (VI); concentrations were below laboratory report limits from all 3 samples: EB-Auger, EB-Spade, EB-SW.
9. Redox Potential expressed in millivolts (mV).
10. Fresh Acute and Chronic Criteria adjusted for hardness dependant metals with hardness reported less that 20 as $CaCO_3$

TABLE 2 - WETLAND A

SURFACE WATER AND SEDIMENT ANALYTICAL - RCRA 8-METALS, CHROMIUM VI, TOTAL HARDNESS
ONYX RAYMOND
INDUSTRIAL DRIVE, RAYMOND, NH

COMPOUND	DATE	SURFACE WATER SAMPLE LOCATIONS			NHDES Surface Water Standards Protection of Aquatic Life		NHDES Surface Water Standards Protection of Human Health	SEDIMENT SAMPLE LOCATIONS				NHDE Remed Stand
		WA-WSW1-2023	WA-SW2-2023	WA-SFW3A-2023	Fresh Acute	Fresh Chronic	Water & Fish Ingestion or MCL	WA-WSD1-2023	WA-SD3-2023	WA-SD4-2023	WA-SD5-2023	
Metals		***Surface Water presented as µg/L***						***Sediment presented as mg/kg***				
					340	***150***	***0.018***					***1***
	03/16/23	<0.5	**0.52**	**0.61**				5.3	4.9	1.4	3.2	
					NSA	***NSA***	***1,000***					***1,0***
	03/16/23	9.5	11	15				33	34	35	28	
n[10]					***0.391***	***0.21***	***5 (MCL)***					***3***
	03/16/23	<1	<1	<1				<0.5	<0.5	<0.5	<0.5	
m (III)[10]	03/16/23	<1	<1	2.2	***482.6***	***23.1***	***100 (Total Chromium as MCL)***	24	9.6	93	8.1	***1,0***
					10.5	***0.41***	***NSA***					***40***
	03/16/23	<1	<1	<1				11	86	12	7.4	
					1.4	***0.77***	***0.05***					***7***
	03/16/23	<0.1	<0.1	<0.1				<0.1	<0.1	<0.1	<0.1	
n					***NSA***	***5***	***50***					***18***
	03/16/23	<1	<1	<1				<0.5	<0.5	<0.5	<0.5	
					0.2	***NSA***	***105***					***89***
	03/16/23	<1	<1	<1				<0.5	<0.5	<0.5	<0.5	
m (VI)	03/16/23	<1	<1	<1	***16***	***11***	***100 (Total Chromium as MCL)***	<0.57	<0.51	<0.57	<0.48	***13***
rameters												
rdness (as CaCO3)					***NSA***	***NSA***	***NSA***					***NS***
(mg/L)	03/16/23	9.3	15	15				NA	NA	NA	NA	
°C (unitless)					***NSA***	***NSA***	***NSA***					***NS***
)	03/16/23	NA	NA	NA				5.83	5.49	5.85	6.06	
otential (mV)					***NSA***	***NSA***	***NSA***					***NS***
	03/16/23	NA	NA	NA				75.2	151	113	211	

Notes: 1. Surface water concentrations expressed as Dissolved Metals Concentrations in parts per billion (ppb) equivalent to micrograms per liter (µg/L); Water samples field filtered with 0.45-micron dedicated filters.
2. Sediment concentrations expressed in parts per million (ppm) equivalent to milligrams per kilogram (mg/kg).
3. <0.01 = Below laboratory reporting limits.
4. Surface water concentrations compared to NHDES Water Quality Criteria for Toxic Substances, Table 1703-1, 1703-2A.
5. Sediment concentrations compared to NHDES Soil Remediation Standards (SRS) Table 600-2.
6. NSA = No Standard Available for specific compound.
7. NA = Compound not analyzed for this sample.
8. 3 Equipment Rinsate Blank samples were submitted for laboratory analysis of RCRA-8 Metals and Chromium (VI); concentrations were below laboratory report limits from all 3 samples: EB-Auger, EB-Spade, EB-SW.
9. Redox Potential expressed in millivolts (mV).
10. Fresh Acute and Chronic Criteria adjusted for hardness dependant metals with hardness reported less that 20 as $CaCO_3$

TABLE 3 - LAGOON 3

SUMMARY OF SURFACE WATER AND SEDIMENT ANALYTICAL - PFAS
ONYX RAYMOND
INDUSTRIAL DRIVE, RAYMOND, NH

PFAS COMPOUNDS	SAMPLE DATE	SURFACE WATER SAMPLES				SEDIMENT SAMPLES					QUALITY CONTR	
		L3-SW3-2023	L3-SW4-2023	L3-SW5-2023	L3-WSW2-2023 (MSMSD)	L3-SD8-2023 (MS/MSD)	L3-SD9-2023	L3-SD10-2023	L3-SD-11-2023	L3-WSD2-2023	L3-SD8-2023 FB	L3-
acid (PFBA)	03/16/23	NA	NA	NA	NA	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	
lfonic Acid (PFBS)	03/16/23	<1.8	<1.7	<2.0	<1.9	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	
Acid (PFPeA)	03/16/23	NA	NA	NA	NA	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	
Acid (PFHxA)	03/16/23	<1.8	<1.7	<2.0	<1.9	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	
53B Major)	03/16/23	<1.8	<1.7	<2.0	<1.9	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	
B Minor)	03/16/23	<1.8	<1.7	<2.0	<1.9	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	
uorononanoic acid (ADONA)	03/16/23	<1.8	<1.7	<2.0	<1.9	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	
ne oxide dimer acid (HFPO-DA)	03/16/23	<1.8	<1.7	<2.0	<1.9	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	
ulfonic acid (8:2FTS A)	03/16/23	NA	NA	NA	NA	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	
Acid (PFDA)	03/16/23	<1.8	<1.7	<2.0	<1.9	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	
ic Acid (PFDoA)	03/16/23	<1.8	<1.7	<2.0	<1.9	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	
lfonic acid (PFHpS)	03/16/23	NA	NA	NA	NA	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	
ctanesulfonamido Acetic Acid (NEtFOSAA)	03/16/23	0.79	0.81	<2.0	<1.9	1.2	<0.53	0.64	2.0	9.9	<1.9	
octanesulfonamido Acetic Acid (NMeFOSAA)	03/16/23	<1.8	<1.7	<2.0	<1.9	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	
noic Acid (PFTA)	03/16/23	<1.8	<1.7	<2.0	<1.9	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	
c Acid (PFTrDA)	03/16/23	<1.8	<1.7	<2.0	<1.9	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	
ulfonic acid (4:2FTS A)	03/16/23	NA	NA	NA	NA	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	
fonic acid (PFDS)	03/16/23	NA	NA	NA	NA	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	
fonamide (FOSA)	03/16/23	NA	NA	NA	NA	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	
lfonic acid (PFNS)	03/16/23	NA	NA	NA	NA	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	
sulfonamide (FHxSA)	03/16/23	NA	NA	NA	NA	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	
sulfonamide (FBSA)	03/16/23	NA	NA	NA	NA	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	
fonic acid (PFHxS)	03/16/23	<1.8	<1.7	2.4	<1.9	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	
tanoic acid (PFMPA)	03/16/23	NA	NA	NA	NA	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	
anoic acid (PFMBA)	03/16/23	NA	NA	NA	NA	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	
ulfonic acid (6:2FTS A)	03/16/23	NA	NA	NA	NA	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	
ic acid (PFUnA)	03/16/23	<1.8	<1.7	<2.0	<1.9	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	
xaheptanoic acid (NFDHA)	03/16/23	NA	NA	NA	NA	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	
acid (PFHpA)	03/16/23	<1.8	<1.7	1.0	<1.9	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	
acid (PFOA)	03/16/23	1.6	1.7	6.3	<1.9	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	
fonic acid (PFOS)	03/16/23	7.0	6.7	18	4.4	<0.99	<0.53	3.5	5.7	<4.1	<1.9	
acid (PFNA)	03/16/23	<1.8	<1.7	<2.0	<1.9	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	

ntrations are presented as parts per trillion (ppt) equivalent to nanograms per liter (ng/L).
ions are presented as parts per billion (ppb) equivalent to micrograms per kilogram (ug/kg).
atory reporting limits.
no surface water quality standards or soil remediation standards adopted by NHDES for PFAS.
alyzed by NHDES approved EPA Method 537.1 and isotope dilution.

TABLE 3 - WETLAND A

SUMMARY OF SURFACE WATER AND SEDIMENT ANALYTICAL - PFAS
ONYX RAYMOND
INDUSTRIAL DRIVE, RAYMOND, NH

PFAS COMPOUND LIST	SAMPLE DATE	SURFACE WATER SAMPLES			SEDIMENT SAMPLES			
		WA-WSW1-2023	WA-SW2-2023	WA-SFW3A-2023	WA-WSD1-2023	WA-SD3-2023	WA-SD4-2023	WA-SD5-2023
utanoic acid (PFBA)	03/16/23	NA	NA	NA	<0.68	<0.89	<0.59	<0.59
utane Sulfonic Acid (PFBS)	03/16/23	<1.9	<1.8	<1.9	<0.68	<0.89	<0.59	<0.59
entanoic Acid (PFPeA)	03/16/23	NA	NA	NA	<0.68	<0.89	<0.59	<0.59
exanoic Acid (PFHxA)	03/16/23	<1.9	<1.8	<1.9	<0.68	<0.89	<0.59	<0.59
OUdS (F53B Major)	03/16/23	<1.9	<1.8	<1.9	<0.68	<0.89	<0.59	<0.59
NS (F53B Minor)	03/16/23	<1.9	<1.8	<1.9	<0.68	<0.89	<0.59	<0.59
3H-perfluorononanoic acid (ADONA)	03/16/23	<1.9	<1.8	<1.9	<0.68	<0.89	<0.59	<0.59
propylene oxide dimer acid (HFPO-DA)	03/16/23	<1.9	<1.8	<1.9	<0.68	<0.89	<0.59	<0.59
elomersulfonic acid (8:2FTS A)	03/16/23	NA	NA	NA	<0.68	<0.89	<0.59	<0.59
ecanoic Acid (PFDA)	03/16/23	<1.9	<1.8	<1.9	<0.68	<0.89	<0.59	<0.59
odecanoic Acid (PFDoA)	03/16/23	<1.9	<1.8	<1.9	<0.68	<0.89	<0.59	<0.59
eptanesulfonic acid (PFHpS)	03/16/23	NA	NA	NA	<0.68	<0.89	<0.59	<0.59
fluorooctanesulfonamido Acetic Acid (NEtFOSAA)	03/16/23	<1.9	<1.8	<1.9	<0.68	<0.89	<0.59	<0.59
erfluorooctanesulfonamido Acetic Acid (NMeFOSAA)	03/16/23	<1.9	<1.8	<1.9	<0.68	<0.89	<0.59	<0.59
tradecanoic Acid (PFTA)	03/16/23	<1.9	<1.8	<1.9	<0.68	<0.89	<0.59	<0.59
idecanoic Acid (PFTrDA)	03/16/23	<1.9	<1.8	<1.9	<0.68	<0.89	<0.59	<0.59
elomersulfonic acid (4:2FTS A)	03/16/23	NA	NA	NA	<0.68	<0.89	<0.59	<0.59
ecanesulfonic acid (PFDS)	03/16/23	NA	NA	NA	<0.68	<0.89	<0.59	<0.59
ctanesulfonamide (FOSA)	03/16/23	NA	NA	NA	<0.68	<0.89	<0.59	<0.59
onanesulfonic acid (PFNS)	03/16/23	NA	NA	NA	<0.68	<0.89	<0.59	<0.59
-hexanesulfonamide (FHxSA)	03/16/23	NA	NA	NA	<0.68	<0.89	<0.59	<0.59
-butanesulfonamide (FBSA)	03/16/23	NA	NA	NA	<0.68	<0.89	<0.59	<0.59
exanesulfonic acid (PFHxS)	03/16/23	<1.9	<1.8	<1.9	<0.68	<0.89	<0.59	<0.59
-oxapentanoic acid (PFMPA)	03/16/23	NA	NA	NA	<0.68	<0.89	<0.59	<0.59
-oxahexanoic acid (PFMBA)	03/16/23	NA	NA	NA	<0.68	<0.89	<0.59	<0.59
elomersulfonic acid (6:2FTS A)	03/16/23	NA	NA	NA	<0.68	<0.89	<0.59	<0.59
ndecanoic acid (PFUnA)	03/16/23	<1.9	<1.8	<1.9	<0.68	<0.89	<0.59	<0.59
-3,6-dioxaheptanoic acid (NFDHA)	03/16/23	NA	NA	NA	<0.68	<0.89	<0.59	<0.59
eptanoic acid (PFHpA)	03/16/23	<1.9	<1.8	<1.9	<0.68	<0.89	<0.59	<0.59
ctanoic acid (PFOA)	03/16/23	<1.9	<1.8	<1.9	<0.68	<0.89	<0.59	<0.59
ctanesulfonic acid (PFOS)	03/16/23	<1.9	<1.8	<1.9	<0.68	<0.89	<0.59	<0.59
onanoic acid (PFNA)	03/16/23	<1.9	<1.8	<1.9	<0.68	<0.89	<0.59	<0.59

ater concentrations are presented as parts per trillion (ppt) equivalent to nanograms per liter (ng/L).
oncentrations are presented as parts per billion (ppb) equivalent to micrograms per kilogram (ug/kg).
low laboratory reporting limits.
currently no surface water quality standards or soil remediation standards adopted by NHDES for PFAS.
pounds analyzed by NHDES approved EPA Method 537.1 and isotope dilution.

TABLE 3

SUMMARY OF EQUIPMENT BLANK ANALYTICAL - PFAS
ONYX RAYMOND
INDUSTRIAL DRIVE, RAYMOND, NH

PFAS COMPOUND LIST	SAMPLE DATE	EQUIPMENT BLANK SAMPLES		
		EB-AUGER	EB-SPADE	EB-SW
Perfluorobutanoic acid (PFBA)	03/16/23	<2.0	<1.9	NA
Perfluorobutane Sulfonic Acid (PFBS)	03/16/23	<2.0	<1.9	<1.8
Perfluoropentanoic Acid (PFPeA)	03/16/23	<2.0	<1.9	NA
Perfluorohexanoic Acid (PFHxA)	03/16/23	<2.0	<1.9	<1.8
11C1-PF3OUdS (F53B Major)	03/16/23	<2.0	<1.9	<1.8
9C1-PF3ONS (F53B Minor)	03/16/23	<2.0	<1.9	<1.8
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	03/16/23	<2.0	<1.9	<1.8
Hexafluoropropylene oxide dimer acid (HFPO-DA)	03/16/23	<2.0	<1.9	<1.8
8:2 Fluorotelomersulfonic acid (8:2FTS A)	03/16/23	<2.0	<1.9	NA
Perfluorodecanoic Acid (PFDA)	03/16/23	<2.0	<1.9	<1.8
Perfluorododecanoic Acid (PFDoA)	03/16/23	<2.0	<1.9	<1.8
Perfluoroheptanesulfonic acid (PFHpS)	03/16/23	<2.0	<1.9	NA
N-ethyl Perfluorooctanesulfonamido Acetic Acid (NEtFOSAA)	03/16/23	<2.0	<1.9	<1.8
N-methyl Perfluorooctanesulfonamido Acetic Acid (NMeFOSAA)	03/16/23	<2.0	<1.9	<1.8
Perfluorotetradecanoic Acid (PFTA)	03/16/23	<2.0	<1.9	<1.8
Perfluorotridecanoic Acid (PFTrDA)	03/16/23	<2.0	<1.9	<1.8
4:2 Fluorotelomersulfonic acid (4:2FTS A)	03/16/23	<2.0	<1.9	NA
Perfluorodecanesulfonic acid (PFDS)	03/16/23	<2.0	<1.9	NA
Perfluorooctanesulfonamide (FOSA)	03/16/23	<2.0	<1.9	NA
Perfluorononanesulfonic acid (PFNS)	03/16/23	<2.0	<1.9	NA
Perfluoro-1-hexanesulfonamide (FHxSA)	03/16/23	<2.0	<1.9	NA
Perfluoro-1-butanesulfonamide (FBSA)	03/16/23	<2.0	<1.9	NA
Perfluorohexanesulfonic acid (PFHxS)	03/16/23	<2.0	<1.9	<1.8
Perfluoro-4-oxapentanoic acid (PFMPA)	03/16/23	<2.0	<1.9	NA
Perfluoro-5-oxahexanoic acid (PFMBA)	03/16/23	<2.0	<1.9	NA
6:2 Fluorotelomersulfonic acid (6:2FTS A)	03/16/23	<2.0	<1.9	NA
Perfluoroundecanoic acid (PFUnA)	03/16/23	<2.0	<1.9	<1.8
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	03/16/23	<2.0	<1.9	NA
Perfluoroheptanoic acid (PFHpA)	03/16/23	<2.0	<1.9	<1.8
Perfluorooctanoic acid (PFOA)	03/16/23	<2.0	<1.9	<1.8
Perfluorooctanesulfonic acid (PFOS)	03/16/23	<2.0	<1.9	<1.8
Perfluorononanoic acid (PFNA)	03/16/23	<2.0	<1.9	<1.8

NOTES:

1. Surface water concentrations are presented as parts per trillion (ppt) equivalent to nanograms per liter (ng/L).
2. Sediment concentrations are presented as parts per billion (ppb) equivalent to micrograms per kilogram (ug/kg).
3. <1.8 = Below laboratory reporting limits.
4. There are currently no surface water quality standards or soil remediation standards adopted by NHDES for PFAS.
5. PFAS compounds analyzed by NHDES approved EPA Method 537.1 and isotope dilution.

Eastern Analytical, Inc.
professional laboratory and drilling services

Todd Greenwood
Enviro North American Consulting
PO Box 1075
Alton , NH 03809

Laboratory Report for:

Eastern Analytical, Inc. ID: 257325
Client Identification: Onyx Raymond | 1190-681
Date Received: 3/17/2023

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

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

The following standard abbreviations and conventions apply to all EAI reports:
< : "less than" followed by the reporting limit
> : "greater than" followed by the reporting limit
%R : % Recovery

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

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

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

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

Sincerely,

Lorraine Olashaw, Lab Director — 3.24.23 Date

SAMPLE CONDITIONS PAGE

EAI ID#: **257325**

Client: **Enviro North American Consulting**

Client Designation: **Onyx Raymond | 1190-681**

Temperature upon receipt (°C): 3.1 **Received on ice or cold packs (Yes/No): Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date/Time Sampled		Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
257325.01	EB-Auger	3/17/23	3/16/23	11:00	aqueous		Adheres to Sample Acceptance Policy
257325.02	EB-Spade	3/17/23	3/16/23	11:10	aqueous		Adheres to Sample Acceptance Policy
257325.03	EB-SW	3/17/23	3/16/23	11:15	aqueous		Adheres to Sample Acceptance Policy
257325.04	L3-SW4-2023	3/17/23	3/16/23	11:45	aqueous		Adheres to Sample Acceptance Policy
257325.05	L3-SW3-2023	3/17/23	3/16/23	12:00	aqueous		Adheres to Sample Acceptance Policy
257325.06	L3-SD11-2023	3/17/23	3/16/23	12:30	soil	62.1	Adheres to Sample Acceptance Policy
257325.07	L3-SD10-2023	3/17/23	3/16/23	12:47	soil	73.6	Adheres to Sample Acceptance Policy
257325.08	L3-WSW2-2023	3/17/23	3/16/23	13:15	aqueous		Adheres to Sample Acceptance Policy
257325.09	L3-WSD2-2023	3/17/23	3/16/23	13:30	soil	8.9	Adheres to Sample Acceptance Policy
257325.1	L3-SD8-2023	3/17/23	3/16/23	14:20	soil	45.0	Adheres to Sample Acceptance Policy
257325.11	L3-SD9-2023	3/17/23	3/16/23	14:50	soil	73.0	Adheres to Sample Acceptance Policy
257325.12	L3-SW5-2023	3/17/23	3/16/23	15:25	aqueous		Adheres to Sample Acceptance Policy
257325.13	WA-SFW3A-2023	3/17/23	3/16/23	16:45	aqueous		Adheres to Sample Acceptance Policy
257325.14	WA-SD3-2023	3/17/23	3/16/23	17:20	soil	78.5	Adheres to Sample Acceptance Policy
257325.15	WA-SW2-2023	3/17/23	3/16/23	17:40	aqueous		Adheres to Sample Acceptance Policy
257325.16	WA-WSW1-2023	3/17/23	3/16/23	18:10	aqueous		Adheres to Sample Acceptance Policy
257325.17	WA-WSD1-2023	3/17/23	3/16/23	18:45	soil	64.0	Adheres to Sample Acceptance Policy
257325.18	WA-SD4-2023	3/17/23	3/16/23	19:05	soil	52.7	Adheres to Sample Acceptance Policy
257325.19	WA-SD5-2023	3/17/23	3/16/23	19:20	soil	69.9	Adheres to Sample Acceptance Policy

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

Unless otherwise noted:

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

LABORATORY REPORT

EAI ID#: **257325**

Client: **Enviro North American Consulting**

Client Designation: **Onyx Raymond | 1190-681**

Sample ID:	EB-Auger	EB-Spade	EB-SW					
Lab Sample ID:	257325.01	257325.02	257325.03					
Matrix:	aqueous	aqueous	aqueous					
Date Sampled:	3/16/23	3/16/23	3/16/23	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Date Received:	3/17/23	3/17/23	3/17/23					
Chromium (VI)	< 0.01	< 0.01	< 0.01	AqDis	mg/L	3/17/23	7196A	RJ
Arsenic	< 0.0005	< 0.0005	< 0.0005	AqDis	mg/L	3/17/23	200.8	DS
Barium	< 0.001	< 0.001	< 0.001	AqDis	mg/L	3/17/23	200.8	DS
Cadmium	< 0.001	< 0.001	< 0.001	AqDis	mg/L	3/17/23	200.8	DS
Chromium	< 0.001	< 0.001	< 0.001	AqDis	mg/L	3/17/23	200.8	DS
Lead	< 0.001	< 0.001	< 0.001	AqDis	mg/L	3/17/23	200.8	DS
Mercury	< 0.0001	< 0.0001	< 0.0001	AqDis	mg/L	3/17/23	200.8	DS
Selenium	< 0.001	< 0.001	< 0.001	AqDis	mg/L	3/17/23	200.8	DS
Silver	< 0.001	< 0.001	< 0.001	AqDis	mg/L	3/17/23	200.8	DS

Sample ID:	L3-SD11-2023	L3-SD10 -2023	L3-WSD2 -2023	L3-SD8-2023					
Lab Sample ID:	257325.06	257325.07	257325.09	257325.1					
Matrix:	soil	soil	soil	soil					
Date Sampled:	3/16/23	3/16/23	3/16/23	3/16/23	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Date Received:	3/17/23	3/17/23	3/17/23	3/17/23					
Arsenic	**11**	**10**	**52**	**34**	SolTotDry	mg/kg	3/20/23	6020A	DS
Barium	**230**	**81**	**170**	**84**	SolTotDry	mg/kg	3/20/23	6020A	DS
Cadmium	< 0.5	< 0.5	**1.3**	< 0.5	SolTotDry	mg/kg	3/20/23	6020A	DS
Chromium	**6100**	**1000**	**3000**	**41**	SolTotDry	mg/kg	3/20/23	6020A	DS
Lead	**24**	**9.9**	**49**	**33**	SolTotDry	mg/kg	3/20/23	6020A	DS
Mercury	**0.17**	< 0.1	**0.27**	**0.13**	SolTotDry	mg/kg	3/20/23	6020A	DS
Selenium	**0.91**	< 0.5	**7.8**	**2.8**	SolTotDry	mg/kg	3/20/23	6020A	DS
Silver	< 0.5	< 0.5	**0.55**	< 0.5	SolTotDry	mg/kg	3/20/23	6020A	DS

LABORATORY REPORT

EAI ID#: **257325**

Client: **Enviro North American Consulting**

Client Designation: **Onyx Raymond | 1190-681**

Sample ID:	L3-SD9-2023	WA-SD3 -2023	WA-WSD1 -2023	WA-SD4 -2023					
Lab Sample ID:	257325.11	257325.14	257325.17	257325.18					
Matrix:	soil	soil	soil	soil					
Date Sampled:	3/16/23	3/16/23	3/16/23	3/16/23	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Date Received:	3/17/23	3/17/23	3/17/23	3/17/23					
Arsenic	**2.7**	**4.9**	**5.3**	**1.4**	SolTotDry	mg/kg	3/20/23	6020A	DS
Barium	**28**	**34**	**33**	**35**	SolTotDry	mg/kg	3/20/23	6020A	DS
Cadmium	< 0.5	< 0.5	< 0.5	< 0.5	SolTotDry	mg/kg	3/20/23	6020A	DS
Chromium	**15**	**9.6**	**24**	**93**	SolTotDry	mg/kg	3/20/23	6020A	DS
Lead	**3.0**	**86**	**11**	**12**	SolTotDry	mg/kg	3/20/23	6020A	DS
Mercury	< 0.1	< 0.1	< 0.1	< 0.1	SolTotDry	mg/kg	3/20/23	6020A	DS
Selenium	< 0.5	< 0.5	< 0.5	< 0.5	SolTotDry	mg/kg	3/20/23	6020A	DS
Silver	< 0.5	< 0.5	< 0.5	< 0.5	SolTotDry	mg/kg	3/20/23	6020A	DS

Sample ID:	WA-SD5-2023						
Lab Sample ID:	257325.19						
Matrix:	soil						
Date Sampled:	3/16/23	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**	
Date Received:	3/17/23						
Arsenic	**3.2**	SolTotDry	mg/kg	3/20/23	6020A	DS	
Barium	**28**	SolTotDry	mg/kg	3/20/23	6020A	DS	
Cadmium	< 0.5	SolTotDry	mg/kg	3/20/23	6020A	DS	
Chromium	**8.1**	SolTotDry	mg/kg	3/20/23	6020A	DS	
Lead	**7.4**	SolTotDry	mg/kg	3/20/23	6020A	DS	
Mercury	< 0.1	SolTotDry	mg/kg	3/20/23	6020A	DS	
Selenium	< 0.5	SolTotDry	mg/kg	3/20/23	6020A	DS	
Silver	< 0.5	SolTotDry	mg/kg	3/20/23	6020A	DS	

LABORATORY REPORT

EAI ID#: **257325**

Client: **Enviro North American Consulting**

Client Designation: **Onyx Raymond | 1190-681**

Sample ID:	L3-SW-4-2023	L3-SW3-2023	L3-WSW2-2023	L3-SW5-2023					
Lab Sample ID:	257325.04	257325.05	257325.08	257325.12					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	3/16/23	3/16/23	3/16/23	3/16/23					
Date Received:	3/17/23	3/17/23	3/17/23	3/17/23	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Chromium (VI)	< 0.01	< 0.01	< 0.01	< 0.01	AqDis	mg/L	3/17/23	7196A	RJ
Arsenic	**0.00084**	**0.00074**	**0.00077**	**0.00054**	AqDis	mg/L	3/17/23	200.8	DS
Barium	**0.013**	**0.013**	**0.012**	**0.037**	AqDis	mg/L	3/17/23	200.8	DS
Cadmium	< 0.001	< 0.001	< 0.001	< 0.001	AqDis	mg/L	3/17/23	200.8	DS
Chromium	**0.0063**	**0.0067**	**0.0048**	**0.016**	AqDis	mg/L	3/17/23	200.8	DS
Lead	< 0.001	< 0.001	< 0.001	< 0.001	AqDis	mg/L	3/17/23	200.8	DS
Mercury	< 0.0001	< 0.0001	< 0.0001	< 0.0001	AqDis	mg/L	3/17/23	200.8	DS
Selenium	< 0.001	< 0.001	< 0.001	< 0.001	AqDis	mg/L	3/17/23	200.8	DS
Silver	< 0.001	< 0.001	< 0.001	< 0.001	AqDis	mg/L	3/17/23	200.8	DS
Total Hardness (as CaCO3)	**15**	**15**	**15**	**15**	AqTot	mg/L	3/21/23	200.8	DS

Sample ID:	WA-SFW3A-2023	WA-SW2-2023	WA-WSW1-2023					
Lab Sample ID:	257325.13	257325.15	257325.16					
Matrix:	aqueous	aqueous	aqueous					
Date Sampled:	3/16/23	3/16/23	3/16/23					
Date Received:	3/17/23	3/17/23	3/17/23	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Chromium (VI)	< 0.01	< 0.01	< 0.01	AqDis	mg/L	3/17/23	7196A	RJ
Arsenic	**0.00061**	**0.00052**	< 0.0005	AqDis	mg/L	3/17/23	200.8	DS
Barium	**0.015**	**0.011**	**0.0095**	AqDis	mg/L	3/17/23	200.8	DS
Cadmium	< 0.001	< 0.001	< 0.001	AqDis	mg/L	3/17/23	200.8	DS
Chromium	**0.0022**	< 0.001	< 0.001	AqDis	mg/L	3/17/23	200.8	DS
Lead	< 0.001	< 0.001	< 0.001	AqDis	mg/L	3/17/23	200.8	DS
Mercury	< 0.0001	< 0.0001	< 0.0001	AqDis	mg/L	3/17/23	200.8	DS
Selenium	< 0.001	< 0.001	< 0.001	AqDis	mg/L	3/17/23	200.8	DS
Silver	< 0.001	< 0.001	< 0.001	AqDis	mg/L	3/17/23	200.8	DS
Total Hardness (as CaCO3)	**15**	**15**	**9.3**	AqTot	mg/L	3/21/23	200.8	DS

PHOENIX
Environmental Laboratories, Inc.

Friday, March 24, 2023

Attn: Front Office
Eastern Analytical
51 Antrim Ave
Concord, NH 03301

Project ID: 257325
SDG ID: GCN63401
Sample ID#s: CN63401 - CN63409

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

Phyllis Shiller

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301

PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Sample Id Cross Reference

March 24, 2023

SDG I.D.: GCN63401

Project ID: 257325

Client Id	Lab Id	Matrix
L3-SD11-2023	CN63401	SOIL
L3-SD10-2023	CN63402	SOIL
L3-WSD2-2023	CN63403	SOIL
L3-SD8-2023	CN63404	SOIL
L3-SD9-2023	CN63405	SOIL
WA-SD3-2023	CN63406	SOIL
WA-WSD1-2023	CN63407	SOIL
WA-SD4-2023	CN63408	SOIL
WA-SD5-2023	CN63409	SOIL

PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

March 24, 2023

FOR: Attn: Front Office
Eastern Analytical
51 Antrim Ave
Concord, NH 03301

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/16/23	12:30
Location Code:	EASTANAL-NH	Received by:	CP	03/20/23	13:22
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	59420				

Laboratory Data

SDG ID: GCN63401
Phoenix ID: CN63401

Project ID: 257325
Client ID: L3-SD11-2023

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Percent Solid	60		%		03/20/23	AL	SW846-%Solid	
Chromium, Hex. (SW3060A digestion	< 0.56	0.56	mg/Kg	1	03/22/23	DK	SW7196A	
pH at 25C - Soil	4.24	1.00	pH Units	1	03/20/23 20:33	PK/MW	SW846 9045D	1
Redox Potential	322		mV	1	03/20/23	PK/MW	SM2580B-09	1

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low

Comments:

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

Hexavalent Chromium:
This sample is in a reducing state.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
March 24, 2023
Reviewed and Released by: Ethan Lee, Project Manager

PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

March 24, 2023

FOR: Attn: Front Office
Eastern Analytical
51 Antrim Ave
Concord, NH 03301

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/16/23	12:47
Location Code:	EASTANAL-NH	Received by:	CP	03/20/23	13:22
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	59420				

Laboratory Data

SDG ID: GCN63401
Phoenix ID: CN63402

Project ID: 257325
Client ID: L3-SD10-2023

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Percent Solid	73		%		03/20/23	AL	SW846-%Solid	
Chromium, Hex. (SW3060A digestion	< 0.49	0.49	mg/Kg	1	03/22/23	DK	SW7196A	
pH at 25C - Soil	4.17	1.00	pH Units	1	03/20/23 20:33	PK/MW	SW846 9045D	1
Redox Potential	271		mV	1	03/20/23	PK/MW	SM2580B-09	1

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low

Comments:

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

Hexavalent Chromium:
This sample is in a reducing state.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
March 24, 2023
Reviewed and Released by: Ethan Lee, Project Manager

PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

March 24, 2023

FOR: Attn: Front Office
Eastern Analytical
51 Antrim Ave
Concord, NH 03301

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/16/23	13:30
Location Code:	EASTANAL-NH	Received by:	CP	03/20/23	13:22
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	59420				

Laboratory Data

SDG ID: GCN63401
Phoenix ID: CN63403

Project ID: 257325
Client ID: L3-WSD2-2023

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Percent Solid	9.7		%		03/20/23	AL	SW846-%Solid	
Chromium, Hex. (SW3060A digestion	< 3.7	3.7	mg/Kg	1	03/22/23	DK	SW7196A	
pH at 25C - Soil	6.06	1.00	pH Units	1	03/20/23 20:33	PK	SW846 9045D	1
Redox Potential	-129		mV	1	03/20/23	PK	SM2580B-09	1

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low

Comments:

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

Hexavalent Chromium:
This sample is in a reducing state.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
March 24, 2023
Reviewed and Released by: Ethan Lee, Project Manager

PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

March 24, 2023

FOR: Attn: Front Office
Eastern Analytical
51 Antrim Ave
Concord, NH 03301

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/16/23	14:20
Location Code:	EASTANAL-NH	Received by:	CP	03/20/23	13:22
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	59420				

Laboratory Data

SDG ID: GCN63401
Phoenix ID: CN63404

Project ID: 257325
Client ID: L3-SD8-2023

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Percent Solid	53		%		03/20/23	AL	SW846-%Solid	
Chromium, Hex. (SW3060A digestion	< 0.67	0.67	mg/Kg	1	03/22/23	DK	SW7196A	
pH at 25C - Soil	6.38	1.00	pH Units	1	03/20/23 20:33	PK	SW846 9045D	1
Redox Potential	-43.8		mV	1	03/20/23	PK	SM2580B-09	1

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low

Comments:

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

Hexavalent Chromium:
This sample is in a reducing state.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
March 24, 2023
Reviewed and Released by: Ethan Lee, Project Manager

PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

March 24, 2023

FOR: Attn: Front Office
Eastern Analytical
51 Antrim Ave
Concord, NH 03301

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/16/23	14:50
Location Code:	EASTANAL-NH	Received by:	CP	03/20/23	13:22
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	59420				

Laboratory Data

SDG ID: GCN63401
Phoenix ID: CN63405

Project ID: 257325
Client ID: L3-SD9-2023

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Percent Solid	80		%		03/20/23	AL	SW846-%Solid	
Chromium, Hex. (SW3060A digestion	< 0.49	0.49	mg/Kg	1	03/22/23	DK	SW7196A	
pH at 25C - Soil	6.55	1.00	pH Units	1	03/20/23 20:33	PK	SW846 9045D	1
Redox Potential	-1.9		mV	1	03/20/23	PK	SM2580B-09	1

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low

Comments:

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

Hexavalent Chromium:
This sample is in a reducing state.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
March 24, 2023
Reviewed and Released by: Ethan Lee, Project Manager

PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

March 24, 2023

FOR: Attn: Front Office
Eastern Analytical
51 Antrim Ave
Concord, NH 03301

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/16/23	17:20
Location Code:	EASTANAL-NH	Received by:	CP	03/20/23	13:22
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	59420				

Laboratory Data

SDG ID: GCN63401
Phoenix ID: CN63406

Project ID: 257325
Client ID: WA-SD3-2023

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Percent Solid	69		%		03/20/23	AL	SW846-%Solid	
Chromium, Hex. (SW3060A digestion	< 0.51	0.51	mg/Kg	1	03/22/23	DK	SW7196A	
pH at 25C - Soil	5.49	1.00	pH Units	1	03/20/23 20:33	PK	SW846 9045D	1
Redox Potential	151		mV	1	03/20/23	PK	SM2580B-09	1

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low

Comments:

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

Hexavalent Chromium:
This sample is in a reducing state.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
March 24, 2023
Reviewed and Released by: Ethan Lee, Project Manager

PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac
NY # 11301

Analysis Report

March 24, 2023

FOR: Attn: Front Office
Eastern Analytical
51 Antrim Ave
Concord, NH 03301

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/16/23	18:45
Location Code:	EASTANAL-NH	Received by:	CP	03/20/23	13:22
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	59420				

Laboratory Data

SDG ID: GCN63401
Phoenix ID: CN63407

Project ID: 257325
Client ID: WA-WSD1-2023

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Percent Solid	63		%		03/20/23	AL	SW846-%Solid	
Chromium, Hex. (SW3060A digestion	< 0.57	0.57	mg/Kg	1	03/22/23	DK	SW7196A	
pH at 25C - Soil	5.83	1.00	pH Units	1	03/20/23 20:33	PK	SW846 9045D	1
Redox Potential	75.2		mV	1	03/20/23	PK	SM2580B-09	1

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low

Comments:

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

Hexavalent Chromium:
This sample is in a reducing state.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
March 24, 2023
Reviewed and Released by: Ethan Lee, Project Manager

PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

March 24, 2023

FOR: Attn: Front Office
Eastern Analytical
51 Antrim Ave
Concord, NH 03301

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/16/23	19:05
Location Code:	EASTANAL-NH	Received by:	CP	03/20/23	13:22
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	59420				

Laboratory Data

SDG ID: GCN63401
Phoenix ID: CN63408

Project ID: 257325
Client ID: WA-SD4-2023

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Percent Solid	66		%		03/20/23	AL	SW846-%Solid	
Chromium, Hex. (SW3060A digestion	< 0.57	0.57	mg/Kg	1	03/22/23	DK	SW7196A	
pH at 25C - Soil	5.85	1.00	pH Units	1	03/20/23 20:33	PK	SW846 9045D	1
Redox Potential	113		mV	1	03/20/23	PK	SM2580B-09	1

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low

Comments:

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

Hexavalent Chromium:
This sample is in a reducing state.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
March 24, 2023
Reviewed and Released by: Ethan Lee, Project Manager

PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

March 24, 2023

FOR: Attn: Front Office
Eastern Analytical
51 Antrim Ave
Concord, NH 03301

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/16/23	19:20
Location Code:	EASTANAL-NH	Received by:	CP	03/20/23	13:22
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	59420				

Laboratory Data

SDG ID: GCN63401
Phoenix ID: CN63409

Project ID: 257325
Client ID: WA-SD5-2023

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Percent Solid	81		%		03/20/23	AL	SW846-%Solid	
Chromium, Hex. (SW3060A digestion	< 0.48	0.48	mg/Kg	1	03/22/23	DK	SW7196A	
pH at 25C - Soil	6.06	1.00	pH Units	1	03/20/23 20:33	PK	SW846 9045D	1
Redox Potential	211		mV	1	03/20/23	PK	SM2580B-09	1

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low

Comments:

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

Hexavalent Chromium:
This sample is in a reducing state.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
March 24, 2023
Reviewed and Released by: Ethan Lee, Project Manager

Ver 1

PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

QA/QC Report

March 24, 2023

QA/QC Data

SDG I.D.: GCN63401

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 669162 (mg/kg), QC Sample No: CN64646 40X (CN63401, CN63402, CN63403, CN63404, CN63405, CN63406, CN63407, CN63408, CN63409)														
Chromium, Hexavalent - Soil														
Chromium, Hexavalent	BRL	0.40	<0.42	<0.41	NC	96.2						85 - 115	30	
Chromium, Hexavalent (Ins)						97.4			85.4			85 - 115	30	
Chromium, Hexavalent (Sol)						90.9			79.9			85 - 115	30	m

Comment:

The QC sample is in a reducing state, acceptance criteria are not applicable for samples in a reducing state. The soluble spike was analyzed twice with similar recoveries.

m = This parameter is outside laboratory MS/MSD specified recovery limits.

PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

QA/QC Report

March 24, 2023

QA/QC Data

SDG I.D.: GCN63401

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 668930 (PH), QC Sample No: CN63297 (CN63401, CN63402, CN63403, CN63404, CN63405, CN63406, CN63407, CN63408, CN63409)													
pH			7.75	7.74	0.10	101						85 - 115	20

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
March 24, 2023

h 24, 2023
None
NH

Sample Criteria Exceedances Report

GCN63401 - EASTANAL-NH

Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria

to Display ***

oratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts
ure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the
's responsibility to determine appropriate compliance.

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac
NY # 11301

Analysis Comments

March 24, 2023 SDG I.D.: GCN63401

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report: None.

HAIN-OF-CUSTODY RECORD

Eastern Analytical,
professional laboratory and drilling se

EAI ID# 257325 Page

except 1.2

	Date Sampled	Matrix	aParameters	Sample Notes
-2023	3/16/2023 12:30	aqueous	Subcontract - Hexavalent Chromium Soil 3060/7196	63401
-2023	3/16/2023 12:47	aqueous	Subcontract - Hexavalent Chromium Soil 3060/7196	63402
2-2023	3/16/2023 13:30	aqueous	Subcontract - Hexavalent Chromium Soil 3060/7196	63403
2023	3/16/2023 14:20	aqueous	Subcontract - Hexavalent Chromium Soil 3060/7196	63404

257325 Project State: NH

Project ID:

ny Phoenix Environmental Labs
ss 587 East Middle Turnpike
ss Manchester , CT 06040
t #
e # (860) 645-1102

Results Needed: Preferred Date: Standard

RUSH Due Date: _____

QC Deliverables

☒ A ☐ A+ ☐ B ☐ B+ ☐ C ☐ MA MCP

Notes about project:

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

PO #: 59420 EAI ID# 257325

Data Deliverable (circle)

Excel NH EMD EQuIS ME EGAD

Call prior to analyzing, if RUSH charges will be applied

Samples Collected by: _____ 3/20/23 7:50

Relinquished by	Date/Time	Received by
	3/20/23 11:10	
Relinquished by	Date/Time	Received by
		3/23

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

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

HAIN-OF-CUSTODY RECORD

Eastern Analytical, I
professional laboratory and drilling se

wap 1.2 EAI ID# 257325 Page 2

	Date Sampled	Matrix	aParameters	Sample Notes
023	3/16/2023 14:50	aqueous	Subcontract - Hexavalent Chromium Soil 3060/7196	63405
-2023	3/16/2023 17:20	aqueous	Subcontract - Hexavalent Chromium Soil 3060/7196	63406
01-2023	3/16/2023 18:45	aqueous	Subcontract - Hexavalent Chromium Soil 3060/7196	63407
-2023	3/16/2023 19:05	aqueous	Subcontract - Hexavalent Chromium Soil 3060/7196	63408

257325 **Project State: NH**

Project ID:

ny Phoenix Environmental Labs
ss 587 East Middle Turnpike
ss Manchester , CT 06040
t #
e # (860) 645-1102

Results Needed: **Preferred Date: Standard**

RUSH Due Date: _____

QC Deliverables

☒ A ☐ A+ ☐ B ☐ B+ ☐ C ☐ MA MCP

Notes about project:

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

PO #:59420 **EAI ID# 257325**

Data Deliverable (circle)

Excel NH EMD EQuIS ME EGAD

Call prior to analyzing, if RUSH charges will be applied

Samples Collected by: _____

Relinquished by	Date/Time	Received by
	3/20/23 7:50	
	3/20/23 11:10	
		3/20/23

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

HAIN-OF-CUSTODY RECORD

Eastern Analytical, I
professional laboratory and drilling se

EAI ID# 257325 Page

	Date Sampled	Matrix	aParameters	Sample Notes
-2023	3/16/2023 19:20	aqueous	Subcontract - Hexavalent Chromium Soil 3060/7196	

wsip 1.2.

63409

 # 257325 **Project State: NH**

Project ID:

ny Phoenix Environmental Labs
ss 587 East Middle Turnpike
ss Manchester , CT 06040
t #
e # (860) 645-1102

Results Needed: Preferred Date: Standard

RUSH Due Date: _____

QC Deliverables

☒ A ☐ A+ ☐ B ☐ B+ ☐ C ☐ MA MCP

Notes about project:

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

PO #:59420 **EAI ID# 257325**

Data Deliverable (circle)

Excel NH EMD EQuIS ME EGAD

Call prior to analyzing, if RUSH charges will be applied

Samples Collected by: _____

Relinquished by	Date/Time	Received by
	3/20/23 7:45	
	3/20/23 10:10	

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

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

2

CHAIN-OF-CUSTODY RECORD

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

257325

I.D.	SAMPLING DATE/TIME *IF COMPOSITE, INDICATE BOTH START & FINISH DATE/TIME	MATRIX (SEE BELOW)	GRAB/*COMPOSITE	VOC: 524.2 MTBE ONLY; 524.2 VTICs; 8260 624 1, 4 DIOXANE; 8021; 8015 GRO; MAVPH	SVOC: 8270 625 ABN PAH EDB DBCP; TPHB100 LI L2; 8015 DRO MAEPH; PEST 608 PEST 8081 PCB 608 PCB 8082; OIL & GREASE 1664 TPH 1664	TCLP: TCLP 131 ABN METALS VOC PEST HERB	INORGANICS: BOD COD TS TSS TDS; Br Cl F SO4 NO2 NO2 NO3; TKN NH3 TN T. PHOS. O. PHOS.; pH T. RES. CHLORINE SPEC. CON. T. ALK.; COD PHENOLS TOC DOC; TOTAL CYANIDE TOTAL SULFIDE; REACTIVE CYANIDE REACTIVE SULFIDE FLASHPOINT IGNITABILITY	MICRO: TOTAL COLIFORM E. COLI FECAL COLIFORM; ENTEROCOCCI HETEROTROPHIC PLATE COUNT	METALS: DISSOLVED METALS (LIST BELOW); TOTAL METALS (LIST BELOW)	OTHER: HEX CHROMIUM; TOTAL HARDNESS; # OF CONTAINERS
ER	3/16/23 11:00	DI	G						✓	1
DE	3/16/23 11:10	DI	G						✓	2
W	3/16/23 11:15	DI	G						✓	2
-2023	3/16/23 11:45	SW	G						✓	3
3-2023	3/16/23 12:00	SW	G						✓	3
-2023	3/16/23 12:30	S	G						✓	2
-2023	3/16/23 12:47	S	G						✓	2
-2023	3/16/23 13:15	SW	G						✓	3
2-2023	3/16/23 13:30	S	G						✓	2
-2023	3/16/23 14:20	S	G						✓	2

W-GROUND WATER; SW-SURFACE WATER; DW-DRINKING WATER; ER
HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH

TODD GREENWOOD
AC
x 1075
STATE: NH ZIP: 03809
75-8100 EXT.:
ocast.net denawunsch@metrocast.net
YX RAYMOND
-081
A ME VT OTHER:
NPDES: RGP POTW STORMWATER OR
IL FUND, BROWNFIELD OR (OTHER):
PO #:

QA/QC REPORTING
A B C
MA MCP

TEMP. 3.1 °C
ICE? (YES) NO

REPORTING OPTIONS
PRELIMS: YES OR NO

ELECTRONIC OPTIONS
PDF EXCEL
EQUIS
OTHER

TURN AROUND TIME
24hr* 48hr*
3-4 Days*
5 Day 7 Day
10 Day
*Pre-approval Required

SAMPLER(S): DENA J. WUNSCH

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
Dena J Wunsch	3/16/23	21:00	EAI FRIDGE
Sayer	3/17/23	0800	
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:

METALS: (8 RCRA) 13 PP
OTHER METALS: HEX, CHROM
SAMPLES FIELD FILTERED? ☒
NOTES: (IE: SPECIAL DETECTION LIMITS, BILLI
FIELD FILTERED FOR RCRA 8 M AND HEX CH
TOTAL HARDNESS FIELD FILT
SITE HISTORY: TANNERY
SUSPECTED CONTAMINATION: RCR
FIELD READINGS: NA

n Analytical, Inc.
aboratory and drilling services
51 Antrim Avenue | CONCORD, NH 03301 | TEL: 603.228.0525 | 1.800.287.0525 | E-MAIL: CUSTOMERSERVICE@EASTERNANALYTICAL.COM | WWW.EASTERN

(WHITE: Lab Copy GREEN: Customer Copy)

CHAIN-OF-CUSTODY RECORD

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

25732

I.D.	SAMPLING DATE/TIME *IF COMPOSITE, INDICATE BOTH START & FINISH DATE/TIME	MATRIX (SEE BELOW)	GRAB/*COMPOSITE	VOC: 524.2 NTBE ONLY; 524.2 VTICs; 8260 624 1,4 DIOXANE; 8021; 8015 GRO MAVPH	SVOC: 8270 625 ABN PAH EDB DBCP; TPH8100 LI L2; 8015 DRO MAEPH; PEST 608 PCB 608 PEST 8081 PCB 8082; OIL & GREASE 1664 TPH 1664	TCLP: TCLP 1311 ABN METALS VOC PEST HERB	INORGANICS: BOD CBOD; TS TSS TDS; Br Cl F SO_4 NO_2 NO_3 NO_2; TKN NH_3 TN T. PHOS. O. PHOS.; pH SPEC. CON. T. RES. CHLORINE T. ALK.; COD PHENOLS TOC DOC; TOTAL CYANIDE TOTAL SULFIDE; REACTIVE CYANIDE REACTIVE SULFIDE FLASHPOINT IGNITABILITY	MICRO: TOTAL COLIFORM E. COLI FECAL COLIFORM; ENTEROCOCCI HETEROTROPHIC PLATE COUNT	METALS: DISSOLVED METALS (LIST BELOW); TOTAL METALS (LIST BELOW)	OTHER: HEX CHROMIUM; TOTAL HARDNESS; # OF CONTAINERS
2023	3/16/23 14:50	S	G						✓	✓
-2023	3/16/23 15:25	SW	G						✓	✓ ✓
13A-2023	3/16/23 16:45	SW	G						✓	✓ ✓
-2023	3/16/23 17:20	S	G						✓	✓
-2023	3/16/23 17:40	SW	G						✓	✓ ✓
1-2023	3/16/23 18:10	SW	G						✓	✓ ✓
1-2023	3/16/23 18:45	S	G						✓	✓
-2023	3/16/23 19:05	S	G						✓	✓
-2023	3/16/23 19:20	S	G						✓	✓

GW-GROUND WATER; SW-SURFACE WATER; DW-DRINKING WATER; TER
-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH

TODD GREENWOOD

ME — STATE: ZIP:

EXT.:

A ME VT OTHER:

NPDES: RGP POTW STORMWATER OR

OIL FUND, BROWNFIELD OR OTHER:

PO #:

QA/QC REPORTING

A B C

MA MCP

TEMP. 3.1 °C

ICE? (YES) NO

REPORTING OPTIONS

PRELIMS: YES OR NO

ELECTRONIC OPTIONS

PDF EXCEL

EQUIS

OTHER

TURN AROUND TIME

24hr* 48hr*

3-4 Days*

5 Day 7 Day

10 Day

*Pre-approval Required

SAMPLER(S): DENA J. WUNSCH

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
Dena J. Wunsch	3/16/23	21:00	EA1 FRIDGE
Fayer	3/17/23	0800	
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:

METALS: (8 RCRA) 13 PP

OTHER METALS:

SAMPLES FIELD FILTERED?

NOTES: (IE: SPECIAL DETECTION LIMITS, BILL

FIELD FILTE
FOR RCRA 8
AND HEX CH
TOTAL HARDNESS N

SITE HISTORY: FIELD FILTER
TANNERY

SUSPECTED CONTAMINATION: RCRA

FIELD READINGS: N/A

n Analytical, Inc.
laboratory and drilling services
51 Antrim Avenue | CONCORD, NH 03301 | TEL: 603.228.0525 | 1.800.287.0525 | E-MAIL: CUSTOMERSERVICE@EASTERNANALYTICAL.COM | WWW.EASTER

(WHITE: Lab Copy GREEN: Customer Copy)

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

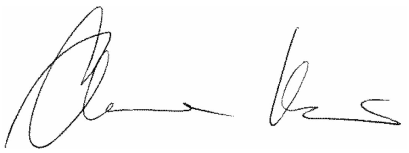
April 6, 2023

Todd Greenwood
Environmental N. American Consulting
Po Box 1075
Alton, NH 03809

Project Location: Raymond, NH
Client Job Number:
Project Number: 1190-681
Laboratory Work Order Number: 23C2156

Enclosed are results of analyses for samples as received by the laboratory on March 20, 2023. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Albania Hernandez
Project Manager

Table of Contents

Table of Contents (continued)

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Environmental N. American Consulting
Po Box 1075
Alton, NH 03809
ATTN: Todd Greenwood

REPORT DATE: 4/6/2023

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 1190-681

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 23C2156

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Raymond, NH

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
EB-AUGER	23C2156-01	Equipment Blank Water		SOP-454 PFAS	
EB-SPADE	23C2156-02	Equipment Blank Water		SOP-454 PFAS	
EB-SW	23C2156-03	Equipment Blank Water		EPA 537.1	
L3-SW4-2023	23C2156-04	Surface Water		EPA 537.1	
L3-SW3-2023	23C2156-05	Surface Water		EPA 537.1	
L3-SD11-2023	23C2156-06	Sediment		SM 2540G	
				SOP-466 PFAS	
L3-SD10-2023	23C2156-07	Sediment		SM 2540G	
				SOP-466 PFAS	
L3-WSW2-2023 (MSMSD)	23C2156-08	Surface Water		EPA 537.1	
L3-WSW2-2023 FRB	23C2156-09	Field Blank		EPA 537.1	
L3-WSD2-2023	23C2156-10	Sediment		SM 2540G	
				SOP-466 PFAS	
L3-SD8-2023 (MS/MSD)	23C2156-11	Sediment		SM 2540G	
				SOP-466 PFAS	
L3-SD8-2023 FB	23C2156-12	Field Blank		SOP-454 PFAS	
L3-SD9-2023	23C2156-13	Sediment		SM 2540G	
				SOP-466 PFAS	
L3-SW5-2023	23C2156-14	Surface Water		EPA 537.1	
WA-SFW3A-2023	23C2156-15	Surface Water		EPA 537.1	
WA-SD3-2023	23C2156-16	Sediment		SM 2540G	
				SOP-466 PFAS	
WA-SW2-2023	23C2156-17	Surface Water		EPA 537.1	
WA-WSW1-2023	23C2156-18	Surface Water		EPA 537.1	
WA-WSD1-2023	23C2156-19	Sediment		SM 2540G	
				SOP-466 PFAS	
WA-SD4-2023	23C2156-20	Sediment		SM 2540G	
				SOP-466 PFAS	
WA-SD5-2023	23C2156-21	Sediment		SM 2540G	
				SOP-466 PFAS	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

REVISON: 4/6/23 results for 537.1 added to report.

EPA 537.1

Qualifications:

MS-22

Either matrix spike or MS duplicate is outside of control limits, but the other is within limits. RPD between the two MS/MSD results is within method specified criteria.

Analyte & Samples(s) Qualified:

Hexafluoropropylene oxide dimer acid (HFPO-DA)

B334725-MSD1

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Meghan E. Kelley
Reporting Specialist

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Raymond, NH | Sample Description: | Work Order: 23C2156

Date Received: 3/20/2023

Field Sample #: EB-AUGER | Sampled: 3/16/2023 11:20

Sample ID: 23C2156-01

Sample Matrix: Equipment Blank Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	ND	2.0		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:36	RRB
Perfluorobutanesulfonic acid (PFBS)	ND	2.0		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:36	RRB
Perfluoropentanoic acid (PFPeA)	ND	2.0		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:36	RRB
Perfluorohexanoic acid (PFHxA)	ND	2.0		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:36	RRB
11Cl-PF3OUdS (F53B Major)	ND	2.0		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:36	RRB
9Cl-PF3ONS (F53B Minor)	ND	2.0		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:36	RRB
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:36	RRB
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:36	RRB
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	2.0		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:36	RRB
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:36	RRB
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:36	RRB
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	2.0		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:36	RRB
Perfluoroheptanesulfonic acid (PFHpS)	ND	2.0		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:36	RRB
N-EtFOSAA (NEtFOSAA)	ND	2.0		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:36	RRB
N-MeFOSAA (NMeFOSAA)	ND	2.0		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:36	RRB
Perfluorotetradecanoic acid (PFTA)	ND	2.0		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:36	RRB
Perfluorotridecanoic acid (PFTrDA)	ND	2.0		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:36	RRB
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	2.0		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:36	RRB
Perfluorodecanesulfonic acid (PFDS)	ND	2.0		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:36	RRB
Perfluorooctanesulfonamide (FOSA)	ND	2.0		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:36	RRB
Perfluorononanesulfonic acid (PFNS)	ND	2.0		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:36	RRB
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	2.0		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:36	RRB
Perfluoro-1-butanesulfonamide (FBSA)	ND	2.0		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:36	RRB
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:36	RRB
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	2.0		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:36	RRB
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	2.0		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:36	RRB
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	2.0		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:36	RRB
Perfluoropetanesulfonic acid (PFPeS)	ND	2.0		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:36	RRB
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:36	RRB
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	2.0		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:36	RRB
Perfluoroheptanoic acid (PFHpA)	ND	2.0		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:36	RRB
Perfluorooctanoic acid (PFOA)	ND	2.0		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:36	RRB
Perfluorooctanesulfonic acid (PFOS)	ND	2.0		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:36	RRB
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:36	RRB

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Raymond, NH | Sample Description: | Work Order: 23C2156

Date Received: 3/20/2023

Field Sample #: EB-SPADE | Sampled: 3/16/2023 11:25

Sample ID: 23C2156-02

Sample Matrix: Equipment Blank Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:43	RRB
Perfluorobutanesulfonic acid (PFBS)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:43	RRB
Perfluoropentanoic acid (PFPeA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:43	RRB
Perfluorohexanoic acid (PFHxA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:43	RRB
11Cl-PF3OUdS (F53B Major)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:43	RRB
9Cl-PF3ONS (F53B Minor)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:43	RRB
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:43	RRB
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:43	RRB
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:43	RRB
Perfluorodecanoic acid (PFDA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:43	RRB
Perfluorododecanoic acid (PFDoA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:43	RRB
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:43	RRB
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:43	RRB
N-EtFOSAA (NEtFOSAA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:43	RRB
N-MeFOSAA (NMeFOSAA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:43	RRB
Perfluorotetradecanoic acid (PFTA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:43	RRB
Perfluorotridecanoic acid (PFTrDA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:43	RRB
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:43	RRB
Perfluorodecanesulfonic acid (PFDS)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:43	RRB
Perfluorooctanesulfonamide (FOSA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:43	RRB
Perfluorononanesulfonic acid (PFNS)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:43	RRB
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:43	RRB
Perfluoro-1-butanesulfonamide (FBSA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:43	RRB
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:43	RRB
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:43	RRB
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:43	RRB
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:43	RRB
Perfluoropetanesulfonic acid (PFPeS)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:43	RRB
Perfluoroundecanoic acid (PFUnA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:43	RRB
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:43	RRB
Perfluoroheptanoic acid (PFHpA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:43	RRB
Perfluorooctanoic acid (PFOA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:43	RRB
Perfluorooctanesulfonic acid (PFOS)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:43	RRB
Perfluorononanoic acid (PFNA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:43	RRB

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Raymond, NH | Sample Description: | Work Order: 23C2156

Date Received: 3/20/2023

Field Sample #: EB-SW | Sampled: 3/16/2023 11:30

Sample ID: 23C2156-03

Sample Matrix: Equipment Blank Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	1.8	0.70	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:09	JR2
Perfluorohexanoic acid (PFHxA)	ND	1.8	0.83	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:09	JR2
Perfluorohexanesulfonic acid (PFHxS)	ND	1.8	0.80	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:09	JR2
Perfluoroheptanoic acid (PFHpA)	ND	1.8	0.88	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:09	JR2
Perfluorooctanoic acid (PFOA)	ND	1.8	0.92	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:09	JR2
Perfluorooctanesulfonic acid (PFOS)	ND	1.8	0.67	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:09	JR2
Perfluorononanoic acid (PFNA)	ND	1.8	0.82	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:09	JR2
Perfluorodecanoic acid (PFDA)	ND	1.8	0.85	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:09	JR2
N-EtFOSAA (NEtFOSAA)	ND	1.8	0.59	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:09	JR2
Perfluoroundecanoic acid (PFUnA)	ND	1.8	0.67	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:09	JR2
N-MeFOSAA (NMeFOSAA)	ND	1.8	0.66	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:09	JR2
Perfluorododecanoic acid (PFDoA)	ND	1.8	0.64	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:09	JR2
Perfluorotridecanoic acid (PFTrDA)	ND	1.8	0.65	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:09	JR2
Perfluorotetradecanoic acid (PFTA)	ND	1.8	0.74	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:09	JR2
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.8	1.1	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:09	JR2
11Cl-PF3OUdS (F53B Major)	ND	1.8	0.59	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:09	JR2
9Cl-PF3ONS (F53B Minor)	ND	1.8	0.72	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:09	JR2
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.8	0.78	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:09	JR2

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	100	70-130		3/22/23 10:09
M3HFPO-DA	96.8	70-130		3/22/23 10:09
13C-PFDA	100	70-130		3/22/23 10:09
D5-NEtFOSAA	94.1	70-130		3/22/23 10:09

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Raymond, NH | Sample Description: | Work Order: 23C2156

Date Received: 3/20/2023

Field Sample #: L3-SW4-2023 | Sampled: 3/16/2023 11:45

Sample ID: 23C2156-04

Sample Matrix: Surface Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	1.7	0.68	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:16	JR2
Perfluorohexanoic acid (PFHxA)	ND	1.7	0.81	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:16	JR2
Perfluorohexanesulfonic acid (PFHxS)	ND	1.7	0.77	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:16	JR2
Perfluoroheptanoic acid (PFHpA)	ND	1.7	0.86	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:16	JR2
Perfluorooctanoic acid (PFOA)	1.7	1.7	0.90	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:16	JR2
Perfluorooctanesulfonic acid (PFOS)	6.7	1.7	0.66	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:16	JR2
Perfluorononanoic acid (PFNA)	ND	1.7	0.80	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:16	JR2
Perfluorodecanoic acid (PFDA)	ND	1.7	0.83	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:16	JR2
N-EtFOSAA (NEtFOSAA)	0.81	1.7	0.57	ng/L	1	J	EPA 537.1	3/21/23	3/22/23 10:16	JR2
Perfluoroundecanoic acid (PFUnA)	ND	1.7	0.66	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:16	JR2
N-MeFOSAA (NMeFOSAA)	ND	1.7	0.64	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:16	JR2
Perfluorododecanoic acid (PFDoA)	ND	1.7	0.62	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:16	JR2
Perfluorotridecanoic acid (PFTrDA)	ND	1.7	0.63	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:16	JR2
Perfluorotetradecanoic acid (PFTA)	ND	1.7	0.72	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:16	JR2
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.7	1.1	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:16	JR2
11Cl-PF3OUdS (F53B Major)	ND	1.7	0.57	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:16	JR2
9Cl-PF3ONS (F53B Minor)	ND	1.7	0.71	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:16	JR2
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.7	0.76	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:16	JR2

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	78.1	70-130		3/22/23 10:16
M3HFPO-DA	72.5	70-130		3/22/23 10:16
13C-PFDA	84.9	70-130		3/22/23 10:16
D5-NEtFOSAA	76.6	70-130		3/22/23 10:16

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Raymond, NH | Sample Description: | Work Order: 23C2156

Date Received: 3/20/2023

Field Sample #: L3-SW3-2023 | Sampled: 3/16/2023 12:00

Sample ID: 23C2156-05

Sample Matrix: Surface Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	1.8	0.71	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:24	JR2
Perfluorohexanoic acid (PFHxA)	ND	1.8	0.84	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:24	JR2
Perfluorohexanesulfonic acid (PFHxS)	ND	1.8	0.81	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:24	JR2
Perfluoroheptanoic acid (PFHpA)	ND	1.8	0.89	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:24	JR2
Perfluorooctanoic acid (PFOA)	1.6	1.8	0.93	ng/L	1	J	EPA 537.1	3/21/23	3/22/23 10:24	JR2
Perfluorooctanesulfonic acid (PFOS)	7.0	1.8	0.68	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:24	JR2
Perfluorononanoic acid (PFNA)	ND	1.8	0.83	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:24	JR2
Perfluorodecanoic acid (PFDA)	ND	1.8	0.86	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:24	JR2
N-EtFOSAA (NEtFOSAA)	0.79	1.8	0.60	ng/L	1	J	EPA 537.1	3/21/23	3/22/23 10:24	JR2
Perfluoroundecanoic acid (PFUnA)	ND	1.8	0.68	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:24	JR2
N-MeFOSAA (NMeFOSAA)	ND	1.8	0.67	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:24	JR2
Perfluorododecanoic acid (PFDoA)	ND	1.8	0.65	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:24	JR2
Perfluorotridecanoic acid (PFTrDA)	ND	1.8	0.66	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:24	JR2
Perfluorotetradecanoic acid (PFTA)	ND	1.8	0.75	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:24	JR2
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.8	1.1	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:24	JR2
11Cl-PF3OUdS (F53B Major)	ND	1.8	0.60	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:24	JR2
9Cl-PF3ONS (F53B Minor)	ND	1.8	0.73	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:24	JR2
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.8	0.79	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:24	JR2

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	82.5	70-130		3/22/23 10:24
M3HFPO-DA	80.9	70-130		3/22/23 10:24
13C-PFDA	92.4	70-130		3/22/23 10:24
D5-NEtFOSAA	81.9	70-130		3/22/23 10:24

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Raymond, NH | Sample Description: | Work Order: 23C2156

Date Received: 3/20/2023

Field Sample #: L3-SD11-2023 | Sampled: 3/16/2023 12:30

Sample ID: 23C2156-06

Sample Matrix: Sediment

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	ND	1.2		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:34	QNW
Perfluorobutanesulfonic acid (PFBS)	ND	1.2		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:34	QNW
Perfluoropentanoic acid (PFPeA)	ND	1.2		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:34	QNW
Perfluorohexanoic acid (PFHxA)	ND	1.2		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:34	QNW
11Cl-PF3OUdS (F53B Major)	ND	1.2		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:34	QNW
9Cl-PF3ONS (F53B Minor)	ND	1.2		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:34	QNW
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.2		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:34	QNW
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.2		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:34	QNW
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.2		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:34	QNW
Perfluorodecanoic acid (PFDA)	ND	1.2		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:34	QNW
Perfluorododecanoic acid (PFDoA)	ND	1.2		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:34	QNW
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.2		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:34	QNW
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.2		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:34	QNW
N-EtFOSAA (NEtFOSAA)	2.0	1.2		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:34	QNW
N-MeFOSAA (NMeFOSAA)	ND	1.2		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:34	QNW
Perfluorotetradecanoic acid (PFTA)	ND	1.2		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:34	QNW
Perfluorotridecanoic acid (PFTrDA)	ND	1.2		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:34	QNW
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.2		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:34	QNW
Perfluorodecanesulfonic acid (PFDS)	ND	1.2		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:34	QNW
Perfluorooctanesulfonamide (FOSA)	ND	1.2		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:34	QNW
Perfluorononanesulfonic acid (PFNS)	ND	1.2		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:34	QNW
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	1.2		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:34	QNW
Perfluoro-1-butanesulfonamide (FBSA)	ND	1.2		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:34	QNW
Perfluorohexanesulfonic acid (PFHxS)	ND	1.2		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:34	QNW
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.2		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:34	QNW
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.2		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:34	QNW
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.2		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:34	QNW
Perfluoropetanesulfonic acid (PFPeS)	ND	1.2		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:34	QNW
Perfluoroundecanoic acid (PFUnA)	ND	1.2		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:34	QNW
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.2		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:34	QNW
Perfluoroheptanoic acid (PFHpA)	ND	1.2		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:34	QNW
Perfluorooctanoic acid (PFOA)	ND	1.2		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:34	QNW
Perfluorooctanesulfonic acid (PFOS)	5.7	1.2		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:34	QNW
Perfluorononanoic acid (PFNA)	ND	1.2		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:34	QNW

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Raymond, NH | Sample Description: | Work Order: 23C2156

Date Received: 3/20/2023

Field Sample #: L3-SD11-2023 | Sampled: 3/16/2023 12:30

Sample ID: 23C2156-06

Sample Matrix: Sediment

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	35.3		% Wt	1		SM 2540G	3/21/23	3/21/23 9:57	RWS

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Raymond, NH | Sample Description: | Work Order: 23C2156

Date Received: 3/20/2023

Field Sample #: L3-SD10-2023 | Sampled: 3/16/2023 12:47

Sample ID: 23C2156-07

Sample Matrix: Sediment

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	ND	0.58		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:41	QNW
Perfluorobutanesulfonic acid (PFBS)	ND	0.58		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:41	QNW
Perfluoropentanoic acid (PFPeA)	ND	0.58		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:41	QNW
Perfluorohexanoic acid (PFHxA)	ND	0.58		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:41	QNW
11Cl-PF3OUdS (F53B Major)	ND	0.58		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:41	QNW
9Cl-PF3ONS (F53B Minor)	ND	0.58		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:41	QNW
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	0.58		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:41	QNW
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	0.58		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:41	QNW
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	0.58		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:41	QNW
Perfluorodecanoic acid (PFDA)	ND	0.58		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:41	QNW
Perfluorododecanoic acid (PFDoA)	ND	0.58		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:41	QNW
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	0.58		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:41	QNW
Perfluoroheptanesulfonic acid (PFHpS)	ND	0.58		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:41	QNW
N-EtFOSAA (NEtFOSAA)	0.64	0.58		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:41	QNW
N-MeFOSAA (NMeFOSAA)	ND	0.58		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:41	QNW
Perfluorotetradecanoic acid (PFTA)	ND	0.58		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:41	QNW
Perfluorotridecanoic acid (PFTrDA)	ND	0.58		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:41	QNW
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	0.58		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:41	QNW
Perfluorodecanesulfonic acid (PFDS)	ND	0.58		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:41	QNW
Perfluorooctanesulfonamide (FOSA)	ND	0.58		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:41	QNW
Perfluorononanesulfonic acid (PFNS)	ND	0.58		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:41	QNW
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	0.58		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:41	QNW
Perfluoro-1-butanesulfonamide (FBSA)	ND	0.58		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:41	QNW
Perfluorohexanesulfonic acid (PFHxS)	ND	0.58		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:41	QNW
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	0.58		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:41	QNW
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	0.58		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:41	QNW
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	0.58		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:41	QNW
Perfluoropetanesulfonic acid (PFPeS)	ND	0.58		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:41	QNW
Perfluoroundecanoic acid (PFUnA)	ND	0.58		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:41	QNW
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	0.58		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:41	QNW
Perfluoroheptanoic acid (PFHpA)	ND	0.58		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:41	QNW
Perfluorooctanoic acid (PFOA)	ND	0.58		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:41	QNW
Perfluorooctanesulfonic acid (PFOS)	3.5	0.58		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:41	QNW
Perfluorononanoic acid (PFNA)	ND	0.58		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:41	QNW

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Raymond, NH | Sample Description: | Work Order: 23C2156

Date Received: 3/20/2023

Field Sample #: L3-SD10-2023 | Sampled: 3/16/2023 12:47

Sample ID: 23C2156-07

Sample Matrix: Sediment

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	71.4		% Wt	1		SM 2540G	3/21/23	3/21/23 9:57	RWS

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Raymond, NH | Sample Description: | Work Order: 23C2156

Date Received: 3/20/2023

Field Sample #: L3-WSW2-2023 (MSMSD) | Sampled: 3/16/2023 13:15

Sample ID: 23C2156-08

Sample Matrix: Surface Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	1.9	0.74	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:31	JR2
Perfluorohexanoic acid (PFHxA)	ND	1.9	0.88	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:31	JR2
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9	0.84	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:31	JR2
Perfluoroheptanoic acid (PFHpA)	ND	1.9	0.93	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:31	JR2
Perfluorooctanoic acid (PFOA)	ND	1.9	0.97	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:31	JR2
Perfluorooctanesulfonic acid (PFOS)	4.4	1.9	0.71	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:31	JR2
Perfluorononanoic acid (PFNA)	ND	1.9	0.86	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:31	JR2
Perfluorodecanoic acid (PFDA)	ND	1.9	0.90	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:31	JR2
N-EtFOSAA (NEtFOSAA)	ND	1.9	0.62	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:31	JR2
Perfluoroundecanoic acid (PFUnA)	ND	1.9	0.71	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:31	JR2
N-MeFOSAA (NMeFOSAA)	ND	1.9	0.70	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:31	JR2
Perfluorododecanoic acid (PFDoA)	ND	1.9	0.67	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:31	JR2
Perfluorotridecanoic acid (PFTrDA)	ND	1.9	0.68	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:31	JR2
Perfluorotetradecanoic acid (PFTA)	ND	1.9	0.78	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:31	JR2
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9	1.2	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:31	JR2
11Cl-PF3OUdS (F53B Major)	ND	1.9	0.62	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:31	JR2
9Cl-PF3ONS (F53B Minor)	ND	1.9	0.76	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:31	JR2
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9	0.83	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:31	JR2

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	92.1	70-130		3/22/23 10:31
M3HFPO-DA	87.3	70-130		3/22/23 10:31
13C-PFDA	97.7	70-130		3/22/23 10:31
D5-NEtFOSAA	89.9	70-130		3/22/23 10:31

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Raymond, NH | Sample Description: | Work Order: 23C2156

Date Received: 3/20/2023

Field Sample #: L3-WSW2-2023 FRB | Sampled: 3/16/2023 13:15

Sample ID: 23C2156-09

Sample Matrix: Field Blank

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	1.9	0.77	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:38	JR2
Perfluorohexanoic acid (PFHxA)	ND	1.9	0.91	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:38	JR2
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9	0.87	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:38	JR2
Perfluoroheptanoic acid (PFHpA)	ND	1.9	0.97	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:38	JR2
Perfluorooctanoic acid (PFOA)	ND	1.9	1.0	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:38	JR2
Perfluorooctanesulfonic acid (PFOS)	ND	1.9	0.74	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:38	JR2
Perfluorononanoic acid (PFNA)	ND	1.9	0.90	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:38	JR2
Perfluorodecanoic acid (PFDA)	ND	1.9	0.93	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:38	JR2
N-EtFOSAA (NEtFOSAA)	ND	1.9	0.65	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:38	JR2
Perfluoroundecanoic acid (PFUnA)	ND	1.9	0.74	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:38	JR2
N-MeFOSAA (NMeFOSAA)	ND	1.9	0.72	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:38	JR2
Perfluorododecanoic acid (PFDoA)	ND	1.9	0.70	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:38	JR2
Perfluorotridecanoic acid (PFTrDA)	ND	1.9	0.71	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:38	JR2
Perfluorotetradecanoic acid (PFTA)	ND	1.9	0.81	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:38	JR2
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9	1.2	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:38	JR2
11Cl-PF3OUdS (F53B Major)	ND	1.9	0.65	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:38	JR2
9Cl-PF3ONS (F53B Minor)	ND	1.9	0.79	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:38	JR2
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9	0.86	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:38	JR2

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	91.4	70-130		3/22/23 10:38
M3HFPO-DA	89.0	70-130		3/22/23 10:38
13C-PFDA	97.8	70-130		3/22/23 10:38
D5-NEtFOSAA	91.6	70-130		3/22/23 10:38

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Raymond, NH | Sample Description: | Work Order: 23C2156

Date Received: 3/20/2023

Field Sample #: L3-WSD2-2023 | Sampled: 3/16/2023 13:30

Sample ID: 23C2156-10

Sample Matrix: Sediment

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	ND	4.1		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:48	QNW
Perfluorobutanesulfonic acid (PFBS)	ND	4.1		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:48	QNW
Perfluoropentanoic acid (PFPeA)	ND	4.1		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:48	QNW
Perfluorohexanoic acid (PFHxA)	ND	4.1		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:48	QNW
11Cl-PF3OUdS (F53B Major)	ND	4.1		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:48	QNW
9Cl-PF3ONS (F53B Minor)	ND	4.1		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:48	QNW
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	4.1		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:48	QNW
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	4.1		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:48	QNW
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	4.1		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:48	QNW
Perfluorodecanoic acid (PFDA)	ND	4.1		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:48	QNW
Perfluorododecanoic acid (PFDoA)	ND	4.1		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:48	QNW
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	4.1		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:48	QNW
Perfluoroheptanesulfonic acid (PFHpS)	ND	4.1		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:48	QNW
N-EtFOSAA (NEtFOSAA)	9.9	4.1		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:48	QNW
N-MeFOSAA (NMeFOSAA)	ND	4.1		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:48	QNW
Perfluorotetradecanoic acid (PFTA)	ND	4.1		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:48	QNW
Perfluorotridecanoic acid (PFTrDA)	ND	4.1		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:48	QNW
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	4.1		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:48	QNW
Perfluorodecanesulfonic acid (PFDS)	ND	4.1		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:48	QNW
Perfluorooctanesulfonamide (FOSA)	ND	4.1		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:48	QNW
Perfluorononanesulfonic acid (PFNS)	ND	4.1		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:48	QNW
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	4.1		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:48	QNW
Perfluoro-1-butanesulfonamide (FBSA)	ND	4.1		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:48	QNW
Perfluorohexanesulfonic acid (PFHxS)	ND	4.1		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:48	QNW
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	4.1		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:48	QNW
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	4.1		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:48	QNW
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	4.1		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:48	QNW
Perfluoropetanesulfonic acid (PFPeS)	ND	4.1		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:48	QNW
Perfluoroundecanoic acid (PFUnA)	ND	4.1		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:48	QNW
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	4.1		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:48	QNW
Perfluoroheptanoic acid (PFHpA)	ND	4.1		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:48	QNW
Perfluorooctanoic acid (PFOA)	ND	4.1		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:48	QNW
Perfluorooctanesulfonic acid (PFOS)	ND	4.1		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:48	QNW
Perfluorononanoic acid (PFNA)	ND	4.1		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 22:48	QNW

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Raymond, NH | Sample Description: | Work Order: 23C2156

Date Received: 3/20/2023

Field Sample #: L3-WSD2-2023 | Sampled: 3/16/2023 13:30

Sample ID: 23C2156-10

Sample Matrix: Sediment

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	10.2		% Wt	1		SM 2540G	3/21/23	3/21/23 9:57	RWS

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Raymond, NH | Sample Description: | Work Order: 23C2156

Date Received: 3/20/2023

Field Sample #: L3-SD8-2023 (MS/MSD) | Sampled: 3/16/2023 14:20

Sample ID: 23C2156-11

Sample Matrix: Sediment

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	ND	0.99		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:03	QNW
Perfluorobutanesulfonic acid (PFBS)	ND	0.99		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:03	QNW
Perfluoropentanoic acid (PFPeA)	ND	0.99		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:03	QNW
Perfluorohexanoic acid (PFHxA)	ND	0.99		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:03	QNW
11Cl-PF3OUdS (F53B Major)	ND	0.99		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:03	QNW
9Cl-PF3ONS (F53B Minor)	ND	0.99		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:03	QNW
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	0.99		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:03	QNW
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	0.99		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:03	QNW
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	0.99		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:03	QNW
Perfluorodecanoic acid (PFDA)	ND	0.99		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:03	QNW
Perfluorododecanoic acid (PFDoA)	ND	0.99		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:03	QNW
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	0.99		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:03	QNW
Perfluoroheptanesulfonic acid (PFHpS)	ND	0.99		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:03	QNW
N-EtFOSAA (NEtFOSAA)	1.2	0.99		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:03	QNW
N-MeFOSAA (NMeFOSAA)	ND	0.99		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:03	QNW
Perfluorotetradecanoic acid (PFTA)	ND	0.99		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:03	QNW
Perfluorotridecanoic acid (PFTrDA)	ND	0.99		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:03	QNW
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	0.99		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:03	QNW
Perfluorodecanesulfonic acid (PFDS)	ND	0.99		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:03	QNW
Perfluorooctanesulfonamide (FOSA)	ND	0.99		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:03	QNW
Perfluorononanesulfonic acid (PFNS)	ND	0.99		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:03	QNW
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	0.99		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:03	QNW
Perfluoro-1-butanesulfonamide (FBSA)	ND	0.99		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:03	QNW
Perfluorohexanesulfonic acid (PFHxS)	ND	0.99		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:03	QNW
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	0.99		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:03	QNW
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	0.99		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:03	QNW
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	0.99		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:03	QNW
Perfluoropetanesulfonic acid (PFPeS)	ND	0.99		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:03	QNW
Perfluoroundecanoic acid (PFUnA)	ND	0.99		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:03	QNW
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	0.99		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:03	QNW
Perfluoroheptanoic acid (PFHpA)	ND	0.99		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:03	QNW
Perfluorooctanoic acid (PFOA)	ND	0.99		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:03	QNW
Perfluorooctanesulfonic acid (PFOS)	ND	0.99		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:03	QNW
Perfluorononanoic acid (PFNA)	ND	0.99		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:03	QNW

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Raymond, NH | Sample Description: | Work Order: 23C2156

Date Received: 3/20/2023

Field Sample #: L3-SD8-2023 (MS/MSD) | Sampled: 3/16/2023 14:20

Sample ID: 23C2156-11

Sample Matrix: Sediment

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	43.4		% Wt	1		SM 2540G	3/21/23	3/21/23 9:57	RWS

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Raymond, NH | Sample Description: | Work Order: 23C2156

Date Received: 3/20/2023

Field Sample #: L3-SD8-2023 FB | Sampled: 3/16/2023 14:20

Sample ID: 23C2156-12

Sample Matrix: Field Blank

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:50	RRB
Perfluorobutanesulfonic acid (PFBS)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:50	RRB
Perfluoropentanoic acid (PFPeA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:50	RRB
Perfluorohexanoic acid (PFHxA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:50	RRB
11Cl-PF3OUdS (F53B Major)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:50	RRB
9Cl-PF3ONS (F53B Minor)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:50	RRB
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:50	RRB
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:50	RRB
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:50	RRB
Perfluorodecanoic acid (PFDA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:50	RRB
Perfluorododecanoic acid (PFDoA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:50	RRB
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:50	RRB
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:50	RRB
N-EtFOSAA (NEtFOSAA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:50	RRB
N-MeFOSAA (NMeFOSAA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:50	RRB
Perfluorotetradecanoic acid (PFTA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:50	RRB
Perfluorotridecanoic acid (PFTrDA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:50	RRB
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:50	RRB
Perfluorodecanesulfonic acid (PFDS)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:50	RRB
Perfluorooctanesulfonamide (FOSA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:50	RRB
Perfluorononanesulfonic acid (PFNS)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:50	RRB
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:50	RRB
Perfluoro-1-butanesulfonamide (FBSA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:50	RRB
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:50	RRB
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:50	RRB
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:50	RRB
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:50	RRB
Perfluoropetanesulfonic acid (PFPeS)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:50	RRB
Perfluoroundecanoic acid (PFUnA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:50	RRB
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:50	RRB
Perfluoroheptanoic acid (PFHpA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:50	RRB
Perfluorooctanoic acid (PFOA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:50	RRB
Perfluorooctanesulfonic acid (PFOS)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:50	RRB
Perfluorononanoic acid (PFNA)	ND	1.9		ng/L	1		SOP-454 PFAS	3/21/23	3/22/23 11:50	RRB

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Raymond, NH | Sample Description: | Work Order: 23C2156

Date Received: 3/20/2023

Field Sample #: L3-SD9-2023 | Sampled: 3/16/2023 14:50

Sample ID: 23C2156-13

Sample Matrix: Sediment

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	ND	0.53		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:10	QNW
Perfluorobutanesulfonic acid (PFBS)	ND	0.53		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:10	QNW
Perfluoropentanoic acid (PFPeA)	ND	0.53		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:10	QNW
Perfluorohexanoic acid (PFHxA)	ND	0.53		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:10	QNW
11Cl-PF3OUdS (F53B Major)	ND	0.53		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:10	QNW
9Cl-PF3ONS (F53B Minor)	ND	0.53		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:10	QNW
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	0.53		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:10	QNW
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	0.53		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:10	QNW
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	0.53		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:10	QNW
Perfluorodecanoic acid (PFDA)	ND	0.53		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:10	QNW
Perfluorododecanoic acid (PFDoA)	ND	0.53		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:10	QNW
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	0.53		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:10	QNW
Perfluoroheptanesulfonic acid (PFHpS)	ND	0.53		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:10	QNW
N-EtFOSAA (NEtFOSAA)	ND	0.53		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:10	QNW
N-MeFOSAA (NMeFOSAA)	ND	0.53		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:10	QNW
Perfluorotetradecanoic acid (PFTA)	ND	0.53		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:10	QNW
Perfluorotridecanoic acid (PFTrDA)	ND	0.53		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:10	QNW
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	0.53		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:10	QNW
Perfluorodecanesulfonic acid (PFDS)	ND	0.53		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:10	QNW
Perfluorooctanesulfonamide (FOSA)	ND	0.53		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:10	QNW
Perfluorononanesulfonic acid (PFNS)	ND	0.53		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:10	QNW
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	0.53		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:10	QNW
Perfluoro-1-butanesulfonamide (FBSA)	ND	0.53		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:10	QNW
Perfluorohexanesulfonic acid (PFHxS)	ND	0.53		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:10	QNW
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	0.53		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:10	QNW
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	0.53		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:10	QNW
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	0.53		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:10	QNW
Perfluoropetanesulfonic acid (PFPeS)	ND	0.53		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:10	QNW
Perfluoroundecanoic acid (PFUnA)	ND	0.53		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:10	QNW
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	0.53		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:10	QNW
Perfluoroheptanoic acid (PFHpA)	ND	0.53		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:10	QNW
Perfluorooctanoic acid (PFOA)	ND	0.53		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:10	QNW
Perfluorooctanesulfonic acid (PFOS)	ND	0.53		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:10	QNW
Perfluorononanoic acid (PFNA)	ND	0.53		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:10	QNW

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Raymond, NH | Sample Description: | Work Order: 23C2156

Date Received: 3/20/2023

Field Sample #: L3-SD9-2023 | Sampled: 3/16/2023 14:50

Sample ID: 23C2156-13

Sample Matrix: Sediment

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	77.6		% Wt	1		SM 2540G	3/21/23	3/21/23 9:57	RWS

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Raymond, NH | Sample Description: | Work Order: 23C2156

Date Received: 3/20/2023

Field Sample #: L3-SW5-2023 | Sampled: 3/16/2023 15:25

Sample ID: 23C2156-14

Sample Matrix: Surface Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	0.79	ng/L	1		EPA 537.1	3/23/23	3/24/23 16:40	JR2
Perfluorohexanoic acid (PFHxA)	ND	2.0	0.94	ng/L	1		EPA 537.1	3/23/23	3/24/23 16:40	JR2
Perfluorohexanesulfonic acid (PFHxS)	2.4	2.0	0.90	ng/L	1		EPA 537.1	3/23/23	3/24/23 16:40	JR2
Perfluoroheptanoic acid (PFHpA)	1.0	2.0	1.0	ng/L	1	J	EPA 537.1	3/23/23	3/24/23 16:40	JR2
Perfluorooctanoic acid (PFOA)	6.3	2.0	1.0	ng/L	1		EPA 537.1	3/23/23	3/24/23 16:40	JR2
Perfluorooctanesulfonic acid (PFOS)	18	2.0	0.76	ng/L	1		EPA 537.1	3/23/23	3/24/23 16:40	JR2
Perfluorononanoic acid (PFNA)	ND	2.0	0.93	ng/L	1		EPA 537.1	3/23/23	3/24/23 16:40	JR2
Perfluorodecanoic acid (PFDA)	ND	2.0	0.97	ng/L	1		EPA 537.1	3/23/23	3/24/23 16:40	JR2
N-EtFOSAA (NEtFOSAA)	ND	2.0	0.67	ng/L	1		EPA 537.1	3/23/23	3/24/23 16:40	JR2
Perfluoroundecanoic acid (PFUnA)	ND	2.0	0.77	ng/L	1		EPA 537.1	3/23/23	3/24/23 16:40	JR2
N-MeFOSAA (NMeFOSAA)	ND	2.0	0.75	ng/L	1		EPA 537.1	3/23/23	3/24/23 16:40	JR2
Perfluorododecanoic acid (PFDoA)	ND	2.0	0.72	ng/L	1		EPA 537.1	3/23/23	3/24/23 16:40	JR2
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	0.74	ng/L	1		EPA 537.1	3/23/23	3/24/23 16:40	JR2
Perfluorotetradecanoic acid (PFTA)	ND	2.0	0.84	ng/L	1		EPA 537.1	3/23/23	3/24/23 16:40	JR2
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	1.2	ng/L	1		EPA 537.1	3/23/23	3/24/23 16:40	JR2
11Cl-PF3OUdS (F53B Major)	ND	2.0	0.67	ng/L	1		EPA 537.1	3/23/23	3/24/23 16:40	JR2
9Cl-PF3ONS (F53B Minor)	ND	2.0	0.82	ng/L	1		EPA 537.1	3/23/23	3/24/23 16:40	JR2
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	0.89	ng/L	1		EPA 537.1	3/23/23	3/24/23 16:40	JR2

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	76.4	70-130		3/24/23 16:40
M3HFPO-DA	72.6	70-130		3/24/23 16:40
13C-PFDA	97.4	70-130		3/24/23 16:40
D5-NEtFOSAA	96.8	70-130		3/24/23 16:40

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Raymond, NH | Sample Description: | Work Order: 23C2156

Date Received: 3/20/2023

Field Sample #: WA-SFW3A-2023 | Sampled: 3/16/2023 16:45

Sample ID: 23C2156-15

Sample Matrix: Surface Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	1.9	0.74	ng/L	1		EPA 537.1	3/21/23	3/22/23 12:06	JR2
Perfluorohexanoic acid (PFHxA)	ND	1.9	0.88	ng/L	1		EPA 537.1	3/21/23	3/22/23 12:06	JR2
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9	0.84	ng/L	1		EPA 537.1	3/21/23	3/22/23 12:06	JR2
Perfluoroheptanoic acid (PFHpA)	ND	1.9	0.93	ng/L	1		EPA 537.1	3/21/23	3/22/23 12:06	JR2
Perfluorooctanoic acid (PFOA)	ND	1.9	0.97	ng/L	1		EPA 537.1	3/21/23	3/22/23 12:06	JR2
Perfluorooctanesulfonic acid (PFOS)	ND	1.9	0.71	ng/L	1		EPA 537.1	3/21/23	3/22/23 12:06	JR2
Perfluorononanoic acid (PFNA)	ND	1.9	0.86	ng/L	1		EPA 537.1	3/21/23	3/22/23 12:06	JR2
Perfluorodecanoic acid (PFDA)	ND	1.9	0.90	ng/L	1		EPA 537.1	3/21/23	3/22/23 12:06	JR2
N-EtFOSAA (NEtFOSAA)	ND	1.9	0.62	ng/L	1		EPA 537.1	3/21/23	3/22/23 12:06	JR2
Perfluoroundecanoic acid (PFUnA)	ND	1.9	0.71	ng/L	1		EPA 537.1	3/21/23	3/22/23 12:06	JR2
N-MeFOSAA (NMeFOSAA)	ND	1.9	0.70	ng/L	1		EPA 537.1	3/21/23	3/22/23 12:06	JR2
Perfluorododecanoic acid (PFDoA)	ND	1.9	0.67	ng/L	1		EPA 537.1	3/21/23	3/22/23 12:06	JR2
Perfluorotridecanoic acid (PFTrDA)	ND	1.9	0.68	ng/L	1		EPA 537.1	3/21/23	3/22/23 12:06	JR2
Perfluorotetradecanoic acid (PFTA)	ND	1.9	0.78	ng/L	1		EPA 537.1	3/21/23	3/22/23 12:06	JR2
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9	1.2	ng/L	1		EPA 537.1	3/21/23	3/22/23 12:06	JR2
11Cl-PF3OUdS (F53B Major)	ND	1.9	0.62	ng/L	1		EPA 537.1	3/21/23	3/22/23 12:06	JR2
9Cl-PF3ONS (F53B Minor)	ND	1.9	0.76	ng/L	1		EPA 537.1	3/21/23	3/22/23 12:06	JR2
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9	0.82	ng/L	1		EPA 537.1	3/21/23	3/22/23 12:06	JR2

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	90.8	70-130		3/22/23 12:06
M3HFPO-DA	83.2	70-130		3/22/23 12:06
13C-PFDA	97.4	70-130		3/22/23 12:06
D5-NEtFOSAA	88.9	70-130		3/22/23 12:06

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Raymond, NH | Sample Description: | Work Order: 23C2156

Date Received: 3/20/2023

Field Sample #: WA-SD3-2023 | Sampled: 3/16/2023 17:20

Sample ID: 23C2156-16

Sample Matrix: Sediment

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	ND	0.89		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:18	QNW
Perfluorobutanesulfonic acid (PFBS)	ND	0.89		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:18	QNW
Perfluoropentanoic acid (PFPeA)	ND	0.89		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:18	QNW
Perfluorohexanoic acid (PFHxA)	ND	0.89		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:18	QNW
11Cl-PF3OUdS (F53B Major)	ND	0.89		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:18	QNW
9Cl-PF3ONS (F53B Minor)	ND	0.89		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:18	QNW
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	0.89		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:18	QNW
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	0.89		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:18	QNW
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	0.89		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:18	QNW
Perfluorodecanoic acid (PFDA)	ND	0.89		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:18	QNW
Perfluorododecanoic acid (PFDoA)	ND	0.89		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:18	QNW
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	0.89		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:18	QNW
Perfluoroheptanesulfonic acid (PFHpS)	ND	0.89		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:18	QNW
N-EtFOSAA (NEtFOSAA)	ND	0.89		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:18	QNW
N-MeFOSAA (NMeFOSAA)	ND	0.89		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:18	QNW
Perfluorotetradecanoic acid (PFTA)	ND	0.89		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:18	QNW
Perfluorotridecanoic acid (PFTrDA)	ND	0.89		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:18	QNW
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	0.89		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:18	QNW
Perfluorodecanesulfonic acid (PFDS)	ND	0.89		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:18	QNW
Perfluorooctanesulfonamide (FOSA)	ND	0.89		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:18	QNW
Perfluorononanesulfonic acid (PFNS)	ND	0.89		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:18	QNW
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	0.89		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:18	QNW
Perfluoro-1-butanesulfonamide (FBSA)	ND	0.89		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:18	QNW
Perfluorohexanesulfonic acid (PFHxS)	ND	0.89		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:18	QNW
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	0.89		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:18	QNW
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	0.89		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:18	QNW
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	0.89		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:18	QNW
Perfluoropetanesulfonic acid (PFPeS)	ND	0.89		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:18	QNW
Perfluoroundecanoic acid (PFUnA)	ND	0.89		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:18	QNW
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	0.89		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:18	QNW
Perfluoroheptanoic acid (PFHpA)	ND	0.89		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:18	QNW
Perfluorooctanoic acid (PFOA)	ND	0.89		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:18	QNW
Perfluorooctanesulfonic acid (PFOS)	ND	0.89		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:18	QNW
Perfluorononanoic acid (PFNA)	ND	0.89		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:18	QNW

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Raymond, NH | Sample Description: | Work Order: 23C2156

Date Received: 3/20/2023

Field Sample #: WA-SD3-2023 | Sampled: 3/16/2023 17:20

Sample ID: 23C2156-16

Sample Matrix: Sediment

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	47.4		% Wt	1		SM 2540G	3/21/23	3/21/23 9:57	RWS

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Raymond, NH | Sample Description: | Work Order: 23C2156

Date Received: 3/20/2023

Field Sample #: WA-SW2-2023 | Sampled: 3/16/2023 17:40

Sample ID: 23C2156-17

Sample Matrix: Surface Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	1.8	0.71	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:59	JR2
Perfluorohexanoic acid (PFHxA)	ND	1.8	0.85	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:59	JR2
Perfluorohexanesulfonic acid (PFHxS)	ND	1.8	0.81	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:59	JR2
Perfluoroheptanoic acid (PFHpA)	ND	1.8	0.90	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:59	JR2
Perfluorooctanoic acid (PFOA)	ND	1.8	0.94	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:59	JR2
Perfluorooctanesulfonic acid (PFOS)	ND	1.8	0.68	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:59	JR2
Perfluorononanoic acid (PFNA)	ND	1.8	0.83	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:59	JR2
Perfluorodecanoic acid (PFDA)	ND	1.8	0.87	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:59	JR2
N-EtFOSAA (NEtFOSAA)	ND	1.8	0.60	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:59	JR2
Perfluoroundecanoic acid (PFUnA)	ND	1.8	0.69	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:59	JR2
N-MeFOSAA (NMeFOSAA)	ND	1.8	0.67	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:59	JR2
Perfluorododecanoic acid (PFDoA)	ND	1.8	0.65	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:59	JR2
Perfluorotridecanoic acid (PFTrDA)	ND	1.8	0.66	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:59	JR2
Perfluorotetradecanoic acid (PFTA)	ND	1.8	0.76	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:59	JR2
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.8	1.1	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:59	JR2
11Cl-PF3OUdS (F53B Major)	ND	1.8	0.60	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:59	JR2
9Cl-PF3ONS (F53B Minor)	ND	1.8	0.74	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:59	JR2
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.8	0.80	ng/L	1		EPA 537.1	3/21/23	3/22/23 10:59	JR2

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	89.2	70-130		3/22/23 10:59
M3HFPO-DA	84.0	70-130		3/22/23 10:59
13C-PFDA	111	70-130		3/22/23 10:59
D5-NEtFOSAA	106	70-130		3/22/23 10:59

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Raymond, NH | Sample Description: | Work Order: 23C2156

Date Received: 3/20/2023

Field Sample #: WA-WSW1-2023 | Sampled: 3/16/2023 18:10

Sample ID: 23C2156-18

Sample Matrix: Surface Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	1.9	0.75	ng/L	1		EPA 537.1	3/21/23	3/22/23 12:13	JR2
Perfluorohexanoic acid (PFHxA)	ND	1.9	0.89	ng/L	1		EPA 537.1	3/21/23	3/22/23 12:13	JR2
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9	0.86	ng/L	1		EPA 537.1	3/21/23	3/22/23 12:13	JR2
Perfluoroheptanoic acid (PFHpA)	ND	1.9	0.95	ng/L	1		EPA 537.1	3/21/23	3/22/23 12:13	JR2
Perfluorooctanoic acid (PFOA)	ND	1.9	0.99	ng/L	1		EPA 537.1	3/21/23	3/22/23 12:13	JR2
Perfluorooctanesulfonic acid (PFOS)	ND	1.9	0.72	ng/L	1		EPA 537.1	3/21/23	3/22/23 12:13	JR2
Perfluorononanoic acid (PFNA)	ND	1.9	0.88	ng/L	1		EPA 537.1	3/21/23	3/22/23 12:13	JR2
Perfluorodecanoic acid (PFDA)	ND	1.9	0.92	ng/L	1		EPA 537.1	3/21/23	3/22/23 12:13	JR2
N-EtFOSAA (NEtFOSAA)	ND	1.9	0.63	ng/L	1		EPA 537.1	3/21/23	3/22/23 12:13	JR2
Perfluoroundecanoic acid (PFUnA)	ND	1.9	0.73	ng/L	1		EPA 537.1	3/21/23	3/22/23 12:13	JR2
N-MeFOSAA (NMeFOSAA)	ND	1.9	0.71	ng/L	1		EPA 537.1	3/21/23	3/22/23 12:13	JR2
Perfluorododecanoic acid (PFDoA)	ND	1.9	0.69	ng/L	1		EPA 537.1	3/21/23	3/22/23 12:13	JR2
Perfluorotridecanoic acid (PFTrDA)	ND	1.9	0.70	ng/L	1		EPA 537.1	3/21/23	3/22/23 12:13	JR2
Perfluorotetradecanoic acid (PFTA)	ND	1.9	0.80	ng/L	1		EPA 537.1	3/21/23	3/22/23 12:13	JR2
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9	1.2	ng/L	1		EPA 537.1	3/21/23	3/22/23 12:13	JR2
11Cl-PF3OUdS (F53B Major)	ND	1.9	0.63	ng/L	1		EPA 537.1	3/21/23	3/22/23 12:13	JR2
9Cl-PF3ONS (F53B Minor)	ND	1.9	0.78	ng/L	1		EPA 537.1	3/21/23	3/22/23 12:13	JR2
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9	0.84	ng/L	1		EPA 537.1	3/21/23	3/22/23 12:13	JR2

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	97.2	70-130		3/22/23 12:13
M3HFPO-DA	89.8	70-130		3/22/23 12:13
13C-PFDA	99.1	70-130		3/22/23 12:13
D5-NEtFOSAA	95.6	70-130		3/22/23 12:13

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Raymond, NH | Sample Description: | Work Order: 23C2156

Date Received: 3/20/2023

Field Sample #: WA-WSD1-2023 | Sampled: 3/16/2023 18:45

Sample ID: 23C2156-19

Sample Matrix: Sediment

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	ND	0.68		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:25	QNW
Perfluorobutanesulfonic acid (PFBS)	ND	0.68		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:25	QNW
Perfluoropentanoic acid (PFPeA)	ND	0.68		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:25	QNW
Perfluorohexanoic acid (PFHxA)	ND	0.68		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:25	QNW
11Cl-PF3OUdS (F53B Major)	ND	0.68		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:25	QNW
9Cl-PF3ONS (F53B Minor)	ND	0.68		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:25	QNW
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	0.68		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:25	QNW
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	0.68		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:25	QNW
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	0.68		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:25	QNW
Perfluorodecanoic acid (PFDA)	ND	0.68		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:25	QNW
Perfluorododecanoic acid (PFDoA)	ND	0.68		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:25	QNW
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	0.68		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:25	QNW
Perfluoroheptanesulfonic acid (PFHpS)	ND	0.68		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:25	QNW
N-EtFOSAA (NEtFOSAA)	ND	0.68		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:25	QNW
N-MeFOSAA (NMeFOSAA)	ND	0.68		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:25	QNW
Perfluorotetradecanoic acid (PFTA)	ND	0.68		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:25	QNW
Perfluorotridecanoic acid (PFTrDA)	ND	0.68		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:25	QNW
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	0.68		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:25	QNW
Perfluorodecanesulfonic acid (PFDS)	ND	0.68		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:25	QNW
Perfluorooctanesulfonamide (FOSA)	ND	0.68		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:25	QNW
Perfluorononanesulfonic acid (PFNS)	ND	0.68		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:25	QNW
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	0.68		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:25	QNW
Perfluoro-1-butanesulfonamide (FBSA)	ND	0.68		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:25	QNW
Perfluorohexanesulfonic acid (PFHxS)	ND	0.68		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:25	QNW
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	0.68		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:25	QNW
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	0.68		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:25	QNW
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	0.68		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:25	QNW
Perfluoropetanesulfonic acid (PFPeS)	ND	0.68		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:25	QNW
Perfluoroundecanoic acid (PFUnA)	ND	0.68		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:25	QNW
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	0.68		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:25	QNW
Perfluoroheptanoic acid (PFHpA)	ND	0.68		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:25	QNW
Perfluorooctanoic acid (PFOA)	ND	0.68		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:25	QNW
Perfluorooctanesulfonic acid (PFOS)	ND	0.68		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:25	QNW
Perfluorononanoic acid (PFNA)	ND	0.68		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:25	QNW

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Raymond, NH | Sample Description: | Work Order: 23C2156

Date Received: 3/20/2023

Field Sample #: WA-WSD1-2023 | Sampled: 3/16/2023 18:45

Sample ID: 23C2156-19

Sample Matrix: Sediment

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	61.9		% Wt	1		SM 2540G	3/21/23	3/21/23 9:57	RWS

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Raymond, NH | Sample Description: | Work Order: 23C2156

Date Received: 3/20/2023

Field Sample #: WA-SD4-2023 | Sampled: 3/16/2023 19:05

Sample ID: 23C2156-20

Sample Matrix: Sediment

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:32	QNW
Perfluorobutanesulfonic acid (PFBS)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:32	QNW
Perfluoropentanoic acid (PFPeA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:32	QNW
Perfluorohexanoic acid (PFHxA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:32	QNW
11Cl-PF3OUdS (F53B Major)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:32	QNW
9Cl-PF3ONS (F53B Minor)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:32	QNW
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:32	QNW
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:32	QNW
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:32	QNW
Perfluorodecanoic acid (PFDA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:32	QNW
Perfluorododecanoic acid (PFDoA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:32	QNW
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:32	QNW
Perfluoroheptanesulfonic acid (PFHpS)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:32	QNW
N-EtFOSAA (NEtFOSAA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:32	QNW
N-MeFOSAA (NMeFOSAA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:32	QNW
Perfluorotetradecanoic acid (PFTA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:32	QNW
Perfluorotridecanoic acid (PFTrDA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:32	QNW
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:32	QNW
Perfluorodecanesulfonic acid (PFDS)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:32	QNW
Perfluorooctanesulfonamide (FOSA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:32	QNW
Perfluorononanesulfonic acid (PFNS)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:32	QNW
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:32	QNW
Perfluoro-1-butanesulfonamide (FBSA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:32	QNW
Perfluorohexanesulfonic acid (PFHxS)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:32	QNW
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:32	QNW
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:32	QNW
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:32	QNW
Perfluoropetanesulfonic acid (PFPeS)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:32	QNW
Perfluoroundecanoic acid (PFUnA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:32	QNW
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:32	QNW
Perfluoroheptanoic acid (PFHpA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:32	QNW
Perfluorooctanoic acid (PFOA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:32	QNW
Perfluorooctanesulfonic acid (PFOS)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:32	QNW
Perfluorononanoic acid (PFNA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:32	QNW

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Raymond, NH | Sample Description: | Work Order: 23C2156

Date Received: 3/20/2023

Field Sample #: WA-SD4-2023 | Sampled: 3/16/2023 19:05

Sample ID: 23C2156-20

Sample Matrix: Sediment

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	71.4		% Wt	1		SM 2540G	3/21/23	3/21/23 9:57	RWS

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Raymond, NH | Sample Description: | Work Order: 23C2156

Date Received: 3/20/2023

Field Sample #: WA-SD5-2023 | Sampled: 3/16/2023 19:20

Sample ID: 23C2156-21

Sample Matrix: Sediment

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:39	QNW
Perfluorobutanesulfonic acid (PFBS)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:39	QNW
Perfluoropentanoic acid (PFPeA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:39	QNW
Perfluorohexanoic acid (PFHxA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:39	QNW
11Cl-PF3OUdS (F53B Major)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:39	QNW
9Cl-PF3ONS (F53B Minor)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:39	QNW
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:39	QNW
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:39	QNW
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:39	QNW
Perfluorodecanoic acid (PFDA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:39	QNW
Perfluorododecanoic acid (PFDoA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:39	QNW
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:39	QNW
Perfluoroheptanesulfonic acid (PFHpS)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:39	QNW
N-EtFOSAA (NEtFOSAA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:39	QNW
N-MeFOSAA (NMeFOSAA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:39	QNW
Perfluorotetradecanoic acid (PFTA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:39	QNW
Perfluorotridecanoic acid (PFTrDA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:39	QNW
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:39	QNW
Perfluorodecanesulfonic acid (PFDS)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:39	QNW
Perfluorooctanesulfonamide (FOSA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:39	QNW
Perfluorononanesulfonic acid (PFNS)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:39	QNW
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:39	QNW
Perfluoro-1-butanesulfonamide (FBSA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:39	QNW
Perfluorohexanesulfonic acid (PFHxS)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:39	QNW
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:39	QNW
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:39	QNW
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:39	QNW
Perfluoropetanesulfonic acid (PFPeS)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:39	QNW
Perfluoroundecanoic acid (PFUnA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:39	QNW
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:39	QNW
Perfluoroheptanoic acid (PFHpA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:39	QNW
Perfluorooctanoic acid (PFOA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:39	QNW
Perfluorooctanesulfonic acid (PFOS)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:39	QNW
Perfluorononanoic acid (PFNA)	ND	0.59		µg/kg dry	1		SOP-466 PFAS	3/21/23	3/27/23 23:39	QNW

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Raymond, NH | Sample Description: | Work Order: 23C2156

Date Received: 3/20/2023

Field Sample #: WA-SD5-2023 | Sampled: 3/16/2023 19:20

Sample ID: 23C2156-21

Sample Matrix: Sediment

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	72.0		% Wt	1		SM 2540G	3/21/23	3/21/23 9:57	RWS

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

Prep Method: EPA 537.1 **Analytical Method: EPA 537.1**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
23C2156-03 [EB-SW]	B334725	281	1.00	03/21/23
23C2156-04 [L3-SW4-2023]	B334725	289	1.00	03/21/23
23C2156-05 [L3-SW3-2023]	B334725	278	1.00	03/21/23
23C2156-08 [L3-WSW2-2023 (MSMSD)]	B334725	266	1.00	03/21/23
23C2156-09 [L3-WSW2-2023 FRB]	B334725	257	1.00	03/21/23
23C2156-15 [WA-SFW3A-2023]	B334725	267	1.00	03/21/23
23C2156-17 [WA-SW2-2023]	B334725	276	1.00	03/21/23
23C2156-18 [WA-WSW1-2023]	B334725	262	1.00	03/21/23

Prep Method: EPA 537.1 **Analytical Method: EPA 537.1**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
23C2156-14RE1 [L3-SW5-2023]	B335034	248	1.00	03/23/23

Prep Method: % Solids **Analytical Method: SM 2540G**

Lab Number [Field ID]	Batch	Date
23C2156-06 [L3-SD11-2023]	B334707	03/21/23
23C2156-07 [L3-SD10-2023]	B334707	03/21/23
23C2156-10 [L3-WSD2-2023]	B334707	03/21/23
23C2156-11 [L3-SD8-2023 (MS/MSD)]	B334707	03/21/23
23C2156-13 [L3-SD9-2023]	B334707	03/21/23
23C2156-16 [WA-SD3-2023]	B334707	03/21/23
23C2156-19 [WA-WSD1-2023]	B334707	03/21/23
23C2156-20 [WA-SD4-2023]	B334707	03/21/23
23C2156-21 [WA-SD5-2023]	B334707	03/21/23

Prep Method: SOP 454-PFAAS **Analytical Method: SOP-454 PFAS**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
23C2156-01 [EB-AUGER]	B334730	251	1.00	03/21/23
23C2156-02 [EB-SPADE]	B334730	265	1.00	03/21/23
23C2156-12 [L3-SD8-2023 FB]	B334730	266	1.00	03/21/23

Prep Method: SOP 465-PFAAS **Analytical Method: SOP-466 PFAS**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
23C2156-06 [L3-SD11-2023]	B334750	5.86	5.00	03/21/23
23C2156-07 [L3-SD10-2023]	B334750	5.93	5.00	03/21/23
23C2156-10 [L3-WSD2-2023]	B334750	5.90	5.00	03/21/23
23C2156-11 [L3-SD8-2023 (MS/MSD)]	B334750	5.77	5.00	03/21/23
23C2156-13 [L3-SD9-2023]	B334750	5.98	5.00	03/21/23
23C2156-16 [WA-SD3-2023]	B334750	5.85	5.00	03/21/23
23C2156-19 [WA-WSD1-2023]	B334750	5.92	5.00	03/21/23
23C2156-20 [WA-SD4-2023]	B334750	5.90	5.00	03/21/23
23C2156-21 [WA-SD5-2023]	B334750	5.87	5.00	03/21/23

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B334725 - EPA 537.1										
Blank (B334725-BLK1)				Prepared: 03/21/23 Analyzed: 03/22/23						
Perfluorobutanesulfonic acid (PFBS)	ND	1.9	ng/L							
Perfluorohexanoic acid (PFHxA)	ND	1.9	ng/L							
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9	ng/L							
Perfluoroheptanoic acid (PFHpA)	ND	1.9	ng/L							
Perfluorooctanoic acid (PFOA)	ND	1.9	ng/L							
Perfluorooctanesulfonic acid (PFOS)	ND	1.9	ng/L							
Perfluorononanoic acid (PFNA)	ND	1.9	ng/L							
Perfluorodecanoic acid (PFDA)	ND	1.9	ng/L							
N-EtFOSAA (NEtFOSAA)	ND	1.9	ng/L							
Perfluoroundecanoic acid (PFUnA)	ND	1.9	ng/L							
N-MeFOSAA (NMeFOSAA)	ND	1.9	ng/L							
Perfluorododecanoic acid (PFDoA)	ND	1.9	ng/L							
Perfluorotridecanoic acid (PFTrDA)	ND	1.9	ng/L							
Perfluorotetradecanoic acid (PFTA)	ND	1.9	ng/L							
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9	ng/L							
11Cl-PF3OUdS (F53B Major)	ND	1.9	ng/L							
9Cl-PF3ONS (F53B Minor)	ND	1.9	ng/L							
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9	ng/L							
Surrogate: 13C-PFHxA	*38.1*		ng/L	38.1		99.9	70-130			
Surrogate: M3HFPO-DA	*36.8*		ng/L	38.1		96.5	70-130			
Surrogate: 13C-PFDA	*37.1*		ng/L	38.1		97.1	70-130			
Surrogate: D5-NEtFOSAA	*135*		ng/L	153		88.5	70-130			
LCS (B334725-BS1)				Prepared: 03/21/23 Analyzed: 03/22/23						
Perfluorobutanesulfonic acid (PFBS)	1.27	1.9	ng/L	1.72		73.5	50-150			J
Perfluorohexanoic acid (PFHxA)	1.36	1.9	ng/L	1.94		69.8	50-150			J
Perfluorohexanesulfonic acid (PFHxS)	1.11	1.9	ng/L	1.78		62.6	50-150			J
Perfluoroheptanoic acid (PFHpA)	1.23	1.9	ng/L	1.94		63.4	50-150			J
Perfluorooctanoic acid (PFOA)	1.37	1.9	ng/L	1.94		70.3	50-150			J
Perfluorooctanesulfonic acid (PFOS)	1.23	1.9	ng/L	1.80		68.0	50-150			J
Perfluorononanoic acid (PFNA)	1.42	1.9	ng/L	1.94		73.0	50-150			J
Perfluorodecanoic acid (PFDA)	1.70	1.9	ng/L	1.94		87.4	50-150			J
N-EtFOSAA (NEtFOSAA)	1.05	1.9	ng/L	1.94		54.0	50-150			J
Perfluoroundecanoic acid (PFUnA)	1.22	1.9	ng/L	1.94		63.0	50-150			J
N-MeFOSAA (NMeFOSAA)	1.11	1.9	ng/L	1.94		57.4	50-150			J
Perfluorododecanoic acid (PFDoA)	1.19	1.9	ng/L	1.94		61.3	50-150			J
Perfluorotridecanoic acid (PFTrDA)	1.28	1.9	ng/L	1.94		65.9	50-150			J
Perfluorotetradecanoic acid (PFTA)	1.36	1.9	ng/L	1.94		70.0	50-150			J
Hexafluoropropylene oxide dimer acid (HFPO-DA)	1.22	1.9	ng/L	1.94		63.0	50-150			J
11Cl-PF3OUdS (F53B Major)	1.08	1.9	ng/L	1.83		58.7	50-150			J
9Cl-PF3ONS (F53B Minor)	1.24	1.9	ng/L	1.81		68.1	50-150			J
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.16	1.9	ng/L	1.84		63.4	50-150			J
Surrogate: 13C-PFHxA	*36.9*		ng/L	38.9		95.0	70-130			
Surrogate: M3HFPO-DA	*36.7*		ng/L	38.9		94.4	70-130			
Surrogate: 13C-PFDA	*35.4*		ng/L	38.9		91.1	70-130			
Surrogate: D5-NEtFOSAA	*135*		ng/L	155		86.7	70-130			

QUALITY CONTROL

Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B334725 - EPA 537.1											
Matrix Spike (B334725-MS1)	**Source: 23C2156-08**			Prepared: 03/21/23 Analyzed: 03/22/23							
Perfluorobutanesulfonic acid (PFBS)	1.04	1.8	ng/L	1.62	ND	64.0		50-150			J
Perfluorohexanoic acid (PFHxA)	1.46	1.8	ng/L	1.83	ND	80.0		50-150			J
Perfluorohexanesulfonic acid (PFHxS)	1.51	1.8	ng/L	1.67	ND	90.6		50-150			J
Perfluoroheptanoic acid (PFHpA)	1.53	1.8	ng/L	1.83	ND	83.5		50-150			J
Perfluorooctanoic acid (PFOA)	2.60	1.8	ng/L	1.83	ND	142		50-150			
Perfluorooctanesulfonic acid (PFOS)	5.81	1.8	ng/L	1.70	4.39	83.5		50-150			
Perfluorononanoic acid (PFNA)	1.43	1.8	ng/L	1.83	ND	78.0		50-150			J
Perfluorodecanoic acid (PFDA)	1.69	1.8	ng/L	1.83	ND	92.4		50-150			J
N-EtFOSAA (NEtFOSAA)	1.57	1.8	ng/L	1.83	ND	86.2		50-150			J
Perfluoroundecanoic acid (PFUnA)	1.29	1.8	ng/L	1.83	ND	70.9		50-150			J
N-MeFOSAA (NMeFOSAA)	1.16	1.8	ng/L	1.83	ND	63.4		50-150			J
Perfluorododecanoic acid (PFDoA)	1.32	1.8	ng/L	1.83	ND	72.0		50-150			J
Perfluorotridecanoic acid (PFTrDA)	1.35	1.8	ng/L	1.83	ND	73.9		50-150			J
Perfluorotetradecanoic acid (PFTA)	0.942	1.8	ng/L	1.83	ND	51.5		50-150			J
Hexafluoropropylene oxide dimer acid (HFPO-DA)	0.936	1.8	ng/L	1.83	ND	51.2		50-150			J
11Cl-PF3OUdS (F53B Major)	1.26	1.8	ng/L	1.72	ND	72.9		50-150			J
9Cl-PF3ONS (F53B Minor)	1.21	1.8	ng/L	1.71	ND	70.9		50-150			J
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.31	1.8	ng/L	1.73	ND	75.8		50-150			J
Surrogate: 13C-PFHxA	*32.8*		ng/L	36.6		89.7		70-130			
Surrogate: M3HFPO-DA	*30.5*		ng/L	36.6		83.3		70-130			
Surrogate: 13C-PFDA	*34.0*		ng/L	36.6		93.1		70-130			
Surrogate: D5-NEtFOSAA	*131*		ng/L	146		89.7		70-130			
Matrix Spike Dup (B334725-MSD1)	**Source: 23C2156-08**			Prepared: 03/21/23 Analyzed: 03/22/23							
Perfluorobutanesulfonic acid (PFBS)	0.864	1.8	ng/L	1.59	ND	54.3		50-150	18.3	50	J
Perfluorohexanoic acid (PFHxA)	1.19	1.8	ng/L	1.79	ND	66.6		50-150	20.2	50	J
Perfluorohexanesulfonic acid (PFHxS)	1.27	1.8	ng/L	1.64	ND	77.4		50-150	17.5	50	J
Perfluoroheptanoic acid (PFHpA)	1.20	1.8	ng/L	1.79	ND	66.9		50-150	23.8	50	J
Perfluorooctanoic acid (PFOA)	1.93	1.8	ng/L	1.79	ND	108		50-150	29.5	50	
Perfluorooctanesulfonic acid (PFOS)	5.60	1.8	ng/L	1.66	4.39	72.6		50-150	3.64	50	
Perfluorononanoic acid (PFNA)	1.30	1.8	ng/L	1.79	ND	72.7		50-150	8.94	50	J
Perfluorodecanoic acid (PFDA)	1.63	1.8	ng/L	1.79	ND	90.7		50-150	3.77	50	J
N-EtFOSAA (NEtFOSAA)	1.36	1.8	ng/L	1.79	ND	76.0		50-150	14.4	50	J
Perfluoroundecanoic acid (PFUnA)	1.18	1.8	ng/L	1.79	ND	65.6		50-150	9.53	50	J
N-MeFOSAA (NMeFOSAA)	0.982	1.8	ng/L	1.79	ND	54.7		50-150	16.5	50	J
Perfluorododecanoic acid (PFDoA)	1.38	1.8	ng/L	1.79	ND	76.9		50-150	4.67	50	J
Perfluorotridecanoic acid (PFTrDA)	1.27	1.8	ng/L	1.79	ND	70.6		50-150	6.33	50	J
Perfluorotetradecanoic acid (PFTA)	1.12	1.8	ng/L	1.79	ND	62.5		50-150	17.4	50	J
Hexafluoropropylene oxide dimer acid (HFPO-DA)	0.879	1.8	ng/L	1.79	ND	**49.0**	*	50-150		50	MS-22, J
11Cl-PF3OUdS (F53B Major)	1.22	1.8	ng/L	1.69	ND	71.9		50-150	3.22	50	J
9Cl-PF3ONS (F53B Minor)	1.21	1.8	ng/L	1.67	ND	72.5		50-150	0.295	50	J
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	0.980	1.8	ng/L	1.70	ND	57.8		50-150	28.8	50	J
Surrogate: 13C-PFHxA	*29.8*		ng/L	35.9		83.0		70-130			
Surrogate: M3HFPO-DA	*26.4*		ng/L	35.9		73.7		70-130			
Surrogate: 13C-PFDA	*33.3*		ng/L	35.9		92.8		70-130			
Surrogate: D5-NEtFOSAA	*127*		ng/L	144		88.4		70-130			

QUALITY CONTROL

Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B334730 - SOP 454-PFAAS										
Blank (B334730-BLK1)				Prepared: 03/21/23 Analyzed: 03/22/23						
Perfluorobutanoic acid (PFBA)	ND	1.9	ng/L							
Perfluorobutanesulfonic acid (PFBS)	ND	1.9	ng/L							
Perfluoropentanoic acid (PFPeA)	ND	1.9	ng/L							
Perfluorohexanoic acid (PFHxA)	ND	1.9	ng/L							
11Cl-PF3OUdS (F53B Major)	ND	1.9	ng/L							
9Cl-PF3ONS (F53B Minor)	ND	1.9	ng/L							
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9	ng/L							
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9	ng/L							
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.9	ng/L							
Perfluorodecanoic acid (PFDA)	ND	1.9	ng/L							
Perfluorododecanoic acid (PFDoA)	ND	1.9	ng/L							
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9	ng/L							
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9	ng/L							
N-EtFOSAA (NEtFOSAA)	ND	1.9	ng/L							
N-MeFOSAA (NMeFOSAA)	ND	1.9	ng/L							
Perfluorotetradecanoic acid (PFTA)	ND	1.9	ng/L							
Perfluorotridecanoic acid (PFTrDA)	ND	1.9	ng/L							
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.9	ng/L							
Perfluorodecanesulfonic acid (PFDS)	ND	1.9	ng/L							
Perfluorooctanesulfonamide (FOSA)	ND	1.9	ng/L							
Perfluorononanesulfonic acid (PFNS)	ND	1.9	ng/L							
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	1.9	ng/L							
Perfluoro-1-butanesulfonamide (FBSA)	ND	1.9	ng/L							
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9	ng/L							
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9	ng/L							
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9	ng/L							
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.9	ng/L							
Perfluoropetanesulfonic acid (PFPeS)	ND	1.9	ng/L							
Perfluoroundecanoic acid (PFUnA)	ND	1.9	ng/L							
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9	ng/L							
Perfluoroheptanoic acid (PFHpA)	ND	1.9	ng/L							
Perfluorooctanoic acid (PFOA)	ND	1.9	ng/L							
Perfluorooctanesulfonic acid (PFOS)	ND	1.9	ng/L							
Perfluorononanoic acid (PFNA)	ND	1.9	ng/L							
LCS (B334730-BS1)				Prepared: 03/21/23 Analyzed: 03/22/23						
Perfluorobutanoic acid (PFBA)	9.10	1.8	ng/L	9.22		98.6	73-129			
Perfluorobutanesulfonic acid (PFBS)	7.95	1.8	ng/L	8.16		97.4	72-130			
Perfluoropentanoic acid (PFPeA)	9.04	1.8	ng/L	9.22		98.0	72-129			
Perfluorohexanoic acid (PFHxA)	8.86	1.8	ng/L	9.22		96.0	72-129			
11Cl-PF3OUdS (F53B Major)	8.57	1.8	ng/L	8.69		98.7	55.1-141			
9Cl-PF3ONS (F53B Minor)	10.1	1.8	ng/L	8.59		117	59.6-146			
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	9.36	1.8	ng/L	8.69		108	60.3-131			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	7.72	1.8	ng/L	9.22		83.7	37.6-167			
8:2 Fluorotelomersulfonic acid (8:2FTS A)	7.98	1.8	ng/L	8.85		90.1	67-138			
Perfluorodecanoic acid (PFDA)	8.80	1.8	ng/L	9.22		95.4	71-129			
Perfluorododecanoic acid (PFDoA)	9.11	1.8	ng/L	9.22		98.8	72-134			
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	8.79	1.8	ng/L	8.21		107	49.4-154			

QUALITY CONTROL

Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B334730 - SOP 454-PFAAS										
LCS (B334730-BS1)				Prepared: 03/21/23 Analyzed: 03/22/23						
Perfluoroheptanesulfonic acid (PFHpS)	9.58	1.8	ng/L	8.81		109	69-134			
N-EtFOSAA (NEtFOSAA)	10.3	1.8	ng/L	9.22		112	61-135			
N-MeFOSAA (NMeFOSAA)	10.1	1.8	ng/L	9.22		109	65-136			
Perfluorotetradecanoic acid (PFTA)	9.57	1.8	ng/L	9.22		104	71-132			
Perfluorotridecanoic acid (PFTrDA)	9.51	1.8	ng/L	9.22		103	65-144			
4:2 Fluorotelomersulfonic acid (4:2FTS A)	8.75	1.8	ng/L	8.62		102	63-143			
Perfluorodecanesulfonic acid (PFDS)	8.05	1.8	ng/L	8.90		90.4	53-142			
Perfluorooctanesulfonamide (FOSA)	9.41	1.8	ng/L	9.22		102	67-137			
Perfluorononanesulfonic acid (PFNS)	9.48	1.8	ng/L	8.85		107	69-127			
Perfluoro-1-hexanesulfonamide (FHxSA)	9.40	1.8	ng/L	9.22		102	61.7-156			
Perfluoro-1-butanesulfonamide (FBSA)	9.81	1.8	ng/L	9.22		106	61.3-145			
Perfluorohexanesulfonic acid (PFHxS)	8.51	1.8	ng/L	8.44		101	68-131			
Perfluoro-4-oxapentanoic acid (PFMPA)	8.66	1.8	ng/L	9.22		93.9	59.8-147			
Perfluoro-5-oxahexanoic acid (PFMBA)	9.22	1.8	ng/L	9.22		99.9	59.5-146			
6:2 Fluorotelomersulfonic acid (6:2FTS A)	8.89	1.8	ng/L	8.76		101	64-140			
Perfluoropetanesulfonic acid (PFPeS)	8.34	1.8	ng/L	8.67		96.2	71-127			
Perfluoroundecanoic acid (PFUnA)	8.12	1.8	ng/L	9.22		88.0	69-133			
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	9.02	1.8	ng/L	9.22		97.8	58.5-143			
Perfluoroheptanoic acid (PFHpA)	9.38	1.8	ng/L	9.22		102	72-130			
Perfluorooctanoic acid (PFOA)	8.85	1.8	ng/L	9.22		95.9	71-133			
Perfluorooctanesulfonic acid (PFOS)	8.59	1.8	ng/L	8.53		101	65-140			
Perfluorononanoic acid (PFNA)	9.01	1.8	ng/L	9.22		97.7	69-130			
Batch B334750 - SOP 465-PFAAS										
Blank (B334750-BLK1)				Prepared: 03/21/23 Analyzed: 03/27/23						
Perfluorobutanoic acid (PFBA)	ND	0.45	µg/kg wet							
Perfluorobutanesulfonic acid (PFBS)	ND	0.45	µg/kg wet							
Perfluoropentanoic acid (PFPeA)	ND	0.45	µg/kg wet							
Perfluorohexanoic acid (PFHxA)	ND	0.45	µg/kg wet							
11Cl-PF3OUdS (F53B Major)	ND	0.45	µg/kg wet							
9Cl-PF3ONS (F53B Minor)	ND	0.45	µg/kg wet							
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	0.45	µg/kg wet							
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	0.45	µg/kg wet							
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	0.45	µg/kg wet							
Perfluorodecanoic acid (PFDA)	ND	0.45	µg/kg wet							
Perfluorododecanoic acid (PFDoA)	ND	0.45	µg/kg wet							
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	0.45	µg/kg wet							
Perfluoroheptanesulfonic acid (PFHpS)	ND	0.45	µg/kg wet							
N-EtFOSAA (NEtFOSAA)	ND	0.45	µg/kg wet							
N-MeFOSAA (NMeFOSAA)	ND	0.45	µg/kg wet							
Perfluorotetradecanoic acid (PFTA)	ND	0.45	µg/kg wet							
Perfluorotridecanoic acid (PFTrDA)	ND	0.45	µg/kg wet							
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	0.45	µg/kg wet							
Perfluorodecanesulfonic acid (PFDS)	ND	0.45	µg/kg wet							
Perfluorooctanesulfonamide (FOSA)	ND	0.45	µg/kg wet							
Perfluorononanesulfonic acid (PFNS)	ND	0.45	µg/kg wet							
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	0.45	µg/kg wet							
Perfluoro-1-butanesulfonamide (FBSA)	ND	0.45	µg/kg wet							
Perfluorohexanesulfonic acid (PFHxS)	ND	0.45	µg/kg wet							

QUALITY CONTROL

Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B334750 - SOP 465-PFAAS										
Blank (B334750-BLK1)				Prepared: 03/21/23 Analyzed: 03/27/23						
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	0.45	µg/kg wet							
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	0.45	µg/kg wet							
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	0.45	µg/kg wet							
Perfluoropetanesulfonic acid (PFPeS)	ND	0.45	µg/kg wet							
Perfluoroundecanoic acid (PFUnA)	ND	0.45	µg/kg wet							
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	0.45	µg/kg wet							
Perfluoroheptanoic acid (PFHpA)	ND	0.45	µg/kg wet							
Perfluorooctanoic acid (PFOA)	ND	0.45	µg/kg wet							
Perfluorooctanesulfonic acid (PFOS)	ND	0.45	µg/kg wet							
Perfluorononanoic acid (PFNA)	ND	0.45	µg/kg wet							
LCS (B334750-BS1)				Prepared: 03/21/23 Analyzed: 03/27/23						
Perfluorobutanoic acid (PFBA)	1.79	0.44	µg/kg wet	2.24		79.8	71-135			
Perfluorobutanesulfonic acid (PFBS)	1.53	0.44	µg/kg wet	1.98		77.4	72-128			
Perfluoropentanoic acid (PFPeA)	1.76	0.44	µg/kg wet	2.24		78.8	69-132			
Perfluorohexanoic acid (PFHxA)	1.77	0.44	µg/kg wet	2.24		79.0	70-132			
11Cl-PF3OUdS (F53B Major)	1.99	0.44	µg/kg wet	2.11		94.5	41.8-128			
9Cl-PF3ONS (F53B Minor)	2.03	0.44	µg/kg wet	2.08		97.2	51.1-141			
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.79	0.44	µg/kg wet	2.11		85.2	55.2-122			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	1.62	0.44	µg/kg wet	2.24		72.6	27.6-137			
8:2 Fluorotelomersulfonic acid (8:2FTS A)	1.50	0.44	µg/kg wet	2.15		69.8	65-137			
Perfluorodecanoic acid (PFDA)	1.77	0.44	µg/kg wet	2.24		79.0	69-133			
Perfluorododecanoic acid (PFDoA)	1.97	0.44	µg/kg wet	2.24		88.2	69-135			
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	1.66	0.44	µg/kg wet	1.99		83.3	56.7-133			
Perfluoroheptanesulfonic acid (PFHpS)	1.94	0.44	µg/kg wet	2.14		90.7	70-132			
N-EtFOSAA (NEtFOSAA)	2.00	0.44	µg/kg wet	2.24		89.6	61-139			
N-MeFOSAA (NMeFOSAA)	2.44	0.44	µg/kg wet	2.24		109	63-144			
Perfluorotetradecanoic acid (PFTA)	1.69	0.44	µg/kg wet	2.24		75.6	69-133			
Perfluorotridecanoic acid (PFTrDA)	1.84	0.44	µg/kg wet	2.24		82.4	66-139			
4:2 Fluorotelomersulfonic acid (4:2FTS A)	1.67	0.44	µg/kg wet	2.09		79.6	62-145			
Perfluorodecanesulfonic acid (PFDS)	1.42	0.44	µg/kg wet	2.16		65.8	59-134			
Perfluorooctanesulfonamide (FOSA)	1.84	0.44	µg/kg wet	2.24		82.4	67-137			
Perfluorononanesulfonic acid (PFNS)	1.85	0.44	µg/kg wet	2.15		86.4	69-125			
Perfluoro-1-hexanesulfonamide (FHxSA)	2.00	0.44	µg/kg wet	2.24		89.5	51.4-142			
Perfluoro-1-butanesulfonamide (FBSA)	2.00	0.44	µg/kg wet	2.24		89.5	53.5-129			
Perfluorohexanesulfonic acid (PFHxS)	1.63	0.44	µg/kg wet	2.05		79.4	67-130			
Perfluoro-4-oxapentanoic acid (PFMPA)	1.58	0.44	µg/kg wet	2.24		70.5	57.8-127			
Perfluoro-5-oxahexanoic acid (PFMBA)	1.80	0.44	µg/kg wet	2.24		80.2	56.5-132			
6:2 Fluorotelomersulfonic acid (6:2FTS A)	2.04	0.44	µg/kg wet	2.13		96.1	64-140			
Perfluoropetanesulfonic acid (PFPeS)	1.57	0.44	µg/kg wet	2.10		74.8	73-123			
Perfluoroundecanoic acid (PFUnA)	1.60	0.44	µg/kg wet	2.24		71.7	64-136			
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	1.88	0.44	µg/kg wet	2.24		84.0	54.5-128			
Perfluoroheptanoic acid (PFHpA)	1.77	0.44	µg/kg wet	2.24		79.3	71-131			
Perfluorooctanoic acid (PFOA)	1.72	0.44	µg/kg wet	2.24		76.8	69-133			
Perfluorooctanesulfonic acid (PFOS)	1.97	0.44	µg/kg wet	2.07		95.2	68-136			
Perfluorononanoic acid (PFNA)	1.70	0.44	µg/kg wet	2.24		75.8	72-129			

QUALITY CONTROL

Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B335034 - EPA 537.1										
Blank (B335034-BLK1)				Prepared: 03/23/23 Analyzed: 03/24/23						
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L							
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L							
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L							
N-EtFOSAA (NEtFOSAA)	ND	2.0	ng/L							
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							
N-MeFOSAA (NMeFOSAA)	ND	2.0	ng/L							
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L							
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L							
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L							
Surrogate: 13C-PFHxA	*40.0*		ng/L	39.6		101	70-130			
Surrogate: M3HFPO-DA	*42.2*		ng/L	39.6		107	70-130			
Surrogate: 13C-PFDA	*38.9*		ng/L	39.6		98.3	70-130			
Surrogate: D5-NEtFOSAA	*156*		ng/L	158		98.8	70-130			
LCS (B335034-BS1)				Prepared: 03/23/23 Analyzed: 03/24/23						
Perfluorobutanesulfonic acid (PFBS)	1.77	2.0	ng/L	1.73		102	50-150			J
Perfluorohexanoic acid (PFHxA)	1.78	2.0	ng/L	1.95		90.9	50-150			J
Perfluorohexanesulfonic acid (PFHxS)	1.73	2.0	ng/L	1.79		97.2	50-150			J
Perfluoroheptanoic acid (PFHpA)	1.98	2.0	ng/L	1.95		102	50-150			J
Perfluorooctanoic acid (PFOA)	2.65	2.0	ng/L	1.95		136	50-150			
Perfluorooctanesulfonic acid (PFOS)	1.47	2.0	ng/L	1.81		80.9	50-150			J
Perfluorononanoic acid (PFNA)	1.78	2.0	ng/L	1.95		90.9	50-150			J
Perfluorodecanoic acid (PFDA)	1.93	2.0	ng/L	1.95		99.0	50-150			J
N-EtFOSAA (NEtFOSAA)	1.58	2.0	ng/L	1.95		80.9	50-150			J
Perfluoroundecanoic acid (PFUnA)	1.74	2.0	ng/L	1.95		89.0	50-150			J
N-MeFOSAA (NMeFOSAA)	2.09	2.0	ng/L	1.95		107	50-150			
Perfluorododecanoic acid (PFDoA)	1.45	2.0	ng/L	1.95		74.3	50-150			J
Perfluorotridecanoic acid (PFTrDA)	1.57	2.0	ng/L	1.95		80.6	50-150			J
Perfluorotetradecanoic acid (PFTA)	1.79	2.0	ng/L	1.95		91.9	50-150			J
Hexafluoropropylene oxide dimer acid (HFPO-DA)	1.96	2.0	ng/L	1.95		100	50-150			J
11Cl-PF3OUdS (F53B Major)	1.88	2.0	ng/L	1.84		102	50-150			J
9Cl-PF3ONS (F53B Minor)	1.70	2.0	ng/L	1.82		93.3	50-150			J
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.73	2.0	ng/L	1.85		93.5	50-150			J
Surrogate: 13C-PFHxA	*40.0*		ng/L	39.1		102	70-130			
Surrogate: M3HFPO-DA	*40.3*		ng/L	39.1		103	70-130			
Surrogate: 13C-PFDA	*38.9*		ng/L	39.1		99.7	70-130			
Surrogate: D5-NEtFOSAA	*161*		ng/L	156		103	70-130			

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B335034 - EPA 537.1										
LCS Dup (B335034-BSD1)				Prepared: 03/23/23 Analyzed: 03/24/23						
Perfluorobutanesulfonic acid (PFBS)	1.85	2.0	ng/L	1.76		105	50-150	4.74	50	J
Perfluorohexanoic acid (PFHxA)	1.95	2.0	ng/L	1.98		98.3	50-150	9.42	50	J
Perfluorohexanesulfonic acid (PFHxS)	1.87	2.0	ng/L	1.81		103	50-150	7.69	50	J
Perfluoroheptanoic acid (PFHpA)	2.06	2.0	ng/L	1.98		104	50-150	3.83	50	
Perfluorooctanoic acid (PFOA)	1.98	2.0	ng/L	1.98		99.9	50-150	28.8	50	J
Perfluorooctanesulfonic acid (PFOS)	1.75	2.0	ng/L	1.84		94.8	50-150	17.4	50	J
Perfluorononanoic acid (PFNA)	1.95	2.0	ng/L	1.98		98.2	50-150	9.32	50	J
Perfluorodecanoic acid (PFDA)	2.21	2.0	ng/L	1.98		111	50-150	13.2	50	
N-EtFOSAA (NEtFOSAA)	1.55	2.0	ng/L	1.98		78.1	50-150	1.91	50	J
Perfluoroundecanoic acid (PFUnA)	2.01	2.0	ng/L	1.98		101	50-150	14.5	50	
N-MeFOSAA (NMeFOSAA)	1.72	2.0	ng/L	1.98		86.8	50-150	19.4	50	J
Perfluorododecanoic acid (PFDoA)	1.96	2.0	ng/L	1.98		98.6	50-150	29.6	50	J
Perfluorotridecanoic acid (PFTrDA)	1.88	2.0	ng/L	1.98		94.6	50-150	17.6	50	J
Perfluorotetradecanoic acid (PFTA)	1.82	2.0	ng/L	1.98		91.8	50-150	1.52	50	J
Hexafluoropropylene oxide dimer acid (HFPO-DA)	2.10	2.0	ng/L	1.98		106	50-150	7.20	50	
11Cl-PF3OUdS (F53B Major)	1.92	2.0	ng/L	1.87		103	50-150	2.31	50	J
9Cl-PF3ONS (F53B Minor)	1.97	2.0	ng/L	1.85		107	50-150	14.9	50	J
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.85	2.0	ng/L	1.88		98.8	50-150	7.18	50	J
Surrogate: 13C-PFHxA	*41.2*		ng/L	39.7		104	70-130			
Surrogate: M3HFPO-DA	*41.1*		ng/L	39.7		104	70-130			
Surrogate: 13C-PFDA	*39.9*		ng/L	39.7		101	70-130			
Surrogate: D5-NEtFOSAA	*162*		ng/L	159		102	70-130			

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
J	Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag).
MS-22	Either matrix spike or MS duplicate is outside of control limits, but the other is within limits. RPD between the two MS/MSD results is within method specified criteria.

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

INTERNAL STANDARD AREA AND RT SUMMARY

SOP-454 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
EB-AUGER (23C2156-01)			Lab File ID: 23C2156-01.d			Analyzed: 03/22/23 11:36			
M8FOSA	215066.9	4.00455	267,796.00	4.00455	80	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	68420.77	2.58715	92,871.00	2.58715	74	50 - 150	0.0000	+/-0.50	
M2PFTA	506627.2	4.329683	695,354.00	4.329683	73	50 - 150	0.0000	+/-0.50	
M2-8:2FTS	76137.56	3.8028	85,336.00	3.8028	89	50 - 150	0.0000	+/-0.50	
MPFBA	291788.7	1.0834	324,336.00	1.0834	90	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	89651.39	2.904767	107,431.00	2.904767	83	50 - 150	0.0000	+/-0.50	
M6PFDA	472323.3	3.803317	496,031.00	3.803317	95	50 - 150	0.0000	+/-0.50	
M3PFBS	91004.01	1.969733	100,751.00	1.96145	90	50 - 150	0.0083	+/-0.50	
M7PFUnA	478383	3.954033	577,276.00	3.954033	83	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	62973.89	3.453267	72,545.00	3.453267	87	50 - 150	0.0000	+/-0.50	
M5PFPeA	290365.7	1.7826	315,160.00	1.7826	92	50 - 150	0.0000	+/-0.50	
M5PFHxA	427143.8	2.680533	452,281.00	2.680533	94	50 - 150	0.0000	+/-0.50	
M3PFHxS	69925.84	3.2345	77,181.00	3.2345	91	50 - 150	0.0000	+/-0.50	
M4PFHpA	468654.5	3.203083	476,502.00	3.203083	98	50 - 150	0.0000	+/-0.50	
M8PFOA	548675.8	3.461933	544,943.00	3.461933	101	50 - 150	0.0000	+/-0.50	
M8PFOS	76507.67	3.644167	78,480.00	3.644167	97	50 - 150	0.0000	+/-0.50	
M9PFNA	518801.8	3.653183	498,456.00	3.653183	104	50 - 150	0.0000	+/-0.50	
MPFDoA	413774.7	4.096633	507,136.00	4.08865	82	50 - 150	0.0080	+/-0.50	
D5-NEtFOSAA	127302.5	3.9615	166,323.00	3.9615	77	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	168665.8	3.88175	186,319.00	3.88175	91	50 - 150	0.0000	+/-0.50	

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

INTERNAL STANDARD AREA AND RT SUMMARY

SOP-454 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
EB-SPADE (23C2156-02)			Lab File ID: 23C2156-02.d			Analyzed: 03/22/23 11:43			
M8FOSA	244585.6	4.00455	267,796.00	4.00455	91	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	76477.02	2.58715	92,871.00	2.58715	82	50 - 150	0.0000	+/-0.50	
M2PFTA	616969.4	4.329683	695,354.00	4.329683	89	50 - 150	0.0000	+/-0.50	
M2-8:2FTS	78767.3	3.8028	85,336.00	3.8028	92	50 - 150	0.0000	+/-0.50	
MPFBA	311210.3	1.0834	324,336.00	1.0834	96	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	115349.6	2.904767	107,431.00	2.904767	107	50 - 150	0.0000	+/-0.50	
M6PFDA	499009.7	3.803317	496,031.00	3.803317	101	50 - 150	0.0000	+/-0.50	
M3PFBS	98732.23	1.969733	100,751.00	1.96145	98	50 - 150	0.0083	+/-0.50	
M7PFUnA	577460.5	3.954033	577,276.00	3.954033	100	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	68143.2	3.453267	72,545.00	3.453267	94	50 - 150	0.0000	+/-0.50	
M5PFPeA	308987.8	1.7826	315,160.00	1.7826	98	50 - 150	0.0000	+/-0.50	
M5PFHxA	455068.6	2.680533	452,281.00	2.680533	101	50 - 150	0.0000	+/-0.50	
M3PFHxS	79106.48	3.2345	77,181.00	3.2345	102	50 - 150	0.0000	+/-0.50	
M4PFHpA	499702.1	3.203083	476,502.00	3.203083	105	50 - 150	0.0000	+/-0.50	
M8PFOA	571639.6	3.461933	544,943.00	3.461933	105	50 - 150	0.0000	+/-0.50	
M8PFOS	82740.08	3.644167	78,480.00	3.644167	105	50 - 150	0.0000	+/-0.50	
M9PFNA	555118.8	3.653183	498,456.00	3.653183	111	50 - 150	0.0000	+/-0.50	
MPFDoA	494566.5	4.08865	507,136.00	4.08865	98	50 - 150	0.0000	+/-0.50	
D5-NEtFOSAA	176343.9	3.9615	166,323.00	3.9615	106	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	163408.4	3.88175	186,319.00	3.88175	88	50 - 150	0.0000	+/-0.50	
EB-SW (23C2156-03)			Lab File ID: 23C2156-03.d			Analyzed: 03/22/23 10:09			
13C-PFOA	547734.9	3.16265	615,764.00	3.16265	89	50 - 150	0.0000	+/-0.50	
13C-PFOS	274544	3.466367	322,015.00	3.466367	85	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	858749.1	3.757283	771,761.00	3.757283	111	50 - 150	0.0000	+/-0.50	
L3-SW4-2023 (23C2156-04)			Lab File ID: 23C2156-04.d			Analyzed: 03/22/23 10:16			
13C-PFOA	526610.8	3.16265	615,764.00	3.16265	86	50 - 150	0.0000	+/-0.50	
13C-PFOS	251640.6	3.466383	322,015.00	3.466367	78	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	834162.9	3.757317	771,761.00	3.757283	108	50 - 150	0.0000	+/-0.50	
L3-SW3-2023 (23C2156-05)			Lab File ID: 23C2156-05.d			Analyzed: 03/22/23 10:24			
13C-PFOA	528313.4	3.16265	615,764.00	3.16265	86	50 - 150	0.0000	+/-0.50	
13C-PFOS	249841.4	3.466367	322,015.00	3.466367	78	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	833405.5	3.7573	771,761.00	3.757283	108	50 - 150	0.0000	+/-0.50	

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

INTERNAL STANDARD AREA AND RT SUMMARY

SOP-466 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
L3-SD11-2023 (23C2156-06)			Lab File ID: 23C2156-06.d			Analyzed: 03/27/23 22:34			
M8FOSA	258223.9	4.060517	284,207.00	4.060517	91	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	64230.25	2.6531	96,797.00	2.661333	66	50 - 150	-0.0082	+/-0.50	
M2PFTA	454656.3	4.394667	526,238.00	4.394667	86	50 - 150	0.0000	+/-0.50	
M2-8:2FTS	89279.3	3.866833	139,880.00	3.86685	64	50 - 150	0.0000	+/-0.50	
MPFBA	324984.7	1.13325	315,974.00	1.13325	103	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	45373.75	2.9622	48,238.00	2.9622	94	50 - 150	0.0000	+/-0.50	
M6PFDA	471767.3	3.867333	593,447.00	3.867333	79	50 - 150	0.0000	+/-0.50	
M3PFBS	72242.89	2.02765	72,415.00	2.02765	100	50 - 150	0.0000	+/-0.50	
M7PFUnA	485395.7	4.009984	548,515.00	4.017983	88	50 - 150	-0.0080	+/-0.50	
M2-6:2FTS	53641.22	3.5176	78,286.00	3.517617	69	50 - 150	0.0000	+/-0.50	
M5PFPeA	241886.9	1.841083	247,662.00	1.8411	98	50 - 150	0.0000	+/-0.50	
M5PFHxA	349905.5	2.747217	384,630.00	2.747233	91	50 - 150	0.0000	+/-0.50	
M3PFHxS	64618.13	3.2923	66,286.00	3.2923	97	50 - 150	0.0000	+/-0.50	
M4PFHpA	311906.2	3.268017	377,382.00	3.268033	83	50 - 150	0.0000	+/-0.50	
M8PFOA	376558.2	3.526133	375,398.00	3.52615	100	50 - 150	0.0000	+/-0.50	
M8PFOS	93357.62	3.708283	104,096.00	3.7083	90	50 - 150	0.0000	+/-0.50	
M9PFNA	453394.3	3.709283	509,945.00	3.709283	89	50 - 150	0.0000	+/-0.50	
MPFDoA	440059.8	4.153133	493,970.00	4.153133	89	50 - 150	0.0000	+/-0.50	
D5-NEtFOSAA	97368.21	4.01745	106,675.00	4.02545	91	50 - 150	-0.0080	+/-0.50	
D3-NMeFOSAA	126895.6	3.945867	139,410.00	3.945867	91	50 - 150	0.0000	+/-0.50	

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

INTERNAL STANDARD AREA AND RT SUMMARY

SOP-466 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
L3-SD10-2023 (23C2156-07)			Lab File ID: 23C2156-07.d			Analyzed: 03/27/23 22:41			
M8FOSA	263369	4.060517	284,207.00	4.060517	93	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	73115.12	2.6531	96,797.00	2.661333	76	50 - 150	-0.0082	+/-0.50	
M2PFTA	427293	4.394667	526,238.00	4.394667	81	50 - 150	0.0000	+/-0.50	
M2-8:2FTS	82221.41	3.86685	139,880.00	3.86685	59	50 - 150	0.0000	+/-0.50	
MPFBA	329082.5	1.12495	315,974.00	1.13325	104	50 - 150	-0.0083	+/-0.50	
M3HFPO-DA	46248.86	2.9622	48,238.00	2.9622	96	50 - 150	0.0000	+/-0.50	
M6PFDA	506867.8	3.867333	593,447.00	3.867333	85	50 - 150	0.0000	+/-0.50	
M3PFBS	70805.21	2.02765	72,415.00	2.02765	98	50 - 150	0.0000	+/-0.50	
M7PFUnA	454260.6	4.009984	548,515.00	4.017983	83	50 - 150	-0.0080	+/-0.50	
M2-6:2FTS	58036.05	3.517617	78,286.00	3.517617	74	50 - 150	0.0000	+/-0.50	
M5PFPeA	244401.2	1.8328	247,662.00	1.8411	99	50 - 150	-0.0083	+/-0.50	
M5PFHxA	345180.5	2.73905	384,630.00	2.747233	90	50 - 150	-0.0082	+/-0.50	
M3PFHxS	61098.75	3.2923	66,286.00	3.2923	92	50 - 150	0.0000	+/-0.50	
M4PFHpA	314208.8	3.268033	377,382.00	3.268033	83	50 - 150	0.0000	+/-0.50	
M8PFOA	355737.6	3.52615	375,398.00	3.52615	95	50 - 150	0.0000	+/-0.50	
M8PFOS	85897.59	3.7083	104,096.00	3.7083	83	50 - 150	0.0000	+/-0.50	
M9PFNA	466774.1	3.709283	509,945.00	3.709283	92	50 - 150	0.0000	+/-0.50	
MPFDoA	419749.6	4.153133	493,970.00	4.153133	85	50 - 150	0.0000	+/-0.50	
D5-NEtFOSAA	113562	4.01745	106,675.00	4.02545	106	50 - 150	-0.0080	+/-0.50	
D3-NMeFOSAA	129073.8	3.945867	139,410.00	3.945867	93	50 - 150	0.0000	+/-0.50	
L3-WSW2-2023 (MSMSD) (23C2156-08)			Lab File ID: 23C2156-08.d			Analyzed: 03/22/23 10:31			
13C-PFOA	507709.2	3.16265	615,764.00	3.16265	82	50 - 150	0.0000	+/-0.50	
13C-PFOS	244630.3	3.466383	322,015.00	3.466367	76	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	797486.7	3.757283	771,761.00	3.757283	103	50 - 150	0.0000	+/-0.50	
L3-WSW2-2023 FRB (23C2156-09)			Lab File ID: 23C2156-09.d			Analyzed: 03/22/23 10:38			
13C-PFOA	492125.8	3.16265	615,764.00	3.16265	80	50 - 150	0.0000	+/-0.50	
13C-PFOS	244834.9	3.466367	322,015.00	3.466367	76	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	732740.7	3.757283	771,761.00	3.757283	95	50 - 150	0.0000	+/-0.50	

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

INTERNAL STANDARD AREA AND RT SUMMARY

SOP-466 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
L3-WSD2-2023 (23C2156-10)			Lab File ID: 23C2156-10.d			Analyzed: 03/27/23 22:48			
M8FOSA	220311.4	4.060517	284,207.00	4.060517	78	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	52402.24	2.6531	96,797.00	2.661333	54	50 - 150	-0.0082	+/-0.50	
M2PFTA	372117.8	4.394667	526,238.00	4.394667	71	50 - 150	0.0000	+/-0.50	
M2-8:2FTS	74972.2	3.86685	139,880.00	3.86685	54	50 - 150	0.0000	+/-0.50	
MPFBA	265790.2	1.13325	315,974.00	1.13325	84	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	37253	2.9622	48,238.00	2.9622	77	50 - 150	0.0000	+/-0.50	
M6PFDA	393561.1	3.867333	593,447.00	3.867333	66	50 - 150	0.0000	+/-0.50	
M3PFBS	57455.73	2.02765	72,415.00	2.02765	79	50 - 150	0.0000	+/-0.50	
M7PFUnA	382520.5	4.009984	548,515.00	4.017983	70	50 - 150	-0.0080	+/-0.50	
M2-6:2FTS	48010.54	3.517617	78,286.00	3.517617	61	50 - 150	0.0000	+/-0.50	
M5PFPeA	196160.3	1.8411	247,662.00	1.8411	79	50 - 150	0.0000	+/-0.50	
M5PFHxA	278757.3	2.747233	384,630.00	2.747233	72	50 - 150	0.0000	+/-0.50	
M3PFHxS	51364.76	3.2923	66,286.00	3.2923	77	50 - 150	0.0000	+/-0.50	
M4PFHpA	264928.4	3.268033	377,382.00	3.268033	70	50 - 150	0.0000	+/-0.50	
M8PFOA	301147.3	3.52615	375,398.00	3.52615	80	50 - 150	0.0000	+/-0.50	
M8PFOS	74710.14	3.7083	104,096.00	3.7083	72	50 - 150	0.0000	+/-0.50	
M9PFNA	389172	3.7093	509,945.00	3.709283	76	50 - 150	0.0000	+/-0.50	
MPFDoA	343958.3	4.153133	493,970.00	4.153133	70	50 - 150	0.0000	+/-0.50	
D5-NEtFOSAA	93078.8	4.01745	106,675.00	4.02545	87	50 - 150	-0.0080	+/-0.50	
D3-NMeFOSAA	121855.7	3.945867	139,410.00	3.945867	87	50 - 150	0.0000	+/-0.50	

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

INTERNAL STANDARD AREA AND RT SUMMARY

SOP-466 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
L3-SD8-2023 (MS/MSD) (23C2156-11)			Lab File ID: 23C2156-11.d			Analyzed: 03/27/23 23:03			
M8FOSA	257102.7	4.060534	284,207.00	4.060517	90	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	65421.82	2.6531	96,797.00	2.6531	68	50 - 150	0.0000	+/-0.50	
M2PFTA	422725.9	4.386567	526,238.00	4.394667	80	50 - 150	-0.0081	+/-0.50	
M2-8:2FTS	89182.12	3.86685	139,880.00	3.86685	64	50 - 150	0.0000	+/-0.50	
MPFBA	302306.4	1.12495	315,974.00	1.12495	96	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	44565.36	2.962217	48,238.00	2.962217	92	50 - 150	0.0000	+/-0.50	
M6PFDA	474012.3	3.86735	593,447.00	3.867333	80	50 - 150	0.0000	+/-0.50	
M3PFBS	66801.14	2.02765	72,415.00	2.02765	92	50 - 150	0.0000	+/-0.50	
M7PFUnA	435830.3	4.01	548,515.00	4.009984	79	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	55994.15	3.517633	78,286.00	3.509617	72	50 - 150	0.0080	+/-0.50	
M5PFPeA	231491.5	1.8328	247,662.00	1.8328	93	50 - 150	0.0000	+/-0.50	
M5PFHxA	329037.1	2.73905	384,630.00	2.73905	86	50 - 150	0.0000	+/-0.50	
M3PFHxS	59178.01	3.2923	66,286.00	3.2923	89	50 - 150	0.0000	+/-0.50	
M4PFHpA	293651.7	3.25995	377,382.00	3.25995	78	50 - 150	0.0000	+/-0.50	
M8PFOA	342298.5	3.52615	375,398.00	3.52615	91	50 - 150	0.0000	+/-0.50	
M8PFOS	89942.3	3.7083	104,096.00	3.7083	86	50 - 150	0.0000	+/-0.50	
M9PFNA	446827.3	3.7093	509,945.00	3.709283	88	50 - 150	0.0000	+/-0.50	
MPFDoA	398238.6	4.15315	493,970.00	4.153133	81	50 - 150	0.0000	+/-0.50	
D5-NEtFOSAA	95346.84	4.017467	106,675.00	4.01745	89	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	129489.7	3.937883	139,410.00	3.937883	93	50 - 150	0.0000	+/-0.50	

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

INTERNAL STANDARD AREA AND RT SUMMARY

SOP-454 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
L3-SD8-2023 FB (23C2156-12)			Lab File ID: 23C2156-12.d			Analyzed: 03/22/23 11:50			
M8FOSA	194808.8	4.00455	267,796.00	4.00455	73	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	73247.56	2.58715	92,871.00	2.58715	79	50 - 150	0.0000	+/-0.50	
M2PFTA	519532.5	4.329683	695,354.00	4.329683	75	50 - 150	0.0000	+/-0.50	
M2-8:2FTS	77443.84	3.8028	85,336.00	3.8028	91	50 - 150	0.0000	+/-0.50	
MPFBA	298953.1	1.0834	324,336.00	1.0834	92	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	101874.4	2.904767	107,431.00	2.904767	95	50 - 150	0.0000	+/-0.50	
M6PFDA	442461.5	3.803317	496,031.00	3.803317	89	50 - 150	0.0000	+/-0.50	
M3PFBS	89283.34	1.96145	100,751.00	1.96145	89	50 - 150	0.0000	+/-0.50	
M7PFUnA	507648	3.954033	577,276.00	3.954033	88	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	61067.68	3.453267	72,545.00	3.453267	84	50 - 150	0.0000	+/-0.50	
M5PFPeA	279110.3	1.7826	315,160.00	1.7826	89	50 - 150	0.0000	+/-0.50	
M5PFHxA	414251.2	2.680533	452,281.00	2.680533	92	50 - 150	0.0000	+/-0.50	
M3PFHxS	69060.52	3.2345	77,181.00	3.2345	89	50 - 150	0.0000	+/-0.50	
M4PFHpA	450864.4	3.203083	476,502.00	3.203083	95	50 - 150	0.0000	+/-0.50	
M8PFOA	514960.2	3.461933	544,943.00	3.461933	94	50 - 150	0.0000	+/-0.50	
M8PFOS	73668.36	3.644167	78,480.00	3.644167	94	50 - 150	0.0000	+/-0.50	
M9PFNA	504102.7	3.653183	498,456.00	3.653183	101	50 - 150	0.0000	+/-0.50	
MPFDoA	401862.8	4.096633	507,136.00	4.08865	79	50 - 150	0.0080	+/-0.50	
D5-NEtFOSAA	149364.1	3.9615	166,323.00	3.9615	90	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	152509.1	3.88175	186,319.00	3.88175	82	50 - 150	0.0000	+/-0.50	

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

INTERNAL STANDARD AREA AND RT SUMMARY

SOP-466 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
L3-SD9-2023 (23C2156-13)			Lab File ID: 23C2156-13.d			Analyzed: 03/27/23 23:10			
M8FOSA	319008.6	4.0605	284,207.00	4.060517	112	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	89187	2.6531	96,797.00	2.6531	92	50 - 150	0.0000	+/-0.50	
M2PFTA	502126.2	4.394667	526,238.00	4.394667	95	50 - 150	0.0000	+/-0.50	
M2-8:2FTS	115935.7	3.86685	139,880.00	3.86685	83	50 - 150	0.0000	+/-0.50	
MPFBA	366665.3	1.12495	315,974.00	1.12495	116	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	56615.49	2.9622	48,238.00	2.962217	117	50 - 150	0.0000	+/-0.50	
M6PFDA	580097.1	3.867333	593,447.00	3.867333	98	50 - 150	0.0000	+/-0.50	
M3PFBS	80302.05	2.019367	72,415.00	2.02765	111	50 - 150	-0.0083	+/-0.50	
M7PFUnA	485523.8	4.009984	548,515.00	4.009984	89	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	71877.88	3.517617	78,286.00	3.509617	92	50 - 150	0.0080	+/-0.50	
M5PFPeA	274837.3	1.8328	247,662.00	1.8328	111	50 - 150	0.0000	+/-0.50	
M5PFHxA	394892.4	2.739033	384,630.00	2.73905	103	50 - 150	0.0000	+/-0.50	
M3PFHxS	72844.18	3.2923	66,286.00	3.2923	110	50 - 150	0.0000	+/-0.50	
M4PFHpA	379324.2	3.25995	377,382.00	3.25995	101	50 - 150	0.0000	+/-0.50	
M8PFOA	421856.3	3.52615	375,398.00	3.52615	112	50 - 150	0.0000	+/-0.50	
M8PFOS	105453.8	3.7083	104,096.00	3.7083	101	50 - 150	0.0000	+/-0.50	
M9PFNA	541096.6	3.709283	509,945.00	3.709283	106	50 - 150	0.0000	+/-0.50	
MPFDoA	480805	4.153133	493,970.00	4.153133	97	50 - 150	0.0000	+/-0.50	
D5-NEtFOSAA	112699	4.01745	106,675.00	4.01745	106	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	140323.9	3.945867	139,410.00	3.937883	101	50 - 150	0.0080	+/-0.50	
L3-SW5-2023 (23C2156-14RE1)			Lab File ID: 23C2156-14RE1.d			Analyzed: 03/24/23 16:40			
13C-PFOA	520568.3	3.146167	524,777.00	3.154417	99	50 - 150	-0.0082	+/-0.50	
13C-PFOS	231989.4	3.450017	264,911.00	3.450033	88	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	844614.7	3.740967	760,726.00	3.740983	111	50 - 150	0.0000	+/-0.50	
WA-SFW3A-2023 (23C2156-15)			Lab File ID: 23C2156-15R.d			Analyzed: 03/22/23 12:06			
13C-PFOA	509341.6	3.16265	615,764.00	3.16265	83	50 - 150	0.0000	+/-0.50	
13C-PFOS	226258	3.466367	322,015.00	3.466383	70	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	834196.3	3.757283	771,761.00	3.757283	108	50 - 150	0.0000	+/-0.50	

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

INTERNAL STANDARD AREA AND RT SUMMARY

SOP-466 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
WA-SD3-2023 (23C2156-16)			Lab File ID: 23C2156-16.d			Analyzed: 03/27/23 23:18			
M8FOSA	276110.1	4.0605	284,207.00	4.060517	97	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	73657.47	2.6531	96,797.00	2.6531	76	50 - 150	0.0000	+/-0.50	
M2PFTA	444840.7	4.394667	526,238.00	4.394667	85	50 - 150	0.0000	+/-0.50	
M2-8:2FTS	93806.11	3.866833	139,880.00	3.86685	67	50 - 150	0.0000	+/-0.50	
MPFBA	333970.9	1.12495	315,974.00	1.12495	106	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	45644.48	2.9622	48,238.00	2.962217	95	50 - 150	0.0000	+/-0.50	
M6PFDA	502887.6	3.867333	593,447.00	3.867333	85	50 - 150	0.0000	+/-0.50	
M3PFBS	73260.05	2.02765	72,415.00	2.02765	101	50 - 150	0.0000	+/-0.50	
M7PFUnA	467194.2	4.009984	548,515.00	4.009984	85	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	69026.16	3.517617	78,286.00	3.509617	88	50 - 150	0.0080	+/-0.50	
M5PFPeA	247901.3	1.8328	247,662.00	1.8328	100	50 - 150	0.0000	+/-0.50	
M5PFHxA	357020.9	2.73905	384,630.00	2.73905	93	50 - 150	0.0000	+/-0.50	
M3PFHxS	62686.89	3.2923	66,286.00	3.2923	95	50 - 150	0.0000	+/-0.50	
M4PFHpA	332743.6	3.25995	377,382.00	3.25995	88	50 - 150	0.0000	+/-0.50	
M8PFOA	386559.1	3.526133	375,398.00	3.52615	103	50 - 150	0.0000	+/-0.50	
M8PFOS	94470.88	3.708283	104,096.00	3.7083	91	50 - 150	0.0000	+/-0.50	
M9PFNA	472739.9	3.709283	509,945.00	3.709283	93	50 - 150	0.0000	+/-0.50	
MPFDoA	420139.5	4.153117	493,970.00	4.153133	85	50 - 150	0.0000	+/-0.50	
D5-NEtFOSAA	105688.5	4.01745	106,675.00	4.01745	99	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	134491	3.937867	139,410.00	3.937883	96	50 - 150	0.0000	+/-0.50	
WA-SW2-2023 (23C2156-17)			Lab File ID: 23C2156-17.d			Analyzed: 03/22/23 10:59			
13C-PFOA	433670.5	3.16265	615,764.00	3.16265	70	50 - 150	0.0000	+/-0.50	
13C-PFOS	206291.1	3.466367	322,015.00	3.466367	64	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	675158.7	3.757283	771,761.00	3.757283	87	50 - 150	0.0000	+/-0.50	
WA-WSW1-2023 (23C2156-18)			Lab File ID: 23C2156-18R.d			Analyzed: 03/22/23 12:13			
13C-PFOA	486917.4	3.16265	615,764.00	3.16265	79	50 - 150	0.0000	+/-0.50	
13C-PFOS	227981.9	3.466367	322,015.00	3.466383	71	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	788639.6	3.7573	771,761.00	3.757283	102	50 - 150	0.0000	+/-0.50	

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

INTERNAL STANDARD AREA AND RT SUMMARY

SOP-466 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
WA-WSD1-2023 (23C2156-19)			Lab File ID: 23C2156-19.d			Analyzed: 03/27/23 23:25			
M8FOSA	281781.7	4.060517	284,207.00	4.060517	99	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	82189.98	2.6531	96,797.00	2.6531	85	50 - 150	0.0000	+/-0.50	
M2PFTA	390600.4	4.394683	526,238.00	4.394667	74	50 - 150	0.0000	+/-0.50	
M2-8:2FTS	109647.1	3.86685	139,880.00	3.86685	78	50 - 150	0.0000	+/-0.50	
MPFBA	353609	1.12495	315,974.00	1.12495	112	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	50797.71	2.9622	48,238.00	2.962217	105	50 - 150	0.0000	+/-0.50	
M6PFDA	537077.9	3.86735	593,447.00	3.867333	91	50 - 150	0.0000	+/-0.50	
M3PFBS	76089.5	2.02765	72,415.00	2.02765	105	50 - 150	0.0000	+/-0.50	
M7PFUnA	462326.2	4.01	548,515.00	4.009984	84	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	63994.16	3.517617	78,286.00	3.509617	82	50 - 150	0.0080	+/-0.50	
M5PFPeA	261356.5	1.8328	247,662.00	1.8328	106	50 - 150	0.0000	+/-0.50	
M5PFHxA	374830	2.739033	384,630.00	2.73905	97	50 - 150	0.0000	+/-0.50	
M3PFHxS	66567.54	3.2923	66,286.00	3.2923	100	50 - 150	0.0000	+/-0.50	
M4PFHpA	354391.3	3.25995	377,382.00	3.25995	94	50 - 150	0.0000	+/-0.50	
M8PFOA	414053.9	3.526133	375,398.00	3.52615	110	50 - 150	0.0000	+/-0.50	
M8PFOS	88919.63	3.7083	104,096.00	3.7083	85	50 - 150	0.0000	+/-0.50	
M9PFNA	458147.1	3.7093	509,945.00	3.709283	90	50 - 150	0.0000	+/-0.50	
MPFDoA	409597.9	4.153133	493,970.00	4.153133	83	50 - 150	0.0000	+/-0.50	
D5-NEtFOSAA	85623.74	4.017467	106,675.00	4.01745	80	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	129680.1	3.945883	139,410.00	3.937883	93	50 - 150	0.0080	+/-0.50	

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

INTERNAL STANDARD AREA AND RT SUMMARY

SOP-466 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
WA-SD4-2023 (23C2156-20)			Lab File ID: 23C2156-20.d			Analyzed: 03/27/23 23:32			
M8FOSA	280328.7	4.060517	284,207.00	4.060517	99	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	70079.03	2.644867	96,797.00	2.6531	72	50 - 150	-0.0082	+/-0.50	
M2PFTA	414066.9	4.38655	526,238.00	4.394667	79	50 - 150	-0.0081	+/-0.50	
M2-8:2FTS	100076.2	3.86685	139,880.00	3.86685	72	50 - 150	0.0000	+/-0.50	
MPFBA	309044.6	1.12495	315,974.00	1.12495	98	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	52724.72	2.9622	48,238.00	2.962217	109	50 - 150	0.0000	+/-0.50	
M6PFDA	450866.7	3.867333	593,447.00	3.867333	76	50 - 150	0.0000	+/-0.50	
M3PFBS	67130.57	2.019367	72,415.00	2.02765	93	50 - 150	-0.0083	+/-0.50	
M7PFUnA	441099.1	4.009984	548,515.00	4.009984	80	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	62960.71	3.517617	78,286.00	3.509617	80	50 - 150	0.0080	+/-0.50	
M5PFPeA	231747.4	1.8328	247,662.00	1.8328	94	50 - 150	0.0000	+/-0.50	
M5PFHxA	334527	2.73905	384,630.00	2.73905	87	50 - 150	0.0000	+/-0.50	
M3PFHxS	58165.59	3.2923	66,286.00	3.2923	88	50 - 150	0.0000	+/-0.50	
M4PFHpA	321121.9	3.25995	377,382.00	3.25995	85	50 - 150	0.0000	+/-0.50	
M8PFOA	345098	3.526133	375,398.00	3.52615	92	50 - 150	0.0000	+/-0.50	
M8PFOS	85989.41	3.7083	104,096.00	3.7083	83	50 - 150	0.0000	+/-0.50	
M9PFNA	437171.7	3.7093	509,945.00	3.709283	86	50 - 150	0.0000	+/-0.50	
MPFDoA	364803.5	4.153133	493,970.00	4.153133	74	50 - 150	0.0000	+/-0.50	
D5-NEtFOSAA	93758.06	4.01745	106,675.00	4.01745	88	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	117460	3.937883	139,410.00	3.937883	84	50 - 150	0.0000	+/-0.50	

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

INTERNAL STANDARD AREA AND RT SUMMARY

SOP-466 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
WA-SD5-2023 (23C2156-21)			Lab File ID: 23C2156-21.d			Analyzed: 03/27/23 23:39			
M8FOSA	304425.8	4.060517	284,207.00	4.060517	107	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	86445.48	2.644867	96,797.00	2.6531	89	50 - 150	-0.0082	+/-0.50	
M2PFTA	468210.8	4.38655	526,238.00	4.394667	89	50 - 150	-0.0081	+/-0.50	
M2-8:2FTS	116843.4	3.86685	139,880.00	3.86685	84	50 - 150	0.0000	+/-0.50	
MPFBA	371378.3	1.12495	315,974.00	1.12495	118	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	50661.23	2.962217	48,238.00	2.962217	105	50 - 150	0.0000	+/-0.50	
M6PFDA	579825.1	3.859383	593,447.00	3.867333	98	50 - 150	-0.0080	+/-0.50	
M3PFBS	80754.01	2.019367	72,415.00	2.02765	112	50 - 150	-0.0083	+/-0.50	
M7PFUnA	527669.6	4.01	548,515.00	4.009984	96	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	70111.24	3.509633	78,286.00	3.509617	90	50 - 150	0.0000	+/-0.50	
M5PFPeA	278329.7	1.8328	247,662.00	1.8328	112	50 - 150	0.0000	+/-0.50	
M5PFHxA	406860	2.73905	384,630.00	2.73905	106	50 - 150	0.0000	+/-0.50	
M3PFHxS	73604.15	3.292317	66,286.00	3.2923	111	50 - 150	0.0000	+/-0.50	
M4PFHpA	373625	3.259967	377,382.00	3.25995	99	50 - 150	0.0000	+/-0.50	
M8PFOA	427006.5	3.52615	375,398.00	3.52615	114	50 - 150	0.0000	+/-0.50	
M8PFOS	100718.1	3.7083	104,096.00	3.7083	97	50 - 150	0.0000	+/-0.50	
M9PFNA	523802.1	3.7093	509,945.00	3.709283	103	50 - 150	0.0000	+/-0.50	
MPFDoA	460239.2	4.153133	493,970.00	4.153133	93	50 - 150	0.0000	+/-0.50	
D5-NEtFOSAA	102112.8	4.017467	106,675.00	4.01745	96	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	142949.2	3.937883	139,410.00	3.937883	103	50 - 150	0.0000	+/-0.50	
Blank (B334725-BLK1)			Lab File ID: B334725-BLK1.d			Analyzed: 03/22/23 09:48			
13C-PFOA	617630.9	3.170883	615,764.00	3.16265	100	50 - 150	0.0082	+/-0.50	
13C-PFOS	297951	3.466367	322,015.00	3.466367	93	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	921788.4	3.757283	771,761.00	3.757283	119	50 - 150	0.0000	+/-0.50	
LCS (B334725-BS1)			Lab File ID: B334725-BS1.d			Analyzed: 03/22/23 09:32			
13C-PFOA	557636.4	3.16265	615,764.00	3.16265	91	50 - 150	0.0000	+/-0.50	
13C-PFOS	272549.5	3.466367	322,015.00	3.466367	85	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	819661.9	3.757283	771,761.00	3.757283	106	50 - 150	0.0000	+/-0.50	
Matrix Spike (B334725-MS1)			Lab File ID: B334725-MS1R.d			Analyzed: 03/22/23 11:52			
13C-PFOA	570185.2	3.16265	615,764.00	3.16265	93	50 - 150	0.0000	+/-0.50	
13C-PFOS	267587	3.4582	322,015.00	3.466383	83	50 - 150	-0.0082	+/-0.50	
D3-NMeFOSAA	863162.4	3.757283	771,761.00	3.757283	112	50 - 150	0.0000	+/-0.50	
Matrix Spike Dup (B334725-MSD1)			Lab File ID: B334725-MSD1.d			Analyzed: 03/22/23 10:02			
13C-PFOA	547820.9	3.16265	615,764.00	3.16265	89	50 - 150	0.0000	+/-0.50	
13C-PFOS	258154.4	3.466367	322,015.00	3.466367	80	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	856397.9	3.757283	771,761.00	3.757283	111	50 - 150	0.0000	+/-0.50	

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

INTERNAL STANDARD AREA AND RT SUMMARY

SOP-454 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Blank (B334730-BLK1)			Lab File ID: B334730-BLK1.d			Analyzed: 03/22/23 09:11			
M8FOSA	200360.1	4.00455	267,796.00	4.00455	75	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	69893.22	2.595367	92,871.00	2.595367	75	50 - 150	0.0000	+/-0.50	
M2PFTA	495992.7	4.3378	695,354.00	4.329683	71	50 - 150	0.0081	+/-0.50	
M2-8:2FTS	68224.73	3.8028	85,336.00	3.810767	80	50 - 150	-0.0080	+/-0.50	
MPFBA	264820	1.0834	324,336.00	1.0834	82	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	95410.07	2.904767	107,431.00	2.904767	89	50 - 150	0.0000	+/-0.50	
M6PFDA	410704.6	3.803317	496,031.00	3.803317	83	50 - 150	0.0000	+/-0.50	
M3PFBS	86623.02	1.969733	100,751.00	1.969733	86	50 - 150	0.0000	+/-0.50	
M7PFUnA	419663.9	3.954033	577,276.00	3.954033	73	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	65811.05	3.453267	72,545.00	3.453267	91	50 - 150	0.0000	+/-0.50	
M5PFPeA	271682.4	1.7826	315,160.00	1.7826	86	50 - 150	0.0000	+/-0.50	
M5PFHxA	400586	2.680533	452,281.00	2.680533	89	50 - 150	0.0000	+/-0.50	
M3PFHxS	66328.42	3.2345	77,181.00	3.2345	86	50 - 150	0.0000	+/-0.50	
M4PFHpA	438864.2	3.203083	476,502.00	3.203083	92	50 - 150	0.0000	+/-0.50	
M8PFOA	491043.4	3.461933	544,943.00	3.469917	90	50 - 150	-0.0080	+/-0.50	
M8PFOS	67528.39	3.644167	78,480.00	3.644167	86	50 - 150	0.0000	+/-0.50	
M9PFNA	458538.1	3.653183	498,456.00	3.653183	92	50 - 150	0.0000	+/-0.50	
MPFDoA	366064.4	4.096633	507,136.00	4.096633	72	50 - 150	0.0000	+/-0.50	
D5-NEtFOSAA	116165.7	3.9615	166,323.00	3.9615	70	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	151231.3	3.88175	186,319.00	3.88175	81	50 - 150	0.0000	+/-0.50	

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

INTERNAL STANDARD AREA AND RT SUMMARY

SOP-454 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LCS (B334730-BS1)			Lab File ID: B334730-BS1.d			Analyzed: 03/22/23 09:04			
M8FOSA	226780.8	3.996567	267,796.00	4.00455	85	50 - 150	-0.0080	+/-0.50	
M2-4:2FTS	75567.98	2.595367	92,871.00	2.595367	81	50 - 150	0.0000	+/-0.50	
M2PFTA	542903.9	4.329683	695,354.00	4.329683	78	50 - 150	0.0000	+/-0.50	
M2-8:2FTS	80202.77	3.8028	85,336.00	3.810767	94	50 - 150	-0.0080	+/-0.50	
MPFBA	297320.2	1.0834	324,336.00	1.0834	92	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	108321.5	2.904767	107,431.00	2.904767	101	50 - 150	0.0000	+/-0.50	
M6PFDA	453008.8	3.803317	496,031.00	3.803317	91	50 - 150	0.0000	+/-0.50	
M3PFBS	91646.48	1.969733	100,751.00	1.969733	91	50 - 150	0.0000	+/-0.50	
M7PFUnA	468952	3.954033	577,276.00	3.954033	81	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	69334.91	3.453267	72,545.00	3.453267	96	50 - 150	0.0000	+/-0.50	
M5PFPeA	298426.5	1.7826	315,160.00	1.7826	95	50 - 150	0.0000	+/-0.50	
M5PFHxA	447316.8	2.680533	452,281.00	2.680533	99	50 - 150	0.0000	+/-0.50	
M3PFHxS	69093.2	3.2345	77,181.00	3.2345	90	50 - 150	0.0000	+/-0.50	
M4PFHpA	470778.3	3.203083	476,502.00	3.203083	99	50 - 150	0.0000	+/-0.50	
M8PFOA	534863.1	3.461933	544,943.00	3.469917	98	50 - 150	-0.0080	+/-0.50	
M8PFOS	65816.23	3.644167	78,480.00	3.644167	84	50 - 150	0.0000	+/-0.50	
M9PFNA	481604.8	3.653183	498,456.00	3.653183	97	50 - 150	0.0000	+/-0.50	
MPFDoA	423903.2	4.096633	507,136.00	4.096633	84	50 - 150	0.0000	+/-0.50	
D5-NEtFOSAA	132686.7	3.9615	166,323.00	3.9615	80	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	166811.1	3.88175	186,319.00	3.88175	90	50 - 150	0.0000	+/-0.50	

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

INTERNAL STANDARD AREA AND RT SUMMARY

SOP-466 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Blank (B334750-BLK1)			Lab File ID: B334750-BLK1.d			Analyzed: 03/27/23 21:21			
M8FOSA	284158.8	4.0605	284,207.00	4.060517	100	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	79414.94	2.661333	96,797.00	2.661333	82	50 - 150	0.0000	+/-0.50	
M2PFTA	411368.1	4.394667	526,238.00	4.394667	78	50 - 150	0.0000	+/-0.50	
M2-8:2FTS	105468.9	3.866833	139,880.00	3.86685	75	50 - 150	0.0000	+/-0.50	
MPFBA	315567.4	1.13325	315,974.00	1.13325	100	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	42999.74	2.970317	48,238.00	2.9622	89	50 - 150	0.0081	+/-0.50	
M6PFDA	494409.2	3.867333	593,447.00	3.867333	83	50 - 150	0.0000	+/-0.50	
M3PFBS	71420.16	2.02765	72,415.00	2.02765	99	50 - 150	0.0000	+/-0.50	
M7PFUnA	478104.2	4.017967	548,515.00	4.017983	87	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	65331.32	3.517617	78,286.00	3.517617	83	50 - 150	0.0000	+/-0.50	
M5PFPeA	247119.5	1.841083	247,662.00	1.8411	100	50 - 150	0.0000	+/-0.50	
M5PFHxA	364527.4	2.747233	384,630.00	2.747233	95	50 - 150	0.0000	+/-0.50	
M3PFHxS	63923.72	3.300333	66,286.00	3.2923	96	50 - 150	0.0080	+/-0.50	
M4PFHpA	338334.9	3.268033	377,382.00	3.268033	90	50 - 150	0.0000	+/-0.50	
M8PFOA	367859.5	3.526133	375,398.00	3.52615	98	50 - 150	0.0000	+/-0.50	
M8PFOS	92544.69	3.708283	104,096.00	3.7083	89	50 - 150	0.0000	+/-0.50	
M9PFNA	456970.9	3.709283	509,945.00	3.709283	90	50 - 150	0.0000	+/-0.50	
MPFDoA	435071.3	4.153117	493,970.00	4.153133	88	50 - 150	0.0000	+/-0.50	
D5-NEtFOSAA	97437.16	4.025434	106,675.00	4.02545	91	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	125175.2	3.945867	139,410.00	3.945867	90	50 - 150	0.0000	+/-0.50	

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

INTERNAL STANDARD AREA AND RT SUMMARY

SOP-466 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LCS (B334750-BS1)			Lab File ID: B334750-BS1.d			Analyzed: 03/27/23 21:13			
M8FOSA	320477.6	4.060534	284,207.00	4.060517	113	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	95225.9	2.661333	96,797.00	2.661333	98	50 - 150	0.0000	+/-0.50	
M2PFTA	468136.3	4.394683	526,238.00	4.394667	89	50 - 150	0.0000	+/-0.50	
M2-8:2FTS	141405.8	3.86685	139,880.00	3.86685	101	50 - 150	0.0000	+/-0.50	
MPFBA	367362.2	1.13325	315,974.00	1.13325	116	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	57249.57	2.970333	48,238.00	2.9622	119	50 - 150	0.0081	+/-0.50	
M6PFDA	563476	3.86735	593,447.00	3.867333	95	50 - 150	0.0000	+/-0.50	
M3PFBS	82529.87	2.02765	72,415.00	2.02765	114	50 - 150	0.0000	+/-0.50	
M7PFUnA	596846.3	4.018	548,515.00	4.017983	109	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	74694.66	3.517617	78,286.00	3.517617	95	50 - 150	0.0000	+/-0.50	
M5PFPeA	282108.5	1.8411	247,662.00	1.8411	114	50 - 150	0.0000	+/-0.50	
M5PFHxA	419647.3	2.747233	384,630.00	2.747233	109	50 - 150	0.0000	+/-0.50	
M3PFHxS	73543.89	3.30035	66,286.00	3.2923	111	50 - 150	0.0080	+/-0.50	
M4PFHpA	395939.4	3.268033	377,382.00	3.268033	105	50 - 150	0.0000	+/-0.50	
M8PFOA	419533.7	3.52615	375,398.00	3.52615	112	50 - 150	0.0000	+/-0.50	
M8PFOS	107682	3.7083	104,096.00	3.7083	103	50 - 150	0.0000	+/-0.50	
M9PFNA	553751.2	3.709283	509,945.00	3.709283	109	50 - 150	0.0000	+/-0.50	
MPFDoA	507475.6	4.15315	493,970.00	4.153133	103	50 - 150	0.0000	+/-0.50	
D5-NEtFOSAA	111921.3	4.025466	106,675.00	4.02545	105	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	133745.1	3.945883	139,410.00	3.945867	96	50 - 150	0.0000	+/-0.50	
Blank (B335034-BLK1)			Lab File ID: B335034-BLK1.d			Analyzed: 03/24/23 14:53			
13C-PFOA	516424.5	3.154417	524,777.00	3.1544	98	50 - 150	0.0000	+/-0.50	
13C-PFOS	245065.3	3.4582	264,911.00	3.458183	93	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	758141.1	3.749133	760,726.00	3.740967	100	50 - 150	0.0082	+/-0.50	
LCS (B335034-BS1)			Lab File ID: B335034-BS1.d			Analyzed: 03/24/23 14:38			
13C-PFOA	539308.2	3.1544	524,777.00	3.1544	103	50 - 150	0.0000	+/-0.50	
13C-PFOS	259158.8	3.458183	264,911.00	3.458183	98	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	788680.6	3.749117	760,726.00	3.740967	104	50 - 150	0.0082	+/-0.50	
LCS Dup (B335034-BSD1)			Lab File ID: B335034-BSD1.d			Analyzed: 03/24/23 14:46			
13C-PFOA	514861.5	3.1544	524,777.00	3.1544	98	50 - 150	0.0000	+/-0.50	
13C-PFOS	251604.3	3.458183	264,911.00	3.458183	95	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	788948.7	3.740967	760,726.00	3.740967	104	50 - 150	0.0000	+/-0.50	

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA 537.1 in Drinking Water	
Perfluorobutanesulfonic acid (PFBS)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH,OH
Perfluorohexanoic acid (PFHxA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH,OH
Perfluorohexanesulfonic acid (PFHxS)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH,OH
Perfluoroheptanoic acid (PFHpA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH,OH
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH,OH
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH,OH
Perfluorononanoic acid (PFNA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH,OH
Perfluorodecanoic acid (PFDA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH,OH
N-EtFOSAA (NEtFOSAA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH,OH
Perfluoroundecanoic acid (PFUnA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH,OH
N-MeFOSAA (NMeFOSAA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH,OH
Perfluorododecanoic acid (PFDoA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH,OH
Perfluorotridecanoic acid (PFTrDA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH,OH
Perfluorotetradecanoic acid (PFTA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH,OH
Hexafluoropropylene oxide dimer acid (HFPO-DA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH,OH
11Cl-PF3OUdS (F53B Major)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH,OH
9Cl-PF3ONS (F53B Minor)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH,OH
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	VT-DW,NJ,CT,ME,PA,MI,MA,NY,NH,OH
SOP-454 PFAS in Water	
Perfluorobutanoic acid (PFBA)	NH-P
Perfluorobutanesulfonic acid (PFBS)	NH-P
Perfluoropentanoic acid (PFPeA)	NH-P
Perfluorohexanoic acid (PFHxA)	NH-P
11Cl-PF3OUdS (F53B Major)	NH-P
9Cl-PF3ONS (F53B Minor)	NH-P
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	NH-P
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P
8:2 Fluorotelomersulfonic acid (8:2FTS A)	NH-P
Perfluorodecanoic acid (PFDA)	NH-P
Perfluorododecanoic acid (PFDoA)	NH-P
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	NH-P
Perfluoroheptanesulfonic acid (PFHpS)	NH-P
N-EtFOSAA (NEtFOSAA)	NH-P
N-MeFOSAA (NMeFOSAA)	NH-P
Perfluorotetradecanoic acid (PFTA)	NH-P
Perfluorotridecanoic acid (PFTrDA)	NH-P
4:2 Fluorotelomersulfonic acid (4:2FTS A)	NH-P
Perfluorodecanesulfonic acid (PFDS)	NH-P
Perfluorooctanesulfonamide (FOSA)	NH-P
Perfluorononanesulfonic acid (PFNS)	NH-P
Perfluoro-1-hexanesulfonamide (FHxSA)	NH-P
Perfluoro-1-butanesulfonamide (FBSA)	NH-P
Perfluorohexanesulfonic acid (PFHxS)	NH-P
Perfluoro-4-oxapentanoic acid (PFMPA)	NH-P
Perfluoro-5-oxahexanoic acid (PFMBA)	NH-P
6:2 Fluorotelomersulfonic acid (6:2FTS A)	NH-P

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SOP-454 PFAS in Water	
Perfluoropetanesulfonic acid (PFPeS)	NH-P
Perfluoroundecanoic acid (PFUnA)	NH-P
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	NH-P
Perfluoroheptanoic acid (PFHpA)	NH-P
Perfluorooctanoic acid (PFOA)	NH-P
Perfluorooctanesulfonic acid (PFOS)	NH-P
Perfluorononanoic acid (PFNA)	NH-P
SOP-466 PFAS in Soil	
Perfluorobutanoic acid (PFBA)	NH-P
Perfluorobutanesulfonic acid (PFBS)	NH-P
Perfluoropentanoic acid (PFPeA)	NH-P
Perfluorohexanoic acid (PFHxA)	NH-P
11Cl-PF3OUdS (F53B Major)	NH-P
9Cl-PF3ONS (F53B Minor)	NH-P
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	NH-P
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P
8:2 Fluorotelomersulfonic acid (8:2FTS A)	NH-P
Perfluorodecanoic acid (PFDA)	NH-P
Perfluorododecanoic acid (PFDoA)	NH-P
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	NH-P
Perfluoroheptanesulfonic acid (PFHpS)	NH-P
N-EtFOSAA (NEtFOSAA)	NH-P
N-MeFOSAA (NMeFOSAA)	NH-P
Perfluorotetradecanoic acid (PFTA)	NH-P
Perfluorotridecanoic acid (PFTrDA)	NH-P
4:2 Fluorotelomersulfonic acid (4:2FTS A)	NH-P
Perfluorodecanesulfonic acid (PFDS)	NH-P
Perfluorooctanesulfonamide (FOSA)	NH-P
Perfluorononanesulfonic acid (PFNS)	NH-P
Perfluoro-1-hexanesulfonamide (FHxSA)	NH-P
Perfluoro-1-butanesulfonamide (FBSA)	NH-P
Perfluorohexanesulfonic acid (PFHxS)	NH-P
Perfluoro-4-oxapentanoic acid (PFMPA)	NH-P
Perfluoro-5-oxahexanoic acid (PFMBA)	NH-P
6:2 Fluorotelomersulfonic acid (6:2FTS A)	NH-P
Perfluoropetanesulfonic acid (PFPeS)	NH-P
Perfluoroundecanoic acid (PFUnA)	NH-P
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	NH-P
Perfluoroheptanoic acid (PFHpA)	NH-P
Perfluorooctanoic acid (PFOA)	NH-P
Perfluorooctanesulfonic acid (PFOS)	NH-P
Perfluorononanoic acid (PFNA)	NH-P

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
MA	Massachusetts DEP	M-MA100	06/30/2023
CT	Connecticut Department of Public Health	PH-0821	12/31/2024
NY	New York State Department of Health	10899 NELAP	04/1/2024
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2024
NJ	New Jersey DEP	MA007 NELAP	06/30/2023
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2023
ME	State of Maine	MA00100	06/9/2023
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2023
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2023
MI	Dept. of Env, Great Lakes, and Energy	9100	06/30/2023
OH	Ohio Environmental Protection Agency	87781	04/1/2024

23C2156 AH

http://www.pacelabs.com

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Doc # 381 Rev 5_07/13/2021

Page

lytical®

Phone: 413-525-2332
Fax: 413-525-6405
Access COC's and Support Requests

ENAC
1075, ALTON, NH 03809
5-8100
ONYX RAYMOND
STRIAL DRIVE, RAYMOND NH
-681
DD GREENWOOD

Requested Turnaround Time: 7-Day ☐ 10-Day ☐ PFAS 10-Day (std) ☑ Due Date:

Rush-Approval Required: 1-Day ☐ 3-Day ☐ 2-Day ☐ 4-Day ☐

Dissolved Metals Samples: ○ Field Filtered ○ Lab to Filter

Orthophosphate Samples: ○ Field Filtered ○ Lab to Filter

Data Delivery: Format: PDF ☑ EXCEL ☐
Other:
CLP Like Data Pkg Required: ☐
Email To: tag@metrocast.net
~~Fax To #:~~ denawunsch@metrocast.net

PCB ONLY: SOXHLET ☐ NON SOXHLET ☐

ANALYSIS REQUESTED: PFAS 537.1 M-26 COMP. UST; PFAS Isotope Dilution-26 UST

	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	PFAS 537.1 M-26 COMP. UST	PFAS Isotope Dilution-26 UST
1	EB-AUGER	3/16/23	11:20	GRAB	O	C			1				✓
2	EB-SPADE	3/16/23	11:25	GRAB	O	C			1				✓
3	EB-SW	3/16/23	11:30	GRAB	O	C			2			✓	
4	L3-SW4-2023	3/16/23	11:45	GRAB	SW	U			2			✓	
5	L3-SW3-2023	3/16/23	12:00	GRAB	SW	U			2			✓	
6	L3-SD11-2023	3/16/23	12:30	GRAB	SED	U			1				✓
7	L3-SD10-2023	3/16/23	12:47	GRAB	SED	U			1				✓
8	L3-WSW2-2023 (MS/MSD)	3/16/23	13:15	GRAB	SW	U/C			6			✓	
9	L3-WSW2-2023 FRB	3/16/23	13:16	GRAB	O	C			1			✓	
10	L3-WSD2-2023	3/16/23	13:30	GRAB	SED	U			1				✓

Relinquished / Received	Date/Time
(signature)	3/20/23 12:00
(signature)	3/20/23 1230
(signature)	3-20-23 1630
(signature) 3.9	3/20/23 1630
	Date/Time:
	Date/Time:
	Date/Time:
	Date/Time:

Client Comments: MS/MSD LAB REQUIRED
BOTTLE ORDER #2302147
SW - SURFACE WATER
SED - SEDIMENT

Detection Limit Requirements: MA / CT / Other:

Special Requirements:
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity: Government ☐ Municipality ☑ MWRA ☐ WRTA ☐ Federal ☐ 21 J ☐ School ☐ City ☐ Brownfield ☐ MBTA ☐

Other: ☐ Chromatogram ☐ AIHA-LAP,LLC

Right margin (partial): ² Preserva... Glassw... Glasswa... Prepack... ¹Pac... responsib... from ... ³ Ma... GW WW DW A = S = SL = SOL O = defi... ² Pres... I = Ice H = H M = M N = N S = Su B = So X = So T = So Thios... O = O defin...

ort 537.1m (isotope dilution) becasue of volume. JLH 4/6/23

Disclaimer: Pace Analytical is not responsible for any omitted information on the Cha... Chain of Custody is a legal document that must be complete and accurate and is used... analyses the laboratory will perform. Any missing information is not the laboratory's... Analytical values your partnership on each project and will try to assist with missing i... not be held accountable.

2302156

http://www.pacelabs.com

Doc # 381 Rev 7 07/13/2021

lytical® Phone: 413-525-2332
Fax: 413-525-6405
Access COC's and Support Requests

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Page 2

ENAC
1075, ALTON, NH 03809
5-8100
ONYX RAYMOND
STRIAL DRIVE, RAYMOND, NH
0-681
D GREENWOOD
r:
J

Requested Turnaround Time
7-Day ☐ 10-Day ☐
PFAS 10-Day (std) ☑ Due Date:

Rush Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☑ EXCEL ☐
Other:
CLP Like Data Pkg Required: ☐
Email To: tag@metrocast.net
~~Fax To #~~: derawunsch@metrocast.net

Preferred Method for Samples
○ Field Filtered
○ Lab to Filter

Preferred Method for Samples
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET ☐
NON SOXHLET ☐

ANALYSIS REQUESTED

	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	PFAS 537.1M - 24 comp LIST	PFAS Isotope Dilution - 24 LIST	Glassw	Glassw	Prepack	Pace responsib from
11	L3-SD8-2023 (MS/MSD)	3/16/23	14:20	GRAB	SED	U			3				✓				
12	L3-SD8-2023 FB	3/16/23	14:20	GRAB	O	C			1				✓				
13	L3-SD9-2023	3/16/23	14:50	GRAB	SED	U			1				✓				
14	L3-SW5-2023	3/16/23	15:25	GRAB	SW	U			2			✓					
15	WA-SFW3A-2023	3/16/23	16:45	GRAB	SW	U			2			✓					
16	WA-SD3-2023	3/16/23	17:20	GRAB	SED	U			1				✓				
17	WA-SW2-2023	3/16/23	17:40	GRAB	SW	U			2			✓					
16	WA-WSW1-2023	3/16/23	18:10	GRAB	SW	U			2			✓					
19	WA-WSD1-2023	3/16/23	18:45	GRAB	SED	U			1				✓				
20	WA-SD4-2023	3/16/23	19:05	GRAB	SED	U			1				✓				

	Date/Time:
re) unsch	3/20/23 12:00
	Date/Time: 1230 3/20/23
	Date/Time: 3/20/23 1630
re) 39	Date/Time: 3/20/23 1630
re)	Date/Time:
	Date/Time:
re)	Date/Time:
	Date/Time:

Client Comments:
MS/MSD LAB REQUIRED
BOTTLE ORDER #2302147

SW - SURFACE WATER
SED - SEDIMENT

Regulatory Limit Requirements
MA
CT
NY
Other

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Municipality ☑ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

Disclaimer: Pace Analytical is not responsible for any omitted information on the Cha
Chain of Custody is a legal document that must be complete and accurate and is used
analyses the laboratory will perform. Any missing information is not the laboratory's
Analytical values your partnership on each project and will try to assist with missing i
not be held accountable.

http://www.pacelabs.com

Doc # 381 Rev 07/13/2021

lytical

Phone: 413-525-2332
Fax: 413-525-6405
Access COC's and Support Requests

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Page

ENAC
1075, ALTON, NH 03809
35-8100
ONYX RAYMOND
STRUM DRIVE, RAYMOND NH
0-681
OD GREENWOOD
:

Turnaround Time Requested (TAT)
7-Day ☐ 10-Day ☐
PFAS 10-Day (std) ☑ Due Date:
Rush (Authorization Required)
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐
Data Delivery
Format: PDF ☑ EXCEL ☐
Other:
CLP Like Data Pkg Required: ☐
Email To: tag@metrocast.net
~~Fax To #~~: derawunsch@metrocast.net

Preservation (Check all that apply)
○ Field Filtered
○ Lab to Filter
Preservation (Check all that apply)
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET ☐
NON SOXHLET ☐

ANALYSIS REQUESTED

✓ PFAS - ISOTOPE DILUTION - 24 COMP. LIST

	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1]Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE
21	WA-SD5-2023	3/16/23	19:20	GRAB	SED	U			1		

[2] Preserva
Glassw
Glasswar
Prepacka
*Pace
responsibl
from p

[1] Mat
GW =
WW =
DW =
A = A
S = S
SL = S
SOL =
O = O
defin

[2] Prese
I = Iced

H = HC
M = Me
N = Nit
S = Sulf
B = Sod
X = Sod
T = Sod Thiosul
O = Oth define

el	Date/Time: 3/20/23 12:00	Client Comments: MS/MSD LAB REQUIRED BOTTLE ORDER #2302147
	Date/Time: 3/20/23 1220	SW - SURFACE WATER SED - SEDIMENT
	Date/Time: 3-20-23 1620	
39	Date/Time: 3/20/23 1140	
	Date/Time:	
	Date/Time:	
	Date/Time:	

Detection Limit Requirements
PFAS

Special Project Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity
Government ☐ Municipality ☑ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

Disclaimer: Pace Analytical is not responsible for any omitted information on the Chain
Chain of Custody is a legal document that must be complete and accurate and is used t
analyses the laboratory will perform. Any missing information is not the laboratory's re
Analytical values your partnership on each project and will try to assist with missing inf
not be held accountable.

39 Spruce St.
East Longmeadow, MA. 01028
P: 413-525-2332
F:413-525-6405
www.pacelabs.com

Log In Back-Sheet

Login Sample Receipt Checklist – (Rejection Criteria Listing – Using Acceptance Policy) Any False statement will be brought to the attention of the Client – True or False

Pace® PEOPLE ADVANCING SCIENCE

Client ENAC

Project Onyx Raymond

MCP/RCP Required No

Deliverable Package Req. No

Location Raymond, NH

PWSID# (When Applicable) NA

Arrival Method:

Courier ☑ Fed Ex ☐ Walk In ☐ Other ☐

Received By / Date / Time MEM 3/20/23 1630

Back-Sheet By / Date / Time SA 3/20/23 1716

Temperature Method Gun # 5

Temp ☑ < 6° C Actual Temperature 3.9

Rush Samples: Yes / (No) Notify

Short Hold: Yes / (No) Notify

Notes regarding Samples/COC outside of SOP:

	True	False
Received on Ice	☑	☐
Received in Cooler	☑	☐
Custody Seal: DATE TIME	☐	☑
COC Relinquished	☑	☐
COC/Samples Labels Agree	☑	☐
All Samples in Good Condition	☑	☐
Samples Received within Holding Time	☑	☐
Is there enough Volume	☑	☐
Proper Media/Container Used	☑	☐
Splitting Samples Required	☐	☑
MS/MSD	☑	☐
Trip Blanks	☐	☑
Lab to Filters	☐	☑
COC Legible	☑	☐

COC Included: (Check all included)

Client ☑ Analysis ☑ Sampler Name ☑

Project ☑ IDs ☑ Collection Date/Time ☑

All Samples Proper pH: (N/A) ☐ ☐

Container (Circle when applicable)	UnP	HCl	HNO3	H2SO4	NaOH	Trizma	NaS2O3	Other Preservative
1L Amber Plastic								
500 mL Amber Plastic								
250 mL Amber (Plastic)	3					2		
Other Amber Clear (Plastic)	11							
16oz Amber Clear								
8oz Amber Clear								
4oz Amber Clear								
2oz Amber Clear								
Col/Bacteria								
Flashpoint								
Plastic Bag								
SOC Kit								
Perchlorate								
Encore								
Frozen								

	Proper Headspace	UnP	HCl	MeOH	Bisulfate	DI	Thiosulfate	Sulfuric	Other
Vials									

Planning Board Minutes
April 20, 2023 @ 7:00 PM
Media Center Raymond High School
45 Harriman Hill Road, Raymond, NH 03077

Planning Board Members Present:

Dee Luszcz
Jim McLeod
Bob McDonald
Gretchen Gott
Dave Rice
Patricia Bridgeo
Don Roy (Alternate)

Planning Board Members Absent:
None

Staff Present:
Madeleine Dilonno - Circuit Rider Planner, RPC

Pledge of Allegiance: Recited by all in attendance.

Meeting called to order:
The meeting started at approximately 7:00 pm.

Roll Call:
Gretchen Gott, Maddie Dilonno (Rockingham Planning Commission), Jim McLeod, Dee Luszcz, Dave Rice, Bob McDonald, Tricia Bridgeo.

Public Hearing:

Application # 2022-008: A SITE PLAN application is being submitted by Wayne Morrill of Jones & Beach Engineers, Inc. on behalf of ONYX Partners LTD. They are proposing to construct a 550,025 S.F. industrial distribution warehouse with associated loading docks, truck parking, and employee vehicle parking. Property is located on Industrial Drive and Raymond Tax Map 22 / Lots 44,45,46, & 47 and Raymond Tax Map 28-3/Lot 120-1.

Dan Roy, Planning Board Alternate, joined the Board at approximately 7:03pm as an unseated member.

Mrs. Luszcz explained that this application was a continuance even though the agenda did not list it as such and that it would only be a six-member board because the Board of Selectmen have not chosen a representative to the Board yet.

Mr. Anton Melchionda, the owner of record, stated that they would like to start the hearing by going over the correspondence to make sure all the corrections were made.

Wayne Morrill of Jones and Beach engineers, Inc, explained that they brought consultants with them to present the VII traffic analysis, a letter about parking and a drainage amendment presentation. Mr. Morrill stated that they would not meet with GZA until GZA agrees to a date to have a public meeting.

Jeff Dirk with Vanasse and Associates joined that applicant and stated that he would respond to the questions and comments that were submitted at the last meeting. Mr. Dirk said that the square footage of the building was reconciled to 550,025 square feet and they provided new calculations for the Board. The difference between the original trip generation and the updated calculations resulted in about 80 additional trips daily. Mr. Dirk suggested perhaps in providing a monitoring program to validate the trips because they don't have a tenant.

Mr. Roy asked if they are going to allow tandem trailers?

Mr. Morrill said they are not anticipating that type of truck for the facility. Mr. Morrill said there are enough auxiliary parking spaces that it could accommodate the unhooking of a trailer and get another cab to bring another load off of the site. The site is designed for a standard type of tractor trailer.

Ms. Gott commented that she is not a fan of not knowing who the client is.

Mr. Melchionda responded saying that they are only going to market the building to a single tenant. What they have designed is the way the trucks have to operate. The traffic is very controlled.

Mr. Dirk said they will contact the New Hampshire Department of Transportation regarding the nose of the median and moving the sign back. Mr. Dirk continued with questions 4 and 5 which were both about access to the pond. He said the applicant has agreed to widen the roadway and provide a 5-foot shoulder along the south side of Industrial Drive.

Ms. Gott asked if the applicant was aware of the Piping Plovers that nest on the ramp going down into the pond. There is also a blandings turtle that needs to be considered.

Mr. Melchionda said they could block off the area.

Mr. Dirk continued to explain that they are increasing the corner radius from Old Manchester Road to Industrial Drive so the truck can turn without crossing the center line on either road.

Mr. McLeod quoted RSA 231:190 and :191 regarding limits on the roads.

Ms. Gott suggested putting in an OPTICON for emergency vehicles at the intersection.

Mr. Morrill explained that there are 326 parking spaces at the front of the building. They are estimating that there will be an office on this building, roughly 17,500 square feet of space to accommodate 52.5 cars daily for the office workers and the warehouse workers would take up 208 spaces. The trucking operation is a separate operation around the entire site. Mr. Morrill reported that 211 tractor trailer parking spaces would be needed, and they are showing 244. Mr. Morrill said there would not be showers in the facility or a cafeteria, it would strictly be a warehouse facility.

Eric Poulin from Jones and Beach stated that contamination has been a big concern with storm water being directed in the direction of the tannery site and concerns with ground water and drinking water. They have submitted updated drainage plans and a brief drainage summary. Mr. Poulin stated that they added some pretext catch basins with additional sediment removal. The other thing they decided to add was oil/water separators. In Pond 5 they went with a focal point filtration system where the water is filtered through the filter media and is discharged through the underdrain. They also removed the large surface pond over by lagoon 3 from the tannery because they did not want to discharge to lagoon 3 and added another subsurface storm Tek system underneath the pavement that will provide the detention and treatment of the stormwater and moved the discharge point downgrade of lagoon 3. They have added to the northwest corner a plunge pool.

Dr. Robert Rosine introduced himself and demonstrated on exhibit plan 1 the infiltration pond and the infiltration areas. Dr. Rosine identified the primary treatment plan. From the systems standpoint Dr. Rosine asked how they are going to mitigate the concerns about the contamination.

Mrs. Luszcz said that would be addressed at another meeting with GZA.

Mr. McLeod asked about snow storage running off into lagoon #3.

Dr. Rosine replied that they would need to relocate the snow storage. He further explained that they have tried to eliminate the interaction between lagoon #3 and the site. There will be no infiltration pond on its shoulder. There will be no subsurface structure leaking towards it.

Mr. McDonald wanted to bring to the applicant's attention to the zoning ordinance **4.9.3.1 Shoreline Protection Area** any area within 75 feet of a seasonal highwater, any river, brook, stream, pond, or lake as shown on the Water Resource Management Plan. Mr. McDonald would like to see a 75-foot setback from lagoon #3 and the perennial stream heading to the left of the driveway.

Mr. Morrill demonstrated on the plan that there is no stream in the area Mr. McDonald was concerned about. It is a wetland not a stream.

Mr. McLeod said that they had submitted some questions to DES and got responses from them. (See attached letter from February)

Public Comment:

Tracey Stickney, budget committee member speaking as a resident, asked how can the Board accurately figure out a traffic plan without knowing the lessee?

Mr. McLeod responded that they cannot plan for the worst-case scenario, but we need to be aware of what the worst-case scenario is. When we are doing planning at this stage, we have to have some sort of reference. In this case it is the ITE manuals.

Tracey Stickney also asked about any electric car charging stations and how that would be addressed.

Mr. McLeod said that that question had been asked and they said that there was no provision for electrical charging.

Kera Clements asked if there was a community impact study and when would that be considered?

Ms. Gott said that she had raised it and it should be part of the Board's consideration.

Kera Clements further commented about the traffic turning right out of Industrial Drive and asked that any blinky, shiny signage be placed to prevent trucks from heading toward the elementary school.

Warren Gibbie sked if the truck drivers are going to have an area where they could eat their lunches while they are waiting? He also asked about snow storage having a place to drain back into the stormwater system.

Mrs. Luszcz said the truck drivers will have restroom access but there is no cafeteria on site.

Mr. Melchionda asked the Board what their next step are.

Poll: Mrs. Luszcz polled the board to see if they would agree to have the applicant go to the engineers and then come back. The Board had a consensus that it should go to the engineers.

Motion:
Ms. Gott made a motion to ask the applicant for an additional extension of 60 days.
Mr. Rice seconded the motion.
A roll call vote was taken.

Ms. Gott – Aye
Mr. McLeod – Aye
Mrs. Luszcz – Aye
Mr. Rice – Aye
Mr. McDonald – Aye
Ms. Bridgeo – Aye

The motion passed with a unanimous vote of 6 in favor, 0 opposed and 0 abstentions.

Motion:
Mr. McLeod made a motion to continue application 2022- 008 until June 15, 2023, at 7pm at the Raymond High School Media Center, 45 Harriman Hill Road.
Mr. McDonald seconded the motion.
A roll call vote was taken.

Ms. Gott – Aye
Mr. McLeod – Aye
Mrs. Luszcz – Aye
Mr. Rice – Aye
Mr. McDonald – Aye
Ms. Bridgeo – Aye

The motion passed with a unanimous vote of 6 in favor, 0 opposed and 0 abstentions.

Other Business:

Mr. Mcleod stated that in the Planning Board Rules and Procedures **2.100 Makeup of Board** - *Planning Board Members shall be elected per RSA 673:2(II). The Board shall consist of seven (7) Members, one (1) of which is to be a Selectman serving as an ex officio Member. The Board may appoint up to five (5) Alternate Members, as authorized by RSA 673:6(II).* The problem with this is that the board can only have one selectboard member on the Planning Board and Member Bridgeo is already a member so they cannot send the Board another member as an ex officio. What they can do is send a non-member that is an administrative official as an ex officio. But it is not in the Rules and Procedures. The Board needs to update the Rules and Procedures so that it reads an ex officio member or their appointee.

Motion:
Ms. Gott made a motion to update the Rules and Procedures to read an ex officio member or their appointee.
Ms. Bridgeo seconded the motion.

Discussion:
Mr. McLeod said this might not be the most update copy of the rules and procedures.

Mrs. Luszcz suggested changing the word Selectmen to the words Selectmen's representative.

Ms. Gott amended the motion to update the Rules and Procedures to read Selectmen's representative.

Ms. Bridgeo seconded the motion.
A roll call vote was taken.

Ms. Gott – Aye
Mr. McLeod – Aye
Mrs. Luszcz – Aye
Mr. Rice – Aye
Mr. McDonald – Aye
Ms. Bridgeo – Aye

The motion passed with a unanimous vote of 6 in favor, 0 opposed and 0 abstentions.

Motion:
Mr. McLeod made a motion to correct any other changes that need to be made in any of the Board's paperwork based on the previous motion.
No second or vote was taken.

Approval of minutes:

Motion:
Mrs. Luszcz made a motion to table the minutes from 3/23/23 and 4/6/23.
Mr. McDonald seconded the motion.
The motion passed with a unanimous vote of 6 in favor, 0 opposed and 0 abstentions.

Additional Business:

Mrs. Luszcz asked if anyone was interested in being a representative for the Cemetery Advisory Committee that meets the first Wednesday of the month.
Mr. McDonald volunteered.

Nomination:

Mr. McLeod nominated Mr. McDonald as representative to the Cemetery Advisory Committee.
Mrs. Luszcz seconded the nomination.
A vote of hands was taken.

Ms. Gott – Aye
Mr. McLeod – Aye
Mrs. Luszcz – Aye

Mr. Rice – Aye
Mr. McDonald – Aye
Ms. Bridgeo – Aye

Mr. McDonald was appointed to the Cemetery Advisory committee. No alternate was chosen at this time.

Kera Clements gave the Board some information about the SSI.

Adjournment:

Motion:
Ms. Gott made am motion to adjourn.
Mr. McDonald seconded the motion.
A vote of hands was taken.

Ms. Gott – Aye
Mr. McLeod – Aye
Mrs. Luszcz – Aye
Mr. Rice – Aye
Mr. McDonald – Aye
Ms. Bridgeo – Aye

The motion passed with a unanimous vote of 6 in favor, 0 opposed and 0 abstentions.

Mrs. Luszcz adjourned the meeting at approximately 9:59pm.

The video of this meeting is to be preserved as part of the permanent and official record.

Respectfully submitted,

Jill A. Vadeboncoeur

Attachments:

- Letter from DES dated February

The State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES

Robert R. Scott, Commissioner

EMAIL ONLY

February 10, 2023

Brad Reed, Planning Board Chairman
Town of Raymond
4 Epping Road
Raymond, NH 03077

Subject: Raymond – Former Regis Tannery, Lot 43, Old Manchester Road
DES Site #198705081, Project #278

Former Regis Tannery, Lot 120, Old Manchester Road
DES Site #201110061, Project #27227

Planning Board Questions, Letter dated January 30, 2023*,* prepared by Raymond Planning Board (Attached)

Dear Brad Reed:

The New Hampshire Department of Environmental Services (NHDES) is in receipt of the above-referenced letter from the Planning Board with questions pertaining to the Former Regis Tannery sites, Lot 43 and Lot 120, in Raymond. The questions from the letter are repeated here in *italicized text* and NHDES responses follow each question.

1. *Is it accurate to state that contaminate* [Sic] *impacted soils that tested below the Soil Remediation Standard may remain within the original site investigation boundary?*

   Answer: Yes, NHDES refers you to the Remedial Action Implementation Report prepared by StoneHill Environmental Inc. dated September 30, 2011, for additional information. Specifically, Tables 3 and 4 present post excavation analytical results for soil samples.

2. *Is it accurate to state that all past sources of contamination may not have been removed as PFAS were not part of the original SI or subsequent SSI's?*

   Answer: The original 2004 Site Investigation (SI) and subsequent 2005 Supplemental Site Investigation (SSI) did not evaluate per- and polyfluoroalkyl substances (PFAS). PFAS were not evaluated until 2018 when groundwater samples collected from site monitoring wells were first analyzed for PFAS. NHDES requested that the town perform a Supplemental Site Investigation to address Ambient Groundwater Quality Standards (AGQS) violations for PFAS in a letter dated July 1, 2022.

3. *Is it accurate to say that every site is unique and other factors other than just gradient may cause groundwater to be impacted by PFAS. (This site also has seeps, a newly discovered concrete pipe, and natural and man-made topography that channels runoff from lot 120 to the area around and downstream of the former lagoon #3 before discharging into the Lamprey River).*

   Answer: Many factors, both man-made and natural, affect the fate and transport of contaminants in the environment, resulting in each site being unique. Hydraulic gradient is

one of several factors, such as the characteristics of the rock or soil that make up the aquifer, that influence the movement of groundwater through the subsurface. While a hydraulic gradient does not cause contamination, it has an important influence on the movement of contaminated groundwater.

4. *There is no MCL for PFAS in surface water. Is it reasonable for a municipality to regard PFAS detections in surface water (about 2PPT) as an indicator that further investigation may be warranted?*

   Answer: There are currently no surface water standards for PFAS; however, if the surface water in question is a source for a public drinking water supply (not the case here) then the drinking water Maximum Contaminant Level (MCL) would apply. In general, a detection of 2 parts per trillion (PPT) of PFAS in surface water does not necessarily warrant additional investigation by a municipality. Low level PPT detections of PFAS in surface water are fairly common in New Hampshire – see the NHDES PFAS Sampling Map for analytical results for surface water samples collected throughout the state. It is always prudent to consider the context in which a sample is collected when evaluating the need for additional investigation. For example, a low-level detection of a regulated PFAS adjacent to a surface water intake for a public water system would likely warrant additional sampling to better understand the variability of PFAS over time, since the water in this example is used for human consumption.

5. *Based on its proximity to the current GMZ on lot 120 and the detections of PFAS nearing the MCL for PFOS in the surface water of L#3 is it reasonable for the municipality to include the former tannery lagoon #3 and outflow area, the adjoining seeps, and the newly discovered underground concrete pipe in the scope of the SSI in addition to the down gradient area between lot 43 / 120 and the Lamprey River?*

   Answer: NHDES encourages the town's environmental consultant to consider all available relevant PFAS data in the context of other factors, such as site history and hydrogeology, when designing a scope of work for the requested supplemental site investigation.

Should you have any questions, please contact me at NHDES' Waste Management Division.

Sincerely,

Jeffrey M. Marts, P.G.
Bureau Administrator
Hazardous Waste Remediation Bureau
Tel: (603) 271-3744
Email: Jeffrey.M.Marts@des.nh.gov

Attm: Planning Board Questions, Letter dated January 30, 2023

ec: Ernest Creveling, Raymond Town Manager
Raymond Health Officer

TOWN OF RAYMOND

Raymond Town Hall
4 Epping Street
Raymond, NH 03077
Telephone: (603) 895-7016
www.raymondnh.gov

Jefferey M. Marts, P.G.
Bureau Administrator
NHDES

January 30, 2023

Dear Mr. Marts,

I am contacting you on behalf of the Raymond Planning Board regarding a project bordering the former Regis Tannery Site. We would appreciate your responses to the following questions:

1. Is it accurate to state that contaminate impacted soils that tested below the Soil Remediation Standard may remain within the original site investigation boundary?

2. Is it accurate to state that all past sources of contamination may not have been removed as PFAS were not part of the original SI or subsequent SSI's?

3. Is it accurate to say that every site is unique and other factors other than just gradient may cause groundwater to be impacted by PFAS. (This site also has seeps, a newly discovered concrete pipe, and natural and man-made topography that channels runoff from lot 120 to the area around and downstream of the former lagoon #3 before discharging into the Lamprey River).

4. There is no MCL for PFAS in surface water. Is it reasonable for a municipality to regard PFAS detections in surface water (about 2PPT) as an indicator that further investigation may be warranted?

In this case we have a test result of 11+ppt PFOS, 5+ppt PFOA, and 4+ppt other = 21.11 ppt total PFAS in the surface water of former tannery lagoon#3 within 100's of feet of a currently PFAS exceeded GMZ (as opposed to non-detect in an actually upgradient stream which discharges to the outflow area of the same lagoon and 4ppt in Wetland A that intermittently flows into the lagoon).

5. Based on its proximity to the current GMZ on lot 120 and the detections of PFAS nearing the MCL for PFOS in the surface water of L#3 is it reasonable for the municipality to include the former tannery lagoon #3 and outflow area, the adjoining seeps, and the newly discovered underground concrete pipe in the scope of the SSI in addition to the down gradient area between lot 43 / 120 and the Lamprey River?

Thank You for your time and assistance.
Brad Reed Chairman
Raymond Planning Board