



TOWN OF RAYMOND

Planning Board Agenda

July 13, 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- 7 pm to 9 pm

Onyx Excavation Permit Rehearing/Industrial Drive: A motion for rehearing has been submitted by John Cronin, Esquire of Cronin, Bisson, & Zalinsky P.C. on behalf of ONYX Partners LTD. The motion for rehearing is in regard to the Excavation Permit Denial of Application 2022-010 Onyx Excavation Permit. The 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.

3. Public Meeting

WORK SESSION – Discussion by Planning Board members of various topics pertaining to rules/regulations ETC.

4. Public Comment

5. Other Business

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

6. 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

July 13, 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	July 13, 2023 Onyx Excavation Permit Denial rehearing / WORK SESSION
SITWALK ONLY	July 19, 2023 2022-008 ONYX/GZA @ 5 PM
June 15, 2023	July 20, 2023 2022-013 Severino Excavation Permit 2022-015 White Rock LLA 2022-008 Onyx Warehouse
July 06, 2023	August 03, 2023 2023-003 Elated Canine LLC Site walk @ 5:30pm 2021-015 Domino's Extension Request @ 7pm
ADDED MEETING	August 10, 2023 WORK SESSION/ NO APPLICATIONS
July 20, 2023	August 17, 2023
August 03, 2023	September 07, 2023 2022-009 Jewett Warehouse
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.



John G. Cronin
Admitted in NH and MA

July 11, 2023

VIA EMAIL

Attn: Chairman, Planning Board
Town of Raymond
4 Epping Street
Raymond, New Hampshire 03077

Re: Onyx Raymond, LLC

Dear Mr. Chairman:

We are writing on behalf of Onyx Raymond, LLC to request the recusal of Mr. James McLeod.

The basis for the request is that Mr. McLeod does not qualify under the juror standard or statutory standard for impartiality. We incorporate by reference all prior arguments made in the approval process for recusal. Mr. McLeod certainly has the right to have an opinion on land use matters, and he also has a right to voice his opinion and lobby for support in the public. Based on Mr. McLeod's social media postings expressing opposition to development in general, and this project in particular, there is no way he or any other conflicted member should sit in judgment of a land use matter.

There is no doubt that Mr. McLeod has passion for his agenda and commits his time and effort to the cause. However, land use boards are required to operate as a body and it is not usual or proper for individual members to conduct their own research outside of the public forum. The concern is greater when the research is undertaken without proper credentials or qualifications and results in public disclosure that slander the title held by private property owners.

We respectfully request that Mr. McLeod and any other conflicted members not participate in the hearing or decision making.

Thank you for your consideration.

Town of Raymond, Chairman, Planning Board
July 11, 2023
Page 2

Sincerely yours,
CRONIN BISSON & ZALINSKY, P.C.

By: *John G. Cronin*
John G. Cronin, Esquire

JGC:lma

cc: Brian Kaplan
Aaron Hinchliffe
Thomas Quarles, Esquire

THE STATE OF NEW HAMPSHIRE
TOWN OF RAYMOND
PLANNING BOARD

In re: Onyx Raymond, LLC

REQUEST FOR FINDINGS

NOW COMES Onyx Raymond, LLC ('Applicant') and requests the Honorable Board make the following findings:

1. On or about May 10, 2011, the Town of Raymond issued an excavation permit for the subject property, Tax Map 22, Lot 44 & Map 28-3, Lot 120 ("Property"). See, Exhibit 1.
2. On or about August 27, 2017 the Town of Raymond extend the excavation permit, via Performance Agreement, for the Property. See, Exhibit 2.
3. The Permits/Performance Agreements are true and accurate copies.
4. The Applicant or its predecessors complied with all material terms of the Permits/Performance Agreements.
5. The Applicant applied for an extension of the Permit/Performance Agreement.
6. The Application and the associated conditions comply with the Town of Raymond Earth Excavation Regulations and N.H. RSA 155-E.
7. The Applicant presented expert evidence to establish that the continued excavation activity will not create a nuisance or health and safety hazards.
8. Arsenic is a natural element of the earth that is often found in water.
9. Treatment is available to filter and remove arsenic from water.
10. In New Hampshire, all property owners have an equal right to access groundwater.
11. The government cannot take on private property owners rights to benefit another private property owners.

Respectfully submitted,

Onyx Raymond, LLC
By Its Attorneys
CRONIN, BISSON & ZALINSKY, P.C.

Dated: July 11, 2023

By: 

John G. Cronin, Esq. (NHBA #6818)
722 Chestnut Street
Manchester, NH 03104
(603) 624-4333
jcronin@cbzlaw.com

*Chris Drescher
for John Cronin*

EXHIBIT 1



TOWN OF RAYMOND

ORIGINAL

Community Development Department
Office of Planning & Zoning
4 Epping Street
Raymond, NH 03077
Tel: (603) 895-4735 • Fax: (603) 895-0903

PERFORMANCE AGREEMENT

Excavation Permit
Hard Rock Development, LLC
Stoli Properties, LLC
Eric C. Mitchell & Associates, Inc.
Raymond Tax Map 22, Lot 44 & Map 28-3, Lot 120

This Performance Agreement for the EXCAVATION PERMIT conditionally approved on DECEMBER 14, 2006, by and between HARD ROCK DEVELOPMENT, LLC AND STOLI PROPERTIES, LLC (hereinafter referred to as "PETITIONER"), BUSINESSES with a principal address of 84 EXETER ROAD, SOUTH HAMPTON, NEW HAMPSHIRE, 03827 (HARD ROCK) and 180 LOCUST STREET, DOVER, NEW HAMPSHIRE, 03820 (STOLI PROPERTIES), their heirs, successors and assigns, and the Raymond Planning Board, with participation of the Selectmen of the Town in their capacity as bearing responsibility for the maintenance of all roads and other public improvements, with a mailing address of 4 Epping Street, Raymond, New Hampshire 03077 (hereinafter referred to as "TOWN") represents the understanding between the parties with regard to the Raymond Planning Board granting conditional approval of a certain EXCAVATION PLAN for the PETITIONER for property located on RAYMOND TAX MAP 22, LOT 44 and MAP 28-3, LOT 120.

WHEREAS, the Raymond Planning Board is duly authorized to review and regulate EXCAVATION PLANS and has established regulations relating thereto, and;

WHEREAS, the PETITIONER has applied for approval of an EXCAVATION PLAN all in compliance with the Town of Raymond Zoning Ordinance, EXCAVATION REGULATIONS and Rules and Regulations of the Raymond Planning Board, and;

WHEREAS, the PETITIONER has agreed to certain conditions and commitments for the development of the plan identified as:

Excavation Plan; Prepared for Hard Rock Development, LLC; Plan date April 30, 2006; the Cover Sheet bearing a latest revision date of November 14, 2006.

NOW, THEREFORE, in consideration of the Raymond Planning Board granting conditional EXCAVATION PLAN approval on plans prepared by ERIC C. MITCHELL & ASSOCIATES, INC., it is agreed:

- That the PETITIONER shall abide by all EXCAVATION Regulations, Building Codes and the Town of Raymond Zoning Ordinance in effect as of the date herein and made a part of this agreement.
- The PETITIONER will be responsible for obtaining such State and Federal permits as may be necessary or occasioned by the proposed development.

The PETITIONER'S representations to the Raymond Planning Board, made by the PETITIONER at the various Raymond Planning Board meetings as documented in the minutes of those meetings, were relied on by the TOWN in approving the PETITIONER'S proposal and material compliance with same is required as a condition of the Agreement.

The following conditions shall apply:

1. Applicant must receive all required local, state and federal permitting for the project prior to the commencement of any work on the site.
2. All fees authorized to be charged to applicant pursuant to Town of Raymond Earth Excavation Regulations including, but not limited to, application fees, costs of special studies and legal review, shall be paid by the applicant prior to commencement of any work on the site.
3. Inspection Escrow in the initial amount of \$1,000.00 shall be posted by the applicant prior to the commencement of any work on the site; this escrow amount shall be replenished if necessary.
4. The reclamation plan includes a conceptual lot development plan for roadways and is not considered a site plan. The applicant must present a site plan(s) for the properties, such plan(s) to be reviewed by the Planning Board pursuant to the site review regulations.
5. This Excavation Permit shall be issued for a period of five years, to be effective upon start of excavation activities, but in no event later than one hundred twenty (120) days after the expiration of the appeal period under RSA 155-E:9. On or before the expiration of the permit period, the applicant may request a renewal of the excavation permit. Such request shall be decided by the Planning Board following a public hearing.
6. Temporary Construction Access for Wastewater Treatment Facility: Applicant will construct temporary construction access outside of the proposed excavation area along the westerly boundary of the property. The purpose of the temporary access is twofold; first, to provide access for construction vehicles from Old Manchester Road and Industrial Drive to the Raymond Wastewater Treatment Facility construction site and two, to provide access for vehicles removing excavation material from the excavation site. The temporary road shall be constructed within 30 days after the bid opening and final award for construction of the Wastewater Treatment Facility.


7. Permanent Access Road for Wastewater Treatment Facility: The Town and the Applicant shall work cooperatively to determine the location of the Permanent Access Road from Industrial Drive to the proposed Wastewater Treatment Plant. Once the location has been determined, the Applicant shall have thirty (30) days from the date the location is finalized in writing in which to determine whether it wishes to excavate the material located within the proposed road location, or within 100feet of said location. Applicant shall provide written notification to the Town by the end of the thirty (30) day period of its intention. The Applicant shall complete any excavation to be performed pursuant to this paragraph in a time frame that is consistent with the Town's bid process associated with construction of the Wastewater Treatment Plant, so as to enable potential bidders to estimate the costs of road construction in an informed manner.
8. Applicant shall conduct blasting and excavation activities in a general northeast direction, commencing at the southwesterly corner of Tax Map 28-3, Lot 120 and adjacent to Industrial Drive on Tax Map 22, Lot 47 and Lot 44. During the time period following the effective date of the excavation permit, the first priority of the excavation activities shall be:
 - a. Work associated with the Permanent Access Road as set forth in paragraph 7 above, and
 - b. The excavation of Tax Map 28-3 Lot 120 along the southerly boundary of the property and the excavation of Tax Map 22, Lot 44 along the northeasterly boundary of the property in accordance with the excavation grading plans. Applicant acknowledges that its excavation will be performed in a manner which enables the future construction of a road (hereinafter the "District Access Road") on the southerly portion of Tax Map 28-3, Lot 120 and the northwesterly corner of Tax Map 22, lot 44 as shown on the "Unified Development Plan," Tax Map 28-3, Lot 120 , Tax Map 22, Lot 44 Industrial Drive, of Raymond, NH, prepared for by Hard Rock Development, LLC by Eric C. Mitchell Associates, Inc. dated June 30, 2006, last rev. 11-14-06, (hereinafter referred to as "Amended Unified Development Plan"). Further, Applicant acknowledges that the District Access Road may be connected to proposed future road #2 as shown on the Amended Unified Development Plan. Provided that nothing in this paragraph 8 shall require Applicant to incur any expenses in conjunction with the construction of proposed future road #2 on the Amended Unified Development Plan.
9. No development proposals are currently before the Planning Board for development areas 2 through 14 as shown on the Amended UDP. However, should development proposals be presented for any of the above referenced development areas during the five years following the effective date of the excavation permit, and such proposals require the excavation for the District Access Road to be completed prior to the end of the excavation permit, then applicant shall work in good faith with the Planning Board to determine a method whereby the excavation can be completed in a timeframe which will allow then pending proposals on development areas 2 through 14 to proceed subject to further revision of the timetable, if necessary, following approval of the proposal. Provided, however, that

nothing in this paragraph 9 shall be deemed to require the Applicant to incur any expenses associated with the construction of the District Access Road (other than the excavation as set forth in the excavation and grading plans) or to convey an easement or fee simple title for any such roads absent a mutually agreeable arrangement between the Applicant, the Town and any owners of other parcels within the Sewer Overlay District.

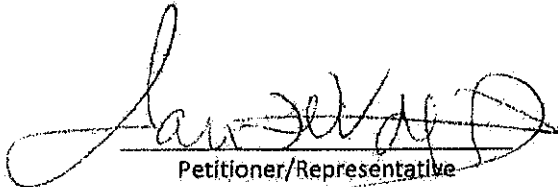
10. If the District Access Road on Tax Map 28-3, Lot 120 and Tax Map 22, Lot 44 is not excavated within the duration of the excavation permit, then applicant shall be required to provide, as part of any request to renew the excavation permit, a timetable for completion of such excavation. Such timetable shall be reviewed by the Planning Board as part of the excavation permit renewal process, and the Planning Board shall act in good faith to determine whether the proposed timetable will encourage economic development within the Sewer Overlay District in a reasonable time frame consistent with the intent of Article III, Section 3.360 as adopted in March, 2005 of the Raymond Zoning Ordinance and consistent with any proposals relating to Development Areas 2-14 which are pending at the expiration of the permit. Provided, however, that nothing in this paragraph 10 shall be deemed to require the Applicant to incur any expenses associated with the construction of the District Access Road (other than the excavation as set forth in the excavation and grading plans) or to convey an easement or fee simple title for any such roads absent a mutually agreeable arrangement between the Applicant, the Town and any owners of other parcels within the Sewer Overlay District.
11. A Performance Guarantee Agreement shall be executed between the Town of Raymond and the Applicant in accordance with Section XII of the Town of Raymond Earth Excavation Regulations, which includes bonding for reclamation of the site and for repair of Town Roads, if damaged as a result of the excavation and compliance with excavation agreements must be posted prior to excavation work commencing on the properties.
12. If the Town of Raymond provides prior written consent to the Applicant that allows assignment of the excavation permit, which consent shall not be unreasonably withheld, the conditions set forth in this permit are applicable and binding upon any successors, assigns, receivers, trustees or any future interest holders of the Applicant.
13. Tax Map 28-3, Lot 120 and Tax Map 22, Lot 44 shall be connected to town water and sewer when they become available within 100 feet of the property line(s) of the above lots.
14. Applicant will provide a public status report to the Planning Board concerning the site work progress; such report to be provided annually from the effective date of the permit.
15. All construction and excavation related equipment shall use Exit 4 for access and egress, except for local Raymond deliveries.

16. The hours of operation shall be consistent with the provisions of the Raymond Earth Excavation Regulations and the waiver granted by the Planning Board for Saturday operation; such hours being as follows: ~~such Saturday hours being excavation until noon and vehicle maintenance until 4:30 with Saturday hours to be reviewed one year following date of the waiver approval.~~

17. The permit is approved subject to applicant obtaining approval for the Amended Unified Development Plan.




Petitioner/Representative



Petitioner/Representative



Community Development Director



Witness



Witness

5-10-2011.

Date

03/24/2010

Date

EXHIBIT 2



TOWN OF RAYMOND

Community Development Department
Office of Planning & Zoning
4 Epping Street
Raymond, NH 03077
Tel: (603) 895-4735 • Fax: (603) 895-0903

PERFORMANCE AGREEMENT

Hard Rock Development, LLC
Stoli Properties, LLC
Raymond Tax Map 28-3, Lot 120
Map 22, Lot 44
Accessed via Industrial Drive

This Performance Agreement for the EARTH EXCAVATION PERMIT conditionally approved on JUNE 14, 2012, by and between HARD ROCK DEVELOPMENT, LLC & STOLI PROPERTIES, LLC (hereinafter referred to as "PETITIONERS"), A LIMITED LIABILITY COMPANY with a principal address of 84 EXETER ROAD, SOUTH HAMPTON, NEW HAMPSHIRE, 03827 (HARD ROCK DEVELOPMENT) & 180 LOCUST STREET, DOVER, NEW HAMPSHIRE, 03820 (STOLI PROPERTIES), their heirs, successors and assigns, and the Raymond Planning Board, with participation of the Selectmen of the Town in their capacity as bearing responsibility for the maintenance of all roads and other public improvements, with a mailing address of 4 Epping Street, Raymond, New Hampshire 03077 (hereinafter referred to as "TOWN") represents the understanding between the parties with regard to the Raymond Planning Board granting conditional approval of a certain EARTH EXCAVATION PERMIT for the PETITIONERS for property located on RAYMOND TAX MAP 28-3, LOT 120 AND MAP 22, LOT 44, ACCESSED VIA INDUSTRIAL DRIVE.

WHEREAS, the Raymond Planning Board is duly authorized to review and regulate EARTH EXCAVATION OPERATIONS and has established regulations relating thereto, and;

WHEREAS, the PETITIONERS have applied for approval of an EARTH EXCAVATION PERMIT all in compliance with the Town of Raymond Zoning Ordinance, EARTH EXCAVATION REGULATIONS and Rules and Regulations of the Raymond Planning Board, and;

WHEREAS, the PETITIONERS have agreed to certain conditions and commitments for the development of the plan identified as:

Hard Rock Development, LLC; Industrial Drive; Raymond, New Hampshire 03077; Tax Map 28-3, Lot 120 & Map 22, Lot 44; Prepared by Lynnfield Engineering, Inc.; Plan Date July 27, 2010, the plan bearing no revisions; Stamped by Richard Barthelmes and signed May 15, 2012.

NOW, THEREFORE, in consideration of the Raymond Planning Board granting conditional EARTH EXCAVATION approval on plans prepared by LYNNFIELD ENGINEERING, INC., it is agreed:

- That the PETITIONERS shall abide by all EARTH EXCAVATION REGULATIONS, Building Codes and the Town of Raymond Zoning Ordinance in effect as of the date herein and made a part of this agreement.

- The PETITIONERS will be responsible for obtaining such State and Federal permits as may be necessary or occasioned by the proposed development.

The PETITIONERS' representations to the Raymond Planning Board, made by the PETITIONERS at the various Raymond Planning Board meetings as documented in the minutes of those meetings, were relied on by the TOWN in approving the PETITIONERS' proposal and material compliance with same is required as a condition of the Agreement.

The following conditions shall apply:

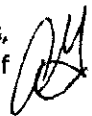
1. Applicant must receive all required local, state and federal permitting for the project prior to the commencement of any work on the site.
2. All fees authorized to be charged to applicant pursuant to Town of Raymond Earth Excavation Regulations including, but not limited to, application fees, costs of special studies and legal review, shall be paid by the applicant prior to commencement of any work on the site.
3. Inspection Escrow in the initial amount of \$1,000.00 shall be posted by the applicant prior to the commencement of any work on the site; this escrow amount shall be replenished if necessary.
4. The reclamation plan includes a conceptual lot development plan for roadways and is not considered a site plan. The applicant must present a site plan(s) for the properties, such plan(s) to be reviewed by the Planning Board pursuant to the site review regulations.
5. This Excavation Permit shall be issued for a period of five (5) years, starting after the expiration of the appeal period under RSA 155-E:9 (30 days from the date of this decision). On or before the expiration of the permit period, the applicant shall apply for a new excavation permit.
6. Temporary Construction Access for Wastewater Treatment Facility: Consistent with the provisions of paragraphs one (1) through three (3) of Second Amendment to Further Agreement Re: Exercise of Option and Participation in Clean Up, applicant will construct, at its sole expense, a temporary construction access outside of the proposed excavation area along the westerly boundary of the property. The purpose of the temporary access is twofold; first, to provide access for construction vehicles from Old Manchester Road and Industrial Drive to the Raymond Wastewater Treatment Facility construction site and two, to provide access for vehicles removing excavation material from the excavation site. The temporary road shall be constructed within 30 days after receipt of written notice from the Town; it is anticipated that such notice will be issued following the bid opening and final award for construction of the Wastewater Treatment Facility.
7. Permanent Access Road for Wastewater Treatment Facility: Pursuant to paragraph four (4) of the Second Amendment to Further Agreement Re: Exercise of Option and Participation in Clean Up, the Town has the option to for a period of fifteen (15) years from the recording of the subdivision approval to:
 - a. Construct a permanent access road from the end of Industrial Drive, through Tax Map 28-3, Lot 120, in a location reasonably and mutually

agreed upon, built to then current town road standards and to be accepted by **TOWN** as a Town maintained public street for all purposes. The road shall extend from Industrial Drive through the wastewater treatment facility site, over the Boston and Maine Railroad (subject to permitting) and connecting to Old Manchester Road and will be a public road providing frontage for Applicant's potential future development of Lot 120. The road will be constructed solely at the **TOWN's** expense, as part of the construction of the Wastewater Treatment Facility, **OR**


- b. Construct a driveway access from the end of Industrial Drive, over Tax Map 28-3, Lot 120 in the location reasonable and mutually agreed upon above. The driveway access will not be built to Town standards for a public roadway but rather to a standard suitable for a driveway access to the Wastewater Treatment Facility only without a required connection to Old Manchester Road. As such, the driveway would not create frontage on a public street for the benefit of **APPLICANT**.
 - c. If the **TOWN** elects Option B, **APPLICANT** may at any time during the fifteen (15) year term of the above-referenced Option Agreement, exercise a reciprocal option by written notice to the **TOWN** to upgrade, at **APPLICANT'S** sole expense, the driveway access to Town road standards for a public road without interfering with the **TOWN's** access to its Wastewater Treatment Facility.
8. Applicant shall conduct blasting and excavation activities in a general northeast direction, commencing at the southwesterly corner of Tax Map 28-3, Lot 120 and adjacent to Industrial Drive on Tax Map 22, Lot 47 and Lot 44. During the time period following the effective date of the excavation permit, the first priority of the excavation activities shall be:
- a. Work associated with the Permanent Access Road as set forth in paragraph 7 above, and
 - b. The excavation of Tax Map 28-3, Lot 120 along the southerly boundary of the property and the excavation of Tax Map 22, Lot 44 along the northeasterly boundary of the property in accordance with the excavation grading plans. Applicant acknowledges that its excavation will be performed in a manner which enables the future construction of a road (hereinafter the "District Access Road") on the southerly portion of Tax Map 28-3, Lot 120 and the northwesterly corner of Tax Map 22, lot 44 as shown on the "Unified Development Plan," Tax Map 28-3, Lot 120, Tax Map 22, Lot 44 Industrial Drive, of Raymond, NH, prepared for by Hard Rock Development, LLC by Eric C. Mitchell Associates, Inc. dated June 30, 2006, last rev. 11-14-06, (hereinafter referred to as "Amended Unified Development Plan"). Further, Applicant acknowledges that the District Access Road may be connected to proposed future road #2 as shown on the Amended Unified Development Plan. Provided that nothing in this paragraph 8 shall require Applicant to incur any expenses in conjunction with the construction of proposed future road #2 on the Amended Unified Development Plan.
9. No development proposals are currently before the Planning Board for development areas 2 through 14 as shown on the Amended UDP. However, should development proposals

be presented for any of the above referenced development areas during the five years following the effective date of the excavation permit, and such proposals require the excavation for the District Access Road to be completed prior to the end of the excavation permit, then applicant shall work in good faith with the Planning Board to determine a method whereby the excavation can be completed in a timeframe which will allow then pending proposals on development areas 2 through 14 to proceed subject to further revision of the timetable, if necessary, following approval of the proposal. Provided, however, that nothing in this paragraph 9 shall be deemed to require the Applicant to incur any expenses associated with the construction of the District Access Road (other than the excavation as set forth in the excavation and grading plans) or to convey an easement or fee simple title for any such roads absent a mutually agreeable arrangement between the Applicant, the Town and any owners of other parcels within the Sewer Overlay District.


10. If the District Access Road on Tax Map 28-3, Lot 120 and Tax Map 22, Lot 44 is not excavated within the duration of the excavation permit, then applicant shall be required to provide, as part of any request to renew the excavation permit, a timetable for completion of such excavation. Such timetable shall be reviewed by the Planning Board as part of the excavation permit renewal process, and the Planning Board shall act in good faith to determine whether the proposed timetable will encourage economic development within the Sewer Overlay District in a reasonable time frame consistent with the intent of Article III, Section 3.360 as adopted in March, 2005 of the Raymond Zoning Ordinance and consistent with any proposals relating to Development Areas 2-14 which are pending at the expiration of the permit. Provided, however, that nothing in this paragraph 10 shall be deemed to require the Applicant to incur any expenses associated with the construction of the District Access Road (other than the excavation as set forth in the excavation and grading plans) or to convey an easement or fee simple title for any such roads absent a mutually agreeable arrangement between the Applicant, the Town and any owners of other parcels within the Sewer Overlay District.
11. A Performance Guarantee Agreement shall be executed between the Town of Raymond and the Applicant in accordance with Section XII of the Town of Raymond Earth Excavation Regulations, which includes bonding for reclamation of the site and for repair of Town Roads, if damaged as a result of the excavation and compliance with excavation agreements must be posted prior to excavation work commencing on the properties.
12. If the Town of Raymond provides prior written consent to the Applicant that allows assignment of the excavation permit, which consent shall not be unreasonably withheld, the conditions set forth in this permit are applicable and binding upon any successors, assigns, receivers, trustees or any future interest holders of the Applicant.
13. Tax Map 28-3, Lot 120 and Tax Map 22, Lot 44 shall be connected to town water and sewer when they become available within 100 feet of the property line(s) of the above lots.
14. Applicant will provide a public status report to the Planning Board concerning the site work progress; such report to be provided annually from the effective date of the permit.
15. All construction and excavation related equipment shall use Exit 4 for access and egress, except for local Raymond deliveries; to allow thru trucking for municipalities only north of Raymond 10/15-04/15.



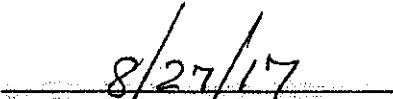
16. The hours of operation shall be consistent with the provisions of the Raymond Earth Excavation Regulations and the waiver granted by the Planning Board for Saturday operation; such hours being as follows: such Saturday hours being excavation until noon and vehicle maintenance until 4:30 with Saturday hours to be reviewed one year following date of the waiver approval.
17. Second Amendment to Further Agreement Re: Exercise of Option and Participation in Clean Up must be executed by all pertinent parties.
18. The following waivers have been granted by the Raymond Planning Board in accordance with Article XV(H) of the Raymond Earth Excavation Regulations:
- a. Article XIII: A.2(v) – pertaining to showing locations of property lines, public streets, etc. within 500' of property line.
 - b. Article XIII: A.2(vi) – pertaining to test pits and test pit data.
 - c. Article XIII: A.4(iv & v) – pertaining to the elevation of the highest annual groundwater table AND the location of test pits which extend to the seasonal high water table.
 - d. Article XIII: A.6(ii) – pertaining to provision of a traffic study.
 - e. Article XIII: A.6(iii) – pertaining to provision of a noise control study & abatement plan.
 - f. Article XIII: A.6(iv) – pertaining to provision of a hydro geologic study.
 - g. Article XIII: B.7 – pertaining to Saturday hours of operation (i.e. maintenance).
 - h. Article XIV, Paragraph 3 – pertaining to length of permit.


Petitioner/Representative


Community Development Director


Witness


Witness


Date


Date

The Town of Raymond, NH- Planning Board

Application # 2022-010 Earth Excavation –Findings of Fact and Permit Denial 5/18/2023

A. Introduction

Pursuant to NH RSA 155-E:7 and in compliance with the requirements of the State of New Hampshire and the Town of Raymond Earth Excavation Regulations, as amended, the following is presented as Findings of Fact and written decision of denial of Application #2022-010 an Application for Earth Excavation Permit for a site located at 12 Industrial Drive, Raymond NH 03077 and submitted by Anton Melchionda of Onyx Raymond, LLC 200 Reservoir Street , Needham , MA 02494 Suite 306.

B. Authority

Town of Raymond Earth Excavation Regulations (TOR EER)1.100 AUTHORITY Chapter 155:E of the NH RSA stipulates that , with some exceptions, all earth excavations in the State are subject to regulation from the local municipality in which the operation occurs.

C. Findings of Fact and Regulations

1. Town of Raymond Earth Excavation Regulations (TOR EER)

Article I: 1.200 Purpose and Scope- includes the following :

- b. To ensure that the public health and welfare will be safeguarded.
- c. To protect natural resources and environment, including but not limited to water pollution...

For the purpose of achieving these goals, no earth materials in the Town shall be removed, except in conformance with these regulations.

2. Article V- Prohibited Projects

A. The Board shall not grant a permit for the following projects.

- 1. For Excavations that will not be in compliance with the standards outlined in Article VII of these regulations.

3. Where the issuance of the permit would be unduly hazardous or injurious to the public welfare (impact to groundwater).

4. Where the applicant cannot demonstrate to the Planning Board adequate safeguards to prevent damage to a known aquifer, as designated by the USGS.

a. Excavation operations shall be performed in such a manner as to not cause any damage to any aquifer. The Planning Board shall determine whether damage to the aquifer will be incurred by considering the following criteria:

I. The excavation shall not detrimentally affect the quality of the groundwater contained in the aquifer by directly contributing to pollution or by increasing the long term susceptibility of the aquifer to potential pollutants;

3. Article VII A. 8. Excavation practices which result in any degradation of water quality or quantity of any public or private water supplies is prohibited.

4. RSA Section 155-E:4 Prohibited Projects-

The regulator shall not grant a permit:

I. Where the excavation would violate the operational standards of RSA 155-E:4-a:

IV. When the issuance of the permit would be unduly hazardous or injurious to the public welfare;

VI. Where the excavation would substantially damage a known aquifer, so designated by the USGS.

5. Section 155-E:4-a Minimum and express operational standards

iv. ...Excavation practices which result in continued siltation of surface waters or any degradation of water quality or quantity of any public water supplies are prohibited.

6. The Applicant submitted to the Raymond Planning Board (RPB or board) multiple submissions of environmental evaluation and test results collected from November 2022 through March 2023.

The submittals are characterized as:

a. Enviro North American Consulting, LLC (Enviro) assessment dated December 14, 2022 (Attachment 1)

b. Enviro submission Lagoon#3 and Wetland A surface water and sediment sampling summary dated April 14th, 2023 (Attachment 2)

c. GZA GeoEnviromentsI,Inc. (GZA) Technical Review Summary Letter dated 4-6-2023. (Attachment 3)

d. Enviro submission Raymond Pond Laboratory Sampling Results dated 5-3-2023 (Attachment 4)

C. Determination

It is the Raymond Planning Board's determination that the project is in violation of the previously stated regulations due to the test results above the NH DES standards and the empirical evidence of various types of contamination throughout the site, referenced in multiple historical submissions to NH DES as well as contemporaneous review by GZA.

The Planning Board determined that the site meets the criteria to be considered contaminated by NH DES Env-Wq-1700 standards for the protection of human health (Table 1703-1 Water Quality Criteria For Toxic Substances) with results ranging from 20-70 times over the regulated maximum of 18ng/l for Arsenic in surface water. This level of concentration contributes to the surface water pollution of Raymond Pond (aka Pikes Pond) which is in the **wellhead protection area** and **infiltrates into the aquifer supplying the municipal wells in addition to Lagoon #3 and the outflow which infiltrates into the ground via wetlands as well as flowing directly overland to the Lamprey River.** **Three additional exceedances at or above the Env-Or 606.19 Soil Remediation Criteria of 1000 mg/kg for Chromium III (Table 600-2) were recorded from the sediment of Lagoon #3 , indicating that historical contamination from previous uses in the vicinity as a Tannery remain unremediated and subject to migration caused by site activities such as blasting.**

Additional test results showed concerning levels of PFAS in surface water samples and one exceedance of The Water Quality Criteria for Toxic Substances (WQCTS) for Protection of Aquatic Life (Fresh Chronic Criteria) included in Env-Wq 1700, Surface Water Quality Standards, for Chromium III.

D. Causation

Causation is inferred by empirical evidence, expert testimony, as well as contemporary and historical record. Testimony on 5-11-23 by Steven Lamb of consultant GZA to evaluate environmental assessments of the site stated, in part, "... it does appear that the historical activities at this site (former Rex tannery) contributed PFAS to the waters...those are concentrations, even though there is not a surface water standard, those are concentrations, as you indicated; are comparable to groundwater..." (PFOS at 20% over the current AGQS of 15 PPT was recorded in unregulated surface water on the north side of the site). Jim Wieck, also of GZA, further stated, "It illustrates the potential issues where if you do have surface water concentrations that, I think that the direction you were going is logical, this would be likely sourced from groundwater...we're very concerned about the effects of introducing the storm water into that scenario and potentially shifting the directions of groundwater flow...".

Both statements highlight the primary concern of the Planning Board in this regard which are further expressed in this excerpt from the GZA technical review dated 4-6-2023, "**The Town has public water supply wells to the west of the Onyx property that could be sensitive to mobilization of potential contamination.**"

Chromium III detection exceeding The Water Quality Criteria for Toxic Substances (WQCTS) for Protection of Aquatic Life (Fresh Chronic Criteria) included in Env-Wq 1700, Surface Water Quality Standards, for Chromium III was collected in the surface water of Wetland A indicating that Chromium III contamination from the former use as a tannery were still present. This supposition was borne out with Chromium III results in three of the samples taken from sediments in Lagoon #3 that ranged from *at* the Soil Remediation Standard (SRS) of 1000mg/kg, one exceedance three times over the SRS, and one exceedance over six times the SRS.

Concentrations of this magnitude are above the PEC or Probably Effect Concentration. **PEC values are screening thresholds above which adverse effects are likely and allows regulators like the Planning Board to take action to protect the public against risk.**

Arsenic concentrations are empirically testing at higher levels the closer the samples are taken to the excavation site. In reports from Enviro North American Consulting the Results in Wetland A had the lowest readings of 520 ppt (comparing to 18ppt MCL (maximum contaminate level) for human health). That water flows into Lagoon #3, closer to the site, where concentrations from both samples were over 700 ppt and at the outflow from Lagoon #3, which is where the storm water naturally runs off the site to the north reported 840 ppt, indicating that on the north side of the property the concentration of arsenic is greater closer to the site, and levels decline further away from the site. On the south side of the site, the runoff drains directly into Raymond Pond (aka: Pikes Pond). The concentrations in the Pond and the outflow of the pond into the fingers of water that flow off the site in the direction of the Town wells are recorded at 1200 ppt or 65+ times the MCL of 18 ppt. A result 5 times the MCL higher than that at 1300 ppt, which is the highest recorded on the site at over 72 times the MCL for human health, was collected where the runoff *from the site* enters the pond, this important distinction was noted at the hearing on 5-18-2023. This indicates that higher concentrations of arsenic are migrating from the site than the existing contamination levels in the pond and are flowing out of the pond at levels 65 times the MCL. No supporting evidence had been presented to indicate the level of arsenic in the surface water on the site, ranging from approximately 20-70 times the MCL for protection of human health, is normal background. Test results show empirically that arsenic concentrations are higher the closer the samples were taken to the excavation site. In response to a question about whether the extensive blasting used at this excavation site is a contributing factor to arsenic concentrations and runoff from the site, GZA advised that naturally occurring arsenic levels can be increased by site activities. The logical conclusion is that the high arsenic exceedances are the result of excavation activities on the property. NH DES does not consider arsenic a contaminant of concern for the former Rex Tannery site, further suggesting the elevated arsenic contamination is most likely due to excavation activities.

E. Record of Vote

Jim McLeod made a Motion to Deny Application 2022-010 based on the test results that show contamination on the site. Seconded by Tricia Bridgeo (*See attached test reports and summary reports*)

Roll Call of Vote: Tricia Bridgeo – Aye
Bob McDonald – Aye
David Rice – Aye
Dee Luszcz – Aye
Jim McLeod – Aye

Gretchen Gott – No; because she feels there is a different way to do this; that we should have them cease voluntarily until more data is available; and believes in her mind that there is a question on the regulation.

F. Appeals

Appeals are subject to conformance with RSA 155-E: 8, as amended.

December 14, 2022
Project 1190-681

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

And

Wayne Morrill, President
Jones & Beach Engineers, Inc.
85 Portsmouth Avenue
Stratham, NH 03885

Re: Addendum Letter for Laboratory Results of Per- and Polyfluorinated Alkyl Substances

**Subject: Onyx Raymond LLC.
Application #2022-010
Industrial Drive, Raymond, NH**

Dear Gentlemen:

Enviro North American Consulting, LLC (ENAC) has completed an environmental evaluation of information and data 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). The contiguous parcels of the subject Property are located in the general east and northeast area off the end of cul-de-sac at Industrial Drive in Raymond, NH.

A previous letter report prepared by ENAC with Environmental Evaluation with Professional Opinion for Proposed Development dated December 8, 2022 presented detected concentrations from surface water sample locations for total chromium. This addendum letter provides the detected concentrations of Per- and Polyfluorinated Alkyl Substances (PFAS/PFOS) collected from the 3-surface water sampling locations resulting from water sample collection on November 22, 2022. The surface water sampling locations are shown on the attached Site Plan labeled as SFW-1, -2, and -3.

An abutting property to the northeast is referenced by the Town of Raymond as Lot 120 and has been impacted by subsurface contamination due to the presence of total chromium and Per- and Polyfluorinated Alkyl Substances (PFAS) released to the environment during past industrial

operations of a tannery known as the Former Regis Tannery, also referred to as Former Rex Leather Tannery. The New Hampshire Department of Environmental Services (NHDES) Hazardous Waste Remediation Bureau (HWRB) tracks the remedial activity of the northeast abutting property as Site #201110061 (Lot 120).

A second parcel of land is located further northeast beyond a recreational trail (former railroad easement Boston & Maine Railroad) and is associated with the former industrial-use of Regis Tannery / Rex Leather Tannery and identified by the Town of Raymond as Lot 43. Environmental contamination was released at Lot 43 and is tracked by the NHDES HWRB as Site #198705081. Both contaminated properties are currently owned by the Town of Raymond. The NHDES lists the Town of Raymond as the Responsible Parties (RP) for the ongoing remedial investigation and clean-up activity conducted in connection to the past tannery industrial releases to the environment.

Per- and Polyfluoroalkyl Substances (PFAS) Former Tannery Sites

As directed by the NHDES HWRB, groundwater quality from both Former Tannery Sites were screened for the presence of PFAS. Analytical results from groundwater samples have detected the presence of PFAS and associated chemical derivatives in groundwater at concentrations above the NHDES adopted AGQS. Due to the persistence of PFAS detections in area groundwater quality, the Permit issued to Lot 120 has been updated by NHDES to include annual monitoring of PFAS chemicals. The NHDES has also required a Supplemental Site Investigation (SSI) at both Former Tannery Sites to evaluate the source of PFAS in soil and groundwater. The suspected source for PFAS has been noted in past reports as the likely use of fire extinguishing foam when the tannery building was destroyed by fire in 1972 (Lot 43). To date, the SSI work has not been completed to define the source of PFAS at the Former Tannery Sites.

ENAC contacted the active Project Manager, Ms. Tanya Justham (by phone) regarding ongoing remedial investigations administered by the NHDES – HWRB on December 14, 2022. Ms. Justham indicated that the PFOA/PFOS detected in groundwater beneath Lot 120 has likely been sourced from past tannery processes as a result of treatment of hides, specifically with the use of PFOA substances. ENAC has forwarded the December 2022 testing results for total chromium and PFAS concentrations to Ms. Justham for review.

ENVIRONMENTAL SAMPLING – ONYX RAYMOND LLC.

Surface Water Quality Sampling – Onyx Raymond LLC.

ENAC representative visited the subject Property to collect surface water samples from 3-existing wetland areas containing standing water on November 22, 2022. The 3-surface water sample locations are shown on the attached Site Plan. Grab water samples were collected from 3-selected wetland or stream bed areas of the subject Property with use of a dedicated water sample bottle connected to an extendable rod. Water samples for total chromium analysis were collected and field filtered with use of a 0.45-micron filter then placed in preserved laboratory containers. Grab water samples for PFAS analyses were collected from each location and placed directly in laboratory prepared containers. The water samples were placed inside a cooler with

ice and delivered directly to a New Hampshire certified laboratory for the analyses of total chromium by EPA Method 200.8 and 24-compound list of PFAS / PFOS chemicals by EPA Method 537.1 modified.

Per- and Polyfluoroalkyl Substances (PFAS)

ENAC presents the results of water quality sampling for the November 22, 2022 for the presence of PFAS detected from 3-surface water sample locations. The attached summary table provides a comparison to the adopted groundwater quality standards referenced as the Ambient Groundwater Quality Standards (AGQS). ENAC notes the NHDES has not adopted PFAS standards for drinking water quality to date. As shown in the attached PFAS summary table, results of surface water sampling for PFAS have met the AGQS for the 4-adopted PFAS / PFOS chemicals (AGQS shown on right-side Table 1A).

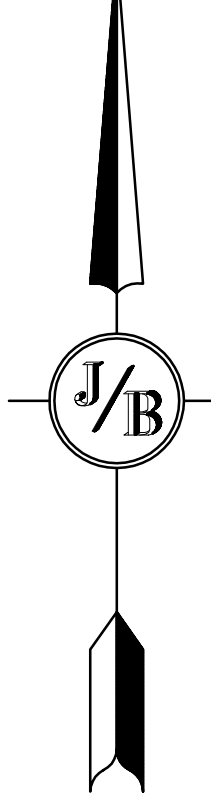
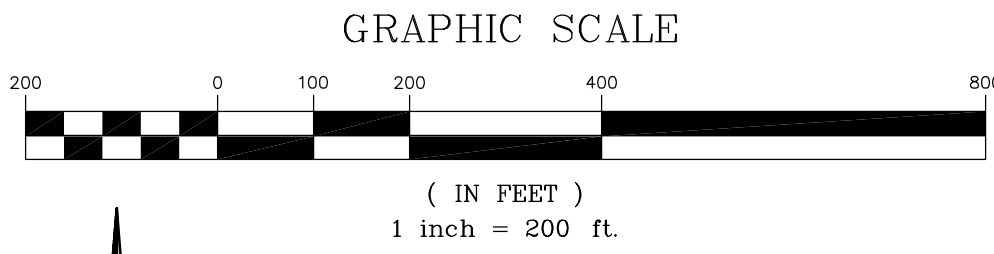
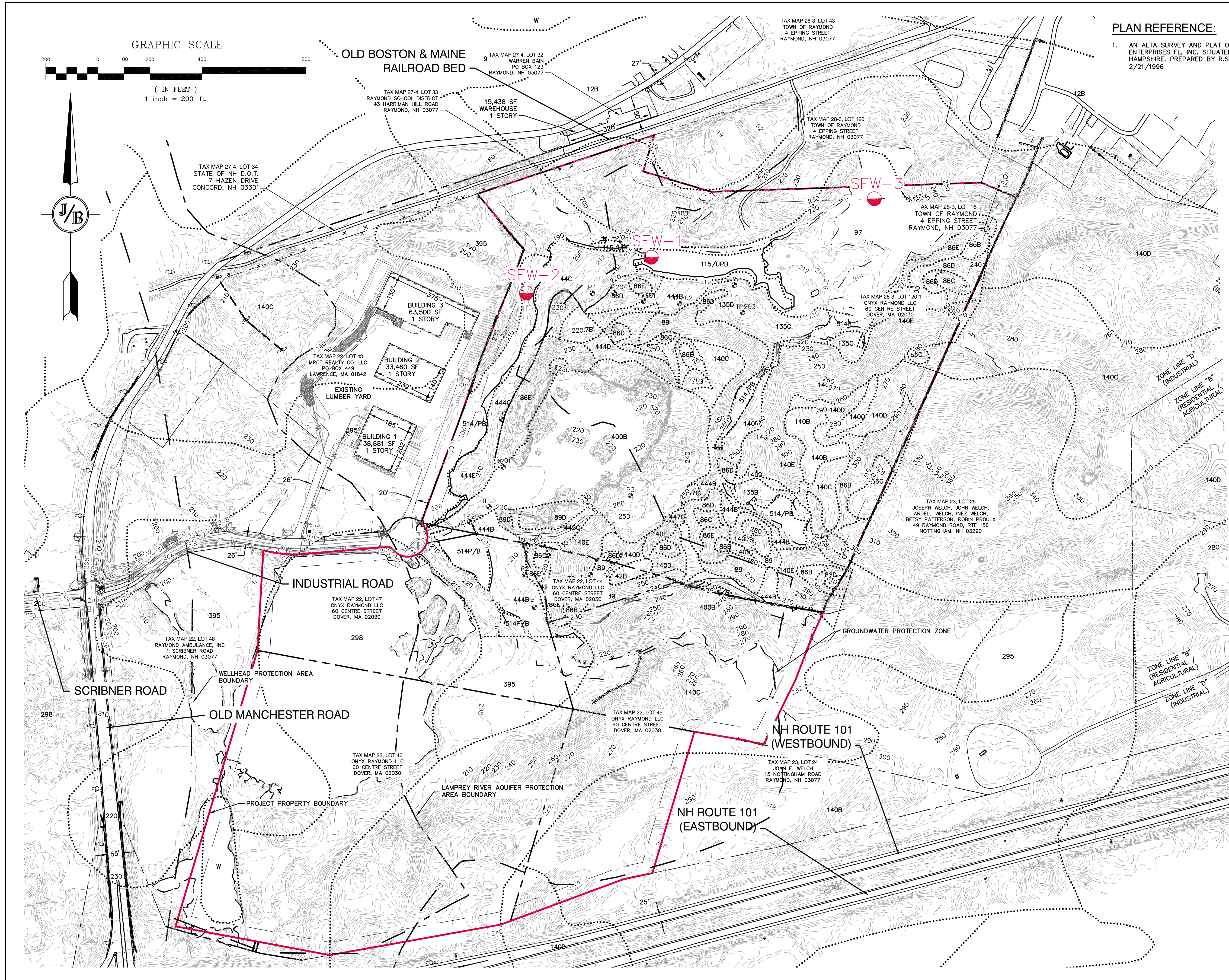
It has been a pleasure to assist you with your needs for environmental consulting.

ENVIRO NORTH AMERICAN CONSULTING, LLC

A handwritten signature in black ink, appearing to read 'T.A. Greenwood', is positioned above the typed name.

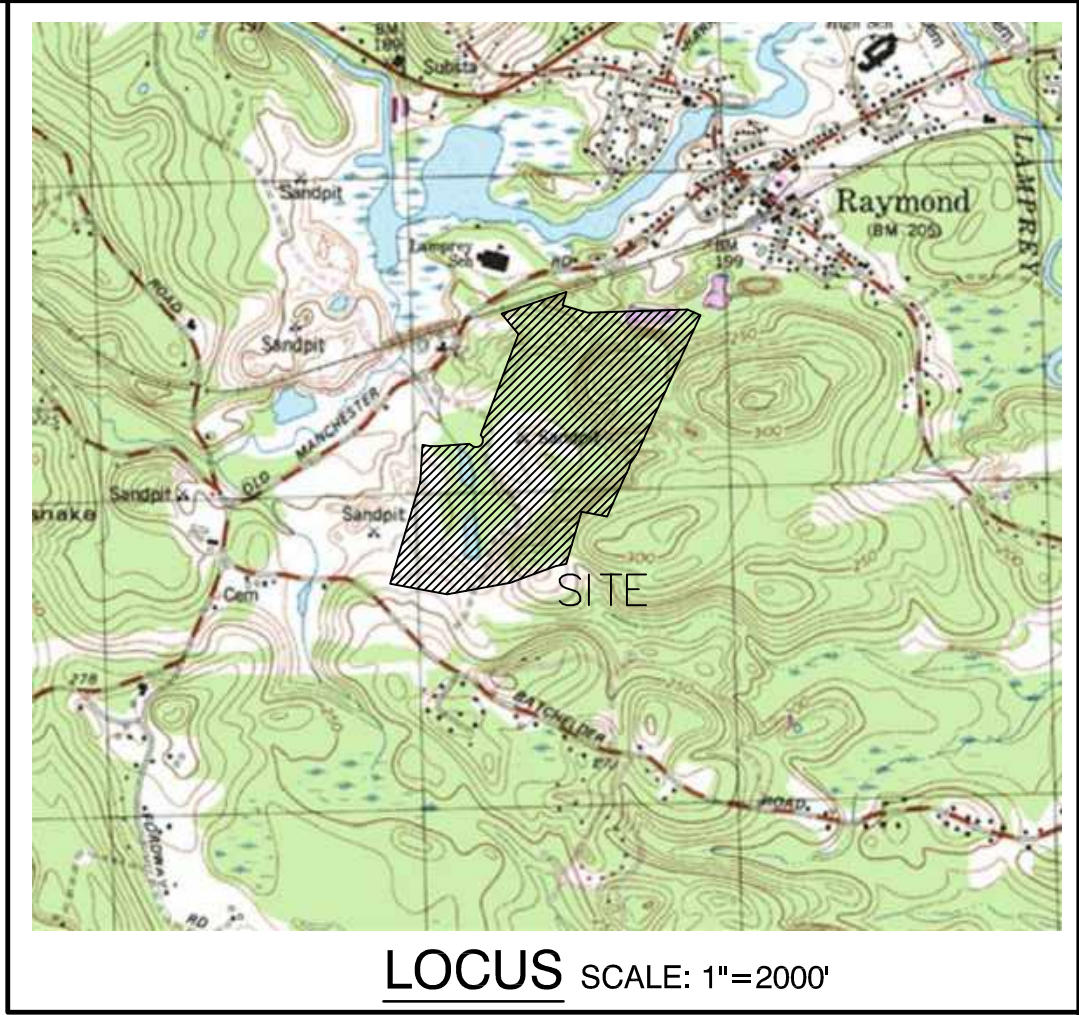
Todd A. Greenwood, P.G.
President

Attachments: Sampling Site Plan
PFAS Summary Table 1A
Laboratory Water Sample Results (PFAS)



PLAN REFERENCE:

1. AN ALTA SURVEY AND PLAN OF PROPERTY PREPARED FOR M-O-H ENTERPRISES FL, INC. SITUATED IN THE TOWN OF RAYMOND, NEW HAMPSHIRE. PREPARED BY R.S.L. LAYOUT & DESIGN, INC. DATED 2/21/1996



EXISTING CONDITIONS NOTES:

1. UNDERGROUND FACILITIES, UTILITIES AND STRUCTURES HAVE BEEN PLOTTED FROM FIELD OBSERVATION AND THEIR LOCATION MUST BE CONSIDERED APPROXIMATE ONLY. NEITHER JONES & BEACH ENGINEERS, INC. NOR ANY OF THEIR EMPLOYEES TAKE RESPONSIBILITY FOR THE LOCATION OF ANY UNDERGROUND STRUCTURES OR UTILITIES NOT SHOWN THAT MAY EXIST. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL UNDERGROUND STRUCTURES AND/OR UTILITIES LOCATED PRIOR TO EXCAVATION WORK BY CALLING 1-888-DIG-SAFE (1-888-344-7233).
2. BASE ELEVATION WAS ESTABLISHED THROUGH MULTIPLE GPS POST PROCESS OBSERVATIONS AND WAS REDUCED TO THE NAVD83 DATUM BY THE NATIONAL GEODETIC SURVEY OPUS SOFTWARE.
3. THE SUBJECT PARCEL IS NOT LOCATED WITHIN AN AREA HAVING A SPECIAL FLOOD HAZARD ZONE DESIGNATION BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), ON FLOOD INSURANCE RATE MAP NOS. 33015C0187E, 33015C0190E, 33015C0191E, AND 33015C193E, ALL WITH EFFECTIVE DATE OF MAY 17, 2005.
4. THE LIMITS OF JURISDICTIONAL WETLANDS WERE DELINEATED BY BRENDAN WALDEN C.W.S., DURING SUMMER, 2021, IN ACCORDANCE WITH THE FOLLOWING GUIDANCE DOCUMENTS:
 - a. THE CORPS OF ENGINEERS FEDERAL MANUAL FOR IDENTIFYING AND DELINEATING JURISDICTIONAL WETLANDS.
 - b. THE NORTH CENTRAL & NORTHEAST REGIONAL SUPPLEMENT TO THE FEDERAL MANUAL.
 - c. THE CURRENT VERSION OF THE FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, AS PUBLISHED BY THE COMMISSION AND/OR THE CURRENT VERSION OF THE FIELD INDICATORS OF ENGLAND INTERSTATE WATER POLLUTION CONTROL HYDRIC SOILS IN THE UNITED STATES, AS PUBLISHED BY THE USDA, NRCS, AS APPROPRIATE.
 - d. THE CURRENT NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS, AS PUBLISHED BY THE US FISH AND WILDLIFE SERVICE.
7. SITE-SPECIFIC SOIL MAPPING WAS PERFORMED BY GOVE ENVIRONMENTAL SERVICES, INC. DURING SPRING, 2022, AND IS BASED ON THE STANDARDS OF SITE-SPECIFIC SOIL MAPPING STANDARDS FOR NEW HAMPSHIRE AND VERMONT, VERSION 2.0 (1999: SOCIETY OF SOIL SCIENTISTS OF NORTHERN NEW ENGLAND). THE MAP IS WITHIN THE TECHNICAL STANDARDS OF THE NATIONAL COOPERATIVE SOIL SURVEY. IT IS A SPECIAL PURPOSE PRODUCT INTENDED FOR THE USE(S) REQUIRING THE SITE SPECIFIC SOIL SURVEY AND IS PRODUCED BY A CERTIFIED SOIL SCIENTIST. IT IS NOT A PRODUCT OF THE USDA NATURAL RESOURCES CONSERVATION SERVICE. A NARRATIVE REPORT IS A COMPONENT OF THE MAP.
8. A TEMPORARY CULVERT AND ROADBED SHALL BE IN PLACE PRIOR TO ANY USE OF A WETLAND CROSSING.
9. WETLAND IMPACTS SHALL NOT OCCUR UNTIL ALL PERMITS HAVE BEEN ACQUIRED AND IMPACT MITIGATION REQUIREMENTS HAVE BEEN SATISFIED.
10. TEST PITS PERFORMED BY WAYNE MORRILL, JONES & BEACH ENGINEERS, INC., 12/20/21.
11. WETLAND BOUNDARIES AND CONSTRUCTION LIMITS ARE TO BE CLEARLY MARKED PRIOR TO THE START OF CONSTRUCTION.

SOIL LEGEND:

SYMBOL	MAP UNIT NAME	HSG
42	CANTON	B
135	CHATFIELD VARIANT NEWFIELDS COMP	B
444/445	NEWFIELDS/NEWFIELDS COMP	B
447	SCITUATE NEWFIELDS COMPLEX	C
86	HOLLIS	C
400hafd	UDORTHENTS SANDY/GRAVELLY	A/C
656/P	WALPOLE POORLY DRAINED	C
115/VP	RIDGEBURY POORLY DRAINED V STONY	C

B SLOPE = 0-8% C SLOPE = 8-15% D SLOPE = 15-25%

PROJECT PARCEL
TOWN OF RAYMOND
TAX MAP 22, LOTS 44, 45, 46, 47
TAX MAP 28, BLOCK 3, LOT 120-1

APPLICANT
ONYX PARTNERS LTD
200 RESERVOIR STREET
NEEDHAM, MA 02494

TOTAL LOT AREA
5,380,531 ± SQ. FT.
123.52 ± ACRES

Design: WGM	Draft: GDR	Date: 8/19/21
Checked: WGM	Scale: AS NOTED	Project No.: 21130
Drawing Name: 21130-PLAN.dwg		
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.		

REV.	DATE	REVISION	BY
1	11/10/22	REVISED PER AOT/TOWN ENGINEER/TRC COMMENTS	EMP
1	9/30/22	REVISED PER TOWN ENGINEER COMMENTS	EMP
0	8/18/22	ISSUED FOR REVIEW	EMP
REV.	DATE	REVISION	BY

Designed and Produced in NH

J/B Jones & Beach Engineers, Inc.

85 Portsmouth Ave. Stratham, NH 03885

Civil Engineering Services

603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	EXISTING CONDITIONS PLAN
Project:	RAYMOND DISTRIBUTION INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record:	ONYX RAYMOND LLC 60 CENTRE STREET, DOVER, MA 02030

DRAWING No.

C1

SHEET 2 OF 44
JBE PROJECT NO. 21130

TABLE 1A
ONYX RAYMOND LLC
SURFACE WATER QUALITY DATA - PFAS

COMPOUND	Surface Water Sample Locations			NHDES Water Quality Standards	
	PFAS by EPA Method 537M	SFW-1	SFW-2	SFW-3	AGQS
Perfluorooctanesulfonic Acid (PFOS)	0.0117	ND	0.00406	0.015	NSA
Perfluoropentanoic Acid (PFPeA)	ND	ND	ND	NSA	
Perfluorohexanoic Acid (PFHxA)	ND	ND	ND	NSA	
Perfluorooctanoic Acid (PFOA)	0.00507	ND	ND	0.012	
Perfluorohexanesulfonic Acid ((PFHxS)	ND	ND	ND	0.018	
Perfluorobutanoic Acid (PFBA)	ND	ND	ND	NSA	
Perfluorobutanesulfonic Acid (PFBS)	ND	ND	ND	NSA	
Perfluoroheptanoic Acid (PFHpA)	ND	ND	ND	NSA	
Perfluorononanoic Acid (PFNA)	ND	ND	ND	0.011	
N-ethyl-perfluorooctane Sulfonamido Acetic Acid (EtFOSAA)	0.00434	ND	ND	NSA	

NOTES:

1. PFAS concentrations are presented as parts per billion (ppb) equivalent to micrograms per liter.
2. ND = Not detected and below laboratory reporting limits.
3. **Bold** concentrations exceed the NHDES Ambient Groundwater Quality Standards (AGQSs), effective 1/1/2021.
4. NSA = No water standard for individual compounds listed.
5. NA = Compound Not Analyzed.



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: 252744
Client Identification: ONYX RAYMOND
Date Received: 11/22/2022
Report revision/reissue: Revision, replaces report dated 12/7/2022
Revision information: Report revised to include PFAS data.

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

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

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

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

Certifications:

Eastern Analytical, Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269), Vermont (VT1012), New York (12072), West Virginia (9910C) and Alabama (41620). Please refer to our website at www.easternanalytical.com for a copy of our certificates and accredited parameters.

References:

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

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

12.9.22

Date



SAMPLE CONDITIONS PAGE

EAI ID#: 252744

Client: **Enviro North American Consulting**

Client Designation: **ONYX RAYMOND**

Temperature upon receipt (°C): **5.8**

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

Acceptable temperature range (°C): 0-8

Lab ID	Sample ID	Date Received	Date/Time Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
252744.01	SFW-1	11/22/22	11/22/22 10:20	aqueous		Adheres to Sample Acceptance Policy
252744.02	SFW-2	11/22/22	11/22/22 10:40	aqueous		Adheres to Sample Acceptance Policy
252744.03	SFW-3	11/22/22	11/22/22 11:10	aqueous		Adheres to Sample Acceptance Policy

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

Unless otherwise noted:

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



LABORATORY REPORT

EAI ID#: 252744

Client: **Enviro North American Consulting**

Client Designation: **ONYX RAYMOND**

Sample ID: SFW-1 SFW-2 SFW-3

Lab Sample ID: 252744.01 252744.02 252744.03

Matrix: aqueous aqueous aqueous

Date Sampled: 11/22/22 11/22/22 11/22/22

Date Received: 11/22/22 11/22/22 11/22/22

Chromium 0.0056 < 0.001 0.024

Analytical Matrix	Units	Date of Analysis	Method	Analyst
AqDis	mg/L	11/23/22	200.8	DS

December 08, 2022

Vista Work Order No. 2211263

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

Dear Ms. Laramie,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on November 23, 2022 under your Project Name '252744 NH'.

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

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

Sincerely,



Frieda Schwebel
Project Manager



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

Vista Work Order No. 2211263

Case Narrative

Sample Condition on Receipt:

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

Analytical Notes:

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

The samples were extracted and analyzed for a selected list of PFAS using Isotope Dilution and LC-MS/MS compliant with Table B-15 of DoD QSM 5.3. The results for PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Results for all other analytes include the linear isomers only.

Holding Times

The samples were extracted and analyzed within the hold times.

Quality Control

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

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above the Reporting Limits (RL). The OPR recoveries were within the method acceptance criteria.

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

QC Anomalies

LabNumber	SampleName	Analysis	Analyte	Flag	%Rec
B22K258-BLK1	B22K258-BLK1	PFAS Isotope Dilution Table B-15	13C8-PFOA	H	49.5

H = Recovery was outside laboratory acceptance criteria.

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Sample Inventory Report



Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
2211263-01	SFW-1	22-Nov-22 10:20	23-Nov-22 09:51	Polypropylene, 250mL Polypropylene, 250mL
2211263-02	SFW-2	22-Nov-22 10:40	23-Nov-22 09:51	Polypropylene, 250mL Polypropylene, 250mL
2211263-03	SFW-3	22-Nov-22 11:10	23-Nov-22 09:51	Polypropylene, 250mL Polypropylene, 250mL

ANALYTICAL RESULTS

Sample ID: Method Blank

PFAS Isotope Dilution Table B-15

Client Data
Name: Eastern Analytical, Inc.
Project: 252744 NH

Laboratory Data
Lab Sample: B22K258-BLK1
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFPeA	2706-90-3	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFBS	375-73-5	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
4:2 FTS	757124-72-4	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFHxA	307-24-4	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFPeS	2706-91-4	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFHpA	375-85-9	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFHxS	355-46-4	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
6:2 FTS	27619-97-2	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFOA	335-67-1	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFHpS	375-92-8	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFNA	375-95-1	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFOSA	754-91-6	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFOA	1763-23-1	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFDA	335-76-2	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
8:2 FTS	39108-34-4	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFNS	68259-12-1	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
MeFOSAA	2355-31-9	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
EHOSAA	2991-50-6	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFUnA	2058-94-8	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFDS	335-77-3	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFDoA	307-55-1	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFTDA	72629-94-8	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFTDA	376-06-7	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	63.2	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C3-PFPeA	IS	73.0	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C3-PFBS	IS	70.6	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C2-4:2 FTS	IS	73.6	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C2-PFHxA	IS	72.2	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C4-PFHpA	IS	75.4	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C3-PFHxS	IS	77.8	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C2-6:2 FTS	IS	69.2	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C2-PFOA	IS	73.4	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C5-PFNA	IS	72.8	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C8-PFOSA	IS	49.5	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C8-PFOS	IS	71.6	50 - 150	H	B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C2-PFDA	IS	78.8	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1

Sample ID: Method Blank

PFAS Isotope Dilution Table B-15

Client Data
 Name: Eastern Analytical, Inc.
 Project: 252744 NH
 Matrix: Aqueous

Laboratory Data
 Lab Sample: B22K258-B1.K1
 Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
I3C2-8-2-FTS	IS	71.4	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
d3-MeFOSAA	IS	67.7	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
d5-EtFOSAA	IS	62.6	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
I3C2-1PFluA	IS	72.9	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
I3C2-1PFD0A	IS	69.8	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
I3C2-1PT0DA	IS	62.7	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1

RI - Reporting Unit

Results reported in R...

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

Sample ID: OPR

PFAS Isotope Dilution Table B-15

Client Data		Laboratory Data	
Name:	Eastern Analytical, Inc.	Lab Sample:	B22K258-BS1
Project:	252744 NH	Column:	BEH C18
	Matrix:		Aqueous

Analyte	CAS Number	Amt Found (ng/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	43.6	40.0	109	73 - 129	B22K258	30-Nov-22	0.250 L	07-Dec-22	17:41	1
PFPeA	2706-90-3	43.6	40.0	109	72 - 129	B22K258	30-Nov-22	0.250 L	07-Dec-22	17:41	1
PFBS	375-73-5	44.4	40.4	110	72 - 130	B22K258	30-Nov-22	0.250 L	07-Dec-22	17:41	1
4-2-FTS	757124-72-4	48.1	40.0	120	63 - 143	B22K258	30-Nov-22	0.250 L	07-Dec-22	17:41	1
PFHxA	307-24-4	40.9	40.0	102	72 - 129	B22K258	30-Nov-22	0.250 L	07-Dec-22	17:41	1
PFPeS	2706-91-4	45.9	40.4	114	71 - 127	B22K258	30-Nov-22	0.250 L	07-Dec-22	17:41	1
PFHpa	375-85-9	41.6	40.0	104	72 - 130	B22K258	30-Nov-22	0.250 L	07-Dec-22	17:41	1
PFHxS	355-46-4	40.9	40.0	102	68 - 131	B22K258	30-Nov-22	0.250 L	07-Dec-22	17:41	1
6:2-FTS	27619-97-2	41.6	40.0	104	64 - 140	B22K258	30-Nov-22	0.250 L	07-Dec-22	17:41	1
PFOA	335-67-1	43.3	40.0	108	71 - 133	B22K258	30-Nov-22	0.250 L	07-Dec-22	17:41	1
PFHpS	375-92-8	41.2	40.0	103	69 - 134	B22K258	30-Nov-22	0.250 L	07-Dec-22	17:41	1
PFNA	375-95-1	44.6	40.0	112	69 - 130	B22K258	30-Nov-22	0.250 L	07-Dec-22	17:41	1
PFOSA	754-91-6	43.3	40.0	108	67 - 137	B22K258	30-Nov-22	0.250 L	07-Dec-22	17:41	1
PFOs	1763-23-1	44.4	40.0	111	65 - 140	B22K258	30-Nov-22	0.250 L	07-Dec-22	17:41	1
PFDA	335-76-2	42.2	40.0	106	71 - 129	B22K258	30-Nov-22	0.250 L	07-Dec-22	17:41	1
8:2-FTS	39108-34-4	38.7	40.0	96.8	67 - 138	B22K258	30-Nov-22	0.250 L	07-Dec-22	17:41	1
PENS	68259-12-1	44.8	40.0	112	69 - 127	B22K258	30-Nov-22	0.250 L	07-Dec-22	17:41	1
MeFOSAA	2355-31-9	43.4	40.0	109	65 - 136	B22K258	30-Nov-22	0.250 L	07-Dec-22	17:41	1
EtFOSAA	2991-50-6	41.3	40.0	103	61 - 135	B22K258	30-Nov-22	0.250 L	07-Dec-22	17:41	1
PFuNA	2058-94-8	40.2	40.0	101	69 - 133	B22K258	30-Nov-22	0.250 L	07-Dec-22	17:41	1
PFDS	335-77-3	36.4	40.0	91.0	53 - 142	B22K258	30-Nov-22	0.250 L	07-Dec-22	17:41	1
PFDoA	307-55-1	44.6	40.0	112	72 - 134	B22K258	30-Nov-22	0.250 L	07-Dec-22	17:41	1
PFTDA	72629-94-8	41.9	40.0	105	65 - 144	B22K258	30-Nov-22	0.250 L	07-Dec-22	17:41	1
PFTdDA	376-06-7	41.9	40.0	105	71 - 132	B22K258	30-Nov-22	0.250 L	07-Dec-22	17:41	1
Labeled Standards		Type		% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA		IS		57.8	50 - 150	B22K258	30-Nov-22	0.250 L	07-Dec-22	17:41	1
13C3-PFPeA		IS		67.5	50 - 150	B22K258	30-Nov-22	0.250 L	07-Dec-22	17:41	1
13C3-PFBs		IS		67.7	50 - 150	B22K258	30-Nov-22	0.250 L	07-Dec-22	17:41	1
13C2-4:2-FTS		IS		71.0	50 - 150	B22K258	30-Nov-22	0.250 L	07-Dec-22	17:41	1
13C2-PFHxA		IS		68.6	50 - 150	B22K258	30-Nov-22	0.250 L	07-Dec-22	17:41	1
13C4-PFHpa		IS		71.6	50 - 150	B22K258	30-Nov-22	0.250 L	07-Dec-22	17:41	1
13C3-PFHxS		IS		75.5	50 - 150	B22K258	30-Nov-22	0.250 L	07-Dec-22	17:41	1
13C2-6:2-FTS		IS		65.9	50 - 150	B22K258	30-Nov-22	0.250 L	07-Dec-22	17:41	1
13C2-PFOA		IS		71.2	50 - 150	B22K258	30-Nov-22	0.250 L	07-Dec-22	17:41	1
13C5-PFNNA		IS		67.1	50 - 150	B22K258	30-Nov-22	0.250 L	07-Dec-22	17:41	1

Sample ID: OPR

PFAS Isotope Dilution Table B-15

Client Data

Name: Eastern Analytical, Inc.
Project: 252744 NH

Matrix: Aqueous

Laboratory Data

Lab Sample: 1922K258-RS1 Column: BEH C18

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C8-PFOSA	IS	50.8	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
13C8-PFOS	IS	69.7	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
13C2-PFDA	IS	72.9	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
13C2-8:2-FTS	IS	74.1	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
d3-MFOSAA	IS	66.6	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
d5-FFOSAA	IS	64.5	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
13C2-PFUnA	IS	73.9	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
13C2-PFD0A	IS	66.5	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
13C2-PTeDA	IS	64.3	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1

Sample ID: SFW-1

PFAS Isotope Dilution Table B-15

Client Data		Laboratory Data	
Name:	Eastern Analytical, Inc.	Matrix:	Aqueous
Project:	252744 NH	Date Collected:	22-Nov-22 10:20
Location:	252744	Lab Sample:	2211263-01
		Date Received:	23-Nov-22 09:51
		Column:	BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFPeA	2706-90-3	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFBS	375-73-5	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
4,2-FTS	757124-72-4	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFHxA	307-24-4	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFPeS	2706-91-4	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFHpA	375-85-9	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFHxS	355-46-4	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
6,2-FTS	27619-97-2	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFOA	335-67-1	5.07	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFHpS	375-92-8	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFNA	375-95-1	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFOA	754-91-6	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFOA	1763-23-1	11.7	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFDA	335-76-2	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
8,2-FTS	39108-34-4	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFNS	68259-12-1	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
MeFOSAA	2355-31-9	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
EtFOSAA	2991-50-6	4.34	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFUnA	2058-94-8	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFDS	335-77-3	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFDoA	307-55-1	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFTDA	72629-94-8	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFTDA	376-06-7	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	56.6	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C3-PFPeA	IS	71.0	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C3-PFBS	IS	60.5	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C2-4,2-FTS	IS	78.7	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C2-PFHxA	IS	66.8	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C4-PFHpA	IS	72.9	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C3-PFHxS	IS	75.0	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C2-6,2-FTS	IS	73.0	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C2-PFOA	IS	73.5	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C3-PFNA	IS	73.1	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C8-PFOA	IS	59.1	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C8-PFOS	IS	75.1	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1

Sample ID: SFW-1

PEAS Isotope Dilution Table B-15

Client Data		Laboratory Data	
Name:	Eastern Analytical, Inc.	Lab Sample:	2211263-01
Project:	252744 N11	Date Received:	23-Nov-22 09:51
Location:	252744	Column:	BEH C18
Matrix:	Aqueous	Date Collected:	22-Nov-22 10:20

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PHDA	IS	78.6	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C2-4-2-FTS	IS	65.9	50 - 150		H22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
d3-MeFOSAA	IS	78.1	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
d5-EtFOSAA	IS	74.5	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C2-PFCMA	IS	79.7	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C2-PHD0A	IS	70.8	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C2-PFTEUA	IS	67.7	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1

RI - Reporting limit Results reported to RL

When reported, PEHAs, PROA, PROS, MeFOSAA and PFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.



PFAS Isotope Dilution Table B-15

Sample ID: SFW-2

Client Data		Laboratory Data	
Name:	Eastern Analytical, Inc.	Lab Sample:	2211263-02
Project:	252744 NH	Date Received:	23-Nov-22 09:51
Location:	252744	Matrix:	Aqueous
		Date Collected:	22-Nov-22 10:40
		Column:	BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFPeA	2706-90-3	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFBS	375-73-5	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
4:2 FTS	757124-72-4	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFHxA	307-24-4	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFPeS	2706-91-4	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFHpA	375-85-9	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFHxS	355-46-4	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
6:2 FTS	27619-97-2	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFOA	335-67-1	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFHps	375-92-8	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFNA	375-95-1	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFOSA	754-91-6	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFOs	1763-23-1	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFDA	335-76-2	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
8:2 FTS	39108-34-4	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFNS	68259-12-1	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
MeFOSAA	2355-31-9	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
EtFOSAA	2991-50-6	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFuNA	2058-94-8	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFDS	335-77-3	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFDoA	307-55-1	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFTDA	72629-94-8	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFTeDA	376-06-7	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	56.3	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C3-PFPeA	IS	68.6	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C3-PFBS	IS	63.3	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C2-4:2 FTS	IS	78.0	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C2-PFHxA	IS	70.1	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C4-PFHpA	IS	74.2	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C3-PFHxS	IS	81.3	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C2-6:2 FTS	IS	67.2	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C2-PFOA	IS	71.6	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C5-PFNA	IS	69.4	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C8-PFOSA	IS	54.5	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C8-PFOs	IS	66.1	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1

Sample ID: SPW-2

PFAS Isotope Dilution Table B-15

Client Data		Laboratory Data	
Name: Eastern Analytical, Inc.	Matrix: Aqueous	Lab Sample: 2211263-02	Column: BEH C18
Project: 252744 NII	Date Collected: 22-Nov-22 10:40	Date Received: 23-Nov-22 09:51	
Location: 252744			

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Sample Size	Analyzed	Dilution
13C2-PHDA	IS	77.5	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C2-8-2-FTS	IS	67.3	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
d3-MeFOSAA	IS	70.3	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
d5-BrFOSAA	IS	74.1	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C2-PEUMA	IS	75.2	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C2-PTD ₀ A	IS	70.5	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C2-PTEDA	IS	67.2	50 - 150		D22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1

RL - Reporting Limit
 Results reported to RL
 When reported, PFHxS, PFnOA, PFnOS, MeFOSAA and BrFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes

Sample ID: SFW-3

PFAS Isotope Dilution Table B-15

Client Data
 Name: Eastern Analytical, Inc.
 Project: 252744 NH
 Location: 252744

Matrix: Aqueous
 Date Collected: 22-Nov-22 11:10

Laboratory Data
 Lab Sample: 2211263-03
 Date Received: 23-Nov-22 09:51

Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RI	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFPeA	2706-90-3	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFBS	375-73-5	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
4:2 FTS	757124-72-4	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFHxA	307-24-4	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFPeS	2706-91-4	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFHpA	375-85-9	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFHxS	355-46-4	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
6:2 FTS	27619-97-2	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFOnA	335-67-1	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFHpS	375-92-8	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFNA	375-95-1	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFOSA	754-91-6	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFOS	1763-23-1	4.06	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFDA	335-76-2	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
8:2 FTS	39108-34-4	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFNS	68259-12-1	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
MeFOSAA	2355-31-9	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
EtFOSAA	2991-50-6	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFUnA	2058-94-8	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFDS	335-77-3	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFDoA	307-55-1	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFTrDA	72629-94-8	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFTrDA	376-06-7	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-1FBA	IS	54.5	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C3-PPeA	IS	68.5	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C3-PPBS	IS	68.3	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C2-4:2 FTS	IS	81.5	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C2-PFHxA	IS	69.5	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C4-PFHpA	IS	77.3	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C3-PFHxS	IS	78.5	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C2-6:2 FTS	IS	64.7	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C2-PFOA	IS	74.6	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C5-PPNA	IS	71.5	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C8-PFOA	IS	61.5	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C8-PFOA	IS	77.9	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1

Sample ID: SFW-3

PFAS Isotope Dilution Table B-15

Client Data		Laboratory Data	
Name:	Eastern Analytical, Inc.	Lab Sample:	2211263-03
Project:	252744 NH	Date Received:	23-Nov-22 09:51
Location:	252744	Column:	BEH C18
		Matrix:	Aqueous
		Date Collected:	22-Nov-22 11:10

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PEDA	IS	78.6	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C2-8-2-F1S	IS	67.7	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13-MeFOSAA	IS	74.0	50 - 150		T22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
15-HFOSAA	IS	80.5	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C2-PFD0A	IS	78.8	50 - 150		I22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C2-PFD0A	IS	74.6	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C2-PT1EIDA	IS	55.6	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1

RI - Reporting Unit Results reported to RL

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

DATA QUALIFIERS & ABBREVIATIONS

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

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

Vista Analytical Laboratory Certifications

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	21-023-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2020018
Massachusetts Department of Environmental Protection	M-CA413
Michigan Department of Environmental Quality	9932
Minnesota Department of Health	2211390
New Hampshire Environmental Accreditation Program	207721
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Ohio Environmental Protection Agency	87778
Oregon Laboratory Accreditation Program	4042-021
Pennsylvania Department of Environmental Protection	018
Texas Commission on Environmental Quality	T104704189-22-13
Vermont Department of Health	VT-4042
Virginia Department of General Services	11276
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request.

NELAP Accredited Test Methods

MATRIX: Air	
Description of Test	Method
Determination of Polychlorinated p- Dioxins & Polychlorinated Dibenzofurans	EPA 23
Polychlorinated Dibenzodioxins in Ambient Air by GC/HRMS	EPA 10-9A

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

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

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

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

CHAIN-OF-CUSTODY RECORD



Sample ID: _____ Date Sampled: _____ Matrix: _____ aParameters: _____ Sample Notes: 221267 1.7c

SFW-1 | 11/22/2022 | 10:20 | aqueous | Subcontract - Perfluorinated Compounds EPA Method 537 modified | EAID# 252744 | Page 1

SFW-2 | 11/22/2022 | 10:40 | aqueous | Subcontract - Perfluorinated Compounds EPA Method 537 modified

SFW-3 | 11/22/2022 | 11:10 | aqueous | Subcontract - Perfluorinated Compounds EPA Method 537 modified

EAID# 252744 Project State: NH Project ID: _____ Results Needed: Preferred Date: Standard RUSH Due Date: _____

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

QC Deliverables: A A+ B B+ C MA MCP
 Notes about project: _____
 Email login confirmation, pdf of results and invoice to customer.service@easternanalytical.com.
 24 Compound List RUSH TAT NEEDED
 RESULTS NEEDED ASAP

PO #: 58738 EAID# 252744
 Data Deliverable (circle): _____
 Excel NH EMD EQUIS MEEGAD
 Call prior to analyzing, if RUSH charges will be applied.
 Samples Collected by: Bob Dyer Date/Time: 11/22/22 16:00 Received by: Bob Dyer
 Relinquished by: UPS Date/Time: 11/23/23 09:51 Received by: Raymond Chid

Eastern Analytical, Inc. 51 Antim Ave Concord, NH 03301 Phone: (603) 228-0525 1-800-267-0525 customer.service@easternanalytical.com
 As a subcontract lab to EAI, you will defend, indemnify and hold Eastern Analytical, Inc., its officers, employees, and agents harmless from and against any and all liability, loss, expense or claims for injury or damage arising out of the performance against this chain of custody but only in proportion to and to the extent such liability, loss, expense, or claims for injury or damages are caused by or result from the negligent or intentional acts or omissions of you. See a subcontract lab unit office. Grants or amendments.

Sample Log-In Checklist

Page # 1 of 1

Vista Work Order #: 2211263 TAT Arch

Samples Arrival:	Date/Time <u>09:51</u> <u>11/23/22</u>	Initials: <u>BAC</u>	Location: <u>WR-2</u> Shelf/Rack: <u>N/A</u>
Delivered By:	FedEx	<input checked="" type="radio"/> UPS	On Trac GLS DHL Hand Delivered Other
Preservation:	<input checked="" type="radio"/> Ice	Blue Ice	Techni Ice Dry Ice None
Temp °C: <u>1.4</u> (uncorrected)	Probe used: Y / <input checked="" type="radio"/> N		Thermometer ID: <u>IR-3</u>
Temp °C: <u>1.3</u> (corrected)			

	YES	NO	NA
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?		✓	✓
Airbill	✓		
Trk # <u>1ZX495990194395303</u>			
Shipping Documentation Present?	✓		
Shipping Container	Vista	<input checked="" type="radio"/> Client	Retain <input checked="" type="radio"/> Return Dispose
Chain of Custody / Sample Documentation Present?	✓		
Chain of Custody / Sample Documentation Complete?	✓		
Holding Time Acceptable?	✓		

Logged In:	Date/Time <u>11/23/22 10:16</u>	Initials: <u>ba</u>	Location: <u>R-13, WR2</u> Shelf/Rack: <u>A-4, E-3</u>
COC Anomaly/Sample Acceptance Form completed?			✓ ✓

Comments:

CoC/Label Reconciliation Report WO# 2211263

LabNumber CoC Sample ID Sample Alias Sample Date/Time Container Base Matrix Sample Comments

2211263-01	A SFW-1	252764	22-Nov-22 10:20	<input checked="" type="checkbox"/>	Polypropylene, 250mL	Aqueous	
2211263-01	R SFW-1	252764	22-Nov-22 10:20	<input checked="" type="checkbox"/>	Polypropylene, 150mL	Aqueous	
2211263-02	A SFW-2	252764	22-Nov-22 10:40	<input checked="" type="checkbox"/>	Polypropylene, 250mL	Aqueous	
2211263-02	B SFW-2	252764	22-Nov-22 10:40	<input checked="" type="checkbox"/>	Polypropylene, 150mL	Aqueous	
2211263-03	A SFW-3	252764	22-Nov-22 11:10	<input checked="" type="checkbox"/>	Polypropylene, 250mL	Aqueous	
2211263-03	B SFW-3	252764	22-Nov-22 11:10	<input checked="" type="checkbox"/>	Polypropylene, 150mL	Aqueous	

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

Comments: *Sample container rusty label.*

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

Preservation Documented: Na2S2O3 Trizma NH4CH3CO2 None Other

Verified by/Date: WJL 12/2/22

CHAIN-OF-CUSTODY RECORD

252744

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

SAMPLE I.D.	SAMPLING DATE/TIME *IF COMPOSITE, INDICATE BOTH START & FINISH DATE/TIME	MATRIX (SEE BELOW) GRAB/% COMPOSITE	VOC		SVOC		ICP		INORGANICS		MICRO		METALS		OTHER	
			624.7 624.2 NTBE ONLY 8263 1, 4 D GRAB 8021	VTIC	6015 GRO MAYPH	625 ABN PAH EDR DBCP	L1 L2	BOIS DRO MAEPH	PEST 608 PEST 8001	PCB 608 PCB 609?	OIL & Grease 1564 TPH 1664	TCMP VOC BOD TS Br NO3 TKN T. PHOS. pH SPEC. CON. COD	ABN PEST CROD TSS O NO2 NH4 D. PHOS. T. RES. CHLORINE SPEC. CON. Phenols Total Chloride REACTIVE CHLORINE FLASHPOINT	METALS HERB SO4 NO3/NO2 TN D. PHOS. T. ALK. TOC Total Sulfide REACTIVE SULFIDE TOURNAI LI*	E. COLI Fecal Coliform ENTEROCOCCI HETEROLOGIC PLATE COUNT	DISSOLVED METALS (LIST BELOW) TOTAL METALS (LIST BELOW)
SEW-1	11/22/02 10:20 SW/G	SW/G														3
SEW-2	11/22/02 10:40 SW/G	SW/G														3
SEW-3	11/22/02 11:10 SW/G	SW/G														3

MATRIX: A-40R; S-SOIL; GW-GROUND WATER; SW-SURFACE WATER; DW-DRINKING WATER;
WW-WASTE WATER
PRESERVATIVE: H-HCL; N-HNO3; S-H2SO4; Na-NaOH; M-MEON

PROJECT MANAGER: TODD GREENWOOD

COMPANY: EAIAE

ADDRESS: P.O. Box 1875

CITY: ALTON STATE: NH ZIP: 03809

PHONE: 603-875-8105 EXT: _____

E-MAIL: tag@metrocst.net

SITE NAME: DAYX EASTWARD

PROJECT #: _____

STATE: NH MA ME VT OTHER: _____

REGULATORY PROGRAM: NPDES; RGP POTW; STORMWATER DR

GWR, OIL TING, BROWNGED ON OTHER: N/A

QUOTE #: _____ PO #: _____

QA/QC REPORTING

A B C

MA MCP

TEMP 51.8
ICEZ 61.0
REL NO

REPORTING OPTIONS

PRELIMS: YES OR NO

ELECTRONIC OPTIONS
PDF EXCEL

OTHER

TURN AROUND TIME

24hr* 48hr*

3-4 Days* 7 Day

10 Day
*Pre-approval Required

METALS: 8 RBA 13 PP EG MW

OTHER METALS: Chromium

SAMPLES FIELD FILTERED? YES

NOTES: (IE: SPECIAL DETECTION LIMITS, BILLING INFO, IET)

Total dissolved chromium only Metals by ICP.
Pras/Pras 24 Comp. LI

SITE HISTOR: N/A

SUSPECTED CONTAMINATION: N/A

FIELD RESPONSE: N/A



RAYMOND CONSERVATION COMMISSION

**4 EPPING STREET, RAYMOND, NEW HAMPSHIRE 03077
(603) 895-7017**

November 15, 2022

TO: Raymond Planning Department

RE: Application #2022-013 – Severino Excavation Permit

One Conservation Commission member joined the Planning Board site walk on 11/18/22 for the above application. The full Conservation Commission reviewed the photos, notes, and Planning Board minutes on 12/15/22. The Conservation Commission recommends that the erosion controls be installed or fixed bordering the wetlands using natural or man-made materials.

Thank You,

Raymond Conservation Commission
ConsComChair@raymond-nh.gov

**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:
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April 14, 2023

**Todd A.
Greenwood**

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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-foot 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 ($\mu\text{g/L}$). 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 water 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 Health 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.

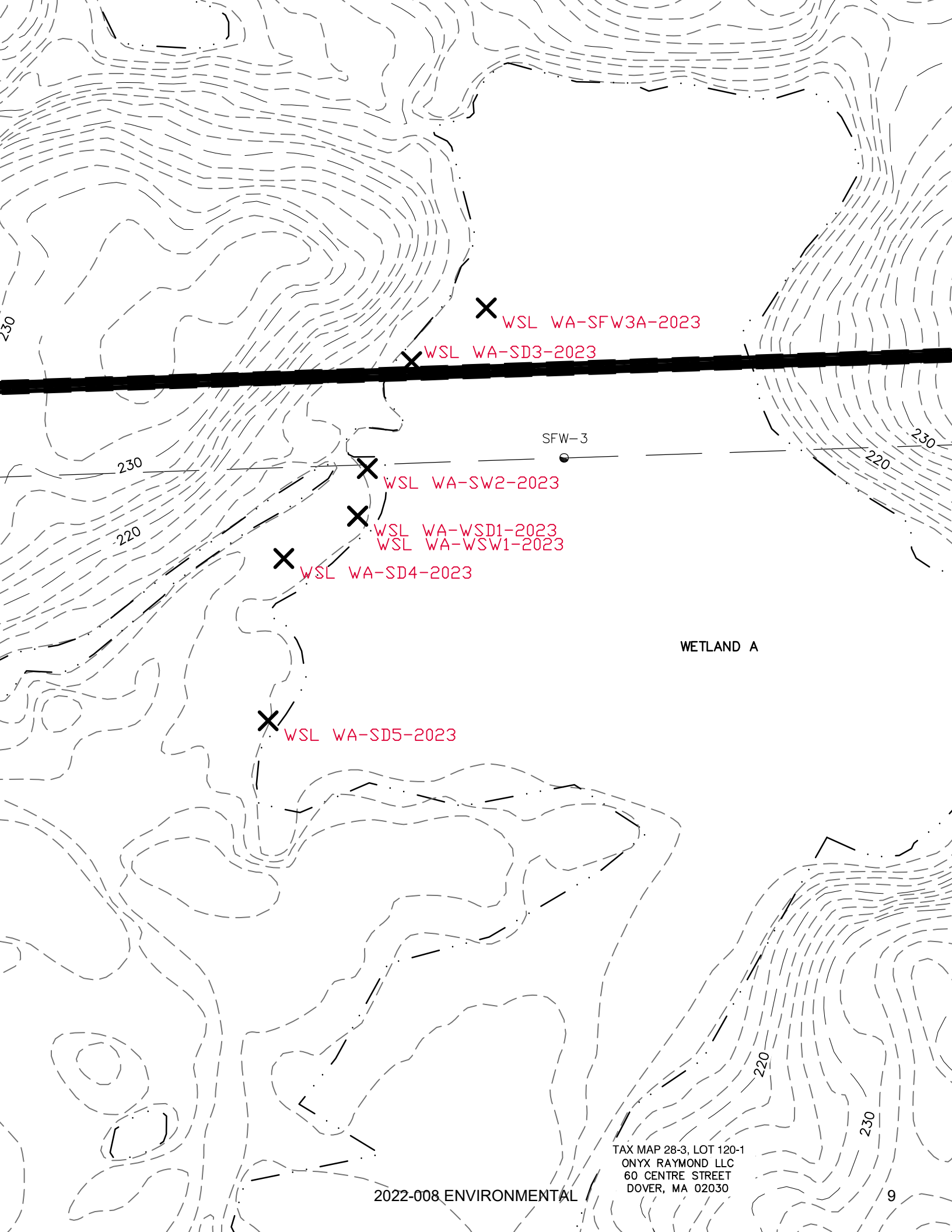
It has been a pleasure to assist you with your needs for environmental consulting.

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

WSL WA-SW2-2023

WSL WA-WSD1-2023
WSL WA-WSW1-2023

WSL WA-SD4-2023

WSL WA-SD5-2023

WETLAND A

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

POND	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-WSD2-2023
		Surface Water presented as µg/L							Sediment presented as mg/kg				
	03/16/23	0.74	0.84	0.54	0.77	340	150	0.018	34	2.7	10	11	52
	03/16/23	13	13	37	12	NSA	NSA	1,000	84	28	81	230	170
	03/16/23	<1	<1	<1	<1	0.391	0.21	5 (MCL)	<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
	03/16/23	<1	<1	<1	<1	10.5	0.41	NSA	33	3	9.9	24	49
	03/16/23	<0.1	<0.1	<0.1	<0.1	1.4	0.77	0.05	0.13	<0.1	<0.1	0.17	0.27
	03/16/23	<1	<1	<1	<1	NSA	5	170	2.8	<0.5	<0.5	0.91	7.8
	03/16/23	<1	<1	<1	<1	0.2	NSA	105	<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
CaCO3	03/16/23	15	15	15	15	NSA	NSA	NSA	NA	NA	NA	NA	NA
	03/16/23	NA	NA	NA	NA	NSA	NSA	NSA	6.38	6.55	4.17	4.24	6.06
	03/16/23	NA	NA	NA	NA	NSA	NSA	NSA	-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 than 20 as CaCO₃

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				NHDES Remediation Standard
		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	
<i>Metals</i>		<i>Surface Water presented as µg/L</i>						<i>Sediment presented as mg/kg</i>				
					340	150	0.018					
	03/16/23	<0.5	0.52	0.61				5.3	4.9	1.4	3.2	1.0
					NSA	NSA	1,000					1.0
	03/16/23	9.5	11	15				33	34	35	28	
¹⁰					0.391	0.21	5 (MCL)					3.0
	03/16/23	<1	<1	<1				<0.5	<0.5	<0.5	<0.5	
m (III) ¹⁰					482.6	23.1	100 (Total Chromium as MCL)					1.0
	03/16/23	<1	<1	2.2				24	9.6	93	8.1	
					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	
					NSA	5	50					18
	03/16/23	<1	<1	<1				<0.5	<0.5	<0.5	<0.5	
					0.2	NSA	105					85
	03/16/23	<1	<1	<1				<0.5	<0.5	<0.5	<0.5	
m (VI)					16	11	100 (Total Chromium as MCL)					13
	03/16/23	<1	<1	<1				<0.57	<0.51	<0.57	<0.48	
<i>Parameters</i>												
Hardness (as CaCO ₃) (mg/L)					NSA	NSA	NSA					NSA
	03/16/23	9.3	15	15				NA	NA	NA	NA	
°C (unitless)					NSA	NSA	NSA					NSA
	03/16/23	NA	NA	NA				5.83	5.49	5.85	6.06	
Redox Potential (mV)					NSA	NSA	NSA					NSA
	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.
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 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 than 20 as CaCO₃

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 CONTROL	
		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-SD9-2023 FB
Acetic Acid (PFBA)	03/16/23	NA	NA	NA	NA	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	<1.9
Hexafluorobutanoic 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	<1.9
Perfluoropentanoic Acid (PFPeA)	03/16/23	NA	NA	NA	NA	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	<1.9
Perfluorohexanoic 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	<1.9
Perfluorooctanoic Acid (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	<1.9
Perfluorooctanoic Acid (53B Minor)	03/16/23	<1.8	<1.7	<2.0	<1.9	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	<1.9
Perfluorononanoic 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	<1.9
Perfluorodecanoic 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	<1.9
Perfluorododecanoic acid (8:2FTS A)	03/16/23	NA	NA	NA	NA	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	<1.9
Perfluorododecanoic 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	<1.9
Perfluorododecanoic 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	<1.9
Perfluorododecanoic acid (PFHdS)	03/16/23	NA	NA	NA	NA	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	<1.9
Perfluorododecanesulfonamido 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	<1.9
Perfluorododecanesulfonamido 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	<1.9
Perfluorododecanoic Acid (PFTrA)	03/16/23	<1.8	<1.7	<2.0	<1.9	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	<1.9
Perfluorododecanoic 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	<1.9
Perfluorododecanoic acid (4:2FTS A)	03/16/23	NA	NA	NA	NA	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	<1.9
Perfluorododecanoic acid (PFDS)	03/16/23	NA	NA	NA	NA	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	<1.9
Perfluorododecanamide (FOSA)	03/16/23	NA	NA	NA	NA	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	<1.9
Perfluorododecanoic acid (PFNS)	03/16/23	NA	NA	NA	NA	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	<1.9
Perfluorododecanesulfonamide (FHxSA)	03/16/23	NA	NA	NA	NA	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	<1.9
Perfluorododecanesulfonamide (FBSA)	03/16/23	NA	NA	NA	NA	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	<1.9
Perfluorododecanoic 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	<1.9
Perfluorododecanoic acid (PFMPA)	03/16/23	NA	NA	NA	NA	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	<1.9
Perfluorododecanoic acid (PFMBA)	03/16/23	NA	NA	NA	NA	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	<1.9
Perfluorododecanoic acid (6:2FTS A)	03/16/23	NA	NA	NA	NA	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	<1.9
Perfluorododecanoic 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	<1.9
Perfluorododecanoic acid (NFDHA)	03/16/23	NA	NA	NA	NA	<0.99	<0.53	<0.58	<1.2	<4.1	<1.9	<1.9
Perfluorododecanoic 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	<1.9
Perfluorododecanoic 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	<1.9
Perfluorododecanoic acid (PFOS)	03/16/23	7.0	6.7	18	4.4	<0.99	<0.53	3.5	5.7	<4.1	<1.9	<1.9
Perfluorododecanoic 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	<1.9

Concentrations are presented as parts per trillion (ppt) equivalent to nanograms per liter (ng/L).

Concentrations are presented as parts per billion (ppb) equivalent to micrograms per kilogram (ug/kg).

NA = Not Analyzed or below laboratory reporting limits.

Concentrations are based on surface water quality standards or soil remediation standards adopted by NHDES for PFAS.

Analysis was performed 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
perfluorooctanoic acid (PFBA)	03/16/23	NA	NA	NA	<0.68	<0.89	<0.59	<0.59
perfluorooctane Sulfonic Acid (PFBS)	03/16/23	<1.9	<1.8	<1.9	<0.68	<0.89	<0.59	<0.59
perfluorodecanoic Acid (PFPeA)	03/16/23	NA	NA	NA	<0.68	<0.89	<0.59	<0.59
perfluorodecanoic Acid (PFHxA)	03/16/23	<1.9	<1.8	<1.9	<0.68	<0.89	<0.59	<0.59
PFOS (F53B Major)	03/16/23	<1.9	<1.8	<1.9	<0.68	<0.89	<0.59	<0.59
PFOS (F53B Minor)	03/16/23	<1.9	<1.8	<1.9	<0.68	<0.89	<0.59	<0.59
perfluorooctyl-3H-perfluorononanoic acid (ADONA)	03/16/23	<1.9	<1.8	<1.9	<0.68	<0.89	<0.59	<0.59
perfluoropropylene oxide dimer acid (HFPO-DA)	03/16/23	<1.9	<1.8	<1.9	<0.68	<0.89	<0.59	<0.59
perfluorodecylsulfonic acid (8:2FTS A)	03/16/23	NA	NA	NA	<0.68	<0.89	<0.59	<0.59
perfluorodecanoic Acid (PFDA)	03/16/23	<1.9	<1.8	<1.9	<0.68	<0.89	<0.59	<0.59
perfluoroundecanoic Acid (PFDoA)	03/16/23	<1.9	<1.8	<1.9	<0.68	<0.89	<0.59	<0.59
perfluorooctanesulfonic acid (PFHpS)	03/16/23	NA	NA	NA	<0.68	<0.89	<0.59	<0.59
perfluorooctanesulfonamido Acetic Acid (NEtFOSAA)	03/16/23	<1.9	<1.8	<1.9	<0.68	<0.89	<0.59	<0.59
perfluorooctanesulfonamido Acetic Acid (NMeFOSAA)	03/16/23	<1.9	<1.8	<1.9	<0.68	<0.89	<0.59	<0.59
perfluorotetradecanoic Acid (PFTA)	03/16/23	<1.9	<1.8	<1.9	<0.68	<0.89	<0.59	<0.59
perfluorodecanoic Acid (PFTrDA)	03/16/23	<1.9	<1.8	<1.9	<0.68	<0.89	<0.59	<0.59
perfluorodecylsulfonic acid (4:2FTS A)	03/16/23	NA	NA	NA	<0.68	<0.89	<0.59	<0.59
perfluorododecylsulfonic acid (PFDS)	03/16/23	NA	NA	NA	<0.68	<0.89	<0.59	<0.59
perfluorooctanesulfonamide (FOSA)	03/16/23	NA	NA	NA	<0.68	<0.89	<0.59	<0.59
perfluoroundecylsulfonic acid (PFNS)	03/16/23	NA	NA	NA	<0.68	<0.89	<0.59	<0.59
perfluorohexanesulfonamide (FHxSA)	03/16/23	NA	NA	NA	<0.68	<0.89	<0.59	<0.59
perfluorobutanesulfonamide (FBSA)	03/16/23	NA	NA	NA	<0.68	<0.89	<0.59	<0.59
perfluorodecylsulfonic acid (PFHxS)	03/16/23	<1.9	<1.8	<1.9	<0.68	<0.89	<0.59	<0.59
perfluorooxapentanoic acid (PFMPA)	03/16/23	NA	NA	NA	<0.68	<0.89	<0.59	<0.59
perfluorooxahexanoic acid (PFMBA)	03/16/23	NA	NA	NA	<0.68	<0.89	<0.59	<0.59
perfluorodecylsulfonic acid (6:2FTS A)	03/16/23	NA	NA	NA	<0.68	<0.89	<0.59	<0.59
perfluoroundecanoic acid (PFUnA)	03/16/23	<1.9	<1.8	<1.9	<0.68	<0.89	<0.59	<0.59
perfluorooctyl-3,6-dioxahexanoic acid (NFDHA)	03/16/23	NA	NA	NA	<0.68	<0.89	<0.59	<0.59
perfluorooctanoic acid (PFHpA)	03/16/23	<1.9	<1.8	<1.9	<0.68	<0.89	<0.59	<0.59
perfluorooctanoic acid (PFOA)	03/16/23	<1.9	<1.8	<1.9	<0.68	<0.89	<0.59	<0.59
perfluorooctanesulfonic acid (PFOS)	03/16/23	<1.9	<1.8	<1.9	<0.68	<0.89	<0.59	<0.59
perfluoroundecanoic acid (PFNA)	03/16/23	<1.9	<1.8	<1.9	<0.68	<0.89	<0.59	<0.59

Surface water concentrations are presented as parts per trillion (ppt) equivalent to nanograms per liter (ng/L).
 Sediment concentrations are presented as parts per billion (ppb) equivalent to micrograms per kilogram (ug/kg).
 Values below laboratory reporting limits.
 Currently no surface water quality standards or soil remediation standards adopted by NHDES for PFAS.
 Compounds 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 (PFTTrDA)	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.

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, Point 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						
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	< 0.0005	< 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					
Date Received:	3/17/23	3/17/23	3/17/23	3/17/23					
					Analytical Matrix	Units	Date of Analysis	Method	Analyst
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		Date of		
Date Received:	3/17/23	3/17/23	3/17/23	3/17/23	Matrix	Units	Analysis	Method	Analyst
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

Date Received: 3/17/23

					Analytical		Date of		
					Matrix	Units	Analysis	Method	Analyst
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	Analytical		Date of		
Date Received:	3/17/23	3/17/23	3/17/23	3/17/23	Matrix	Units	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		Analytical		Date of		
Date Received:	3/17/23	3/17/23	3/17/23		Matrix	Units	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



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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**.

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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 ($\mu\text{g/L}$). 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 $\mu\text{g/L}$), SFW-2 (unnamed drainage west of the proposed warehouse <1.0 $\mu\text{g/L}$), and SFW-3 (Wetland A area detected 24 $\mu\text{g/L}$).

ENAC provided a comparison to the NHDES AGQS for total chromium of 100 $\mu\text{g/L}$. 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 $\mu\text{g/L}$ acute; and 11 $\mu\text{g/L}$ chronic) and trivalent (152 $\mu\text{g/L}$ acute; and 19.8 $\mu\text{g/L}$ 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.

A handwritten signature in black ink, appearing to read 'Megan E. Murphy'.

Megan E. Murphy
Project Manager

A handwritten signature in black ink, appearing to read 'James M. Wieck'.

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

A handwritten signature in black ink, appearing to read 'Steven R. Lamb'.

Steven R. Lamb P.G., CGWP
Principal

MEM/JMW/SRL:pca

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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 *Remedial 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

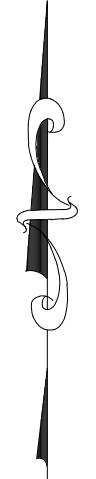
12. In the event that the Client or others authorized to use this report obtain additional information on environmental or hazardous waste issues at the Site not contained in this report, such information shall be brought to GZA's attention forthwith. GZA will evaluate such information and, on the basis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

ADDITIONAL SERVICES











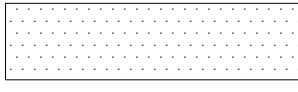


13. GZA recommends that we be retained to provide services during any future investigations, design, implementation activities, construction, and/or property development/ redevelopment at the Site. This will allow us the opportunity to: i) observe conditions and compliance with our design concepts and 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.

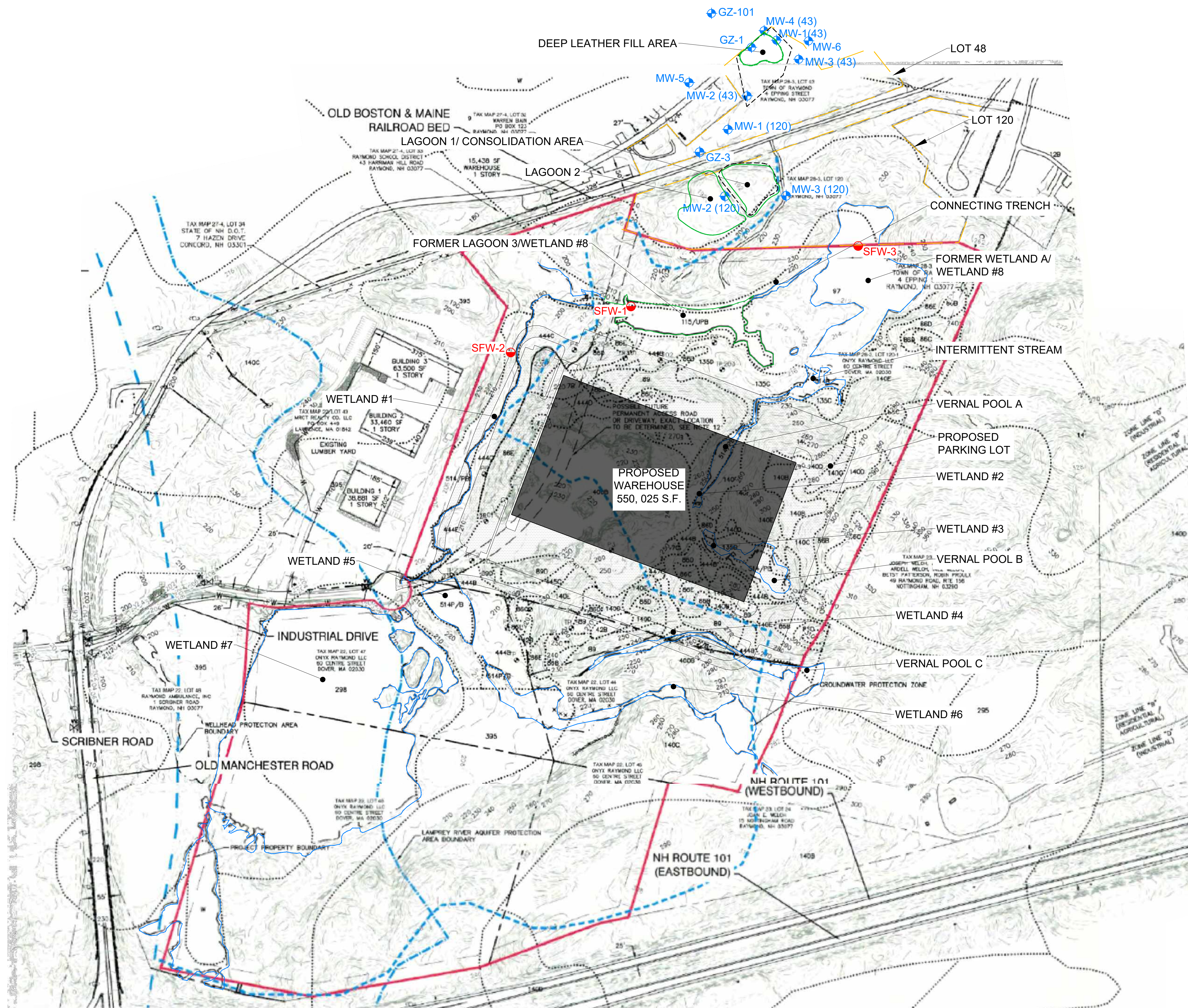


Attachment C: Figure 1 and Figure 2



LEGEND

-  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" REVISION ON FEB. 11, 2023 AND "PROPOSED GRADING IMPACT PLAN" REVISION 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.




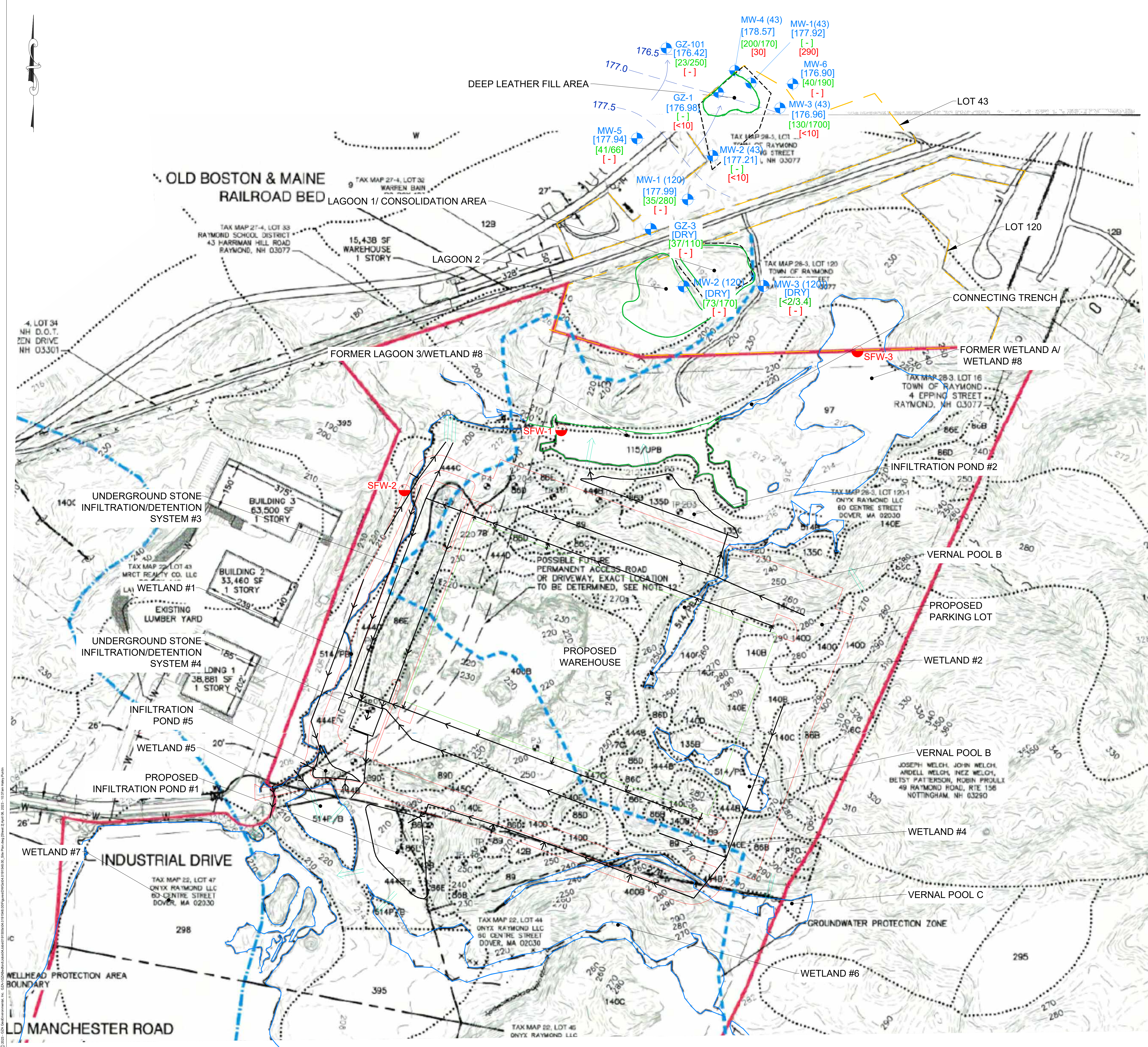
NO.	ISSUE/DESCRIPTION	BY	DATE

UNLESS SPECIFICALLY STATED BY WRITTEN AGREEMENT, THIS DRAWING IS THE SOLE PROPERTY OF GZA GEOENVIRONMENTAL, INC. (GZA). THE INFORMATION SHOWN ON THE DRAWING IS SOLELY FOR USE BY GZA'S CLIENT OR THE CLIENT'S DESIGNATED REPRESENTATIVE FOR THE SPECIFIC PROJECT AND LOCATION IDENTIFIED ON THE DRAWING. THE DRAWING SHALL NOT BE TRANSFERRED, REUSED, COPIED, OR ALTERED IN ANY MANNER FOR USE AT ANY OTHER LOCATION OR FOR ANY OTHER PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF GZA. ANY TRANSFER, REUSE, OR MODIFICATION TO THE DRAWING BY THE CLIENT OR OTHERS, WITHOUT THE PRIOR WRITTEN EXPRESS CONSENT OF GZA, WILL BE AT THE USER'S SOLE RISK AND WITHOUT ANY RISK OR LIABILITY TO GZA.

**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	DESIGNED BY: HLP	REVIEWED BY: MD	CHECKED BY: SL
DATE: MARCH 2023	DRAWN BY: HLP	PROJECT NO: 04.0191548.00	SCALE: 1" = 200'
			REVISION NO: -
			DRAWING 1 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
	GROUNDWATER ELEVATION CONTOURS (FEET)(SEPT. 11, 2020)
	INFERRED GROUNDWATER FLOW DIRECTION
	PROPOSED WAREHOUSE
	PROPOSED PARKING LOT AND DRIVEWAY
	MW-3
	GROUNDWATER ELEVATION (FEET) (SEPT. 11, 2020)
	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" REVISOR 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.



NO.	ISSUE/DESCRIPTION	BY	DATE

UNLESS SPECIFICALLY STATED BY WRITTEN AGREEMENT, THIS DRAWING IS THE SOLE PROPERTY OF GZA GEOENVIRONMENTAL, INC. (GZA). THE INFORMATION SHOWN ON THE DRAWING IS SOLELY FOR USE BY GZA'S CLIENT OR THE CLIENT'S DESIGNATED REPRESENTATIVE FOR THE SPECIFIC PROJECT AND LOCATION IDENTIFIED ON THE DRAWING. THE DRAWING SHALL NOT BE TRANSFERRED, REUSED, COPIED, OR ALTERED IN ANY MANNER FOR USE AT ANY OTHER LOCATION OR FOR ANY OTHER PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF GZA. ANY TRANSFER, REUSE, OR MODIFICATION TO THE DRAWING BY THE CLIENT OR OTHERS, WITHOUT THE PRIOR WRITTEN EXPRESS CONSENT OF GZA, WILL BE AT THE USER'S SOLE RISK AND WITHOUT ANY RISK OR LIABILITY TO GZA.

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

May 3, 2023
Project 1190-681

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

Re: Raymond Pond Laboratory Sampling Results

**Subject: Onyx Raymond LLC.
Application #2022-010
Industrial Drive, Raymond, NH**

Dear Mr. Richardson:

Enviro North American Consulting, LLC (ENAC) has completed environmental surface water sampling of the Raymond Pond. The surface water sampling was conducted as part of the renewal of excavation permit process for ongoing aggregate mining at the property referenced as Industrial Drive – Raymond Distribution (subject Property). Raymond Pond is located east and southeast off the end of cul-de-sac at Industrial Drive in Raymond, NH.

RAYMOND POND SAMPLING – ONYX RAYMOND LLC.

ENAC representatives visited the subject Property on February 22, 2023 to collect surface water samples from three areas as shown on the attached Industrial Drive Plan C4-5. Grab water samples were collected by ENAC with use of an extension rod with sample bottle extended 6-feet from shoreline into the surface water of the pond. The sample bottle was dipped approximately 12-inches below water's surface and the samples were decanted from the collection bottle directly into laboratory prepared containers. The sample bottle collection device was rinsed in-between sample locations withalconox and deionized water. The grab water samples were collected as raw with no field filtering, placed in preserved laboratory containers, and samples placed inside a cooler with ice and delivered to New Hampshire certified laboratories for the following analyses:

- Resource Conservation Recovery Act 8-metals (RCRA-8) by EPA Method 200.8,
- Volatile Organic Compounds (VOCs) by EPA Method 8260,
- Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270,
- Nitrate, Nitrite, Total Phosphorous, Turbidity and Ammonia by appropriate lab & EPA methods,
- 24-compound list of PFAS / PFOS chemicals by EPA Method 537.1.

Water quality sampling results for February 22, 2023 are shown in attached Tables 1 and 2 as compared to surface water criteria established by the NHDES.

TABLE 1 – Summary of Surface Water Quality for VOCs, PAHs, Nitrate, Nitrite, Ammonia, Turbidity and Total Phosphorus

As shown, there were few detections from the three surface water sampling locations. Water results indicate volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), nitrate, nitrite, ammonia and total phosphorus were below laboratory detection limits. Individual VOCs (partial list) are included with Table 1, please reference the attached laboratory report for all listed compounds and detection limits for individual VOCs. Turbidity was analyzed in the laboratory at 1 Nephelometric Turbidity Unit (NTU), consistent with observations of undisturbed and clear pond water. ENAC notes that degraded water clarity of surface water (disturbed) is typically measured greater than 10 NTU.

The RCRA-8 metal analyses were not detected above laboratory detection limits with an exception for arsenic and barium. Barium was detected at a low concentration, below the current NHDES Water & Fish Ingestion criteria. ENAC notes that NHDES has not adopted Acute and Chronic criteria for Barium.

Arsenic was detected below the NHDES Acute and Chronic Surface Water criteria. Arsenic was detected above the NHDES Water & Fish Ingestion criteria. Past studies of the environmental impacts of nearby areas to the north, specifically StoneHill's 2007 Remedial Action Plan (RAP) and 2012 RAP Implementation Report prepared for the former Regis Tannery remedial site indicate that "arsenic concentrations appear to be consistent with background ranges and as such, arsenic is not considered a contaminant of concern in the remedial action areas" (StoneHill, July 20, 2007 Section 3.1).

TABLE 2 – Summary of PFAS Surface Water Quality

ENAC notes the NHDES has not adopted PFAS standards for surface water quality to date. The presence of PFAS was detected from the three surface water sample locations at Raymond Pond. The attached Table 2 provides the summary of low detections for 24-PFAS compounds analyzed. Water sample results are presented in parts per trillion (ppt), equivalent to nanograms per liter (ng/L). Low detections of PFAS (<4 ng/L) for 5- out of 24-analyzed PFAS compounds were detected at low levels. The resulting low PFAS detections would not warrant further evaluation by the NHDES.

CONCLUSIONS

Based on the water quality sampling results of three surface water samples collected from Raymond Pond on February 22, 2023, there is no evidence suggestive of existing water impacts from blasting activities. Detected concentrations of arsenic in recent pond water samples are indicative of background and naturally occurring. Resulting surface water quality supports the non-impacts by blasting at the active aggregate quarry proposed for renewal of excavation permitting.

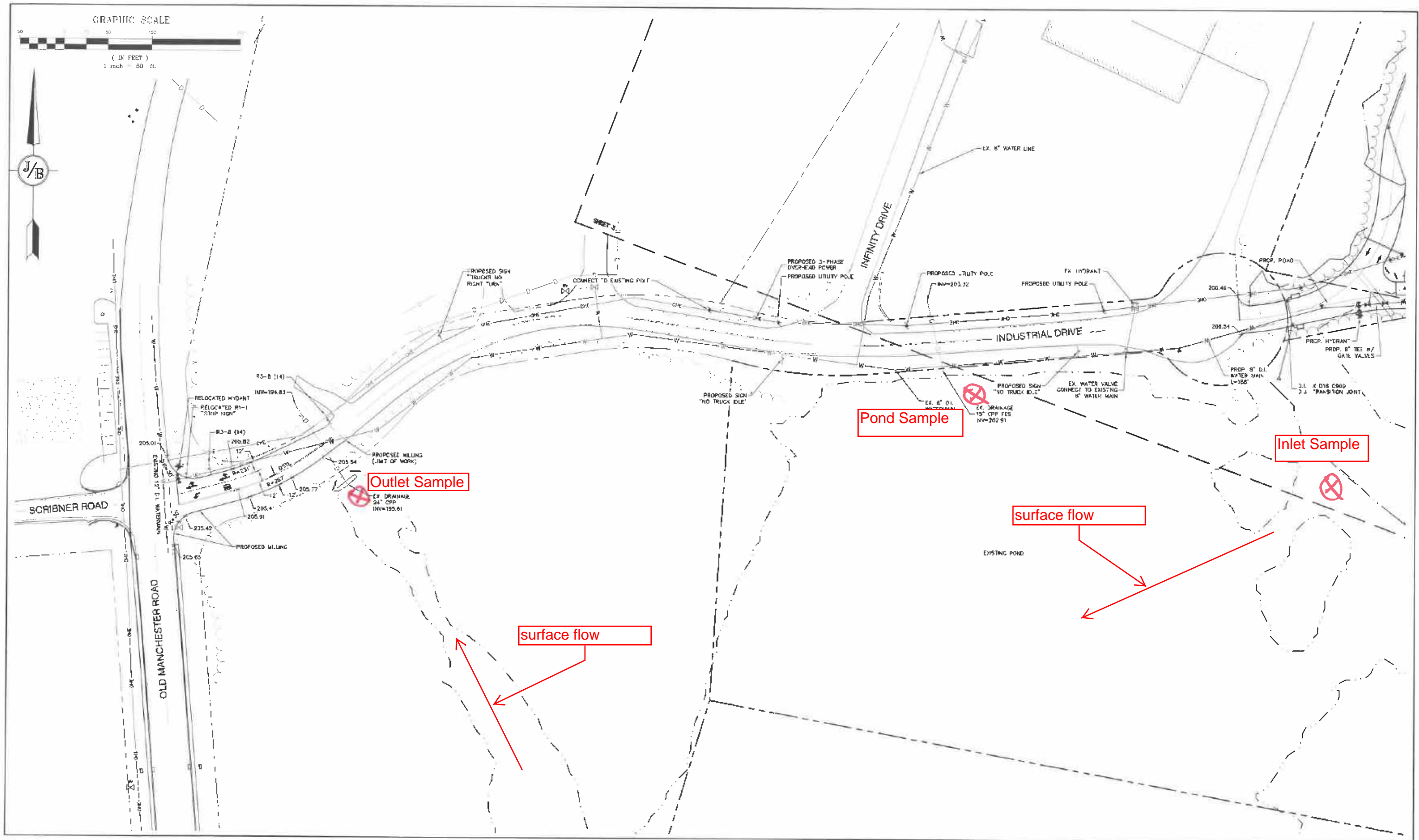
It has been a pleasure to assist you with your needs for environmental consulting.

ENVIRO NORTH AMERICAN CONSULTING, LLC



Todd A. Greenwood, P.G.
President

Attachments: Sampling Locations Plan
Table 1 - VOCs, PAHs, Nitrate, Nitrite, Ammonia, Turbidity & Total Phosphorus
Table 2 - PFAS 24-compounds
Laboratory Reports - Water Analytical Results



Design: WGM Draft: GDR Date: 8/18/21
 Checked: WGM Scale: AS NOTED Project No.: 21100
 Drawing Name: 21100-PLAN.dwg
 THIS PLAN SHALL NOT BE COPIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS AUTHORIZED ON THIS DRAWING SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

REV.	DATE	REVISION	BY
3	1/11/23	REVISED PER PLANNING BOARD COMMENTS	EMP
2	11/10/22	REVISED PER ADT/TOWN ENGINEER/TRC COMMENTS	EMP
1	9/30/22	REVISED PER TOWN ENGINEER COMMENTS	EMP
0	6/16/22	ISSUED FOR REVIEW	EMP

Designed and Produced in NH
J/B Jones & Beach Engineers, Inc.
 Civil Engineering Services
 85 Portsmouth Ave., PO Box 219, Stratham, NH 03885
 603-772-4746
 FAX: 603-772-0227
 E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	INDUSTRIAL DRIVE PLAN
Project:	RAYMOND DISTRIBUTION INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record:	ONYX RAYMOND LLC 80 CENTRE STREET, COVER, MA 02030

DRAWING No.
C4-5
 SHEET 1 OF 40
 JBE PROJECT NO. 21100

TABLE 1

SUMMARY OF SURFACE WATER QUALITY DATA
 RAYMOND POND SAMPLING
 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
		SW-IN	SW-POND	SW-OUT	Fresh Acute	Fresh Chronic	Water & Fish Ingestion or MCL
<i>VOCs by EPA Method 8260C & Surface Water Criteria expressed as micrograms per liter (µg/L)</i>							
Benzene	02/22/23	<1	<1	<1	5,300	NSA	2.2
Toluene	02/22/23	<1	<1	<1	17,500	NSA	1,000 (MCL)
Ethylbenzene	02/22/23	<1	<1	<1	32,000	NSA	530
Total Xylenes	02/22/23	<1	<1	<1	NSA	NSA	NSA
Naphthalene	02/22/23	<2	<2	<2	2,300	620	NSA
Isopropylbenzene	02/22/23	<1	<1	<1	NSA	NSA	NSA
n-Butylbenzene	02/22/23	<1	<1	<1	NSA	NSA	NSA
sec-Butylbenzene	02/22/23	<1	<1	<1	NSA	NSA	NSA
n-Propylbenzene	02/22/23	<1	<1	<1	NSA	NSA	260
p-Isopropyltoluene	02/22/23	<1	<1	<1	NSA	NSA	260
1,2,4-Trimethylbenzene	02/22/23	<1	<1	<1	NSA	NSA	NSA
1,3,5-Trimethylbenzene	02/22/23	<1	<1	<1	NSA	NSA	NSA
<i>PAHs by EPA Method 8270D & Surface Water Criteria expressed as micrograms per liter (µg/L)</i>							
Acenaphthene	02/22/23	<0.1	<0.1	<0.1	1,700	520	20
Anthracene	02/22/23	<0.1	<0.1	<0.1	NSA	NSA	8,300
Fluorene	02/22/23	<0.1	<0.1	<0.1	NSA	NSA	1,100
Phenanthrene	02/22/23	<0.1	<0.1	<0.1	NSA	NSA	NSA
Anthracene	02/22/23	<0.1	<0.1	<0.1	NSA	NSA	8,300
Fluoranthene	02/22/23	<0.1	<0.1	<0.1	NSA	NSA	130
Pyrene	02/22/23	<0.1	<0.1	<0.1	NSA	NSA	830
Benzo(a)anthracene	02/22/23	<0.1	<0.1	<0.1	NSA	NSA	0.0038
Chrysene	02/22/23	<0.1	<0.1	<0.1	NSA	NSA	0.12
Benzo(b)fluoranthene	02/22/23	<0.1	<0.1	<0.1	NSA	NSA	0.0038
Benzo(k)fluoranthene	02/22/23	<0.1	<0.1	<0.1	NSA	NSA	0.012
Benzo(a)pyrene	02/22/23	<0.1	<0.1	<0.1	NSA	NSA	0.0038
Naphthalene	02/22/23	<0.1	<0.1	<0.1	2,300	620	NSA

TABLE 1

SUMMARY OF SURFACE WATER QUALITY DATA
 RAYMOND POND SAMPLING
 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
		SW-IN	SW-POND	SW-OUT	Fresh Acute	Fresh Chronic	Water & Fish Ingestion or MCL
<i>RCRA 8 Metals & Surface Water Criteria- presented as micrograms per liter (µg/L)</i>							
Arsenic	02/22/23	1.3	1.2	1.2	340	150	0.018
Barium	02/22/23	19	21	21	NSA	NSA	1,000
Cadmium	02/22/23	<1	<1	<1	0.39	0.21	5 (MCL)
Total Chromium	02/22/23	<1	<1	<1	16	11	100 (MCL)
Lead	02/22/23	<1	<1	<1	10.5	0.41	NSA
Mercury	02/22/23	<1	<1	<1	1.4	0.77	0.05
Selenium	02/22/23	<1	<1	<1	NSA	5	50
Silver	02/22/23	<1	<1	<1	0.2	NSA	105
<i>Other Parameters & Water Quality Criteria expressed as milligrams per liter (mg/L) except Turbidity</i>							
Nitrite (units mg/L)	02/22/23	<0.5	<0.5	<0.5	NSA	NSA	NSA
Nitrate (units mg/L)	02/22/23	<0.5	<0.5	<0.5	NSA	NSA	10
Ammonia (units mg/L)	02/22/23	<0.05	<0.05	<0.05	*	*	NSA
Total Phosphorus (units mg/L)	02/22/23	<0.01	<0.01	<0.01	NSA	NSA	NSA
Turbidity (units of NTU)	02/22/23	1	1	1	NSA	NSA	10

- Notes: 1. VOC and PAH concentrations expressed in parts per billion (ppb) = micrograms per liter (µg/L).
 2. RCRA 8 metals & surface water quality criteria expressed in parts per billion (ppb) equivalent to micrograms per liter (µg/L).
 3. Turbidity expressed in NTU (Nephelometric Turbidity Units).
 4. <1 = Below laboratory reporting limits.
 5. Concentrations compared to NHDES Water Quality Criteria for Toxic Substances, Table 1703-1, 1703-2A.
 6. NSA = No Standard Available for specific compound.
 7. * = Additional water quality data required to calculate site specific surface water criteria for ammonia.

TABLE 2
RAYMOND POND - PFAS CONCENTRATIONS
FEBRUARY 22, 2023
ONYX RAYMOND: INDUSTRIAL DRIVE, RAYMOND, NH

PFAS - 26 COMPOUND LIST	SAMPLE DATE	Surface Water Sample Locations		
		SW-IN	SW-POND	SW-OUT
Perfluorobutane Sulfonic Acid (PFBS)	02/22/23	<1.8	<1.8	<1.7
Perfluorohexanoic Acid (PFHxA)	02/22/23	2.8	3.3	4.0
Perfluorohexane Sulfonic Acid (PFHxS)	02/22/23	<1.8	<1.8	<1.7
Perfluoroheptanoic Acid (PFHpA)	02/22/23	2.8	3.0	3.4
Perfluorooctanoic Acid (PFOA)	02/22/23	2.8	3.2	3.2
Perfluorooctane Sulfonic Acid (PFOS)	02/22/23	1.6	1.6	1.4
Perfluorononanoic Acid (PFNA)	02/22/23	<1.8	<1.8	0.96
Perfluorodecanoic Acid (PFDA)	02/22/23	<1.8	<1.8	<1.7
N-ethyl Perfluorooctanesulfonamido Acetic Acid (EtFOSAA)	02/22/23	<1.8	<1.8	<1.7
Perfluoroundecanoic Acid (PFUnA)	02/22/23	<1.8	<1.8	<1.7
N-methyl Perfluorooctanesulfonamido Acetic Acid (MeFOSAA)	02/22/23	<1.8	<1.8	<1.7
Perfluorododecanoic Acid (PFDoA)	02/22/23	<1.8	<1.8	<1.7
Perfluorotridecanoic Acid (PFTrDA)	02/22/23	<1.8	<1.8	<1.7
Perfluorotetradecanoic Acid (PFTA)	02/22/23	<1.8	<1.8	<1.7
Hexafluoropropylene oxide dimer acid (HFPO-DA)	02/22/23	<1.8	<1.8	<1.7
11C1-PF3OUdS (F53B Major)	02/22/23	<1.8	<1.8	<1.7
9C1-PF3ONS (F53B Minor)	02/22/23	<1.8	<1.8	<1.7
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	02/22/23	<1.8	<1.8	<1.7

NOTES:

1. PFAS concentrations are presented as parts per trillion (ppt) equivalent to nanograms per liter.
2. <1.8 = Below laboratory reporting limits.
3. There are currently no NHDES surface water quality standards for PFAS.
4. PFAS Compounds analyzed by EPA Method 537.1.
5. The NHDES Hazardous Waste Remediation Bureau (HWRB) would not likely require additional source investigations based on low PFAS detections in surface water; site's setting has no human potential receptors.

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



Laboratory Report for:

Eastern Analytical, Inc. ID: 256364
Client Identification: Onyx Raymond
Date Received: 2/22/2023

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

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

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

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

Certifications:

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


References:

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

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

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

Sincerely,


Lorraine Olashaw, Lab Director

3-1-23
Date



SAMPLE CONDITIONS PAGE

EAI ID#: **256364**

Client: **Enviro North American Consulting**

Client Designation: **Onyx Raymond**

Temperature upon receipt (°C): 4.3

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)
256364.01	SW-OUT	2/22/23	2/22/23 10:30	aqueous		Adheres to Sample Acceptance Policy
256364.02	SW-POND	2/22/23	2/22/23 11:15	aqueous		Adheres to Sample Acceptance Policy
256364.03	SW-IN	2/22/23	2/22/23 11:50	aqueous		Adheres to Sample Acceptance Policy
256364.04	Trlp Blank	2/22/23	2/22/23 08:00	aqueous		Adheres to Sample Acceptance Policy

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

Unless otherwise noted:

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



LABORATORY REPORT

EAI ID#: 256364

Client: **Enviro North American Consulting**

Client Designation: **Onyx Raymond**

Sample ID:	SW-OUT	SW-POND	SW-IN	Trip Blank
Lab Sample ID:	256364.01	256364.02	256364.03	256364.04
Matrix:	aqueous	aqueous	aqueous	aqueous
Date Sampled:	2/22/23	2/22/23	2/22/23	2/22/23
Date Received:	2/22/23	2/22/23	2/22/23	2/22/23
Units:	ug/L	ug/L	ug/L	ug/L
Date of Analysis:	2/23/23	2/23/23	2/23/23	2/23/23
Analyst:	SG	SG	SG	SG
Method:	8260C	8260C	8260C	8260C
Dilution Factor:	1	1	1	1
Dichlorodifluoromethane	< 2	< 2	< 2	< 2
Chloromethane	< 2	< 2	< 2	< 2
Vinyl chloride	< 1	< 1	< 1	< 1
Bromomethane	< 2	< 2	< 2	< 2
Chloroethane	< 2	< 2	< 2	< 2
Trichlorofluoromethane	< 2	< 2	< 2	< 2
Diethyl Ether	< 2	< 2	< 2	< 2
Acetone	< 10	< 10	< 10	< 10
1,1-Dichloroethene	< 0.5	< 0.5	< 0.5	< 0.5
tert-Butyl Alcohol (TBA)	< 30	< 30	< 30	< 30
Methylene chloride	< 1	< 1	< 1	< 1
Carbon disulfide	< 2	< 2	< 2	< 2
Methyl-t-butyl ether(MTBE)	< 1	< 1	< 1	< 1
Ethyl-t-butyl ether(ETBE)	< 2	< 2	< 2	< 2
Isopropyl ether(DIPE)	< 2	< 2	< 2	< 2
tert-amyl methyl ether(TAME)	< 2	< 2	< 2	< 2
trans-1,2-Dichloroethene	< 1	< 1	< 1	< 1
1,1-Dichloroethane	< 1	< 1	< 1	< 1
2,2-Dichloropropane	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	< 1	< 1	< 1	< 1
2-Butanone(MEK)	< 10	< 10	< 10	< 10
Bromochloromethane	< 1	< 1	< 1	< 1
Tetrahydrofuran(THF)	< 10	< 10	< 10	< 10
Chloroform	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	< 1	< 1	< 1	< 1
Carbon tetrachloride	< 1	< 1	< 1	< 1
1,1-Dichloropropene	< 1	< 1	< 1	< 1
Benzene	< 1	< 1	< 1	< 1
1,2-Dichloroethane	< 1	< 1	< 1	< 1
Trichloroethene	< 1	< 1	< 1	< 1
1,2-Dichloropropane	< 1	< 1	< 1	< 1
Dibromomethane	< 1	< 1	< 1	< 1
Bromodichloromethane	< 0.5	< 0.5	< 0.5	< 0.5
1,4-Dioxane	< 50	< 50	< 50	< 50
4-Methyl-2-pentanone(MIBK)	< 10	< 10	< 10	< 10
cis-1,3-Dichloropropene	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	< 1	< 1	< 1	< 1
trans-1,3-Dichloropropene	< 0.5	< 0.5	< 0.5	< 0.5
1,1,2-Trichloroethane	< 1	< 1	< 1	< 1
2-Hexanone	< 10	< 10	< 10	< 10
Tetrachloroethene	< 1	< 1	< 1	< 1
1,3-Dichloropropane	< 1	< 1	< 1	< 1
Dibromochloromethane	< 1	< 1	< 1	< 1
1,2-Dibromoethane(EDB)	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	< 1	< 1	< 1	< 1
1,1,1,2-Tetrachloroethane	< 1	< 1	< 1	< 1



LABORATORY REPORT

EAI ID#: **256364**

Client: **Enviro North American Consulting**

Client Designation: **Onyx Raymond**

Sample ID:	SW-OUT	SW-POND	SW-IN	Trip Blank
Lab Sample ID:	256364.01	256364.02	256364.03	256364.04
Matrix:	aqueous	aqueous	aqueous	aqueous
Date Sampled:	2/22/23	2/22/23	2/22/23	2/22/23
Date Received:	2/22/23	2/22/23	2/22/23	2/22/23
Units:	ug/L	ug/L	ug/L	ug/L
Date of Analysis:	2/23/23	2/23/23	2/23/23	2/23/23
Analyst:	SG	SG	SG	SG
Method:	8260C	8260C	8260C	8260C
Dilution Factor:	1	1	1	1
Ethylbenzene	< 1	< 1	< 1	< 1
mp-Xylene	< 1	< 1	< 1	< 1
o-Xylene	< 1	< 1	< 1	< 1
Styrene	< 1	< 1	< 1	< 1
Bromoform	< 2	< 2	< 2	< 2
IsoPropylbenzene	< 1	< 1	< 1	< 1
Bromobenzene	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	< 1	< 1	< 1	< 1
2-Chlorotoluene	< 1	< 1	< 1	< 1
4-Chlorotoluene	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	< 1	< 1	< 1	< 1
tert-Butylbenzene	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	< 1	< 1	< 1	< 1
sec-Butylbenzene	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	< 1	< 1	< 1	< 1
p-Isopropyltoluene	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	< 1	< 1	< 1	< 1
n-Butylbenzene	< 1	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	< 2	< 2	< 2	< 2
1,3,5-Trichlorobenzene	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	< 1	< 1	< 1	< 1
Hexachlorobutadiene	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	< 2	< 2	< 2	< 2
1,2,3-Trichlorobenzene	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr)	102 %R	101 %R	101 %R	100 %R
1,2-Dichlorobenzene-d4 (surr)	97 %R	97 %R	97 %R	97 %R
Toluene-d8 (surr)	100 %R	101 %R	99 %R	100 %R
1,2-Dichloroethane-d4 (surr)	103 %R	99 %R	101 %R	101 %R



LABORATORY REPORT

EAL ID#: 256364

Client: **Enviro North American Consulting**

Client Designation: **Onyx Raymond**

Sample ID:	SW-OUT	SW-POND	SW-IN
Lab Sample ID:	256364.01	256364.02	256364.03
Matrix:	aqueous	aqueous	aqueous
Date Sampled:	2/22/23	2/22/23	2/22/23
Date Received:	2/22/23	2/22/23	2/22/23
Units:	ug/L	ug/L	ug/L
Date of Extraction/Prep:	2/24/23	2/24/23	2/24/23
Date of Analysis:	2/24/23	2/24/23	2/24/23
Analyst:	JMR	JMR	JMR
Method:	8270D	8270D	8270D
Dilution Factor:	1	1	1
Naphthalene	< 0.1	< 0.1	< 0.1
2-Methylnaphthalene	< 0.1	< 0.1	< 0.1
1-Methylnaphthalene	< 0.1	< 0.1	< 0.1
Acenaphthylene	< 0.1	< 0.1	< 0.1
Acenaphthene	< 0.1	< 0.1	< 0.1
Fluorene	< 0.1	< 0.1	< 0.1
Phenanthrene	< 0.1	< 0.1	< 0.1
Anthracene	< 0.1	< 0.1	< 0.1
Fluoranthene	< 0.1	< 0.1	< 0.1
Pyrene	< 0.1	< 0.1	< 0.1
Benzo[a]anthracene	< 0.1	< 0.1	< 0.1
Chrysene	< 0.1	< 0.1	< 0.1
Benzo[b]fluoranthene	< 0.1	< 0.1	< 0.1
Benzo[k]fluoranthene	< 0.1	< 0.1	< 0.1
Benzo[a]pyrene	< 0.1	< 0.1	< 0.1
Indeno[1,2,3-cd]pyrene	< 0.1	< 0.1	< 0.1
Dibenz[a,h]anthracene	< 0.1	< 0.1	< 0.1
Benzo[g,h,i]perylene	< 0.1	< 0.1	< 0.1
p-Terphenyl-D14 (surr)	74 %R	79 %R	64 %R



LABORATORY REPORT

EAI ID#: 256364

Client: **Enviro North American Consulting**

Client Designation: **Onyx Raymond**

Sample ID:	SW-OUT	SW-POND	SW-IN					
Lab Sample ID:	256364.01	256364.02	256364.03					
Matrix:	aqueous	aqueous	aqueous					
Date Sampled:	2/22/23	2/22/23	2/22/23					
Date Received:	2/22/23	2/22/23	2/22/23					
				Units	Analysis		Method	Analyst
Nitrite-N	< 0.5	< 0.5	< 0.5	mg/L	2/22/23	17:29	353.2	ALM
Nitrate-N	< 0.5	< 0.5	< 0.5	mg/L	2/22/23	17:29	353.2	ALM
Ammonia-N	< 0.05	< 0.05	< 0.05	mg/L	2/25/23	10:17	TM NH3-001	PEN
Total Phosphorus-P	< 0.01	< 0.01	< 0.01	mg/L	2/28/23	13:17	366.1	PMC
Turbidity	1	1	1	NTU	2/22/23	17:51	2130B-11	AMB



LABORATORY REPORT

EAI ID#: **256364**

Client: **Enviro North American Consulting**

Client Designation: **Onyx Raymond**

Sample ID:	SW-OUT	SW-POND	SW-IN						
Lab Sample ID:	256364.01	256364.02	256364.03						
Matrix:	aqueous	aqueous	aqueous						
Date Sampled:	2/22/23	2/22/23	2/22/23						
Date Received:	2/22/23	2/22/23	2/22/23						
				Analytical Matrix	Units	Date of Analysis	Method	Analyst	
Arsenic	0.0012	0.0012	0.0013	AqTot	mg/L	2/25/23	200.8	DS	
Barium	0.021	0.021	0.019	AqTot	mg/L	2/25/23	200.8	DS	
Cadmium	< 0.001	< 0.001	< 0.001	AqTot	mg/L	2/25/23	200.8	DS	
Chromium	< 0.001	< 0.001	< 0.001	AqTot	mg/L	2/25/23	200.8	DS	
Lead	< 0.001	< 0.001	< 0.001	AqTot	mg/L	2/25/23	200.8	DS	
Mercury	< 0.0001	< 0.0001	< 0.0001	AqTot	mg/L	2/25/23	200.8	DS	
Selenium	< 0.001	< 0.001	< 0.001	AqTot	mg/L	2/25/23	200.8	DS	
Silver	< 0.001	< 0.001	< 0.001	AqTot	mg/L	2/25/23	200.8	DS	