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Supplemental Site Characterization Work Plan, Phase II

May 4, 2026 (Revised August 6, 2026)

Rockland County Fire Training Center

35 Firemen's Memorial Drive
Village of Pomona
Rockland County, New York

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Table of Contents

1.0 INTRODUCTION 1
1.1 PER- AND POLYFLUOROALKYL SUBSTANCES BACKGROUND 1
1.2 OBJECTIVES 2

2.0 SITE BACKGROUND 3
2.1 SITE DESCRIPTION 3
2.2 PHYSICAL SETTING 3
2.3 FISH AND WILDLIFE RESOURCES 4
2.4 CURRENT USE AND SITE HISTORY 4
2.5 AREAS OF CONCERN SUMMARY 5

3.0 PRIOR INVESTIGATIONS 6
3.1 PRIOR INVESTIGATIONS ACTIVITIES 6
3.2 PRIOR INVESTIGATIONS CONCLUSIONS & RECOMMENDATIONS 10

4.0 SCOPE OF WORK 14
4.1 Installation of Shallow Soil Borings in the Lower Training Field 14
4.2 Installation of Shallow Water Table Monitoring Wells in the Lower Training Field 14
4.3 Installation and Sampling of Soils at the Transformer Pad 15
4.4 Additional Action Items 15

5.0 PROPOSED REPORTING 16

6.0 PROPOSED SCHEDULE 17

7.0 PROPOSED IRM 18

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TABLES

TABLE 1 – SAMPLING AND ANALYSIS SUMMARY
TABLE 2 – SURFACE SOIL SAMPLE RESULT SUMMARY – DECEMBER 2020
TABLE 3 – SOIL BORING SAMPLE RESULT SUMMARY – DECEMBER 2020
TABLE 4 – AOC SOIL BORING SAMPLE RESULT SUMMARY – JANUARY 2020
TABLE 5 – DEBRIS SAMPLE RESULT SUMMARY – OUTFALLS – APRIL 2021
TABLE 6 – STORM WATER SAMPLE RESULT SUMMARY – OUTFALLS – APRIL 2021
TABLE 7 – SEDIMENT SAMPLE RESULT SUMMARY (OUTFALL/STREAM) – JANUARY 2023
TABLE 8 – SURFACE WATER SAMPLE RESULT SUMMARY (OUTFALL/STREAM) – JANUARY 2023
TABLE 9 – GROUND-WATER SAMPLE RESULT SUMMARY (MONITORING WELLS) – AUGUST 2023
TABLE 10 – HISTORIC GROUND-WATER SAMPLE RESULTS SUMMARY (PFAS)
TABLE 11 – WELL CONSTRUCTION & GROUNDWATER GAUGING DATA

FIGURES

FIGURE 1 – SITE LOCATION TOPOGRAPHIC MAP
FIGURE 2 – SITE LOCATION AERIAL PHOTOGRAPHY
FIGURE 3 – SURVEY MAP
FIGURE 4 – SURFACE SOIL SAMPLE EXCEEDANCE MAP
FIGURE 5 – SOIL BORING SAMPLE EXCEEDANCE MAP
FIGURE 6 – AOC SOIL BORING SAMPLE EXCEEDANCE MAP
FIGURE 7 – OUTFALL DEBRIS /STORMWATER SAMPLE EXCEEDANCE MAP
FIGURE 8 – OUTFALL SEDIMENT SAMPLE EXCEEDANCE MAP
FIGURE 9 – OUTFALL SURFACE WATER SAMPLE EXCEEDANCE MAP
FIGURE 10 – STREAM SEDIMENT SAMPLE EXCEEDANCE MAP
FIGURE 11 – STREAM SURFACE WATER SAMPLE EXCEEDANCE MAP
FIGURE 12 – GROUNDWATER SAMPLE EXCEEDANCE MAP
FIGURE 13 – GROUNDWATER CONTOUR MAP – AUGUST 15, 2023
FIGURE 14 – GROUNDWATER CONTOUR MAP – OCTOBER 25, 2023
FIGURE 15 – BEDROCK GROUNDWATER CONTOUR MAP – OCTOBER 25, 2023
FIGURE 16 – CROSS SECTION REFERENCE MAP
FIGURE 17 – CROSS SECTION A-A'
FIGURE 18 – CROSS SECTION B-B'
FIGURE 19.1 – PROPOSED LOWER TRAINING FIELD SOIL BORINGS/PFOA ISOPLETH CONCENTRATIONS 0-2"
FIGURE 19.2 – PROPOSED LOWER TRAINING FIELD SOIL BORINGS/PFOA ISOPLETH CONCENTRATIONS 2-12"
FIGURE 19.3 – PROPOSED LOWER TRAINING FIELD SOIL BORINGS/PFOA ISOPLETH CONCENTRATIONS AT DEPTH
FIGURE 20.1 – PROPOSED LOWER TRAINING FIELD SOIL BORINGS / PFOS ISOPLETH CONCENTRATIONS 0-2"
FIGURE 20.2 – PROPOSED LOWER TRAINING FIELD SOIL BORINGS / PFOS ISOPLETH CONCENTRATIONS 2-12"
FIGURE 20.3 – PROPOSED LOWER TRAINING FIELD SOIL BORINGS / PFOS ISOPLETH CONCENTRATIONS AT DEPTH
FIGURE 21 – PROPOSED SHALLOW WATER TABLE MONITORING WELL LOCATIONS
FIGURE 22 – PROPOSED SOIL BORINGS AT AOC#1: TRANSFORMER PAD

APPENDICES

APPENDIX A – SAMPLING AND ANALYSIS PLAN
APPENDIX B – WORK PLAN FOR ENVIRONEMTNAL INVESTIGATION DATED NOVEMBER 12, 2019
APPENDIX C – REVISED LETTER WORKPLAN DATED OCTOBER 21, 2022

1.0 INTRODUCTION

Colliers Engineering & Design CT, PC (CED) was retained by the County of Rockland to prepare a Supplemental Site Characterization Work Plan, herein referred to as the "work plan," for the Rockland County Fire Training Center (RCFTC) located at 35 Firemen's Memorial Drive, Pomona, New York (i.e., the "site"). This work plan is a requirement of the New York State Department of Environmental Conservation (NYSDEC) Consent Order, executed in October 2019, which was issued in response to the detections of Per- and Polyfluoroalkyl Substances (PFAS) in both potable public and private water wells in the vicinity of the RCFTC. NYSDEC issued Site No. 344079 to track response and investigation activities related to the potential presence of PFAS in groundwater at the RCFTC.

1.1 PER- AND POLYFLUOROALKYL SUBSTANCES BACKGROUND

First manufactured in the 1940's and 1950's, PFAS are anthropogenic fluorinated organic chemicals used in a variety of products including firefighting foam and other industrial, commercial, and personal use products including but not limited to plating mist-suppressant solutions, non-stick cookware, textiles and leather, paper and packaging, semiconductors, herbicides, insecticides, greases, lubricants, photograph imaging solutions, adhesives, rubber and plastics, aviation hydraulic fluids, and personal care products.

With respect to RCFTC, a primary source of PFAS includes the use, storage, and spraying of Aqueous Film-Forming Foam (AFFF) for firefighting training activities. PFAS-based AFFF was first developed in the early 1960s to improve aviation safety. By the mid- to late-1960s, AFFF was in widespread use in commercial and industrial products.

In 2016 the U.S. Environmental Protection Agency (EPA) established a drinking water Health Advisory (HA) guidance level of 70 ng/L for two (2) groups of PFAS: perfluorooctanoic acid (PFOA) and perfluoro-octane sulfonic acid (PFOS). The U.S. EPA recommended that when both PFOA and PFOS are present in the same sample, that the sum of PFOA and PFOS (combined PFOA+PFOS) also be compared to the HA threshold.

The New York State Department of Health (NYSDOH) performed well sampling for PFAS in the vicinity of the RCFTC based on the potential use of AFFF in firefighting training activities. Between 2016 and 2017, the NYSDOH collected and analyzed thirty-one (31) samples from potable private and public wells in the vicinity of the RCFTC. Thirteen (13) of those wells identified PFAS compounds, but at concentrations that were below the U.S. EPA HA guidance level of 70 ng/L. The presence of PFAS in these wells is reported to be the impetus for the Consent Order Agreement between the RCFTC and the NYSDEC.

In April 2023, the NYSDEC issued "*Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS)*" under NYSDEC's Part 375 Remedial Programs. This document includes PFAS Guidance Values and Maximum Contaminant Levels (MCLs) for water and soil samples superseding the previously established U.S. EPA HA guidance level.

With the publishing of EPA's Method 1633A, NYSDEC's Division of Environmental Remediation (DER) is expanding its PFAS Analyte List to include all 40 PFAS chemicals reportable using the new method, nearly doubling the number of compounds from the previous list. As of November 1, 2022, DER requires the use of Method 1633 for analysis of PFAS in all environmental media (not including drinking water). Remediation workplans approved prior to November 1, 2022, may continue to utilize methods approved in that workplan, however, remedial parties and contractors are encouraged to begin utilizing Method 1633 with the understanding that it is subject to revision.

1.2 OBJECTIVES

The objective of this work plan is to further determine the extents of PFAS impacts at the site in order to develop a focused and effective interim remedial strategy that addresses source areas and limits potential migration. This work plan specifically focuses on PFAS impacts identified in the lower western portion of the site, as well as impacts near the transformer pad in the eastern portion of the site, which are believed to be attributable to cross-contamination.

2.0 SITE BACKGROUND

2.1 SITE DESCRIPTION

The RCFTC is located at 35 Firemen's Memorial Drive in Pomona, New York: Section 33.14, Block 1, Lot 1. Site location maps are included as **Figures 1 and 2**, and a site survey is presented as **Figure 3**. The parcel is rectangularly shaped and has an area of approximately 24.8-acres. The site is bound by Firemen's Memorial Drive to the east (beyond which is the Palisades Interstate Parkway); an animal care facility and Rockland County Parkland to the north; to the west by undeveloped woodlands, wetlands, and streams; and to the south by an athletic complex including a minor league baseball stadium with associated parking facilities and other support structures. To the southeast of the site is an office building/corporate park. The RCFTC is provided with potable water, electricity, and sewer services from local utilities.

As noted previously, the NYSDOH sampled private domestic and public wells in the vicinity of the RCFTC and found several with detections of PFAS compounds at concentrations below the U.S. EPA HA threshold, but above current NYS drinking water MCLs.

Based on these results, the NYSDEC conducted a review of the potential PFAS source areas in the immediate vicinity. The RCFTC was identified as a potential source facility based on the historical use and storage of PFAS-containing material on-site.

Much of the surrounding area is undeveloped woodland but there are also residential and limited light commercial land uses nearby.

The topography of the site is generally terraced with an overall slope toward the west. The topographic high point of the site is along the eastern perimeter at an approximate elevation of 480 feet above mean sea level (ft amsl).

Establishments located in the immediate vicinity of the RCFTC include:

- Hi-Tor Animal Care and Rockland County Park to the north.
- Palisades Office Park to the southeast.
- Summit Professional Building to the southeast; and,
- The Rockland Boulders Baseball Stadium to the south.

2.2 PHYSICAL SETTING

The geology of the site consists of a thin layer of reddish/brown glacial till. The overburden thickness is estimated to range from 2 to 20 ft thick over various portions of the site, and at least 20 ft in the area of investigation. Shallow overburden groundwater is present at a depth between 1.5 and 6.0 ft below ground surface (bgs) in the lower PFAS Area of Concern (AOC) investigation area. Groundwater flow in the shallow overburden is generally to the north-northwest, towards the low-lying wetland area. Groundwater flow in the confined (bedrock) aquifer is generally to the west-northwest, and two of the three bedrock wells have been observed to exhibit artesian conditions. The artesian conditions within the bedrock wells persist throughout the year.

Based on the soil borings advanced as part of this investigation, it has been determined that some fill material was brought to the site at some point in the past to raise the surface grade elevation in the lower western part of the site. Several soil borings in this location identified fill ranging from 2 ft to 6 ft thick.

According to information received from Rockland County, no previous environmental investigations have been conducted at this site. Records obtained through a Freedom of Information Law (FOIL) request to the State of New York, indicated a minor petroleum spill was investigated, remediated, and closed.

2.3 Fish and Wildlife Resources

Natural resources surrounding the RCFTC consists of animal species common to a mixed deciduous forest. These terrestrial areas may support herbivorous, omnivorous, and carnivorous bird and mammal species. An unnamed freshwater wetland borders the property to the west. The wetland appears to be associated with a small brook that passes through freshwater forested/shrub wetlands as it flows. A freshwater pond is also present along the western border of the site adjacent to the active firefighting training area. Aquatic and terrestrial wildlife may utilize these areas for cover, forage, or shelter.

A preliminary review of the United States Fish and Wildlife Service Information for Planning and Consultation (IPaC) website was conducted to identify federally listed threatened or endangered species, or critical habitat that may be present at the site (U.S. Fish and Wildlife Service, 2018, April 18). One (1) species listed as "Threatened" is the Bog Turtle (Clemmys muhlenbergi). Several bird species were also identified as "Birds of Conservation Concern" including the Bald Eagle, the Black-capped Chickadee, the Rusty Blackbird, the Wood Thrush, and the Yellow-bellied Sapsucker.

These species may be present at-or around the site for all or parts of the year.

2.4 Current Use and Site History

RCFTC began operations on the site in the 1970s and has been in continuous operation since that time. The RCFTC is utilized for fire training purposes by all Rockland County paid and volunteer fire departments. Many fire departments from surrounding Counties and from New Jersey also utilize the Training Center for fire training and educational purposes.

The Main Building houses the RCFTC's administrative offices, a truck garage, a fire fighters museum, classrooms, and a lecture hall/auditorium. Outlying buildings include a second truck garage, a recycling center for household hazardous wastes, a Burn Building-used for fire fighter training, and several smaller sheds and buildings also used for fire training. The Main Building has a large diesel-powered back-up generator with an aboveground diesel fuel tank. The property also supports a helicopter landing zone, a communications tower, and support buildings used for emergency services dispatching. Additional training facilities are located in the lower western portion of the site where controlled fire training is conducted with the use of a propane storage and distribution network.

During the course of this investigation and with the approval of the NYSDEC, two (2) structures were demolished. Both structures were multiple story fire training buildings made of concrete block. The Burn Building—located in the central portion of the site and the 5-story training building located in the lower fire training field—were both demolished in March 2021. During demolition of the training building, newly installed groundwater monitoring well MW-1 was inadvertently destroyed.

According to historical aerial photographs, the site was undeveloped woodland until the 1970s when the existing facility was constructed. In 1975, only the Administrative Building to the east and Burn Building in the central portion of the site was present. A few minor structures were also apparent in the lower, western portion of the site. In the 1990s additional structures that are now the hazardous waste recycling center and various truck garages were added.

By 2006, the facility exists generally as it does today--noting recent demolitions, the added training buildings, the radio communications tower, and the radio operations building.

2.5 Areas of Concern Summary

Based on the topography of the site with a slope from east to west, the main focus of investigation activities is the quality of groundwater, and shallow surface and subsurface soils in the lower western portion of the site. It is noted that the lower western portion of the site is also the area that is and was historically used for training firefighters on the use of fire suppressing chemicals. Based upon this historical use, the lower training field is the main area of investigation.

Additional AOCs were identified across the property during site reconnaissance inspections conducted in October and November 2019. These AOCs included the following:

- AOC#1: Transformer Pad
- AOC#2: Generator
- AOC#3: Hazardous Waste Collection and Recycle Area
- AOC#4: Vehicle Extraction
- AOC#5: Burn Building

Although visual observations at these AOCs did not identify evidence of contamination—such as stained or impacted soils, stressed vegetation, or elevated readings on field screening instruments—further evaluations of these AOCs were conducted through the collection and analysis of surface and subsurface soil samples. Sampling efforts were biased toward soils that appeared dark in color, potentially indicating impacts. A summary of the prior investigation activities conducted to evaluate the AOCs at the site is provided below.

3.0 PRIOR INVESTIGATIONS

3.1 PRIOR INVESTIGATIONS ACTIVITIES

Surface Soil in Lower Training Field

On December 14, 2020, ten (10) discrete surface soil samples were collected in the lower training field at a depth of 0-2 inches below the surface (with the exclusion of any vegetative material such as grass roots). A second set of discrete surface soil samples were collected from a depth of 2-12 inches–co-located with the samples collected from 0-2 inches. Sample locations were designated as "SS".

Analytical results from the surface samples collected from the lower training field indicates that grab samples from the 0" – 2" interval had only one (1) volatile organic compound (VOC) identified: methylene chloride—which is believed to be an artifact from the analytical laboratory. Additionally, samples from the 2-12" interval had detected 2-butanone, 2-hexanone, methyl acetate and methylene chloride—which are also believed to be an artifacts from the analytical laboratory. None of the VOCs were detected above the most stringent NYCRR Part 375 6.8A Soil Cleanup Objectives.

The SVOC analysis from composite samples collected from the 0–2" and 2-12" intervals detected several polycyclic aromatic hydrocarbons (PAHs) including benzo[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, benzo[g,h,i]perylene, chrysene, fluoranthene, indeno[1,2,3-cd]pyrene, phenanthrene and pyrene at concentrations above the laboratory reporting limits (RLs) but below the most stringent NYCRR Part 375 6.8A Soil Cleanup Objectives in the surface soil samples collected from the lower training field.

The TAL metal analyses on the surface soil samples collected from the lower training field identified chromium in samples SS-1 0-2" and SS-1 2-12" at a concentration of 110 mg/kg in both samples and copper in SS-9 0-2" at a level of 2,200 mg/kg above the NYCRR Part 375 6.8A Protection of Groundwater Restricted Use Soil Cleanup Objectives of 19 mg/kg and 1,720 mg/kg, respectively. Several metals [barium, chromium, cobalt, copper, nickel, and zinc] were also detected above the NYCRR Part 375 6.8A Unrestricted Use Soil Cleanup Objectives.

PCBs were detected in eight (8) out of ten (10) samples at concentrations ranging from 0.060 to 0.33 mg/kg. Seven (7) of which were above the NYCRR Part 375 6.8A Unrestricted Use Soil Cleanup Objective of 0.1 mg/kg. No other targeted traditional contaminants of concern were detected above the applicable Soil Cleanup Objectives.

The analytical results for the surface samples collected and analyzed for PFAS from the lower training field, found perfluoro-octane sulfonic acid (PFOS) was detected in eighteen (18) soil samples at concentrations ranging from 0.81 to 510 µg/kg, five (5) of which exceeded the NYSDEC Unrestricted Guidance Value of 0.88 µg/kg. Of the eighteen (18) detections, fourteen (14) of those exceeded the Protection of Groundwater Guidance Value of 3.7 µg/kg, and one (1) sample [SS-6 0-2"] exceeded the Industrial Guidance Value of 440 µg/kg.

Additionally, Perfluorooctanoic acid (PFOA) was detected in fifteen (15) soil samples collected from the lower training field, at concentrations ranging from 0.2 to 12 µg/kg. Ten (10) of which exceeded the NYSDEC Unrestricted Guidance Value of 0.66 µg/kg.

It should be noted that the method detection limits (MDLs) for both PFOS and PFOA were greater than the Protection of Groundwater Guidance Values for two (2) soil samples [SS-4 2-12" and SS-5 0-2"]. Additionally, the reporting limit for PFOA was greater than the Protection of Groundwater Guidance Values in two (2) samples

[SS-5 2-12" and SS-6 2-12"]. The maximum concentrations of PFOA (12 µg/kg) and PFOS (510 µg/kg) in surface soil in the lower training field in SS-6 0-2".

Surface Soil at Other AOCs

At the other AOC locations, surface soil samples were generally collected at a frequency of one (1) sample per AOC. Similar to the surface soil sampling procedures in the lower training field, these surface soils were collected from the depth of 0 to 12 inches below grade-excluding vegetative matter.

The traditional contaminant analytical results identified one (1) pesticide compounds [p,p'-DDE] detected at a concentration above the NYCRR Part 375 6.8A Unrestricted Use Soil Cleanup Objective of 0.0033 µg/kg in sample AOC#3 Haz Waste Recycle collected in from the hazardous waste collection and recycling center area.

Chromium was found above the NYCRR Part 375 6.8A Unrestricted Use Soil Cleanup Objective of 1 µg/kg in all eight (8) soil samples. Copper was detected above the Unrestricted Use Soil Cleanup Objective of 50 µg/kg in four (4) samples [AOC#5 Burn Building Composite East, AOC#5 Burn Building Composite West, AOC#5 Burn Building Composite Native and AOC#5 Burn Building Composite Fill]. Zinc was found above the Unrestricted Use Soil Cleanup Objective of 109 µg/kg in four (4) samples [AOC#2 Generator, AOC#4 Vehicle Extraction, AOC#5 Burn Building Composite East, and AOC#5 Burn Building Composite West]. No other targeted contaminants were detected above the most stringent Soil Cleanup Objectives.

The analytical results for the subsurface samples collected and analyzed for PFAS, detected PFOS in four (4) samples [AOC#1 Transformer Pad, AOC#2 Generator, AOC#5 Burn Building Composite Native and AOC#5 Burn Building Composite Fill], above the Unrestricted Guidance Value of 0.88 µg/kg. Two (2) of the samples [AOC#1 Transformer Pad and AOC#5 Burn Building Composite Fill] also exceeded the Protection of Groundwater Guidance Value of 3.7 µg/kg. PFOA was also detected at above the Unrestricted Guidance Value of 0.66 µg/kg in one (1) soil sample [AOC#5 Burn Building Composite Fill].

It should be noted that the method detection limits for PFOS and PFOA were greater than the Protection of Groundwater Guidance Values for two (2) soil samples [AOC#3 Haz Waste Recycle and AOC#4 Vehicle Extraction]. The maximum concentrations of PFOA (0.87 µg/kg) and PFOS (17 µg/kg) in surface soil at other AOCs were detected in AOC#5 Burn Building Composite Fill and AOC#1 Transformer Pad respectively.

Subsurface Soil in Lower Training Field

On December 22, 2020, ten (10) subsurface soil samples were collected in a series of borings advanced in the lower training field using a Geoprobe® by Hawk Drilling at the direction of CED. Samples were collected and screened in the same manner as previously described-with samples for PFAS analysis being shipped to Test America and those for traditional analytes direct-delivered to Hampton Clarke.

Results indicated that the traditional contaminant analysis identified one (1) VOC [acetone] at concentrations above the NYCRR Part 375 6.8A Unrestricted Use Soil Cleanup Objective and Protection of Groundwater Restricted Use Soil Cleanup Objective of 0.05 µg/kg. It is believed the presence of acetone is an artifact from the analytical laboratory. None of the other VOCs detected were above the most stringent NYCRR Part 375 6.8A Soil Cleanup Objectives.

In the lower training field, two (2) pesticide compounds [p,p'-DDD and p,p'-DDE] were detected at concentrations above the NYCRR Part 375 6.8A Unrestricted Use Soil Cleanup Objective of 0.0033 µg/kg in two (2) samples [SB-8 4.0-4.5' and SB-10 6.0-6.5']. One (1) soil sample [SB-2 4.5-5.0'] detected only p,p'-DDE above the Unrestricted Use Soil Cleanup Objective. Chromium was found above the NYCRR Part 375 6.8A Unrestricted Use Soil Cleanup

Objective of 1 µg/kg in all five (5) soil samples [SB-2 4.5-5.0', SB-3 6.0-6.5', SB-5 6.5-7.0', SB-8 4.0-4.5', and SB-10 6.0-6.5']. No other targeted traditional contaminants were detected above the most stringent Soil Cleanup Objectives.

The analytical results for the subsurface soil samples collected in the lower training field and analyzed for PFAS, detected PFOS in six (6) samples, above the Unrestricted Guidance Value of 0.88 µg/kg. Three (3) of which exceeded the Protection of Groundwater Guidance Value of 3.7 µg/kg. PFOA was detected above the Unrestricted Guidance Value of 0.66 µg/kg in five (5) soil samples. The maximum concentrations of PFOA (14 µg/kg) and PFOS (20 µg/kg) in subsurface soil were detected in SB-4 at 5.5–6.0 feet and SB-8 at 4.0–4.5 feet, respectively.

Debris at Outfalls

Based on a site visit conducted in October 2019, CED noted a series of storm sewers in the area where fire suppression foam is typically used. Since the suppression foam has the ability to enter into the storm sewer system and impact debris within the system, the debris could be considered a source of down-stream contamination. In order to evaluate whether the debris has been impacted, debris samples were collected from the two (2) outfall areas. These samples were co-located with the stormwater samples collected from the same outfalls.

Traditional contaminant analysis found one (1) pesticide compound [p,p'-DDE] detected above the laboratory method detection limit (MDL), at a concentration of 0.011 mg/kg in Outfall #2 S. Several SVOCs including 3&4-methylphenol, benzo[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, benzo[g,h,i] perylene, chrysene, fluoranthene, indeno [1,2,3-cd]pyrene, phenanthrene, phenol and pyrene were detected in Outfall #2 S, at concentrations above the MDLs. Additionally, metals (aluminum, barium, calcium, cobalt, copper, iron, lead, magnesium, manganese, nickel, sodium, vanadium, zinc, arsenic, and silver) were detected in Outfall #1 S and/or Outfall #2 S at concentrations above the MDLs. Finally, cyanide was detected in Outfall #2 S at a concentration of 1.0 mg/kg, above the laboratory MDL.

The analytical results for the debris samples collected and analyzed for PFAS, found 8:2 FTS, perfluorobutanoic acid (PFBA), perfluorodecanesulfonic acid (PFDS), perfluorodecanoic acid (PFDA), perfluorododecanoic acid (PFDoA), perfluoroheptanoic acid (PFHpA), perfluorohexanesulfonic acid (PFHxS), perfluorohexanoic acid (PFHxA), perfluorononanoic acid (PFNA), perfluorooctanesulfonic acid (PFOS), perfluorooctanoic acid (PFOA), perfluoropentanoic acid (PFPeA), perfluorotetradecanoic acid (PFTeA), perfluorotridecanoic acid (PFTriA) and perfluoroundecanoic acid (PFUnA) in Outfall #1 and Outfall #2 debris samples. The maximum concentration of PFOA and PFOS found in debris was 2 and 8.5 ug/kg, respectively and were both in Outfall #2.

Storm Water at Outfalls

Two (2) storm water samples were collected from the SPDES outfall locations adjacent to the wetlands that borders the PFAS investigation area to the west and north. These outfalls are closest to the fire training area where fire suppression foam spraying was reportedly practiced for many years. Samples were collected on April 22, 2021. Storm water samples were co-located with the debris samples but collected before the debris samples to eliminate suspension of debris particles into the water column.

The traditional contaminant analysis found metal compounds [iron, manganese, and sodium] detected in storm water from Outfall #2 SW at a concentration above the NYSDEC Water Quality Standards (Class C) applicable to the stream adjacent to the site, or the most stringent value if no standard exists for Class C. Additionally, sodium was detected above the NYSDEC Water Quality Standard at the location of Outfall #1 SW.

The analytical results from the samples collected and analyzed for PFAS, found PFOS and PFOA at concentrations of 270 ng/L and 52 ng/L, respectively above the NYSDOH Drinking Water MCLs of 10 ng/L in Outfall #1. No targeted PFAS were found above the NYSDOH Drinking Water MCLs in Outfall #2.

Sediment

Sediment sample locations were co-located and biased toward slower moving pools where sediments tend to be deposited as opposed to faster flowing channels where sands and gravels tend to be deposited. A stainless-steel dip cup was used to collect the sediment samples. Excess water was drained from the dip cup before the sediment was transferred to a laboratory-supplied sample bottle. For surface water, samples were collected directly into a laboratory-supplied sample bottle without the aid of a sampling tool or device. The five (5) surface water and five (5) sediment samples were each analyzed for PFAS compounds.

Presently, preliminary target levels for PFOA and PFOS in sediment have not yet been established by the DEC. However, several PFAS compounds, including PFOA and PFOS, were detected in downstream sediment samples Stream-4 and Stream-5. PFAS compounds were not detected above laboratory reporting limits in sediment samples Stream-1 through Stream-3.

Surface Water

Surface water and sediment samples were collected from the stream located to the north of the lower training field originating from Outfall #1. The stream generally flows away from the lower training field to north. Samples were collected from downstream to upstream to eliminate any influence of suspended sediment in the subsequently collected samples. Samples were collected approximately 50, 100, and 150 feet downstream of Outfall #1 and were designated as Outfall #1(50), Outfall #1(100), and Outfall #1(150) accordingly. Surface water and sediment sample locations were co-located and biased toward slower moving pools where sediments tend to be deposited as opposed to faster flowing channels where sands and gravels tend to be deposited. Two (2) additional surface water samples were collected from the points of discharge from Outfalls #1 and #2 and designated as Outfall #1 and Outfall #2, respectively.

Additionally, surface water samples were collected from the stream located to the west of the lower training field. The stream flows generally from south to north. Samples were collected from downstream to upstream to eliminate any influence of suspended sediment in the subsequently collected samples. Samples were designated as Stream-1, -2, -3, -4, and -5—with Stream-1 being the most upstream sample and Stream-5 the most downstream sampling location.

The analytical results from the surface water samples collected and analyzed for PFAS, found PFOS above the NYSDEC Ambient Water Quality Guidance Value Human Health Criteria of 2.7 ng/L in each of the surface water samples collected, and above the NYSDOH Drinking Water MCL of 10 ng/L in samples Outfall #1(50), Outfall #1(100), Outfall #1(150), and Stream-3. Additionally, PFOA exceeded the NYSDEC Ambient Water Quality Guidance Value Human Health Criteria of 6.7 ng/L and the NYSDOH Drinking Water MCL of 10 ng/L in surface water samples Outfall #1(50), Outfall #1(100), and Outfall #1(150).

Concentrations of PFOS and PFOA in surface water were conservatively compared to the NYSDEC Ambient Water Quality Guidance Value Human Health Criteria and the NYSDOH Drinking Water MCL; however, the applicable NYSDEC Ambient Water Quality Standards for Freshwater Waterbodies (Class C) were not exceeded.

Groundwater

Groundwater samples were collected from permanent monitoring wells installed in the lower fire training area where spraying of fire suppression foam was reportedly practiced for many years. Based on groundwater elevation measurements collected, groundwater flow in the overburden aquifer is generally to the north-northwest, towards the wetlands. While groundwater flow in the consolidate bedrock aquifer is generally to the west-northwest.

Traditional contaminants detected above the NYSDEC Water Quality Standards (Class GA) during the initial March 2021 groundwater sampling event included the metals Iron, Manganese, and Sodium. However, it is possible that the metals are naturally occurring.

PFAS compounds PFOA and PFOS were found above their respective NYSDEC Ambient Water Quality Guidance Value and/or Drinking Water MCLs in each of the shallow overburden monitoring wells located in the lower-western portion of the site. Bedrock monitoring wells BMW-1 and BMW-2 also located in the lower portion of the site contain PFOA and PFOS above the Ambient Water Quality Guidance Value. Additionally, PFOS in BMW-2 also exceeds the NYSDEC Drinking Water MCLs. The down-dip bedrock monitoring well [BMW-3] is currently not impacted with PFAS above the applicable levels.

In comparing the overburden and bedrock aquifer sampling results, PFAS compounds 6:2 FTS, 8:2 FTS, PFDA, PFDoA, PFHpS, FOSA, PFTriA, and PFUnA were detected in overburdened monitoring wells but not in bedrock monitoring wells. However, the PFAS compounds PFBS, PFBA, PFHpA, PFHxS, PFHxA, PFNA, PFOS, PFOA, and PFPeA detected in the bedrock aquifer were also detected in the overburden aquifer. Of those contaminants found in both overburden and bedrock aquifers, the total overburden PFAS concentrations are over an order of magnitude higher than those found in bedrock. This indicates that site bedrock may act as a semi-confining layer as PFAS contamination in the overburden aquifer has not fully migrated vertically into the bedrock aquifer. Groundwater in the bedrock aquifer additionally was observed to be artesian in BMW-2 and BMW-3 which may indicate an additional contaminant confining hydraulic element. Further investigation would be required to determine if impacts to the bedrock aquifer can be traced in whole or in part to potential off-site sources.

When compared to the PFAS concentrations from the March 2021 sampling event, except for MW-3, concentrations of PFAS compounds [PFOA and PFOS] were notably higher during the August 2023 sampling event. It should be noted this includes an instance where PFOA, previously reported in March 2021 as non-detect in MW-5, was reported at a concentration exceeding the respective NYS Ambient Water Quality Guidance Value, Human Health Criteria and the NYSDEC Drinking Water MCL in August 2023. This trend, excluding MW-3, is similarly true for the balance of PFAS compounds and total PFAS concentrations.

Based on the August 2023 round of groundwater sampling, the PFAS source area in the water table aquifer appears to be migrating to the northern portion of the lower fire training area, in the western portion of the subject property. This is based on the highest concentrations of PFOA (570 ng/L) and PFOS (3,400 ng/L) found in monitoring well MW-4.

3.2 Prior Investigations Conclusions & Recommendations

Based on the results of the prior site characterizations, CED offered the following conclusions and recommendations:

Soil

- Numerous soil samples were collected throughout the property to assess on-site AOCs. Traditional contaminants detected in soils at the subject property above the NYCRR Unrestricted Use Soil Cleanup Objective included PCBs, pesticides [p,p'-DDD and p,p'-DDE] and metals [barium, chromium, copper, lead, nickel, zinc]. Although one (1) VOC [acetone] was found above the NYCRR Unrestricted Use and Protection of Groundwater Soil Cleanup Objectives in two (2) subsurface soil samples, this is believed to be an artifact from the analytical laboratory and is not suspected to be from a discharge at the site.

  Chromium was detected in surface soil samples [SS-1 0-2" and SS-1 2-12"] above the NYCRR Protection of Groundwater Restricted Use Soil Cleanup Objective. Additionally, copper was detected in a surface soil

sample [SS-9 0-2″] above the NYCRR Protection of Groundwater Restricted Use Soil Cleanup Objective. The contaminants detected above the Restricted Use Soil Cleanup Objectives in the lower fire training area require further investigation.

In the lower training field, PFOS and PFOA were detected in both surface and subsurface soil samples at concentrations ranging from above the NYSDEC Unrestricted to above the Industrial Guidance Value. The maximum concentration of PFOA and PFOS found in soil in the lower training field was 12 and 510 ug/kg, respectively and were both in SS-6 (0-2′″).

PFOS was also detected in shallow surface soil samples collected from AOC#1 Transformer Pad, AOC#2 Generator, AOC#5 Burn Building Composite Native and AOC#5 Burning Building Composite Fill at concentrations above the NYSDEC Unrestricted Guidance Value. Additionally, PFOA was detected above the Unrestricted Guidance value at AOC#5 Burning Building Composite Fill. The maximum concentration of PFOA and PFOS found in soil was 14 and 510 µg/kg, respectively.

- Further investigation is recommended for the PFAS exceedances in soil above applicable standards, as well as for any traditional parameter exceedances, as appropriate.

Debris

- Several PFAS compounds were detected in the debris samples collected from the two (2) outfalls in the lower training area. The maximum concentration of PFOA and PFOS found in debris was 2 and 8.5 ug/kg, respectively and were both in Outfall #2.

  Additionally, several metals were detected in debris at both outfalls; while SVOCs, a pesticide (p,p'-DDE), and cyanide were detected in debris from Outfall #2.

- Further investigation to delineate PFAS detections in the outfalls and its discharge area was recommended and subsequently conducted as part of the sediment evaluation.

Storm Water

- Several PFAS compounds were detected at concentrations above the NYSDOH Drinking Water MCL in the outfall in the northern portion of the training area, adjacent the wetlands (Outfall #1). The maximum concentration of PFOA and PFOS found in storm water was 52 and 270 ng/L, respectively and were both in Outfall #1.

  Additionally, several metals were detected, some of which are above the NYSDEC Ambient Water Quality Standards and/or NYSDOH Drinking Water MCL.

- Further investigation to delineate PFAS exceedances identified in storm water at the impacted outfall and its discharge area was recommended and subsequently conducted as part of the surface water evaluation. Additionally, continued monitoring to ensure compliance with State Pollutant Discharge Elimination System (SPDES) requirements is warranted.

Sediment

- Sediment samples were collected downstream of Outfall #1 at 50, 100, and 150 feet downstream of the Outfall location with several PFAS compounds identified at all three (3) locations.

Additionally, sediment samples were collected in the stream located to the immediate west of the RCFTC property. Results indicated that two (2) of the five (5) sediment samples collected from the stream contained detectable levels of PFAS compounds. It is noteworthy that the two (2) stream sediment samples with PFAS detections were located furthest downstream from the RCFTC. The maximum concentration of PFOA (0.68 ug/kg) and PFOS (6.3 ug/kg) were found at Stream-4 and Outfall # 1 (100), respectively.

- No further investigation is recommended for PFAS compounds detected in sediment at this time. The fact that the downstream outfall and stream sediment samples had higher concentrations, compared to the samples closest to the RCFTC, demonstrates that contamination may be from downstream drainage areas not associated with the site.

Surface Water

- Surface water samples were collected at the locations of Outfalls #1 and #2—and at locations 50, 100, and 150 feet downstream of Outfall #1. Traditional contaminants detected in the samples collected at the outfalls consisted of Mercury above the applicable NYSDEC Class C Water Quality Standard. Several PFAS compounds were detected in the surface water at all downstream locations but at concentrations that were well below the NYSDEC Ambient Water Quality Values for freshwater aquatic life. The maximum concentration of PFOA and PFOS found in storm water was 47 and 210 ng/L, respectively and were both found at the furthest downstream sample location. It is noted that the PFOS concentration was the same at all three (3) surface water sample locations downstream of Outfall #1.

  Surface samples were also collected from the Stream immediately west of the RCFTC property line. Results indicated the presence of PFAS compounds in all five (5) samples but at concentrations that were below NYSDEC Ambient Water Quality Values for freshwater aquatic life. The maximum concentration of PFOA and PFOS found in the stream surface water was 6.7 and 27 ng/L, respectively and were both found at the midpoint sample location (Stream-3).

- Since surface water contamination concentrations were below the NYSDEC Ambient Water Quality Values for freshwater aquatic life, no further investigation is warranted at this time.

Groundwater

- Water table groundwater in the lower training field has been impacted with chemicals related to the spraying of fire suppressants, as reportedly practiced in the area for many years. Based on the current conditions, the source area appears to be located in the vicinity of MW-4. Additional investigations should be conducted to quantify the impacts.

- Groundwater flow in the unconsolidated (water table) aquifer in the lower training field has been confirmed to flow toward the north-northwest. Groundwater in the confined (bedrock) aquifer has been determined to flow to the west-northwest.

- Bedrock groundwater monitoring wells BMW-3 and BMW-2 are artesian, indicating these wells within the consolidated aquifer are under pressure causing groundwater to flow out of the wells on its own.

- Open bedrock fractures, indicative of preferential contaminant migration pathways, were prevalent in three (3) distinct intervals: between 45 to 55-ft, 55 to 65-ft, and 95 to 105-ft bgs.

- A bedding dip angle of approximately 10 degrees to the west-northwest appears to be the most appropriate characterization for the bedrock in the western portion of the site, based on review of bedrock bedding strike and dip of the Newark basin aquifer, Rockland County, New York.

- Groundwater contaminant flow for PFAS within the confined aquifer appears largely controlled by the strike of the dipping sandstone bedrock unit, and the down-dip bedrock monitoring well [BMW-3] does not contain PFAS above applicable criteria.

- Potable private wells installed at off-site properties to the east appear to be in separate bedding plane fractures from the bedrock monitoring wells installed at the site.

- Based upon the information obtained, no correlation can be made to connect the groundwater impacts in the lower training field with impacted private, domestic water supply wells located generally to the east of the RCFTC. Additional investigation would be needed to establish a potential connection. Information needed to establish this connection would include but not be limited to the following: well construction data on the private wells with exceedances, including elevations, depths, screened intervals, and details on the strata in which the wells are screened. This information can be compared and examined with the well data obtained during this investigation to establish any potential groundwater migration routes between RCFTC and the locations of the impacted private wells. That investigation should also include an evaluation of historical and present properties and facilities in the area that have the potential to contribute PFAS contamination to the environment. A regional groundwater model might also be considered.

A sample and analysis summary are included in **Table 1**. Analytical results for the media sampled previously appear in **Tables 2 through 10**. For ease of review, the data tables provide "hits-only" results, and do not show contaminants that were not detected. The sample locations are depicted on **Figures 4 through Figure 12**. Groundwater contours generated based on the well gauging are included as **Figures 13 through 15**. The cumulative geologic information was used to develop geologic cross sections, which referenced the transects on **Figure 16** and the individual cross sections are shown on **Figure 17 and 18**.

4.0 SCOPE OF WORK

The proposed Scope of Work is as follows:

4.1 Installation of Shallow Soil Borings in the Lower Training Field

In order to refine the extent of PFAS impacts in the Lower Training Field, we propose to install a series of shallow soil borings to delineate PFAS impacts around the 44 µg/kg level for PFOS and 6.6 µg/kg for PFOA. These concentrations will be used to define the "hot spot source area", which will serve as the focus of the interim remedial activities. Additionally, a series of soil borings is proposed to be installed around the footprint of the demolished fire training building. Further assessment of this area is recommended due to the elevated concentrations of PFOS and PFOA in groundwater samples collected from MW-1R, which may be attributable to training activity associated with the former structure.

Soil borings are expected to be advanced from grade level to shallow groundwater, estimated at up to approximately 4 feet bgs. Up to three (3) soil samples will be collected from each boring: one from 0 to 2 inches bgs, one from 2 to 12 inches bgs (to identify PFAS that may have been dispersed in firefighting foam spraying) and one at the capillary fringe (to identify PFAS that may have migrated to that location via leaching and groundwater transport). The proposed soil borings, along with isopleth maps showing PFAS results at each depth interval, are included as **Figures 19.1, 19.2, and 19.3** for PFOA, and **Figures 20.1, 20.2, and 20.3** for PFOS, respectively.

Up to twelve (12) soil borings are expected to be advanced to complete this delineation—with up to thirty-six (36) samples analyzed for PFAS compounds via EPA Method 1633A by an ELAP-accredited laboratory. One trip blank, two duplicates, two matrix spikes, two matrix spike duplicates and one equipment blank will also be collected. It is noted that samples will be collected with the use of a stainless steel trowel. The soil sampling is expected to be completed in approximately two (2) days. All laboratory analyses will be conducted on a standard 10–15 business day (approximately two to three-week) turnaround.

A detailed sampling and analysis plan is included as **Appendix A**.

4.2 Installation of Shallow Water Table Monitoring Wells in the Lower Training Field

In order to further delineate PFAS impacts to shallow groundwater, we propose the installation of up to four (4) overburden water table monitoring wells in the Lower Training Field. One (1) well is to be installed on the upgradient side of the training field, and up to three (3) additional wells will be installed along the northern and western peripheries of the lower training field. The locations of the proposed shallow wells are shown on **Figure 21**.

Well installation/construction will be completed as described in the November 12, 2019, *Work Plan for Environmental Investigation* prepared by Maser Consulting P.A. (now known as CED; see **Appendix B**). Following the appropriate stabilization period, sampling will be completed as outlined in the October 21, 2022, *Revised Letter Work Plan* prepared by CED (see **Appendix C**). Samples collected from the proposed and existing monitoring wells will be analyzed for PFAS compounds via EPA Method 1633A by an ELAP-accredited laboratory.

One trip blank, one duplicate, one matrix spike, one matrix spike duplicates and one equipment blank will also be collected. It is noted that samples will be collected with the use PFAS-free sampling pumps and components. The groundwater sampling is expected to be completed in approximately two (2) days. All laboratory analyses will be conducted on a standard 10–15 business day (approximately two to three-week) turnaround.

4.3 Installation and Sampling of Soils at the Transformer Pad

During the field work for the Site Characterization Report, one (1) soil sample collected from a depth of 0 to 12 inches near the transformer pad [AOC#1 Transformer Pad] reported a concentration of 17 µg/kg of Perfluorooctanesulfonic acid (PFOS), which exceeds the current NYSDEC Guidance Value for the Protection of Groundwater of 1.0 µg/kg. Based on review of field notes and interviews with the sampling team, we believe the PFOS detection may have been a result of cross-contamination with the sampling equipment.

To determine whether the PFOS detection reflects actual subsurface conditions or is an artifact of the sampling process, we propose to install one (1) soil boring at the same location as the original sample and four (4) additional borings in each cardinal direction to provide delineation. The locations of the proposed borings are shown on **Figure 22**.

Soil borings are expected to be advanced from grade level to the depth of groundwater. Up to three (3) soil samples will be collected from each boring: one from 0 to 2 inches bgs, one from 2 to 12 inches bgs, and one at the capillary fringe. Up to fifteen (15) soil samples will be collected and submitted to the laboratory for PFAS analysis via EPA Method 1633A by an ELAP-accredited laboratory.

One trip blank, one duplicate, one matrix spike, one matrix spike duplicates and one equipment blank will also be collected. It is noted that samples will be collected with the use of a stainless steel trowel. The soil sampling is expected to be completed in approximately one (1) day. All laboratory analyses will be conducted on a standard 10–15 business day (approximately two to three-week) turnaround.

4.4 Additional Action Items

During the proposed soil disruption activities, a Community Air Monitoring Plan (CAMP) will be developed and implemented that at a minimum meets the requirements of the NYSDEC DER-10 *Technical Guidance for Site Investigation and Remediation* Appendix 1A "NYSDOH Generic Community Air Monitoring Plan," to monitor particulates and total organic vapor downwind of each investigation area.

A safety perimeter will be established to prevent intentional or unintentional public access during field work.

- For soil borings around the pad-mounted transformer, a minimum 25-foot perimeter will be maintained.
- For borings and monitoring wells within the Lower Training Field, the existing chain-link fence and security gate will be secured to prevent unauthorized access.

Daily field reports will be prepared summarizing items specified in NYSDEC 6 NYCRR Part 375-1.6(a)(3), including CAMP data. Reports will be submitted no later than the day following the field activities.

Category B and NYS electronic data deliverables (EDDs) will be requested from the laboratory. Following receipt of the analytical results, the data will be validated, and a Data Usability Summary Report (DUSR) will be prepared by a third-party data validator. NYS EDDs, along with data from prior phases of work that have not yet been uploaded, will be submitted to NYSDEC for upload into the EQuIS database.

5.0 PROPOSED REPORTING

Once the investigation is completed and laboratory analytical results for soil are received—and assuming no further investigation is necessary, CED will prepare a Site Investigation Report. The report will include the following:

- A description of the investigation activities completed at the site;
- A summary and discussion of the laboratory analytical results and comparison of those results to the applicable NYSDEC standards;
- Conclusions and recommendations based on the site activities and findings;
- Tabulated summaries of the analytical results;
- Soil boring logs, well construction diagrams, well development logs and purging and sampling data sheets;
- Project mapping of the site location, supplemental and prior sample and monitoring well locations, groundwater contours, and cross sections of site lithography, and,
- The laboratory issued analytical reports.

6.0 PROPOSED SCHEDULE

With NYSDEC notification of Work Plan approval, we propose the following schedule:

- **Day 1**: Work Plan approval received; initiate project kickoff.
- **Week 1**: Update of Health & Safety Plan, and coordinate scheduling with drilling subcontractor and analytical laboratory.
- **Weeks 3 to 5**: Mobilize drilling subcontractor; installation of monitoring wells; advancement of soil borings; collection of soil samples; and delivery of sample to the analytical laboratory.
- **Week 7**: Collection of groundwater samples, and delivery of samples to the analytical laboratory.
- **Weeks 8 to 9**: Receipt of soil analytical data (based on standard turn-around times).
- **Weeks 10 to 11**: Receipt of groundwater analytical data (based on standard turn-around times).
- **Weeks 10 to 14**: Review and interpret data; prepare draft report for client review.
- **Week 15**: Client review of draft report.
- **Week 16**: Finalize report based on client comments and submit to NYSDEC.

7.0 PROPOSED IRM

Following the completion of the additional soil investigation activities, an interim remedial measure (IRM) will be selected which, at a minimum, addresses the soil hotspots in the lower fire training area.

Groundwater remedial measures will be determined based on an evaluation of groundwater quality and on additional actions required following the completion of the soil IRM.

TABLES

Table 1

Sampling and Analysis Summary
Rockland County Fire Fighting Training Center
35 Firemen's Memorial Drive
Pomona, Rockland County, NY

Boring No.	Sample No.	Date	Lab Sample ID	Media	Depth (BGS)	Analysis
Soil						
SS-1	SS-1 0-2" COMP	12/14/2020	AD20755-001	Soil	0.0 - 2.0"	1,4-Dioxane, SVOCs, PCBs, Pesticides, TAL Metals & Cyanide
SS-1	SS-1 0-2" GRAB	12/14/2020	AD20755-002	Soil	0.0 - 2.0"	VOCs
SS-1	SS-1 0-2"	12/14/2020	320-68020-1	Soil	0.0 - 2.0"	PFAS
SS-1	SS-1 2-12" COMP	12/14/2020	AD20755-003	Soil	2.0 - 12.0"	1,4-Dioxane, SVOCs, PCBs, Pesticides, TAL Metals & Cyanide
SS-1	SS-1 2-12" GRAB	12/14/2020	AD20755-004	Soil	2.0 - 12.0"	VOCs
SS-1	SS-1 2-12"	12/14/2020	320-68020-2	Soil	2.0 - 12.0"	PFAS
SS-2	SS-2 0-2"	12/14/2020	320-68020-3	Soil	0.0 - 2.0"	PFAS
SS-2	SS-2 2-12"	12/14/2020	320-68020-4	Soil	2.0 - 12.0"	PFAS
SS-3	SS-3 0-2" COMP	12/14/2020	AD20755-005	Soil	0.0 - 2.0"	1,4-Dioxane, SVOCs, PCBs, Pesticides, TAL Metals & Cyanide
SS-3	SS-3 0-2" GRAB	12/14/2020	AD20755-006	Soil	0.0 - 2.0"	VOCs
SS-3	SS-3 0-2"	12/14/2020	320-68020-5	Soil	0.0 - 2.0"	PFAS
SS-3	SS-3 2-12" COMP	12/14/2020	AD20755-007	Soil	2.0 - 12.0"	1,4-Dioxane, SVOCs, PCBs, Pesticides, TAL Metals & Cyanide
SS-3	SS-3 2-12" GRAB	12/14/2020	AD20755-008	Soil	2.0 - 12.0"	VOCs
SS-3	SS-3 2-12"	12/14/2020	320-68020-19	Soil	2.0 - 12.0"	PFAS
SS-4	SS-4 0-2"	12/14/2020	320-68020-20	Soil	0.0 - 2.0"	PFAS
SS-4	SS-4 2-12"	12/14/2020	320-68020-6	Soil	2.0 - 12"	PFAS
SS-5	SS-5 0-2" COMP	12/14/2020	AD20755-009	Soil	0.0 - 2.0"	1,4-Dioxane, SVOCs, PCBs, Pesticides, TAL Metals & Cyanide
SS-5	SS-5 0-2" GRAB	12/14/2020	AD20755-0010	Soil	0.0 - 2.0"	VOCs
SS-5	SS-5 0-2"	12/14/2020	320-68020-7	Soil	0.0 - 2.0"	PFAS
SS-5	SS-5 2-12" COMP	12/14/2020	AD20755-0011	Soil	2.0 - 12.0"	1,4-Dioxane, SVOCs, PCBs, Pesticides, TAL Metals & Cyanide
SS-5	SS-5 2-12" GRAB	12/14/2020	AD20755-0012	Soil	2.0 - 12.0"	VOCs
SS-5	SS-5 2-12"	12/14/2020	320-68020-8	Soil	2.0 - 12.0"	PFAS
SS-6	SS-6 0-2"	12/14/2020	320-68020-9	Soil	0.0 - 2.0"	PFAS
SS-6	SS-6 2-12"	12/14/2020	320-68020-10	Soil	2.0 - 12"	PFAS
SS-7	SS-7 0-2" COMP	12/14/2020	AD20755-0013	Soil	0.0 - 2.0"	1,4-Dioxane, SVOCs, PCBs, Pesticides, TAL Metals & Cyanide
SS-7	SS-7 0-2" GRAB	12/14/2020	AD20755-0014	Soil	0.0 - 2.0"	VOCs
SS-7	SS-7 0-2"	12/14/2020	320-68020-11	Soil	0.0 - 2.0"	PFAS
SS-7	SS-7 2-12" COMP	12/14/2020	AD20755-0015	Soil	2.0 - 12.0"	1,4-Dioxane, SVOCs, PCBs, Pesticides, TAL Metals & Cyanide
SS-7	SS-7 2-12" GRAB	12/14/2020	AD20755-0016	Soil	2.0 - 12.0"	VOCs
SS-7	SS-7 2-12"	12/14/2020	320-68020-12	Soil	2.0 - 12.0"	PFAS
SS-8	SS-8 0-2"	12/14/2020	320-68020-13	Soil	0.0 - 2.0"	PFAS
SS-8	SS-8 2-12"	12/14/2020	320-68020-14	Soil	2.0 - 12.0"	PFAS
SS-9	SS-9 0-2" COMP	12/14/2020	AD20755-0017	Soil	0.0 - 2.0"	1,4-Dioxane, SVOCs, PCBs, Pesticides, TAL Metals & Cyanide
SS-9	SS-9 0-2" GRAB	12/14/2020	AD20755-0018	Soil	0.0 - 2.0"	VOCs
SS-9	SS-9 0-2"	12/14/2020	320-68020-15	Soil	0.0 - 2.0"	PFAS
SS-9	SS-9 2-12" COMP	12/14/2020	AD20755-0019	Soil	2.0 - 12.0"	1,4-Dioxane, SVOCs, PCBs, Pesticides, TAL Metals & Cyanide
SS-9	SS-9 2-12" GRAB	12/14/2020	AD20755-0020	Soil	2.0 - 12.0"	VOCs
SS-9	SS-9 2-12"	12/14/2020	320-68020-16	Soil	2.0 - 12.0"	PFAS
SS-10	SS-10 0-2"	12/14/2020	320-68020-17	Soil	0.0 - 2.0"	PFAS
SS-10	SS-10 2-12"	12/14/2020	320-68020-18	Soil	2.0 - 12.0"	PFAS
N/A	TB	12/14/2020	AD20755-021	Aqueous	N/A	VOCs & 1,4-Dioxane
SB-1	SB-1 4.5-5.0'	12/22/2020	320-68308-1	Soil	4.5 - 5.0'	PFAS
SB-2	SB-2 4.5-5.0'	12/22/2020	AD20926-001	Soil	4.5 - 5.0'	1,4-Dioxane, SVOCs, PCBs, Pesticides, TAL Metals, Cyanide
SB-2	SB-2 4.5-5.0'	12/22/2020	320-68308-2	Soil	4.5 - 5.0'	PFAS
SB-3	SB-3 6.0-6.5'	12/22/2020	AD20926-002	Soil	6.0 - 6.5'	1,4-Dioxane, SVOCs, PCBs, Pesticides, TAL Metals, Cyanide
SB-3	SB-3 6.0-6.5'	12/22/2020	320-68308-3	Soil	6.0 - 6.5'	PFAS
SB-4	SB-4 4.5-5.0'	12/22/2020	320-68308-4	Soil	4.5 - 5.0'	PFAS
SB-5	SB-5 6.5-7.0'	12/22/2020	AD20926-003	Soil	6.5 - 7.0'	1,4-Dioxane, SVOCs, PCBs, Pesticides, TAL Metals, Cyanide
SB-5	SB-5 6.5-7.0'	12/22/2020	320-68308-5	Soil	6.5 - 7.0'	PFAS
SB-6	SB-6 5.0-5.5'	12/22/2020	320-68308-6	Soil	5.0 - 5.5'	PFAS
SB-7	SB-7 5.0-5.5'	12/22/2020	320-68308-7	Soil	5.0 - 5.5'	PFAS
SB-8	SB-8 4.0-4.5'	12/22/2020	AD20926-004 / 320-68308-8	Soil	4.0 - 4.5'	1,4-Dioxane, SVOCs, PCBs, Pesticides, TAL Metals, Cyanide & PFAS
SB-9	SB-7 7.0-7.5'	12/22/2020	320-68308-9	Soil	7.0 - 7.5'	PFAS
SB-10	SB-10 6.0-6.5'	12/22/2020	AD20926-005 / 320-68308-10	Soil	6.0 - 6.5'	1,4-Dioxane, SVOCs, PCBs, Pesticides, TAL Metals, Cyanide
SB-10	SB-10 6.0-6.5'	12/22/2020	320-68308-10	Soil	6.0 - 6.5'	PFAS
SB-10	SB-10 6.0-6.5' MS	12/22/2020	AD20926-006	Soil	6.0 - 6.5'	1,4-Dioxane, SVOCs, PCBs, Pesticides, TAL Metals & Cyanide
SB-10	SB-10 6.0-6.5' MSD	12/22/2020	AD20926-007	Soil	6.0 - 6.5'	1,4-Dioxane, SVOCs, PCBs, Pesticides, TAL Metals & Cyanide
N/A	Field Blank	12/22/2020	AD20926-008	Aqueous	N/A	1,4-Dioxane, SVOCs, PCBs, Pesticides, TAL Metals & Cyanide
N/A	Trip Blank	12/22/2020	AD20926-009	Aqueous	N/A	VOCs & 1,4-Dioxane
AOC#1 Tansformer Pad	AOC#1 Tansformer Pad	1/29/2021	AD21585-001 / 320-69540-1	Soil	0.0 - 12"	1,4-Dioxane, SVOCs, PCBs, Pesticides, TAL Metals & Cyanide
AOC#2 Generator	AOC#2 Generator	1/29/2021	AD21585-002 / 320-69540-2	Soil	0.0 - 12"	1,4-Dioxane, SVOCs, PCBs, Pesticides, TAL Metals & Cyanide
AOC#3 Haz Waste Recycle	AOC#3 Haz Waste Recycle	1/29/2021	AD21585-003 / 320-69540-3	Soil	0.0 - 12"	1,4-Dioxane, SVOCs, PCBs, Pesticides, TAL Metals & Cyanide
AOC#4 Vehicle Extraction	AOC#4 Vehicle Extraction	1/29/2021	AD21585-004 / 320-69540-4	Soil	0.0 - 12"	1,4-Dioxane, SVOCs, PCBs, Pesticides, TAL Metals & Cyanide
AOC#5 Burn Building Composite East	AOC#5 Burn Building Composite East	1/29/2021	AD21585-005 / 320-69540-5	Soil	0.0 - 12"	1,4-Dioxane, SVOCs, PCBs, Pesticides, TAL Metals & Cyanide
AOC#5 Burn Building Composite West	AOC#5 Burn Building Composite West	1/29/2021	AD21585-006 / 320-69540-6	Soil	0.0 - 12"	1,4-Dioxane, SVOCs, PCBs, Pesticides, TAL Metals & Cyanide
AOC#5 Burn Building Native	AOC#5 Burn Building Native	1/29/2021	AD21585-007 / 320-69540-7	Soil	0.0 - 12"	1,4-Dioxane, SVOCs, PCBs, Pesticides, TAL Metals & Cyanide
AOC#5 Burn Building Fill	AOC#5 Burn Building Fill	1/29/2021	AD21585-008 / 320-69540-8	Soil	0.0 - 12"	1,4-Dioxane, SVOCs, PCBs, Pesticides, TAL Metals & Cyanide
AOC#1 Tansformer Pad	AOC#1 Tansformer Pad	1/29/2021	320-69540-1	Soil	0.0 - 12"	PFAS
AOC#2 Generator	AOC#2 Generator	1/29/2021	320-69540-2	Soil	0.0 - 12"	PFAS
AOC#3 Haz Waste Recycle	AOC#3 Haz Waste Recycle	1/29/2021	320-69540-3	Soil	0.0 - 12"	PFAS
AOC#4 Vehicle Extraction	AOC#4 Vehicle Extraction	1/29/2021	320-69540-4	Soil	0.0 - 12"	PFAS
AOC#5 Burn Building Composite East	AOC#5 Burn Building Composite East	1/29/2021	320-69540-5	Soil	0.0 - 12"	PFAS
AOC#5 Burn Building Composite West	AOC#5 Burn Building Composite West	1/29/2021	320-69540-6	Soil	0.0 - 12"	PFAS
AOC#5 Burn Building Native	AOC#5 Burn Building Native	1/29/2021	320-69540-7	Soil	0.0 - 12"	PFAS
AOC#5 Burn Building Fill	AOC#5 Burn Building Fill	1/29/2021	320-69540-8	Soil	0.0 - 12"	PFAS
N/A	Trip Blank	1/29/2021	AD21585-009	Aqueous	N/A	VOCs & 1,4-Dioxane
N/A	Field Blank	1/29/2021	AD21585-010	Aqueous	N/A	1,4-Dioxane, SVOCs, PCBs, Pesticides, TAL Metals & Cyanide

Table 1

Sampling and Analysis Summary
Rockland County Fire Fighting Training Center
35 Firemen's Memorial Drive
Pomona, Rockland County, NY

Boring No.	Sample No.	Date	Lab Sample ID	Media	Depth (BGS)	Analysis
Groundwater						
MW-2	MW-2	3/30/2021	AD11421-001	Groundwater	20'	1,4-Dioxane, VOCs, SVOCs, PCBs, Pesticides, TAL Metals, Cyanide
MW-2	MW-2	3/30/2021	320-71871-1	Groundwater	20'	PFAS
MW-3	MW-3	3/30/2021	AD11421-002	Groundwater	20'	1,4-Dioxane, VOCs, SVOCs, PCBs, Pesticides, TAL Metals, Cyanide
MW-3	MW-3	3/30/2021	320-71871-2	Groundwater	20'	PFAS
MW-4	MW-4	3/30/2021	320-71871-3	Groundwater	20'	PFAS
MW-5	MW-5	3/30/2021	AD11421-003	Groundwater	20'	1,4-Dioxane, VOCs, SVOCs, PCBs, Pesticides, TAL Metals, Cyanide
MW-5	MW-5	3/30/2021	320-71871-2	Groundwater	20'	PFAS
MW-5	MW-5MS	3/30/2021	AD11421-004	Groundwater	20'	1,4-Dioxane, VOCs, SVOCs, PCBs, Pesticides, TAL Metals, Cyanide
MW-5	MW-5MSD	3/30/2021	AD11421-005	Groundwater	20'	1,4-Dioxane, VOCs, SVOCs, PCBs, Pesticides, TAL Metals, Cyanide
MW-6	MW-6	3/30/2021	320-71871-5	Groundwater	20'	PFAS
MW-5	Duplicate	3/30/2021	AD11421-005	Aqueous	20'	1,4-Dioxane, VOCs, SVOCs, PCBs, Pesticides, TAL Metals, Cyanide
N/A	Field Blank	3/30/2021	AD11421-006	Aqueous	N/A	1,4-Dioxane, VOCs, SVOCs, PCBs, Pesticides, TAL Metals, Cyanide
N/A	Trip Blank	3/30/2021	AD11421-007	Aqueous	N/A	VOCs & 1,4-Dioxane
N/A	Field Blank	3/30/2021	320-71871-7	Aqueous	N/A	PFAS
N/A	Trip Blank	3/30/2021	320-71871-8	Aqueous	N/A	PFAS
N/A	Equipment Blank	3/30/2021	320-71871-9	Aqueous	N/A	PFAS
MW-1R	MW-1	8/15/2023	320-103880-1	Groundwater	15'	PFAS
MW-2	MW-2	8/16/2023	320-103880-2	Groundwater	20'	PFAS
MW-3	MW-3	8/16/2023	320-103880-3	Groundwater	20'	PFAS
MW-4	MW-4	8/16/2023	320-103880-4	Groundwater	20'	PFAS
MW-5	MW-5	8/16/2023	320-103880-5	Groundwater	20'	PFAS
MW-6	MW-6	8/16/2023	320-103880-6	Groundwater	20'	PFAS
BMW-1	BMW-1	8/15/2023	320-103880-7	Groundwater	65'	PFAS
BMW-2	BMW-2	8/15/2023	320-103880-8	Groundwater	55'	PFAS
BMW-3	BMW-3	8/15/2023	320-103880-9	Groundwater	105'	PFAS
N/A	Trip Blank	8/16/2023	320-103880-10	Aqueous	N/A	PFAS
N/A	Equipment Blank	8/15/2023	320-103880-11	Aqueous	N/A	PFAS
BMW-3	Duplicate	8/15/2023	320-103880-12	Groundwater	105'	PFAS
BMW-3	BMW-MS	8/15/2023	320-103880-13	Groundwater	105'	PFAS
BMW-3	BMW-MSD	8/15/2023	320-103880-14	Groundwater	105'	PFAS
N/A	Equipment Blank	8/16/2023	320-103880-15	Aqueous	N/A	PFAS
Debris						
Outfall #1 S	Outfall #1 S / Outfall #1	4/22/2021	AD22952-003	Debris	0.0 - 12"	1,4-Dioxane, SVOCs, PCBs, Pesticides, TAL Metals, Cyanide
Outfall #2 S	Outfall #2 S / Outfall #2	4/22/2021	AD22952-004	Debris	0.0 - 12"	1,4-Dioxane, SVOCs, PCBs, Pesticides, TAL Metals, Cyanide
Outfall #1 S	Outfall #1	4/22/2021	320-72927-3	Debris	0.0 - 12"	PFAS
Outfall #2 S	Outfall #2	4/22/2021	320-72927-4	Debris	0.0 - 12"	PFAS
Sediment						
N/A	Outfall #1 (50)	1/18/2023	320-96149-1	Sediment	0.0 - 0.5'	PFAS
N/A	Outfall #1 (50) DUP	1/18/2023	320-96149-20	Sediment	0.0 - 0.5'	PFAS
N/A	Outfall #1 (100)	1/18/2023	320-96149-2	Sediment	0.0 - 0.5'	PFAS
N/A	Outfall #1 (150)	1/18/2023	320-96149-3	Sediment	0.0 - 0.5'	PFAS
N/A	Stream-1	1/18/2023	320-96149-12	Sediment	0.0 - 0.5'	PFAS
N/A	Stream-2	1/18/2023	320-96149-13	Sediment	0.0 - 0.5'	PFAS
N/A	Stream-3	1/18/2023	320-96149-14	Sediment	0.0 - 0.5'	PFAS
N/A	Stream-4	1/18/2023	320-96149-15	Sediment	0.0 - 0.5'	PFAS
N/A	Stream-5	1/18/2023	320-96149-16	Sediment	0.0 - 0.5'	PFAS
Surface Water						
N/A	Outfall #1 SW / Outfall #1	4/22/2021	AD22952-001	Storm Water	N/A	1,4-Dioxane, VOCs, SVOCs, PCBs, Pesticides, TAL Metals, Cyanide
N/A	Outfall #2 SW / Outfall #2	4/22/2021	AD22952-002	Storm Water	N/A	1,4-Dioxane, VOCs, SVOCs, PCBs, Pesticides, TAL Metals, Cyanide
N/A	Outfall #1	4/22/2021	320-72927-1	Storm Water	N/A	PFAS
N/A	Outfall #2	4/22/2021	320-72927-2	Storm Water	N/A	PFAS
N/A	Trip Blank	4/22/2021	AD22952-005	Aqueous	N/A	VOCs & 1,4-Dioxane
N/A	Outfall #1	1/18/2023	320-96145-1	Surface Water	N/A	Mercury & PFAS
N/A	Outfall #2	1/18/2023	320-96145-2	Surface Water	N/A	Mercury & PFAS
N/A	Outfall #1 (50)	1/18/2023	320-96145-4	Surface Water	N/A	PFAS
N/A	Outfall #1 (50) DUP	1/18/2023	320-96145-17	Surface Water	N/A	PFAS
N/A	Outfall #1 (50) EB	1/18/2023	320-96145-18	Aqueous	N/A	PFAS
N/A	Outfall #1 (100)	1/18/2023	320-96145-5	Surface Water	N/A	PFAS
N/A	Outfall #1 (150)	1/18/2023	320-96145-6	Surface Water	N/A	PFAS
N/A	Stream-1	1/18/2023	320-96145-7	Surface Water	N/A	PFAS
N/A	Stream-2	1/18/2023	320-96145-8	Surface Water	N/A	PFAS
N/A	Stream-3	1/18/2023	320-96145-9	Surface Water	N/A	PFAS
N/A	Stream-4	1/18/2023	320-96145-10	Surface Water	N/A	PFAS
N/A	Stream-5	1/18/2023	320-96145-11	Surface Water	N/A	PFAS
N/A	Trip Blanks	1/18/2023	320-96145-19	Aqueous	N/A	PFAS

Notes:
BGS = Below Ground Surface
VOCs = Volatile Organic Compounds
SVOCs = Semi-Volatile Organic Compounds = BNAs = Base Neutral Acids
PCBs = PolyChlorinated biphenyls
TAL = Target Analyte List
PFAS = Per- and Polyfluoro alkyl Substances
Laboratory Analysis by Hampton-Clark (NY Certification No. ELAP11408) & Eurofins TestAmeria Laboratories, Inc (NY Certification No. 10670)

Table 2A

Surface Soil Sample Analysis Results
Rockland County Fire Fighting Training Center
35 Firemen's Memorial Drive
Pomona, Rockland County, NY

Sample ID:	Unrestricted Use Soil Cleanup Objectives	Industrial Restricted Use Soil Cleanup Objectives	Protection of Groundwater Restricted Use Soil Cleanup Objectives	SS-1 0-2" COMP	SS-1 0-2" GRAB	SS-1 2-12" COMP	SS-1 2-12" GRAB	SS-3 0-2" COMP
Lab Sample ID:				AD20755-001	AD20755-002	AD20755-003	AD20755-004	AD20755-005
Date Sampled:				12/14/2020	12/14/2020	12/14/2020	12/14/2020	12/14/2020
Matrix:				Soil	Soil	Soil	Soil	Soil
Volatile Organic Compounds (VOCs) (EPA Method SW 846 8260C) - mg/kg								
2-Butanone	0.12	1,000	0.12	~	ND	~	ND	~
2-Hexanone	NA	NA	NA	~	ND	~	ND	~
Methyl Acetate	NA	NA	NA	~	ND	~	0.016	~
Methylene chloride	0.05	1,000	0.05	~	0.0025	~	0.0065	~
Semi-Volatile Organic Compounds (SVOCs) (EPA Method SW 846 8270D) - mg/kg								
1,4-Dioxane	0.1	250	0.1	ND	~	ND	~	ND
Benzo[a]anthracene	1	11	1	ND	~	ND	~	0.053
Benzo[a]pyrene	1	1.1	22	ND	~	ND	~	0.072
Benzo[b]fluoranthene	1	11	1.7	ND	~	ND	~	0.091
Benzo[g,h,i]perylene	100	1,000	1,000	ND	~	ND	~	0.073
Chrysene	1	110	1	ND	~	ND	~	0.051
Fluoranthene	100	1,000	1,000	ND	~	ND	~	0.051
Indeno[1,2,3-cd]pyrene	0.5	11	0.33	ND	~	ND	~	0.046
Phenanthrene	100	1,000	1,000	ND	~	ND	~	ND
Pyrene	100	1,000	1,000	ND	~	ND	~	0.059
Metals (EPA Method SW 846 6010D) - mg/kg								
Aluminum	NA	NA	NA	27,000	~	17,000	~	4,300
Barium	350	10,000	820	**490**	~	260	~	170
Calcium	NA	NA	NA	17,000	~	11,000	~	33,000
Chromium	1	800	19	**110**	~	**110**	~	**9.9**
Cobalt	NA	NA	NA	15	~	14	~	6.0
Copper	50	10,000	1,720	**93**	~	**130**	~	**63**
Iron	NA	NA	NA	39,000	~	32,000	~	14,000
Lead	63	3,900	450	15	~	10	~	ND
Magnesium	NA	NA	NA	4,500	~	3,900	~	17,000
Manganese	1,600	10,000	2,000	150	~	180	~	140
Nickel	30	10,000	130	**31**	~	16	~	7.7
Potassium	NA	NA	NA	2,700	~	1,800	~	700
Sodium	NA	NA	NA	2,300	~	1,400	~	410
Vanadium	NA	NA	NA	80	~	58	~	33
Zinc	109	10,000	2,480	**190**	~	**140**	~	41
Arsenic	13	16	16	5.9	~	5.3	~	1.2
Beryllium	7.2	2,700	47	1.2	~	0.75	~	ND
Cadmium	2.5	60	7.5	ND	~	ND	~	0.93
Silver	2	6,800	8.3	ND	~	ND	~	ND
PolyChlorinated Biphenyls (PCBs) (EPA Method 846 8082A) - mg/kg								
Aroclor-1248	0.1	25	3.2	ND	~	ND	~	ND
Aroclor-1254	0.1	25	3.2	ND	~	ND	~	**0.15**
Aroclor (Total)	0.1	25	3.2	ND	~	ND	~	**0.15**
General Chemistry - %								
% Solids	NA	NA	NA	91	88	88	90	83
Cyanide	27	10,000	40	ND	~	ND	~	0.65

Notes:

BOLD Result exceeds NYCRR Part 375 6.8A Unrestricted Use SCO

Result exceeds NYCRR Part 375 6.8A Protection of Groundwater Restricted Use SCO

Result exceeds NYCRR Part 375 6.8A Industrial Restricted Use SCO

Only compounds detected at one or more sample locations above the analytical reporting limits are listed in this table

Concentrations shown in mg/kg = milligrams per kilogram = parts per million (ppm) unless otherwise noted

ND = Not Detected

~ = Not Analyzed

Laboratory Analysis by Hampton-Clark (NY Certification No. ELAP11408)

Table 2B

Surface Soil Sample Analysis Results
Rockland County Fire Fighting Training Center
35 Firemen's Memorial Drive
Pomona, Rockland County, NY

Sample ID:	Unrestricted Use Soil Cleanup Objectives	Industrial Restricted Use Soil Cleanup Objectives	Protection of Groundwater Restricted Use Soil Cleanup Objectives	SS-3 0-2" GRAB	SS-3 2-12" COMP	SS-3 2-12" GRAB	SS-5 0-2" COMP	SS-5 0-2" GRAB
Lab Sample ID:				AD20755-006	AD20755-007	AD20755-008	AD20755-009	AD20755-010
Date Sampled:				12/14/2020	12/14/2020	12/14/2020	12/14/2020	12/14/2020
Matrix:				Soil	Soil	Soil	Soil	Soil
Volatile Organic Compounds (VOCs) (EPA Method SW 846 8260C) - mg/kg								
2-Butanone	0.12	1,000	0.12	ND	~	ND	~	ND
2-Hexanone	NA	NA	NA	ND	~	ND	~	ND
Methyl Acetate	NA	NA	NA	ND	~	ND	~	ND
Methylene chloride	0.05	1,000	0.05	0.0023	~	0.0051	~	0.0023
Semi-Volatile Organic Compounds (SVOCs) (EPA Method SW 846 8270D) - mg/kg								
1,4-Dioxane	0.1	250	0.1	~	ND	~	ND	~
Benzo[a]anthracene	1	11	1	~	ND	~	ND	~
Benzo[a]pyrene	1	1.1	22	~	ND	~	ND	~
Benzo[b]fluoranthene	1	11	1.7	~	ND	~	ND	~
Benzo[g,h,i]perylene	100	1,000	1,000	~	0.066	~	ND	~
Chrysene	1	110	1	~	ND	~	ND	~
Fluoranthene	100	1,000	1,000	~	ND	~	ND	~
Indeno[1,2,3-cd]pyrene	0.5	11	0.33	~	ND	~	ND	~
Phenanthrene	100	1,000	1,000	~	ND	~	ND	~
Pyrene	100	1,000	1,000	~	ND	~	ND	~
Metals (EPA Method SW 846 6010D) - mg/kg								
Aluminum	NA	NA	NA	~	6,400	~	5,900	~
Barium	350	10,000	820	~	47	~	19	~
Calcium	NA	NA	NA	~	38,000	~	55,000	~
Chromium	1	800	19	~	ND	~	ND	~
Cobalt	NA	NA	NA	~	10	~	7.7	~
Copper	50	10,000	1,720	~	**120**	~	**85**	~
Iron	NA	NA	NA	~	23,000	~	20,000	~
Lead	63	3,900	450	~	7.9	~	5.8	~
Magnesium	NA	NA	NA	~	22,000	~	34,000	~
Manganese	1,600	10,000	2,000	~	200	~	210	~
Nickel	30	10,000	130	~	7.9	~	6.7	~
Potassium	NA	NA	NA	~	1,500	~	620	~
Sodium	NA	NA	NA	~	620	~	330	~
Vanadium	NA	NA	NA	~	50	~	33	~
Zinc	109	10,000	2,480	~	42	~	40	~
Arsenic	13	16	16	~	1.6	~	1.9	~
Beryllium	7.2	2,700	47	~	ND	~	ND	~
Cadmium	2.5	60	7.5	~	ND	~	ND	~
Silver	2	6,800	8.3	~	0.27	~	ND	~
PolyChlorinated Biphenyls (PCBs) (EPA Method 846 8082A) - mg/kg								
Aroclor-1248	0.1	25	3.2	~	ND	~	ND	~
Aroclor-1254	0.1	25	3.2	~	**0.15**	~	**0.22**	~
Aroclor (Total)	0.1	25	3.2	~	**0.15**	~	**0.22**	~
General Chemistry - %								
% Solids	NA	NA	NA	82	89	90	87	85
Cyanide	27	10,000	40	~	ND	~	ND	~

Notes:

BOLD Result exceeds NYCRR Part 375 6.8A Unrestricted Use SCO

Result exceeds NYCRR Part 375 6.8A Protection of Groundwater Restricted Use SCO

Result exceeds NYCRR Part 375 6.8A Industrial Restricted Use SCO

Only compounds detected at one or more sample locations above the analytical reporting limits are listed in this table

Concentrations shown in mg/kg = milligrams per kilogram = parts per million (ppm) unless otherwise noted

ND = Not Detected

~ = Not Analyzed

Laboratory Analysis by Hampton-Clark (NY Certification No. ELAP11408)

Table 2C

Surface Soil Sample Analysis Results
Rockland County Fire Fighting Training Center
35 Firemen's Memorial Drive
Pomona, Rockland County, NY

Sample ID:	Unrestricted Use Soil Cleanup Objectives	Industrial Restricted Use Soil Cleanup Objectives	Protection of Groundwater Restricted Use Soil Cleanup Objectives	SS-5 2-12" COMP	SS-5 2-12" GRAB	SS-7 0-2" COMP	SS-7 0-2" GRAB	SS-7 2-12" COMP
Lab Sample ID:				AD20755-011	AD20755-012	AD20755-013	AD20755-014	AD20755-015
Date Sampled:				12/14/2020	12/14/2020	12/14/2020	12/14/2020	12/14/2020
Matrix:				Soil	Soil	Soil	Soil	Soil
Volatile Organic Compounds (VOCs) (EPA Method SW 846 8260C) - mg/kg								
2-Butanone	0.12	1,000	0.12	~	ND	~	ND	~
2-Hexanone	NA	NA	NA	~	ND	~	ND	~
Methyl Acetate	NA	NA	NA	~	ND	~	ND	~
Methylene chloride	0.05	1,000	0.05	~	ND	~	0.0030	~
Semi-Volatile Organic Compounds (SVOCs) (EPA Method SW 846 8270D) - mg/kg								
1,4-Dioxane	0.1	250	0.1	ND	~	ND	~	ND
Benzo[a]anthracene	1	11	1	0.058	~	ND	~	0.047
Benzo[a]pyrene	1	1.1	22	0.061	~	ND	~	0.043
Benzo[b]fluoranthene	1	11	1.7	0.092	~	0.053	~	0.069
Benzo[g,h,i]perylene	100	1,000	1,000	0.072	~	0.068	~	0.069
Chrysene	1	110	1	0.068	~	0.038	~	0.038
Fluoranthene	100	1,000	1,000	0.10	~	0.045	~	0.061
Indeno[1,2,3-cd]pyrene	0.5	11	0.33	0.046	~	ND	~	ND
Phenanthrene	100	1,000	1,000	0.062	~	0.037	~	ND
Pyrene	100	1,000	1,000	0.12	~	0.063	~	0.065
Metals (EPA Method SW 846 6010D) - mg/kg								
Aluminum	NA	NA	NA	6,400	~	6,900	~	9,200
Barium	350	10,000	820	31	~	50	~	26
Calcium	NA	NA	NA	14,000	~	7,000	~	6,900
Chromium	1	800	19	**7.2**	~	**6.2**	~	ND
Cobalt	NA	NA	NA	7.6	~	12	~	15
Copper	50	10,000	1,720	**72**	~	**170**	~	**150**
Iron	NA	NA	NA	18,000	~	30,000	~	33,000
Lead	63	3,900	450	18	~	11	~	19
Magnesium	NA	NA	NA	9,400	~	4,200	~	6,100
Manganese	1,600	10,000	2,000	300	~	230	~	240
Nickel	30	10,000	130	9.8	~	10	~	11
Potassium	NA	NA	NA	ND	~	1,100	~	680
Sodium	NA	NA	NA	330	~	440	~	620
Vanadium	NA	NA	NA	29	~	34	~	49
Zinc	109	10,000	2,480	75	~	75	~	65
Arsenic	13	16	16	3.2	~	1.8	~	1.6
Beryllium	7.2	2,700	47	0.28	~	ND	~	ND
Cadmium	2.5	60	7.5	ND	~	ND	~	ND
Silver	2	6,800	8.3	0.71	~	ND	~	ND
PolyChlorinated Biphenyls (PCBs) (EPA Method 846 8082A) - mg/kg								
Aroclor-1248	0.1	25	3.2	**1.3**	~	0.060	~	ND
Aroclor-1254	0.1	25	3.2	ND	~	ND	~	**0.15**
Aroclor (Total)	0.1	25	3.2	**1.3**	~	0.060	~	**0.15**
General Chemistry - %								
% Solids	NA	NA	NA	84	80	91	90	89
Cyanide	27	10,000	40	ND	~	ND	~	ND

Notes:

BOLD Result exceeds NYCRR Part 375 6.8A Unrestricted Use SCO

Result exceeds NYCRR Part 375 6.8A Protection of Groundwater Restricted Use SCO

Result exceeds NYCRR Part 375 6.8A Industrial Restricted Use SCO

Only compounds detected at one or more sample locations above the analytical reporting limits are listed in this table

Concentrations shown in mg/kg = milligrams per kilogram = parts per million (ppm) unless otherwise noted

ND = Not Detected

~ = Not Analyzed

Laboratory Analysis by Hampton-Clark (NY Certification No. ELAP11408)

Table 2D

Surface Soil Sample Analysis Results
Rockland County Fire Fighting Training Center
35 Firemen's Memorial Drive
Pomona, Rockland County, NY

Sample ID:	Unrestricted Use Soil Cleanup Objectives	Industrial Restricted Use Soil Cleanup Objectives	Protection of Groundwater Restricted Use Soil Cleanup Objectives	SS-7 2-12" GRAB	SS-9 0-2" COMP	SS-9 0-2" GRAB	SS-9 2-12" COMP	SS-9 2-12" GRAB
Lab Sample ID:				AD20755-016	AD20755-017	AD20755-018	AD20755-019	AD20755-020
Date Sampled:				12/14/2020	12/14/2020	12/14/2020	12/14/2020	12/14/2020
Matrix:				Soil	Soil	Soil	Soil	Soil
Volatile Organic Compounds (VOCs) (EPA Method SW 846 8260C) - mg/kg								
2-Butanone	0.12	1,000	0.12	0.0019	~	ND	~	ND
2-Hexanone	NA	NA	NA	0.0019	~	ND	~	ND
Methyl Acetate	NA	NA	NA	0.0014	~	ND	~	ND
Methylene chloride	0.05	1,000	0.05	0.0036	~	0.0055	~	ND
Semi-Volatile Organic Compounds (SVOCs) (EPA Method SW 846 8270D) - mg/kg								
1,4-Dioxane	0.1	250	0.1	~	ND	~	ND	~
Benzo[a]anthracene	1	11	1	~	ND	~	ND	~
Benzo[a]pyrene	1	1.1	22	~	ND	~	ND	~
Benzo[b]fluoranthene	1	11	1.7	~	ND	~	ND	~
Benzo[g,h,i]perylene	100	1,000	1,000	~	ND	~	ND	~
Chrysene	1	110	1	~	ND	~	ND	~
Fluoranthene	100	1,000	1,000	~	ND	~	ND	~
Indeno[1,2,3-cd]pyrene	0.5	11	0.33	~	ND	~	ND	~
Phenanthrene	100	1,000	1,000	~	ND	~	ND	~
Pyrene	100	1,000	1,000	~	ND	~	ND	~
Metals (EPA Method SW 846 6010D) - mg/kg								
Aluminum	NA	NA	NA	~	12,000	~	12,000	~
Barium	350	10,000	820	~	77	~	48	~
Calcium	NA	NA	NA	~	7,900	~	12,000	~
Chromium	1	800	19	~	**10**	~	**5.8**	~
Cobalt	NA	NA	NA	~	27	~	23	~
Copper	50	10,000	1,720	~	**2,200**	~	**250**	~
Iron	NA	NA	NA	~	35,000	~	43,000	~
Lead	63	3,900	450	~	**100**	~	11	~
Magnesium	NA	NA	NA	~	9,200	~	14,000	~
Manganese	1,600	10,000	2,000	~	250	~	410	~
Nickel	30	10,000	130	~	15	~	14	~
Potassium	NA	NA	NA	~	1,500	~	930	~
Sodium	NA	NA	NA	~	840	~	560	~
Vanadium	NA	NA	NA	~	65	~	110	~
Zinc	109	10,000	2,480	~	68	~	91	~
Arsenic	13	16	16	~	1.5	~	2.9	~
Beryllium	7.2	2,700	47	~	ND	~	ND	~
Cadmium	2.5	60	7.5	~	ND	~	ND	~
Silver	2	6,800	8.3	~	ND	~	0.86	~
PolyChlorinated Biphenyls (PCBs) (EPA Method 846 8082A) - mg/kg								
Aroclor-1248	0.1	25	3.2	~	ND	~	**0.33**	~
Aroclor-1254	0.1	25	3.2	~	**0.19**	~	ND	~
Aroclor (Total)	0.1	25	3.2	~	**0.19**	~	**0.33**	~
General Chemistry - %								
% Solids	NA	NA	NA	89	86	80	90	89
Cyanide	27	10,000	40	~	ND	~	ND	~

Notes:

BOLD Result exceeds NYCRR Part 375 6.8A Unrestricted Use SCO

Result exceeds NYCRR Part 375 6.8A Protection of Groundwater Restricted Use SCO

Result exceeds NYCRR Part 375 6.8A Industrial Restricted Use SCO

Only compounds detected at one or more sample locations above the analytical reporting limits are listed in this table

Concentrations shown in mg/kg = milligrams per kilogram = parts per million (ppm) unless otherwise noted

ND = Not Detected

~ = Not Analyzed

Laboratory Analysis by Hampton-Clark (NY Certification No. ELAP11408)

Table 2E

Surface Soil Sample Analysis Results
Rockland County Fire Fighting Training Center
35 Firemen's Memorial Drive
Pomona, Rockland County, NY

Sample ID:	NYSDEC Guidance Values for Anticipated Site Use			SS-1 0-2"	SS-1 2-12"	SS-2 0-2"	SS-2 2-12"	SS-3 0-2"	SS-3 2-12"	SS-4 0-2"	SS-4 2-12"
Lab Sample ID:	Unrestricted	Industrial	Protection of Groundwater	320-68020-1	320-68020-2	320-68020-3	320-68020-4	320-68020-5	320-68020-19	320-68020-20	320-68020-6
Date Sampled:				12/14/2020	12/14/2020	12/14/2020	12/14/2020	12/14/2020	12/14/2020	12/14/2020	12/14/2020
Matrix:				Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Per- and Polyfluoroalkyl Substances (PFAS) (EPA 537M) - ug/kg											
6:2 FTS	NA	NA	NA	0.77 J	0.55 J	0.75 J	0.56 J	9.7 F1	16 H	14 H	ND (17)
8:2 FTS	NA	NA	NA	ND (1.2)	1.2 J	1.2 J	1.2 J	24	20 H	280 H	67 J
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	NA	NA	NA	ND (1.7)	ND (0.40)	ND (0.39)	ND (0.39)	ND (0.51)	ND (0.41) H	0.42 H	ND (41)
Perfluorobutanesulfonic acid (PFBS)	NA	NA	NA	ND (0.12)	ND (0.027)	0.034 J	0.028 J	0.18 J	0.20 J H	0.067 J H	ND (2.8)
Perfluorobutanoic acid (PFBA)	NA	NA	NA	0.16 J	0.23	0.15 J	0.17 J	1.0	1.4 H	1.8 H	7.0 J
Perfluorodecanesulfonic acid (PFDS)	NA	NA	NA	ND (0.18)	0.060 J	ND (0.041)	ND (0.041)	0.87 F1	0.25 H	4.3 H F1	7.8 J
Perfluorodecanoic acid (PFDA)	NA	NA	NA	0.59 J	0.52	0.52	0.46	18	6.0 H	7.6 H F1	4.9 J
Perfluorododecanoic acid (PFDoA)	NA	NA	NA	0.93	1.0	0.63	0.74	48	7.5 H	340	92
Perfluoroheptanesulfonic Acid (PFHpS)	NA	NA	NA	ND (0.16)	ND (0.038)	ND (0.037)	ND (0.037)	0.12 J	0.16 J H	ND (0.040) H	ND (3.9)
Perfluoroheptanoic acid (PFHpA)	NA	NA	NA	ND (0.13)	0.12 J	0.11 J	0.15 J	1.2	1.6 H	3.6 H F1	5.6J
Perfluorohexanesulfonic acid (PFHxS)	NA	NA	NA	0.21 J I	0.19 J	0.33	0.31	3.3 F1	5.8 H	1.1 H	ND (3.4)
Perfluorohexanoic acid (PFHxA)	NA	NA	NA	ND (0.19)	0.16 J	0.18 J	0.18 J	2.3 F1	4.0 H	3.2 H	7.4 J
Perfluorononanoic acid (PFNA)	NA	NA	NA	0.21 J	0.17 J	0.22	0.25	3.0 F1	1.7 H	4.3 H F1	4.6 J
Perfluorooctanesulfonamide (FOSA)	NA	NA	NA	ND (0.38)	ND (0.088)	ND (0.086)	ND (0.087)	2.3	3.3 H	3.7 H	ND (9.0)
Perfluorooctanesulfonic acid (PFOS)	0.88	440	1.0	**1.3 J ***	0.81	**2.1 ***	**2.5 ***	**24 ***	**18 H ***	**5.6 H F1 ***	**ND (22) ***
Perfluorooctanoic acid (PFOA)	0.66	600	0.8	ND (0.40)	0.22	0.20 J	0.22	**2.8 F1 ***	**2.9 H ***	**5.3 H F1 ***	**ND (9.5) ***
Perfluoropentanoic acid (PFPeA)	NA	NA	NA	ND (0.36)	0.17 J	0.24	0.19 J	2.1 F1	2.0 H	3.4 H F1	ND (8.5)
Perfluorotetradecanoic acid (PFTeA)	NA	NA	NA	0.36 J	0.50	0.35	0.32	44	16 H	17 H F1	16 J
Perfluorotridecanoic acid (PFTriA)	NA	NA	NA	0.65 J	0.95	1.7	2.3	82	22 H	1,500 H	620
Perfluoroundecanoic acid (PFUnA)	NA	NA	NA	0.89 J	1.3	0.92	0.94	62	11 H	340 H	130

Notes:

BOLD	Result exceeds Unrestricted Guidance Value
*	Result exceeds Protection of Groundwater Guidance Value
***	Result exceeds Industrial Guidance Value

Only compounds detected at one or more sample locations above the analytical reporting limits are listed in this table

Concentrations shown in ug/kg = micrograms per kilogram = parts per billion (ppb) unless otherwise noted

ND (#) = Not Detected above Method Detection Limit

NA = No Standard

I = Value is EMPC (estimated maximum possible concentration).

J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

B : Compound was found in the blank and sample.

F1 : MS and/or MSD recovery exceeds control limits.

F2 : MS/MSD RPD exceeds control limits

H : Sample was prepped or analyzed beyond the specified holding time

Laboratory Analysis by Eurofins TestAmerica Laboratories, Inc. (NY Certification No. 10670)

Table 2F

Surface Soil Sample Analysis Results
Rockland County Fire Fighting Training Center
35 Firemen's Memorial Drive
Pomona, Rockland County, NY

Sample ID:	NYSDEC Guidance Values for Anticipated Site Use			SS-5 0-2"	SS-5 2-12"	SS-6 0-2"	SS-6 2-12"	SS-7 0-2"	SS-7 2-12"	SS-8 0-2"	SS-8 2-12"
Lab Sample ID:	Unrestricted	Industrial	Protection of Groundwater	320-68020-7	320-68020-8	320-68020-9	320-68020-10	320-68020-11	320-68020-12	320-68020-13	320-68020-14
Date Sampled:				12/14/2020	12/14/2020	12/14/2020	12/14/2020	12/14/2020	12/14/2020	12/14/2020	12/14/2020
Matrix:				Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Per- and Polyfluoroalkyl Substances (PFAS) (EPA 537M) - ug/kg											
6:2 FTS	NA	NA	NA	ND (16)	33 J	120 J	150 J	8.1	9.1	13	20
8:2 FTS	NA	NA	NA	130 J	75 J	360	210	90 J	120	43	67
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	NA	NA	NA	ND (39)	ND (48)	ND (43)	ND (38)	ND (0.44)	ND (0.41)	ND (0.46)	ND (0.41)
Perfluorobutanesulfonic acid (PFBS)	NA	NA	NA	ND (2.6)	ND (3.3)	ND (2.9)	ND (2.6)	0.092 J	0.20 J	0.59	0.66
Perfluorobutanoic acid (PFBA)	NA	NA	NA	ND (2.9)	ND (3.7)	10 J	ND (2.9)	2.1	1.4	0.70	1.4
Perfluorodecanesulfonic acid (PFDS)	NA	NA	NA	ND (4.1)	ND (5.1)	ND (4.5)	ND (4.0)	4.7	1.8	0.19 J	0.63
Perfluorodecanoic acid (PFDA)	NA	NA	NA	4.7 J	7.6 J	30	9.2 J	4.4	5.6	3.3	6.2
Perfluorododecanoic acid (PFDoA)	NA	NA	NA	57	ND (8.7)	37	21 F2	100	31	3.4	7.7
Perfluoroheptanesulfonic Acid (PFHpS)	NA	NA	NA	ND (3.7)	ND (4.6)	ND (4.0)	ND (3.6)	0.045 J	0.25	0.81	1.2
Perfluoroheptanoic acid (PFHpA)	NA	NA	NA	ND (3.0)	ND (3.8)	4.8 J	ND (3.0) F2	1.6	1.2	0.70	1.5
Perfluorohexanesulfonic acid (PFHxS)	NA	NA	NA	ND (3.3)	24 J	57	5.8 J F1	1.1	4.1	10	13
Perfluorohexanoic acid (PFHxA)	NA	NA	NA	ND (4.4)	ND (5.5)	13 J	7.1 J F1	2.6	1.7	2.2	3.7
Perfluorononanoic acid (PFNA)	NA	NA	NA	ND (3.8)	ND (4.7)	23	6.9 J F1	1.6	1.9	1.7	3.0
Perfluorooctanesulfonamide (FOSA)	NA	NA	NA	ND (8.6)	ND (11)	15 J	ND (8.5)	1.5	3.1	1.6	2.3
Perfluorooctanesulfonic acid (PFOS)	0.88	440	1.0	**ND (21) ***	**220 B ***	**510 B *** **	**79 B ***	**4.4 B ***	**36 B ***	**120 B ***	**160 B ***
Perfluorooctanoic acid (PFOA)	0.66	600	0.8	**ND (9.0) ***	**ND (11) ***	**12 J ***	**ND (8.9) ***	**2.2 ***	**1.6 ***	**2.2 ***	**4.0 ***
Perfluoropentanoic acid (PFPeA)	NA	NA	NA	ND (8.1)	ND (10)	ND (8.9)	ND (8.0)	1.8	1.3	1.5	2.1
Perfluorotetradecanoic acid (PFTeA)	NA	NA	NA	19 J	12 J	33	32	29	12	6.2	12
Perfluorotridecanoic acid (PFTriA)	NA	NA	NA	920	26	590	760 F2	1,400	400	13	34
Perfluoroundecanoic acid (PFUnA)	NA	NA	NA	340	17 J	320	100	500	170	18	19

Notes:

BOLD	Result exceeds Unrestricted Guidance Value
*	Result exceeds Protection of Groundwater Guidance
***	Result exceeds Industrial Guidance Value

Only compounds detected at one or more sample locations above the analytical reporting limits are listed in this table
Concentrations shown in ug/kg = micrograms per kilogram = parts per billion (ppb) unless otherwise noted
ND (#) = Not Detected above Method Detection Limit
NA = No Standard
I = Value is EMPC (estimated maximum possible concentration).
J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B : Compound was found in the blank and sample.
F1 : MS and/or MSD recovery exceeds control limits.
F2 : MS/MSD RPD exceeds control limits
H : Sample was prepped or analyzed beyond the specified holding time
Laboratory Analysis by Eurofins TestAmerica Laboratories, Inc. (NY Certification No. 10670)

Table 2G

Surface Soil Sample Analysis Results
Rockland County Fire Fighting Training Center
35 Firemen's Memorial Drive
Pomona, Rockland County, NY

Sample ID:	NYSDEC Guidance Values for Anticipated Site Use			SS-9 0-2"	SS-9 2-12"	SS-10 0-2"	SS-10 2-12"
Lab Sample ID:	Unrestricted	Industrial	Protection of Groundwater	320-68020-15	320-68020-16	320-68020-17	320-68020-18
Date Sampled:				12/14/2020	12/14/2020	12/14/2020	12/14/2020
Matrix:				Soil	Soil	Soil	Soil
Per- and Polyfluoroalkyl Substances (PFAS) (EPA 537M) - ug/kg							
6:2 FTS	NA	NA	NA	0.29 J	0.62 J	2.5	1.5 J
8:2 FTS	NA	NA	NA	0.37 J	1.4 J	7.4	3.4
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	NA	NA	NA	0.57 J	0.83 J	ND (0.42)	ND (0.39)
Perfluorobutanesulfonic acid (PFBS)	NA	NA	NA	0.15 J	0.090 J	ND (0.028)	ND (0.026)
Perfluorobutanoic acid (PFBA)	NA	NA	NA	0.14 J	0.14 J	0.94	0.41
Perfluorodecanesulfonic acid (PFDS)	NA	NA	NA	0.72	1.2	0.34	0.25
Perfluorodecanoic acid (PFDA)	NA	NA	NA	0.20 J	0.26	9.1	4.4
Perfluorododecanoic acid (PFDoA)	NA	NA	NA	0.43	0.97	2.7	1.2
Perfluoroheptanesulfonic Acid (PFHpS)	NA	NA	NA	0.22 J	0.17 J	ND (0.039)	ND (0.037)
Perfluoroheptanoic acid (PFHpA)	NA	NA	NA	0.11 J	0.10 J	0.78	0.45
Perfluorohexanesulfonic acid (PFHxS)	NA	NA	NA	9.3	4.8	0.40	0.42
Perfluorohexanoic acid (PFHxA)	NA	NA	NA	0.61 F1	0.58	0.83	0.40
Perfluorononanoic acid (PFNA)	NA	NA	NA	0.14 J	0.21 J	2.2	1.5
Perfluorooctanesulfonamide (FOSA)	NA	NA	NA	11	17	ND (0.092)	0.086 J
Perfluorooctanesulfonic acid (PFOS)	0.88	440	1.0	**18 F2 B ***	**13 ***	**4.3 ***	**7.9 ***
Perfluorooctanoic acid (PFOA)	0.66	600	0.8	**2.6 F1 ***	**1.5 ***	**1.4 ***	0.68
Perfluoropentanoic acid (PFPeA)	NA	NA	NA	0.30	0.25	1.4	0.93
Perfluorotetradecanoic acid (PFTeA)	NA	NA	NA	0.16 J	0.37 I	0.87	0.35
Perfluorotridecanoic acid (PFTriA)	NA	NA	NA	2.4 F1	11	8.6	5.6
Perfluoroundecanoic acid (PFUnA)	NA	NA	NA	1.1	1.8	13	15

Notes:

BOLD	Result exceeds Unrestricted Guidance Value
*	Result exceeds Protection of Groundwater Guidance
***	Result exceeds Industrial Guidance Value

Only compounds detected at one or more sample locations above the analytical reporting limits are listed in this table

Concentrations shown in ug/kg = micrograms per kilogram = parts per billion (ppb) unless otherwise noted

ND (#) = Not Detected above Method Detection Limit

NA = No Standard

I = Value is EMPC (estimated maximum possible concentration).

J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

B : Compound was found in the blank and sample.

F1 : MS and/or MSD recovery exceeds control limits.

F2 : MS/MSD RPD exceeds control limits

H : Sample was prepped or analyzed beyond the specified holding time

Laboratory Analysis by Eurofins TestAmerica Laboratories, Inc. (NY Certification No. 10670)

Table 3A

Subsurface Soil Sample Analysis Results
Rockland County Fire Fighting Training Center
35 Firemen's Memorial Drive
Pomona, Rockland County, NY

Sample ID:	Unrestricted Use Soil Cleanup Objectives	Industrial Restricted Use Soil Cleanup Objectives	Protection of Groundwater Restricted Use Soil Cleanup Objectives	SB-2 4.5-5.0'	SB-3 6.0-6.5'	SB-5 6.5-7.0'	SB-8 4.0-4.5'	SB-10 6.0-6.5'
Lab Sample ID:				AD20926-001	AD20926-002	AD20926-003	AD20926-004	AD20926-005
Date Sampled:				12/22/2020	12/22/2020	12/22/202	12/22/2020	12/22/2020
Matrix:				Soil	Soil	Soil	Soil	Soil
Volatile Organic Compounds (VOCs) (EPA Method SW 846 8260C) - mg/kg								
2-Butanone	0.12	1,000	0.12	0.0079	0.016	ND	0.013	0.0062
Acetone	0.05	1,000	0.05	0.040	**0.068**	0.027	**0.053**	0.041
Methylene chloride	0.05	1,000	0.05	0.0056	0.0089	0.0040	0.0034	0.0057
Semi-Volatile Organic Compounds (SVOCs) (EPA Method SW 846 8270D) - mg/kg								
1,4-Dioxane	0.1	250	0.1	ND	ND	ND	ND	ND
Benzo[b]fluoranthene	1	11	1.7	ND	ND	ND	0.041	ND
Chrysene	1	110	1	ND	ND	ND	0.042	ND
Fluoranthene	100	1,000	1,000	ND	ND	ND	0.078	0.076
Phenanthrene	100	1,000	1,000	ND	ND	ND	0.049	0.068
Pyrene	100	1,000	1,000	ND	ND	ND	0.089	0.081
Pesticides (EPA Method SW 846 8081B) - mg/kg								
p,p'-DDD	0.0033	180	14	ND	ND	ND	**0.0089**	**0.0084**
p,p'-DDE	0.0033	120	17	**0.0085**	ND	ND	**0.0091**	**0.0047**
Metals (EPA Method SW 846 6010D) - mg/kg								
Aluminum	NA	NA	NA	7,900	7,900	7,300	7,200	8,000
Barium	350	10,000	820	42	38	36	37	45
Calcium	NA	NA	NA	2,500	2,100	1,200	1,800	2,900
Chromium	1	800	19	**12**	**12**	**13**	**12**	**13**
Cobalt	NA	NA	NA	6.9	10	5.4	6.6	4.9
Copper	50	10,000	1,720	15	17	13	13	13
Iron	NA	NA	NA	19,000	23,000	18,000	18,000	13,000
Lead	63	3,900	450	9.0	10	6.9	9.6	12
Magnesium	NA	NA	NA	2,700	3,500	2,400	2,800	2,800
Manganese	1,600	10,000	2,000	670	460	340	290	88
Nickel	30	10,000	130	14	20	12	14	12
Sodium	NA	NA	NA	540	350	ND	ND	ND
Vanadium	NA	NA	NA	18	17	19	16	19
Zinc	109	10,000	2,480	41	51	40	47	50
Arsenic	13	16	16	2.5	3.0	2.9	3.1	2.1
Beryllium	7.2	2,700	47	0.80	0.34	0.29	0.35	0.45
General Chemistry - %								
% Solids	NA	NA	NA	89	90	88	87	78

Notes:

BOLD Result exceeds NYCRR Part 375 6.8A Unrestricted Use Soil Cleanup Objectives

Result exceeds NYCRR Part 375 6.8B Protection of Groundwater Restricted Use Soil Cleanup Objectives

Result exceeds NYCRR Part 375 6.8B Industrial Restricted Use Soil Cleanup Objectives

Only compounds detected at one or more sample locations above the analytical reporting limits are listed in this table

Concentrations shown in mg/kg = milligrams per kilogram = parts per million (ppm) unless otherwise noted

ND = Not Detected

~ = Not Analyzed

Laboratory Analysis by Hampton-Clark (NY Certification No. ELAP11408)

Table 3B

Subsurface Soil Sample Analysis Results
Rockland County Fire Fighting Training Center
35 Firemen's Memorial Drive
Pomona, Rockland County, NY

Sample ID:	NYSDEC Guidance Values for Anticipated Site Use			SB-1 4.5-5.0'	SB-2 4.5-5.0'	SB-3 6.0-6.5'	SB-4 5.5-6.0'	SB-5 6.5-7.0'	SB-6 5.0-5.5'	SB-7 5.0-5.5'	SB-8 4.0-4.5'	SB-9 4.5-5.0'	SB-10 6.0-6.5'
Lab Sample ID:	Unrestricted	Industrial	Protection of Groundwater	320-68308-1	320-68308-2	320-68308-3	320-68308-4	320-68308-5	320-68308-6	320-68308-7	320-68308-8	320-68308-9	320-68308-10
Date Sampled:				12/22/2020	12/22/2020	12/22/2020	12/22/2020	12/22/202	12/22/2020	12/22/2020	12/22/2020	12/22/2020	12/22/2020
Matrix:				Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Per- and Polyfluoroalkyl Substances (PFAS) (EPA 537M) - ug/kg													
6:2 FTS	NA	NA	NA	0.35 J	21	ND (0.18)	7.5	15	ND (0.21)	ND (150)	10	1.7 J	ND (0.18)
8:2 FTS	NA	NA	NA	1.1 J	0.45 J	ND (0.30)	ND (0.29)	0.66 J	ND (0.36)	ND (240)	ND (0.29)	0.54 J	ND (0.30)
Perfluorobutanesulfonic acid (PFBS)	NA	NA	NA	0.33	0.87	0.047 J	0.80	0.37	0.050 J	0.22 J	1.6	0.11 J	ND (0.030)
Perfluorobutanoic acid (PFBA)	NA	NA	NA	0.16 J B	0.54 B	0.16 J B	0.67 B	1.8 B	0.23 J B	ND (27)	0.72 B	0.38 B	0.20J B
Perfluorodecanoic acid (PFDA)	NA	NA	NA	0.094 J	0.052 J	ND (0.027)	0.054 J	0.17 J	ND (0.031)	ND (0.052)	ND (0.026)	0.14 J	ND (0.027)
Perfluoroheptanesulfonic Acid (PFHpS)	NA	NA	NA	0.10 J	0.25	ND (0.043)	0.28	0.46	ND (0.050)	ND (0.083)	1.7	0.073 J	ND (0.043)
Perfluoroheptanoic acid (PFHpA)	NA	NA	NA	0.19 J	2.7	0.044 J	5.4	2.4	0.080 J	1.0	0.71	0.41	0.073 J I
Perfluorohexanesulfonic acid (PFHxS)	NA	NA	NA	2.1	7.7	0.28	15	4.3	0.25 J	2.7	20	1.0	0.066 J
Perfluorohexanoic acid (PFHxA)	NA	NA	NA	0.95	4.7	0.086 J	2.4	5.3	0.082 J	0.90	3.2	0.70	ND (0.051)
Perfluorononanoic acid (PFNA)	NA	NA	NA	0.066 J	23	0.31	85 J	18	0.37	3.5	4.5	5.0	0.075 J
Perfluorooctanesulfonic acid (PFOS)	0.88	440	1.0	**12 B ***	**2.0 B ***	0.77 B	**1.2 B ***	**13 B ***	ND (0.29)	**1.2 I B ***	**20 I B ***	**3.5 B ***	ND (0.24)
Perfluorooctanoic acid (PFOA)	0.66	600	0.8	0.13 J	**3.1 ***	ND (0.10)	**14 ***	**1.6 ***	0.12 J	**0.91 ***	**2.3 ***	0.39	ND (0.10)
Perfluoropentanoic acid (PFPeA)	NA	NA	NA	0.31	4.8	ND (0.094)	1.7	9.3	0.11 J	0.71	2.5	0.79	ND (0.094)
Perfluorotridecanoic acid (PFTriA)	NA	NA	NA	ND (0.056)	0.099 J	ND (0.062)	ND (0.059)	0.30	ND (0.073)	ND (0.12)	ND (0.060)	0.13 J	ND (0.062)
Perfluoroundecanoic acid (PFUnA)	NA	NA	NA	0.82	0.57	ND (0.044)	0.23	0.36	ND (0.051)	0.12 J	ND (0.042)	2.6	ND (0.044)

Notes:

BOLD Result exceeds Unrestricted Guidance Value

* Result exceeds Protection of Groundwater Guidance Value

*** Result exceeds Industrial Guidance Value

Only compounds detected at one or more sample locations above the analytical reporting limits are listed in this table

Concentrations shown in ug/kg = micrograms per kilogram = parts per billion (ppb) unless otherwise noted

ND (#) = Not Detected above Method Detection Limit

NA = No Standard

B = Compound was found in the blank and sample.

I = Value is EMPC (estimated maximum possible concentration).

J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Laboratory Analysis by Eurofins TestAmerica Laboratories, Inc. (NY Certification No. 10670)

Table 4A

AOC Soil Sample Analysis Results
Rockland County Fire Fighting Training Center
35 Firemen's Memorial Drive
Pomona, Rockland County, NY

Sample ID:	Unrestricted Use Soil Cleanup Objectives	Industrial Restricted Use Soil Cleanup Objectives	Protection of Groundwater Restricted Use Soil Cleanup Objectives	AOC#1 Transformer Pad	AOC#2 Generator	AOC#3 Haz Waste Recycle	AOC#4 Vehicle Extraction	AOC#5 Burn Building Composite East	AOC#5 Burn Building Composite West	AOC#5 Burn Building Composite Native	AOC#5 Burn Building Composite Fill
Lab Sample ID:				AD21585-001	AD21585-002	AD21585-003	AD21585-004	AD21585-005	AD21585-006	AD21585-007	AD21585-008
Date Sampled:				1/29/2020	1/29/2020	1/29/2020	1/29/2020	1/29/2020	1/29/2020	1/29/2020	1/29/2020
Matrix:				Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Semi-Volatile Organic Compounds (SVOCs) (EPA Method SW 846 8270D) - mg/kg											
1,4-Dioxane	0.1	250	0.1	ND	ND	ND	ND	ND (0.22)	ND (0.21)	ND (0.11)	ND (0.11)
Benzo[a]anthracene	1	11	1	0.064	0.14	ND	0.18	ND	ND	ND	ND
Benzo[a]pyrene	1	1.1	22	0.095	0.17	ND	0.21	ND	ND	ND	ND
Benzo[b]fluoranthene	1	11	1.7	0.11	0.20	0.053	0.30	ND	ND	ND	ND
Benzo[g,h,i]perylene	100	1,000	1,000	0.069	0.13	ND	0.15	ND	ND	ND	ND
Benzo[k]fluoranthene	0.8	110	1.7	ND	0.057	ND	0.11	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	NA	NA	NA	ND	0.16	ND	2.0	ND	ND	ND	ND
Chrysene	1	110	1	0.087	0.17	ND	0.22	ND	ND	ND	ND
Fluoranthene	100	1,000	1,000	0.099	0.25	0.059	0.34	ND	ND	ND	ND
Indeno[1,2,3-cd]pyrene	0.5	11	0.33	0.053	0.088	ND	0.12	ND	ND	ND	ND
Phenanthrene	100	1,000	1,000	ND	0.16	ND	0.12	ND	ND	ND	ND
Pyrene	100	1,000	1,000	0.14	0.32	0.060	0.33	ND	ND	ND	ND
Pesticides (EPA Method SW 846 8081B) - mg/kg											
p,p'-DDE	0.0033	120	17	ND	ND	**0.012**	ND	ND	ND	ND	ND
Metals (EPA Method SW 846 6010D) - mg/kg											
Aluminum	NA	NA	NA	8,200	8,500	9,400	9,100	8,700	8,000	6,500	7,300
Barium	350	10,000	820	48	53	73	76	59	57	28	31
Calcium	NA	NA	NA	2,000	3,100	3,200	3,400	12,000	10,000	13,000	6,800
Chromium	1	800	19	**14**	**15**	**12**	**18**	**7.9**	**8.2**	**7.6**	**7.1**
Cobalt	NA	NA	NA	6.2	6.0	4.6	6.0	12	11	9.3	11
Copper	50	10,000	1,720	18	22	16	36	**130**	**130**	**59**	**86**
Iron	NA	NA	NA	19,000	18,000	15,000	19,000	25,000	27,000	21,000	24,000
Lead	63	3,900	450	16	17	29	28	8.9	11	8.6	10
Magnesium	NA	NA	NA	2,700	2,500	2,200	2,700	6,200	4,400	4,100	4,400
Manganese	1,600	10,000	2,000	450	460	630	750	230	230	520	280
Nickel	30	10,000	130	13	13	10	14	12	12	11	12
Potassium	NA	NA	NA	740	ND	ND	ND	710	830	ND	770
Sodium	NA	NA	NA	ND	ND	ND	ND	860	960	ND	ND
Vanadium	NA	NA	NA	22	22	22	26	61	62	49	44
Zinc	109	10,000	2,480	52	**150**	55	**230**	**110**	**110**	70	88
Arsenic	13	16	16	3.6	3.3	3.9	3.3	3.5	3.0	3.2	3.7
Beryllium	7.2	2,700	47	0.30	0.32	0.31	0.38	ND	ND	ND	ND
Cadmium	2.5	60	7.5	ND	0.66	ND	0.75	ND	ND	ND	ND
General Chemistry - %											
% Solids	NA	NA	NA	69	70	68	61	77	79	89	88
Cyanide	27	10,000	40	ND	ND	0.57	ND	0.34	ND	ND	ND

Notes:

BOLD Result exceeds NYCRR Part 375 6.8A Unrestricted Use Soil Cleanup Objectives

Result exceeds NYCRR Part 375 6.8B Protection of Groundwater Restricted Use Soil Cleanup Objectives

Result exceeds NYCRR Part 375 6.8B Industrial Restricted Use Soil Cleanup Objectives

Only compounds detected at one or more sample locations above the analytical reporting limits are listed in this table

Concentrations shown in mg/kg = milligrams per kilogram = parts per million (ppm) unless otherwise noted

ND = Not Detected

~ = Not Analyzed

Laboratory Analysis by Hampton-Clark (NY Certification No. ELAP11408)

Table 4B

AOC Soil Sample Analysis Results
Rockland County Fire Fighting Training Center
35 Firemen's Memorial Drive
Pomona, Rockland County, NY

Sample ID:	NYSDEC Guidance Values for Anticipated Site Use			AOC#1 Transformer Pad	AOC#2 Generator	AOC#3 Haz Waste Recycle	AOC#4 Vehicle Extraction
Lab Sample ID:	Unrestricted	Industrial	Protection of Groundwater	320-69540-1	320-69540-2	320-69540-3	320-69540-4
Date Sampled:				1/29/2020	1/29/2020	1/29/2020	1/29/2020
Matrix:				Soil	Soil	Soil	Soil
Per- and Polyfluoroalkyl Substances (PFAS) (EPA 537M) - ug/kg							
8:2 FTS	NA	NA	NA	ND (0.32)	ND (0.41)	ND (5.8)	ND (4.8)
Perfluorobutanoic acid (PFBA)	NA	NA	NA	0.73	0.17 J	ND (0.64)	0.65 J
Perfluorodecanesulfonic acid (PFDS)	NA	NA	NA	0.28 F1	ND (0.064)	ND (0.90)	ND (0.75)
Perfluorodecanoic acid (PFDA)	NA	NA	NA	0.75	0.32 J	0.92 J	0.86 J
Perfluorododecanoic acid (PFDoA)	NA	NA	NA	0.43	0.23 J	ND (1.5)	ND (1.3)
Perfluoroheptanoic acid (PFHpA)	NA	NA	NA	0.34	0.10 J	ND (0.67)	ND (0.56)
Perfluorohexanesulfonic acid (PFHxS)	NA	NA	NA	0.36	ND (0.051)	ND (0.71)	ND (0.59)
Perfluorohexanoic acid (PFHxA)	NA	NA	NA	0.27	ND (0.069)	ND (0.97)	ND (0.80)
Perfluorononanoic acid (PFNA)	NA	NA	NA	0.50	0.41	ND (0.83)	1.2 J
Perfluorooctanesulfonic acid (PFOS)	0.88	440	1.0	**17 ***	**0.97**	**ND (4.6) ***	**ND (3.8) ***
Perfluorooctanoic acid (PFOA)	0.66	600	0.8	0.32	0.20 J	**ND (2.0) ***	**ND (1.6) ***
Perfluoropentanoic acid (PFPeA)	NA	NA	NA	1.1	0.16 J	ND (1.8)	ND (1.5)
Perfluorotetradecanoic acid (PFTeA)	NA	NA	NA	0.11 J	ND (0.088)	ND (1.2)	ND (1.0)
Perfluorotridecanoic acid (PFTriA)	NA	NA	NA	0.98	2.3	ND (1.2)	2.6 J
Perfluoroundecanoic acid (PFUnA)	NA	NA	NA	4.4 F1	4.2	1.7 J I	16

Notes:

BOLD	Result exceeds Unrestricted Guidance Value
*	Result exceeds Protection of Groundwater Guidance Value
***	Result exceeds Industrial Guidance Value

Only compounds detected at one or more sample locations above the analytical reporting limits are listed in this table

Concentrations shown in ug/kg = micrograms per kilogram = parts per billion (ppb) unless otherwise noted

ND (#) = Not Detected above Method Detection Limit

NA = Not Analyzed

I = Value is EMPC (estimated maximum possible concentration).

J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

F1 = MS and/or MSD recovery exceeds control limits.

Laboratory Analysis by Eurofins TestAmerica Laboratories, Inc. (NY Certification No. 10670)

Table 4C

AOC Soil Sample Analysis Results
Rockland County Fire Fighting Training Center
35 Firemen's Memorial Drive
Pomona, Rockland County, NY

Sample ID:	NYSDEC Guidance Values for Anticipated Site Use			AOC#5 Burn Building Composite East	AOC#5 Burn Building Composite West	AOC#5 Burn Building Composite Native	AOC#5 Burn Building Composite Fill
Lab Sample ID:	Unrestricted	Industrial	Protection of Groundwater	320-69540-5	320-69540-6	320-69540-7	320-69540-8
Date Sampled:				1/29/2020	1/29/2020	1/29/2020	1/29/2020
Matrix:				Soil	Soil	Soil	Soil
Per- and Polyfluoroalkyl Substances (PFAS) (EPA 537M) - ug/kg							
8:2 FTS	NA	NA	NA	0.76 J	0.67 J	1.8 J	2.6
Perfluorobutanoic acid (PFBA)	NA	NA	NA	0.056 J	0.060 J	0.16 J	0.26
Perfluorodecanesulfonic acid (PFDS)	NA	NA	NA	ND (0.045)	ND (0.047)	ND (0.041)	ND (0.046)
Perfluorodecanoic acid (PFDA)	NA	NA	NA	0.12 J	0.14 J	0.37	0.60
Perfluorododecanoic acid (PFDoA)	NA	NA	NA	0.092 J	0.17 J	0.082 J	0.17 J
Perfluoroheptanoic acid (PFHpA)	NA	NA	NA	0.15 J	0.22 J	0.35	0.50
Perfluorohexanesulfonic acid (PFHxS)	NA	NA	NA	0.091 J	0.10 J	0.25	0.26
Perfluorohexanoic acid (PFHxA)	NA	NA	NA	0.14 J	0.19 J	0.31	0.38
Perfluorononanoic acid (PFNA)	NA	NA	NA	0.15 J	0.18 J	0.48	0.75
Perfluorooctanesulfonic acid (PFOS)	0.88	440	1.0	0.67	0.80	**3.2 ***	**4.3 ***
Perfluorooctanoic acid (PFOA)	0.66	600	0.8	0.18 J	0.23 J	0.56	**0.87 ***
Perfluoropentanoic acid (PFPeA)	NA	NA	NA	0.15 J	0.26	0.49	0.69
Perfluorotetradecanoic acid (PFTeA)	NA	NA	NA	ND (0.062)	ND (0.06	ND (0.056)	ND (0.064)
Perfluorotridecanoic acid (PFTriA)	NA	NA	NA	0.21 J	0.28	0.50	0.89
Perfluoroundecanoic acid (PFUnA)	NA	NA	NA	0.24	0.28	1.1	1.8

Notes:

BOLD	Result exceeds Unrestricted Guidance Value
*	Result exceeds Protection of Groundwater Guidance Value
***	Result exceeds Industrial Guidance Value

Only compounds detected at one or more sample locations above the analytical reporting limits are listed ir
Concentrations shown in ug/kg = micrograms per kilogram = parts per billion (ppb) unless otherwise noted
ND (#) = Not Detected above Method Detection Limit
NA = Not Analyzed
I = Value is EMPC (estimated maximum possible concentration).
J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate
F1 = MS and/or MSD recovery exceeds control limits.
Laboratory Analysis by Eurofins TestAmerica Laboratories, Inc. (NY Certification No. 10670)

Table 5A

Debris Sample Analysis Results
Rockland County Fire Fighting Training Center
35 Firemen's Memorial Drive
Pomona, Rockland County, NY

Sample ID:	Outfall #1 S	Outfall #2 S
Lab Sample ID:	**AD22952-003**	**AD22952-004**
Date Sampled:	**4/22/2021**	**4/22/2021**
Matrix:	**Debris**	**Debris**
Semi-Volatile Organic Compounds (SVOCs) (EPA Method SW 846 8270D) - mg/kg		
3&4-Methylphenol	ND	0.042
Benzo[a]anthracene	ND	0.22
Benzo[a]pyrene	ND	0.18
Benzo[b]fluoranthene	ND	0.23
Benzo[g,h,i]perylene	ND	0.12
Chrysene	ND	0.15
Fluoranthene	ND	0.26
Indeno[1,2,3-cd]pyrene	ND	0.11
Phenanthrene	ND	0.11
Phenol	ND	0.076
Pyrene	ND	0.26
Pesticides (EPA Method SW 846 8081B) - mg/kg		
p,p'-DDE	ND	0.011
Metals (EPA Method SW 846 6010D) - mg/kg		
Aluminum	4,800	4,000
Barium	32	54
Calcium	18,000	3,600
Cobalt	7.6	ND
Copper	86	25
Iron	21,000	7,700
Lead	8.6	29
Magnesium	11,000	1,300
Manganese	320	1,000
Nickel	13	ND
Sodium	340	790
Vanadium	35	ND
Zinc	84	120
Arsenic	2.1	2.1
Silver	ND	0.96
General Chemistry - %		
% Solids	80	45
Cyanide	ND	1.0

Notes:

Only compounds detected at one or more sample locations above the analytical reporting limits are listed in this table

Concentrations shown in mg/kg = milligrams per kilogram = parts per million (ppm) unless otherwise noted

ND = Not Detected

Laboratory Analysis by Hampton-Clark (NY Certification No. ELAP11408)

Table 5B

Debris Sample Analysis Results
Rockland County Fire Fighting Training Center
35 Firemen's Memorial Drive
Pomona, Rockland County, NY

Sample ID:	Outfall #1	Outfall #2
Lab Sample ID:	**320-72927-3**	**320-72927-4**
Date Sampled:	**4/22/2021**	**4/22/2021**
Matrix:	**Debris**	**Debris**
Per- and Polyfluoroalkyl Substances (PFAS) (EPA 537M) - ug/kg		
8:2 FTS	0.61 J	11
Perfluorobutanoic acid (PFBA)	0.053 J	0.84 J
Perfluorodecanesulfonic acid (PFDS)	ND (0.042)	0.71 J
Perfluorodecanoic acid (PFDA)	0.24	5.6
Perfluorododecanoic acid (PFDoA)	0.18 J	9.8
Perfluoroheptanoic acid (PFHpA)	0.083 J	1.4
Perfluorohexanesulfonic acid (PFHxS)	0.18 J	ND (0.14)
Perfluorohexanoic acid (PFHxA)	0.16 J	1.2
Perfluorononanoic acid (PFNA)	1.1	2.2
Perfluorooctanesulfonic acid (PFOS)	2.1	8.5 I
Perfluorooctanoic acid (PFOA)	0.25	2
Perfluoropentanoic acid (PFPeA)	0.22	2.7
Perfluorotetradecanoic acid (PFTeA)	0.12 J	5.3
Perfluorotridecanoic acid (PFTriA)	1.7	81
Perfluoroundecanoic acid (PFUnA)	2.8	55

Notes:

Only compounds detected at one or more sample locations above the analytical reporting limits are listed in this table

Concentrations shown in ug/kg = micrograms per kilogram = parts per billion (ppb) unless otherwise noted

ND (#) = Not Detected above Method Detection Limit

NA = No Standard

I = Value is EMPC (estimated maximum possible concentration).

J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Laboratory Analysis by Eurofins TestAmerica Laboratories, Inc. (NY Certification No. 10670)

Table 6A

Storm Water Sample Analysis Results
Rockland County Fire Fighting Training Center
35 Firemen's Memorial Drive
Pomona, Rockland County, NY

Sample ID:	NYSDOH Drinking Water Maximum Contaminant Levels (MCL)	NYSDEC Ambient Water Quality Standards				Outfall #1 SW	Outfall #2 SW
Lab Sample ID:		Human Health Criteria	Aquatic Life (Fresh)		Absence of Class C	AD22952-001	AD22952-002
Date Sampled:			Chronic	Acute		4/22/2021	4/22/2021
Matrix:						Storm Water	Storm Water
Metals Analysis (EPA846 6010D/6020B/7470A) - ug/L							
Aluminum	NA	NA	100	NA	NA	ND	**2,000**
Calcium	NA	NA	NA	NA	NA	80,000	32,000
Iron	300	NA	300	NA	NA	ND	**2,400**
Magnesium	NA	NA	NA	NA	35,000*	14,000	5,500
Manganese	300	NA	NA	NA	300*	58	**400**
Sodium	NA	NA	NA	NA	20,000*	**160,000**	**170,000**
Zinc	5,000	NA	Calculated**	Calculated**	NA	ND	52
Lead	15	NA	Calculated**	Calculated**	NA	ND	10

Notes:

BOLD Result exceeds NYSDEC Water Quality Standards (Class C or Most Stringent Value)

* = A standard is not identified for Class C; therefore, the most stringent applicable value is listed in the table

** = Standard is calculated per Table 1 of NYSDEC TOGS1.1.1 (June 1998)

Only compounds detected at one or more sample locations above the analytical reporting limits are listed in this table

Concentrations shown in ug/L = microgram per liter = parts per billion (ppb)

ND = Not Detected above Reporting Limit

NA = No Standard

Laboratory Analysis by Hampton-Clark (NY Certification No. ELAP11408)

Table 6B

Storm Water Sample Analysis Results
Rockland County Fire Fighting Training Center
35 Firemen's Memorial Drive
Pomona, Rockland County, NY

Sample ID:	NYSDOH Drinking Water Maximum Contaminant Levels (MCL)	Ambient Water Quality Guidance Values			Outfall #1	Outfall #2
Lab Sample ID:		Human Health Criteria	Aquatic Life (Fresh)		320-72927-1	320-72927-2
Date Sampled:			Chronic	Acute	4/22/2021	4/22/2021
Matrix:					Storm Water	Storm Water
Per- and Polyfluoroalkyl Substances (PFAS) (EPA 537M) - ng/L						
6:2 FTS	NA	NA	NA	NA	210	ND (2.2)
8:2 FTS	NA	NA	NA	NA	15	ND (0.41)
Perfluorobutanesulfonic acid (PFBS)	NA	NA	NA	NA	33	1.9
Perfluorobutanoic acid (PFBA)	NA	NA	NA	NA	41	4.9
Perfluorodecanoic acid (PFDA)	NA	NA	NA	NA	5.2 J	ND (0.28)
Perfluoroheptanesulfonic Acid (PFHpS)	NA	NA	NA	NA	8.1 J	ND (0.17)
Perfluoroheptanoic acid (PFHpA)	NA	NA	NA	NA	70	1.8
Perfluorohexanesulfonic acid (PFHxS)	NA	NA	NA	NA	270	1.7 J
Perfluorohexanoic acid (PFHxA)	NA	NA	NA	NA	140	2.6
Perfluorononanoic acid (PFNA)	NA	NA	NA	NA	87	0.31 J
Perfluorooctanesulfonic acid (PFOS)	10	2.7	160,000	710,000	**270**	2.4
Perfluorooctanoic acid (PFOA)	10	6.7	NA	NA	**52**	3.7
Perfluoropentanoic acid (PFPeA)	NA	NA	NA	NA	130	2.6
Perfluoroundecanoic acid (PFUnA)	NA	NA	NA	NA	19	ND (0.99)

Notes:

BOLD Result exceeds NYS Ambient Water Quality Guidance Value (Human Health Criteria)

Result exceeds NYSDEC Drinking Water MCL

Only compounds detected at one or more sample locations above the analytical reporting limits are listed in this table

Concentrations shown in ng/L = nanogram per liter = parts per trillion (ppt)

ND (#) = Not Detected above Method Detection Limit

NA = No Standard

J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Total PFAS concentrations calculated based on detected concentrations

Laboratory Analysis by Eurofins TestAmerica Laboratories, Inc. (NY Certification No. 10670)

Table 7

Sediment Sample Analysis Results (Outfall/Stream) - Janaury 2023
Rockland County Fire Fighting Training Center
35 Firemen's Memorial Drive
Pomona, Rockland County, NY

Sample ID:	Outfall #1 (50)	Outfall #1 (50) DUP	Outfall #1 (100)	Outfall #1 (150)	Stream-1	Stream-2	Stream-3	Stream-4	Stream-5
Lab Sample ID:	**320-96149-1**	**320-96149-20**	**320-96149-2**	**320-96149-3**	**320-96149-12**	**320-96149-13**	**320-96149-14**	**320-96149-15**	**320-96149-16**
Date Sampled:	**1/18/2023**	**1/18/2023**	**1/18/2023**	**1/18/2023**	**1/18/2023**	**1/18/2023**	**1/18/2023**	**1/18/2023**	**1/18/2023**
Matrix:	**Sediment**	**Sediment**	**Sediment**	**Sediment**	**Sediment**	**Sediment**	**Sediment**	**Sediment**	**Sediment**
Per- and Polyfluoroalkyl Substances (PFAS) (EPA 537M) - ug/kg									
6:2 FTS	ND (0.030)	ND (0.029)	ND (0.059)	0.77	ND (0.035)	ND (0.044)	ND (0.069)	ND (0.070)	ND (0.045)
8:2 FTS	ND (0.039)	ND (0.037)	ND (0.076)	0.46	ND (0.046)	ND (0.057)	ND (0.090)	ND (0.090)	ND (0.059)
Perfluorodecanoic acid (PFDA)	ND (0.053)	ND (0.051)	ND (0.10)	ND (0.058)	ND (0.063)	ND (0.078)	ND (0.12)	0.59	0.34
Perfluorododecanoic acid (PFDoA)	ND (0.033)	ND (0.032)	0.73	ND (0.037)	ND (0.039)	ND (0.049)	ND (0.077)	ND (0.077)	ND (0.050)
Perfluorohexanesulfonic acid (PFHxS)	ND (0.032)	ND (0.031)	0.65	ND (0.035)	ND (0.038)	ND (0.047)	ND (0.074)	ND (0.075)	ND (0.049)
Perfluorononanoic acid (PFNA)	ND (0.024)	0.22	0.54	ND (0.027)	ND (0.029)	ND (0.036)	ND (0.056)	ND (0.057)	ND (0.037)
Perfluorooctanesulfonic acid (PFOS)	0.61 F1	1.2	6.3	1.0	ND (0.056)	ND (0.070)	ND (0.11)	2.5	1.5
Perfluorooctanoic acid (PFOA)	ND (0.059)	ND (0.057)	ND (0.12)	ND (0.065)	ND (0.069)	ND (0.086)	ND (0.14)	0.68	0.34
Perfluoropentanoic acid (PFPeA)	ND (0.046)	ND (0.044)	ND (0.090)	ND (0.050)	ND (0.054)	ND (0.067)	ND (0.10)	ND (0.11)	0.37
Perfluorotetradecanoic acid (PFTeA)	ND (0.041)	ND (0.040)	0.45	ND (0.045)	ND (0.048)	ND (0.060)	ND (0.095)	ND (0.095)	ND (0.062)
Perfluorotridecanoic acid (PFTriA)	0.50 F1	0.65	6.5	0.79	ND (0.027)	ND (0.034)	ND (0.054)	0.73	0.62
Perfluoroundecanoic acid (PFUnA)	1.2	0.75	5.7	0.81	ND (0.055)	ND (0.068)	ND (0.11)	1.4	0.62

Notes:

Concentrations shown in ug/kg = micrograms per kilogram = parts per billion (ppb) unless otherwise noted

ND (#) = Not Detected above Method Detection Limit

F1 = MS and/or MSD recovery exceeds control limits.

Laboratory Analysis by Eurofins Sacramento (NY Certification No. 11666)

Table 8

Surface Water Sample Analysis Results (Outfall/Stream) - January 2023
Rockland County Fire Fighting Training Center
35 Firemen's Memorial Drive
Pomona, Rockland County, NY

Sample ID:	NYSDOH Drinking Water Maximum Contaminant Levels (MCL)	NYSDEC Ambient Water Quality Standards			Outfall #1	Outfall #2	Outfall #1 (50)	Outfall #1 (50) DUP	Outfall #1 (50) EB	Outfall #1 (100)	Outfall #1 (150)	Stream-1	Stream-2	Stream-3	Stream-4	Stream-5	Trip Blanks
Lab Sample ID:		Human Health Criteria	Aquatic Life (Fresh)		320-96145-1	320-96145-2	320-96149-4	320-96149-17	320-96149-18	320-96149-5	320-96149-6	320-96149-7	320-96149-8	320-96149-9	320-96149-10	320-96149-11	320-96149-19
Date Sampled:			Chronic	Acute	1/18/2023	1/18/2023	1/18/2023	1/18/2023	1/18/2023	1/18/2023	1/18/2023	1/18/2023	1/18/2023	1/18/2023	1/18/2023	1/18/2023	1/18/2023
Matrix:					Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
Metals Analysis (EPA 1631E) - ng/L																	
Mercury	2,000	0.7	770	1,400	**1.6**	**1.4**	~	~	~	~	~	~	~	~	~	~	~
Per- and Polyfluoroalkyl Substances (PFAS) (EPA 537M) - ng/L																	
6:2 FTS	NA	NA	NA	NA	~	~	64	58	ND (2.4)	59	51	ND (2.3)	ND (2.3)	ND (2.3)	ND (2.3)	ND (2.3)	ND (2.4)
8:2 FTS	NA	NA	NA	NA	~	~	7.5	6.3	ND (0.43)	8.6	7.9	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.42)	ND (0.43)	ND (0.44)
Perfluorobutanesulfonic acid (PFBS)	NA	NA	NA	NA	~	~	13	12	ND (0.19)	14	14	2.5	3.1	2.9	3.1	3.0	ND (0.19)
Perfluorobutanoic acid (PFBA)	NA	NA	NA	NA	~	~	40	39	ND (2.3)	40	37	ND (2.2)	ND (2.3)	ND (2.2)	ND (2.2)	ND (2.2)	ND (2.3)
Perfluorodecanoic acid (PFDA)	NA	NA	NA	NA	~	~	5.6	3.3	ND (0.29)	4.7	4.4	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.28)	ND (0.29)	ND (0.29)
Perfluoroheptanesulfonic acid (PFHpS)	NA	NA	NA	NA	~	~	5.4	4.0	ND (0.18)	4.6	4.3	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.17)	ND (0.18)	ND (0.18)
Perfluoroheptanoic acid (PFHpA)	NA	NA	NA	NA	~	~	63 F1	67	ND (0.24)	66	65	ND (0.23)	ND (0.23)	2.7	3.2	2.8	ND (0.24)
Perfluorohexanesulfonic acid (PFHxS)	NA	NA	NA	NA	~	~	120 F1	120	ND (0.54)	120	110	ND (0.53)	1.9	2.5	2.2	2.3	ND (0.54)
Perfluorohexanoic acid (PFHxA)	NA	NA	NA	NA	~	~	100 F1	90	ND (0.55)	91	96	ND (0.54)	2.0	3.0	3.5	3.5	ND (0.55)
Perfluorononanoic acid (PFNA)	NA	NA	NA	NA	~	~	79 F1	61	ND (0.25)	67	72	2.4	ND (0.25)	4.4	ND (0.25)	ND (0.25)	ND (0.26)
Perfluorooctanesulfonic acid (PFOS)	10	2.7	160,000	710,000	~	~	**210**	**170**	ND (0.51)	**210**	**210**	**5.0**	**5.2**	**27**	**5.2**	**5.2**	ND (0.51)
Perfluorooctanoic acid (PFOA)	10	6.7	NA	NA	~	~	**43**	**45**	ND (0.80)	**45**	**47**	5.6	4.9	6.7	5.9	5.8	ND (0.80)
Perfluoropentanoic acid (PFPeA)	NA	NA	NA	NA	~	~	130 F1	120	ND (0.46)	140	140	ND (0.45)	2.7	4.1	4.8	4.1	ND (0.46)
Perfluoroundecanoic acid (PFUnA)	NA	NA	NA	NA	~	~	18	14	ND (1.0)	20	18	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)

Notes:

BOLD Result exceeds NYS Ambient Water Quality Guidance Value (Human Health Criteria)

Result exceeds NYSDEC Drinking Water MCL

* = A standard is not identified for Class C; therefore, the most stringent applicable value is listed in the table

Concentrations shown in ng/L = nanogram per liter = parts per trillion (ppt)

ND (#) = Not Detected above Method Detection Limit

NA = No Standard

F1 = MS and/or MSD recovery exceeds control limits.

Mercury Laboratory Analysis by Eurofins Canton (NY Certification No. 10975)

PFAS Laboratory Analysis by Eurofins Sacramento (NY Certification No. 11666)

Table 9

Ground-Water Sample Analysis Results (Monitoring Wells) - August 2023
Rockland County Fire Fighting Training Center
35 Firemen's Memorial Drive
Pomona, Rockland County, NY

Sample ID:	NYS Ambient Water Quality Guidance Value (Human Health Criteria)	NYSDEC Drinking Water Maximum Contaminant Levels (MCL)	MW-1		MW-2		MW-3		MW-4		MW-5	MW-6	BMW-1	BMW-2	BMW-3	Trip Blank	Equipment Blank	Duplicate		Equipment Blank
Lab Sample ID:			320-103880-1		320-103880-2		320-103880-3		320-103880-4		320-103880-5	320-103880-6	320-103880-7	320-103880-8	320-103880-9	320-103880-10	320-103880-11	320-103880-12		320-103880-15
Date Sampled:			8/15/2023		8/16/2023		8/16/2023		8/16/2023		8/16/2023	8/16/2023	8/15/2023	8/15/2023	8/15/2023	8/16/2023	8/15/2023	8/15/2023		8/16/2023
Dilution Factor:			1	10	1	10	1	5	1	20	1	1	1	1	1	1	1	1	1	1
Matrix:			Ground Water		Ground Water		Ground Water		Ground Water		Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Aqueous	Aqueous	Ground Water		Aqueous
Per- and Polyfluoroalkyl Substances (PFAS) (EPA 537M) - ng/L																				
6:2 FTS	NA	NA	240	~	~	960	85	~	~	870	37	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	~	ND (2.5)
8:2 FTS	NA	NA	180	~	360	~	300	~	350	~	12	ND (0.46)	ND (0.46)	ND (0.46)	ND (0.46)	ND (0.46)	ND (0.46)	ND (0.46)	~	ND (0.46)
Perfluorobutanesulfonic acid (PFBS)	NA	NA	190	~	84	~	7.4	~	260	~	11	8.8	11	5.7	4.9	ND (0.20)	ND (0.20)	5.5	~	ND (0.20)
Perfluorobutanoic acid (PFBA)	NA	NA	250	~	270	~	36	~	290	~	32	21	6.9	25	ND (2.4)	ND (2.4)	ND (2.4)	ND (2.4)	~	ND (2.4)
Perfluorodecanoic acid (PFDA)	NA	NA	10	~	63	~	20	~	71	~	2.5	4.4	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	~	ND (0.31)
Perfluorododecanoic acid (PFDoA)	NA	NA	ND (0.55)	~	6.9	~	5.9	~	2.4	~	ND (0.55)	ND (0.55)	ND (0.55)	ND (0.55)	ND (0.55)	ND (0.55)	ND (0.55)	ND (0.55)	~	ND (0.55)
Perfluoroheptanesulfonic Acid (PFHpS)	NA	NA	19	~	32	~	ND (0.19)	~	96	~	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	~	ND (0.19)
Perfluoroheptanoic acid (PFHpA)	NA	NA	260	~	~	490	60	~	~	560	29	35	4.5	38	2.4	ND (0.25)	ND (0.25)	2.8	~	ND (0.25)
Perfluorohexanesulfonic acid (PFHxS)	NA	NA	~	630	~	860	59	~	~	3,000	49	41	ND (0.57)	14	ND (0.57)	ND (0.57)	ND (0.57)	ND (0.57)	~	ND (0.57)
Perfluorohexanoic acid (PFHxA)	NA	NA	~	660	~	850	71	~	~	920	71	49	8.6	46	5.0	ND (0.58)	ND (0.58)	5.7	~	ND (0.58)
Perfluorononanoic acid (PFNA)	NA	NA	87	~	290	~	62	~	300	~	12	180	2.0	9.6	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	~	ND (0.27)
Perfluorooctanesulfonamide (FOSA)	NA	NA	ND (0.98)	~	3.3	~	3.0	~	9.0	~	ND (0.98)	ND (0.99)	ND (0.97)	ND (0.98)	ND (0.98)	ND (0.97)	ND (0.97)	ND (0.97)	~	ND (0.97)
Perfluorooctanesulfonic acid (PFOS)	2.7	10	~	**1,600**	~	**1,600**	**81**	~	~	**3,400**	**33**	**58**	**4.8**	**10**	2.6	ND (0.54)	ND (0.54)	2.4 B	2.4 H	ND (0.54)
Perfluorooctanoic acid (PFOA)	6.7	10	**220**	~	**260**	~	**65**	~	~	**570**	**16**	**35**	**7.5**	**27**	4.2	ND (0.84)	ND (0.84)	4.4	~	ND (0.84)
Perfluoropentanoic acid (PFPeA)	NA	NA	~	1,100	~	1,400	120	~	~	1,100	120	78	11	75	6.8	ND (0.49)	ND (0.49)	7.6	~	ND (0.49)
Perfluorotridecanoic acid (PFTriA)	NA	NA	ND (1.3)	~	13	~	9.6	~	ND (1.3)	~	3.3	3.0	ND (1.3)	ND (1.3)	ND (1.3)	ND (1.3)	ND (1.3)	ND (1.3)	~	ND (1.3)
Perfluoroundecanoic acid (PFUnA)	NA	NA	9.6	~	180	~	~	390	410	~	9.5	28	ND (1.1)	ND (1.1)	ND (1.1)	ND (1.1)	ND (1.1)	ND (1.1)	~	ND (1.1)

Notes:

BOLD Result exceeds NYSDEC Ambient Water Quality Guidance Value (Human Health Criteria)

Result exceeds NYSDEC Drinking Water Maximum Contaminant Levels (MCL)

Only compounds detected at one or more sample locations above the analytical reporting limits are listed in this table

Concentrations shown in ng/L = nanogram per liter = parts per trillion (ppt)

ND (#) = Not Detected above Method Detection Limit

NA = No Standard

~ = Not Analyzed

B = Compound was found in the blank and sample.

H = Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.

Total PFAS concentrations calculated based on detected concentrations

Laboratory Analysis by Eurofins TestAmerica Laboratories, Inc. (NY Certification No. 10670)

Table 10

Historic Ground-Water Sample Analysis Results (PFAS)
Rockland County Fire Fighting Training Center
35 Firemen's Memorial Drive
Pomona, Rockland County, NY

Well Information	Sampling Date	Per- and Polyfluorinated Substances (PFAS)																		
		6:2 FTS	8:2 FTS	Perfluorobutanesulfonic acid (PFBS)	Perfluorobutanoic acid (PFBA)	Perfluorodecanoic acid (PFDA)	Perfluorododecanoic acid (PFDoA)	Perfluoroheptanesulfonic Acid (PFHpS)	Perfluoroheptanoic acid (PFHpA)	Perfluorohexanesulfonic acid (PFHxS)	Perfluorohexanoic acid (PFHxA)	Perfluorononanoic acid (PFNA)	Perfluorooctanesulfonamide (FOSA)	Perfluorooctanesulfonic acid (PFOS)	Perfluorooctanoic acid (PFOA)	Perfluoropentanoic acid (PFPeA)	Perfluorotridecanoic acid (PFTriA)	Perfluoroundecanoic acid (PFUnA)	Total PFAS
Units		ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L
NYS Ambient Water Quality Guidance Value		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.7	6.7	NA	NA	NA	NA
NYSDEC Drinking Water MCL		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10	10	NA	NA	NA	NA
MW-1	8/15/2023	240	180	190	250	10	ND (0.55)	19	260	630	660	87	ND (0.98)	**1,600**	**220**	1,100	ND (1.3)	9.6	5,465.2
Unit Monitored: Overburden																			
MW-2	3/30/2021	710	57	63	79	11	ND (2.8)	24	140	640	260	220	ND (4.9)	**1,000**	**110**	300	ND (6.5)	ND (5.5)	3,614
Unit Monitored: Overburden	8/16/2023	960	360	84	270	63	6.9	32	490	860	850	290	3.3	**1,600**	**260**	1,400	13	180	7,902.2
MW-3	3/30/2021	780	1,400	12	47	170	11	13	110	220	170	610	16	**730**	**170**	120	21	1,000	6,600
Unit Monitored: Overburden	8/16/2023	85	300	7.4	36	20	5.9	ND (0.19)	60	59	71	62	3.0	**81**	**65**	120	9.6	390	1,764.9
MW-4	3/30/2021	280	28	74	80	8.2 J	ND (2.8)	18	110	590	260	210	ND (4.9)	**870**	**110**	280	ND (6.5)	14	2,938
Unit Monitored: Overburden	8/16/2023	870	350	260	290	71	2.4	96	560	3,000	920	300	9.0	**3,400**	**570**	1,100	ND (1.3)	410	12,618.4
MW-5	3/30/2021	ND (13)	ND (2.3)	6.7 J	21 J	ND (1.6) F1	ND (2.8)	ND (0.95)	4.0 J	14	36	3.2 J	ND (4.9)	**8.2 J**	ND (4.3)	66	ND (6.5)	ND (5.5)	116
Unit Monitored: Overburden	8/16/2023	37	12	11	32	2.5	ND (0.55)	ND (0.19)	29	49	71	12	ND (0.98)	**33**	**16**	120	3.3	9.5	446.8
MW-6	3/30/2021	ND (13)	ND (2.3)	6.2 J	19 J	3.8 J	ND (2.8)	1.4 J	22	21	42	74	ND (4.9)	**33**	**35**	50	7.1 J	40	357
Unit Monitored: Overburden	8/16/2023	ND (2.5)	ND (0.46)	8.8	21	4.4	ND (0.55)	ND (0.19)	35	41	49	180	ND (0.99)	**58**	**35**	78	3.0	28	569.2
BMW-1	8/15/2023	ND (2.5)	ND (0.46)	11	6.9	ND (0.31)	ND (0.55)	ND (0.19)	4.5	ND (0.57)	8.6	2.0	ND (0.97)	**4.8**	**7.5**	11	ND (1.3)	ND (1.1)	56.3
Unit Monitored: Bedrock																			
BMW-2	8/15/2023	ND (2.5)	ND (0.46)	5.7	25	ND (0.31)	ND (0.55)	ND (0.19)	38	14	46	9.6	ND (0.98)	**10**	**27**	75	ND (1.3)	ND (1.1)	250.3
Unit Monitored: Bedrock																			
BMW-3	8/15/2023	ND (2.5)	ND (0.46)	4.9	ND (2.4)	ND (0.31)	ND (0.55)	ND (0.19)	2.4	ND (0.57)	5.0	ND (0.27)	ND (0.98)	2.6	4.2	6.8	ND (1.3)	ND (1.1)	25.9
Unit Monitored: Bedrock																			

Notes:

BOLD Result exceeds NYSDEC Ambient Water Quality Guidance Value (Human Health Criteria)

Result exceeds NYSDEC Drinking Water Maximum Contaminant Levels (MCL)

ND (#) = Not Detected above Reporting Limit (RL) and/or Method Detection Limit (MDL)

J = Indicates estimated value for TICs and all results when detected below the RL

Overburden (Unconfined)

Bedrock (Confined)

Laboratories, Inc. (NY Certification No. 10670)

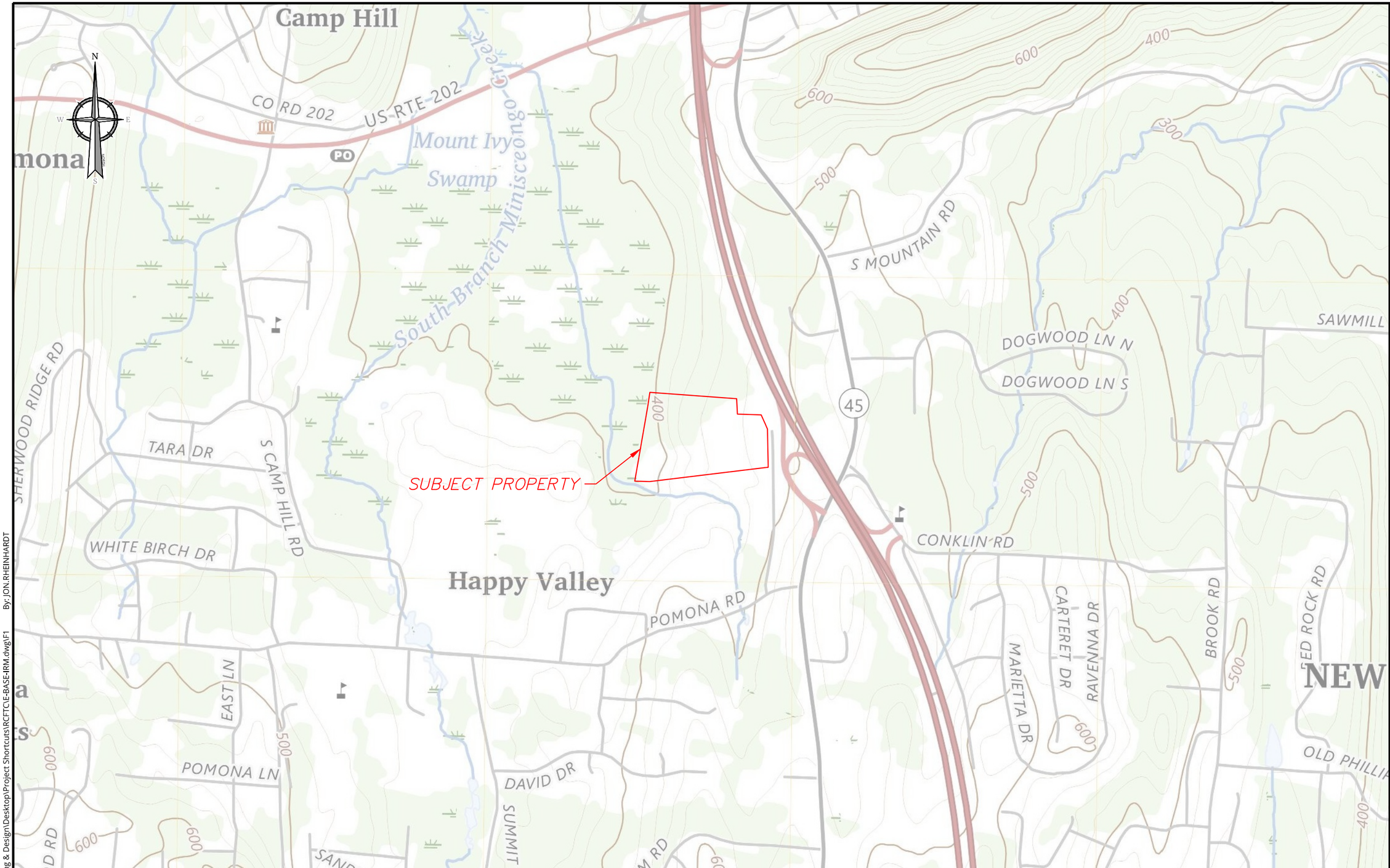
Table 11

Well Construction and Groundwater Gauging Data
Rockland County Fire Fighting Training Center
35 Firemen's Memorial Drive
Pomona, Rockland County, NY

												Date:	January-21			March-21			August-23				October-23		
Well ID	Installation Date (M/D/Y)	Easting (X)	Northing (Y)	Diameter (Inch)	Screen Slot Size (Inch)	Screen Interval (Feet BGS)	Depth to Screen (Feet BGS)	Well Depth (Feet BGS)	Appx. Surface Elevation (Feet AMSL)	TOC Elevation (Feet AMSL)	Top of Screen Elevation (Feet AMSL)	Bottom of Screen Elevation (Feet AMSL)	PID Reading (PPM)	Depth to Water (Feet BTOC)	Groundwater Elevation (Feet AMSL)	PID Reading (PPM)	Depth to Water (Feet BTOC)	Groundwater Elevation (Feet AMSL)	PID Reading (PPM)	Depth to Water (Feet BTOC)	Depth to Bottom (Feet BTOC)	Groundwater Elevation (Feet AMSL)	PID Reading (PPM)	Depth to Water (Feet BTOC)	Groundwater Elevation (Feet AMSL)
MW-1*	1/15/2021	618962.52	852494.53	2	0.01	5 - 20	5	20	411.41	410.94	405.94	390.94	0.0	3.72	407.22	NA *	NA *	NA *	NA *	NA *	NA *	NA *	NA *	NA *	NA *
MW-2	1/15/2021	618867.87	852566.66	2	0.01	5 - 20	5	20	408.85	408.57	403.57	388.57	0.0	2.57	406.00	0.0	2.32	406.25	0.0	2.40	19.78	406.17	0.0	3.30	405.27
MW-3	1/15/2021	618779.79	852492.44	2	0.01	5 - 20	5	20	407.86	407.41	402.41	387.41	0.0	1.33	406.08	0.0	0.32	407.09	0.0	1.22	16.30	406.19	0.0	0.25	407.16
MW-4	1/15/2021	618779.64	852708.37	2	0.01	5 - 20	5	20	406.64	406.35	401.35	386.35	0.0	4.63	401.72	0.0	4.42	401.93	0.0	3.26	17.04	403.09	0.0	3.2	403.15
MW-5	1/15/2021	618691.18	852657.32	2	0.01	5 - 20	5	20	405.14	404.70	399.70	384.70	0.0	3.64	401.06	0.0	3.44	401.26	0.0	3.35	16.70	401.35	0.0	3.31	401.39
MW-6	1/15/2021	618663.47	852525.05	2	0.01	5 - 20	5	20	406.33	405.89	400.89	385.89	0.0	2.50	403.39	0.0	2.01	403.88	0.0	2.40	17.65	403.49	0.0	0.30	405.59
MW-1R	1/23/2023	618975.29	852497.54	2	0.01	5 - 15	5	15	411.75	414.28	409.28	399.28	NA	NA	NA	NA	NA	NA	0.0	6.81	14.30	407.47	0.0	6.54	407.74
BMW-1	1/26/2023	618964.00	852424.91	2	0.01	55 -65	55	65	410.12	412.69	357.69	347.69	NA	NA	NA	NA	NA	NA	0.0	1.88	61.28	410.81	0.0	0.71	411.98
BMW-2	1/30/2023	618839.48	852694.80	2	0.01	45 - 55	45	55	408.15	409.83	364.83	354.83	NA	NA	NA	NA	NA	NA	0.0	+1.90	51.73	411.73	0.0	+0.21	410.04
BMW-3	2/1/2023	618702.80	852649.76	2	0.01	95 - 105	95	105	405.04	407.70	312.70	302.70	NA	NA	NA	NA	NA	NA	0.0	+4.15	94.38	411.85	0.0	+0.70	408.40

Notes:
AMSL = Above Mean Sea Level
BGS = Below grade surface
BTOC = Below top of casing
PID = Photoionization detector
PPM = Parts per million
NA = Not Applicable
* MW-1 was destroyed during building demolition

FIGURES



LEGEND

SUBJECT SITE EXTENT (APPROX.)

BASE MAP SOURCE: USGS THIELLS, NY TOPOGRAPHIC MAP, DATED 2023

1000 0 1000

SCALE : 1" = 1000'

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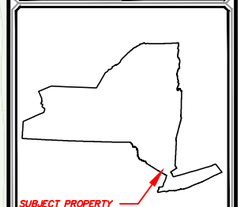
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INTERIM REMEDIAL MEASURES PLAN FOR 35 FIREMAN'S MEMORIAL DRIVE

S/B/L 33.14-1-1

VILLAGE OF POMONA, ROCKLAND COUNTY, NY

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PROJECT NUMBER: 19000442G1

DRAWING NAME: E-BASE-IRM

SHEET TITLE: SITE LOCATION TOPOGRAPHIC MAP

FIELD BOOK: XX PAGE: XX

SHEET NUMBER: FIGURE 1

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BASE MAP SOURCE: (C) 2023 MICROSOFT CORPORATION (C) MAXAR (C) CNES (2023) DISTRIBUTION AIRBUS DS

LEGEND

SUBJECT SITE EXTENT (APPROX.)

150 0 150

SCALE : 1" = 150'

By: JON.RHEINHARDT
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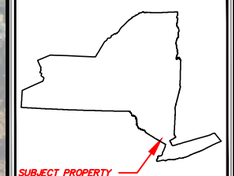
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INTERIM REMEDIAL MEASURES PLAN FOR 35 FIREMAN'S MEMORIAL DRIVE

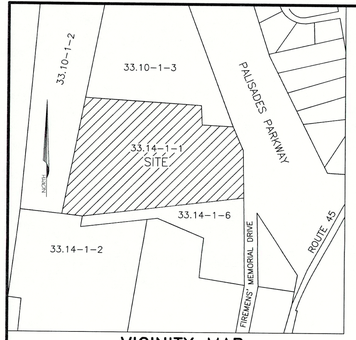
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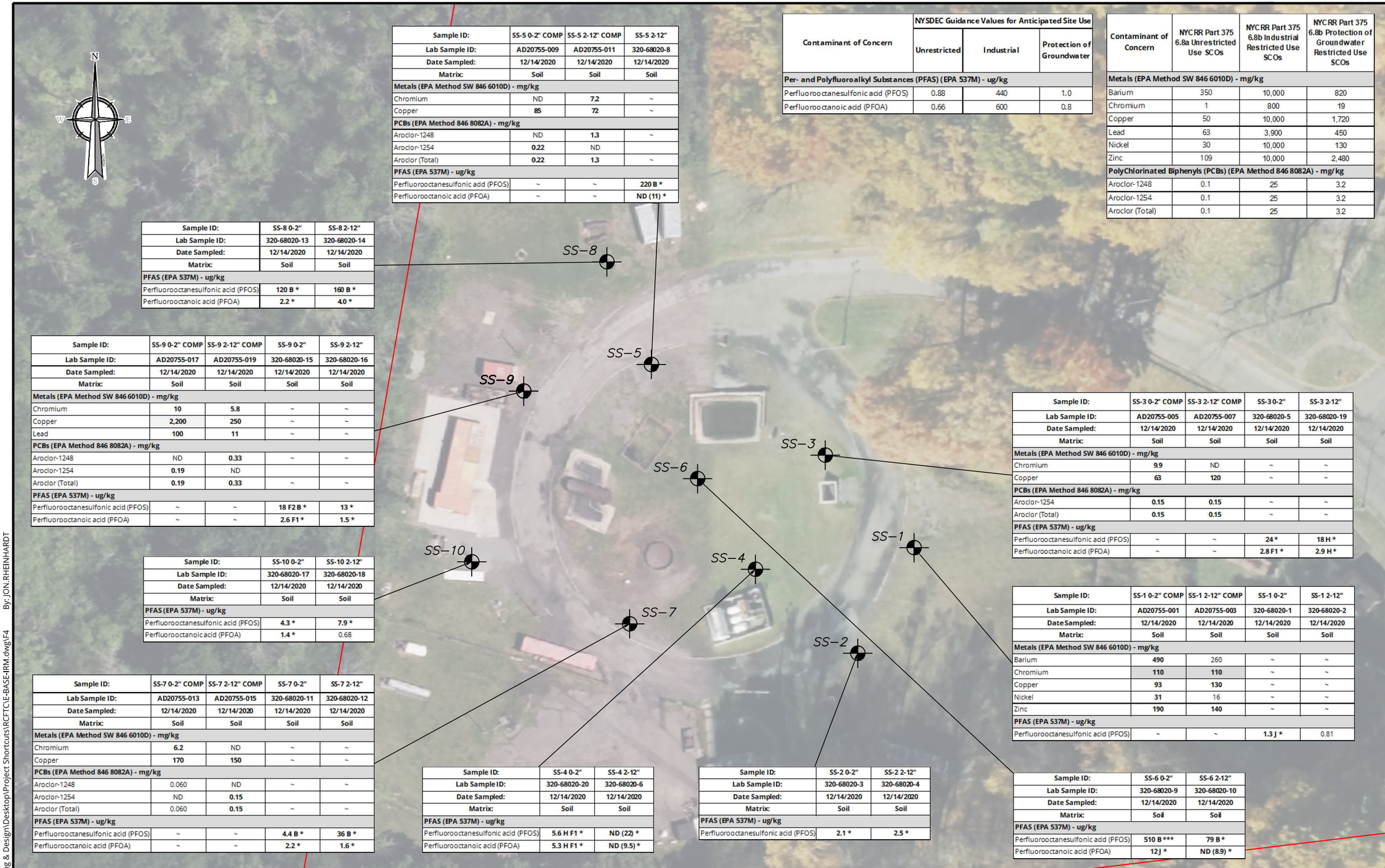
PROJECT NUMBER: 19000442G1
DRAWING NAME: E-BASE-IRM
SHEET TITLE: SITE LOCATION AERIAL PHOTOGRAPHY
FIELD BOOK: XX
PAGE: XX
SHEET NUMBER: FIGURE 2



VICINITY MAP

SCALE: 1"=500'

LEGEND
SUBJECT PARCEL BOUNDARY
ADJACENT PARCEL BOUNDARY
CURBLINES
EDGE OF CONCRETE / SIDEWALK
EDGE OF ASPHALT
PAVEMENT STRIPING
FENCELINES
STORM LINES
SANITARY LINES
OVERHEAD WIRES
MINOR CONTOURS
MAJOR CONTOURS
MINOR CONTOURS
RECORD ELECTRICAL LINE
RECORD GAS LINE
RECORD WATER LINE
RECORD FORCE MAIN
TREELINE / WOODS
STONEWALL
CONCRETE WALL
MAJOR CONTOURS
MINOR CONTOURS
BUILDING OVERHANGS
BUILDING OUTLINES
BOLLARD / POST
LIGHT POLE
STORM MANHOLE
CATCH BASIN
FIELD INLET
SANITARY MANHOLE
CLEAN OUT
UTILITY POLE
WATER VALVE
HYDRANT
HANDICAPPED PARKING SPACE
LANDS N/F COUNTY OF ROCKLAND L.837 P.953 TAX ID# 33.10-1-3
LANDS N/F COUNTY OF ROCKLAND L.832 P.239 TAX ID# 33.14-1-1 AREA=1,079,582.5± SQ.FT / 24.8± ACRES
LANDS N/F COUNTY OF ROCKLAND L.837 P.868 TAX ID# 33.10-1-2
AS PER L.832 P.239
S73°52'50"E 553.76'
924.00'
S15°07'10"W
181.70'
S74°07'50"E 9.2'
261.49'
S17°39'10"E
207.00'
S15°14'52"W
372.10'
FIREMEN'S MEMORIAL DRIVE (ASPHALT SURFACE)
1294.46'
199.8'
172.2'
N22°52'12"E
N74°43'30"W 164.34'
N83°53'35"W
LANDS N/F THE RAMAPO LOCAL DEVELOPMENT CORPORATION INST# 2011-00000986 TAX ID# 33.14-1-2
LANDS N/F THE RAMAPO LOCAL DEVELOPMENT CORPORATION INST# 2011-00000986 TAX ID# 33.14-1-6
IRON PIPES FOUND(2)
REBAR FOUND
REBAR FOUND
WOODS
ASPHALT DRIVE
ASPHALT PARKWAY
ASPHALT PAVEMENT
ASPHALT LOT
ASPHALT PARKING LOT
CONCRETE WALK
CONCRETE CURB
CONCRETE CURB GATE
CONCRETE WALK GATE
CONCRETE PAD (WOOD SHED)
CONCRETE PAD W/TRANSFORMER
CONCRETE PAD W/STORAGE TANK
CONCRETE PADS
CONCRETE AREA
CONCRETE FOUNDATION
CONCRETE STEPS
CONCRETE RAMP
CONCRETE PAD W/STAIRS
CONCRETE PAD W/SHED
CONCRETE PAD W/STAIRS
CONCRETE PAD W/SHED
CHAIN LINK FENCE
6' CHAIN LINK FENCE
8' CHAIN LINK FENCE
6' HIGH CHAINLINK FENCE
CHAIN LINK FENCE GATE
CHAIN LINK GATE
CONC. PAD W/BLOCK SHELTER
CONC. PAD W/(2)GT
CONC. PAD W/STANDPIPE
CONC. PAD W/SHED
CONC. PAD W/STORAGE TANK
CONC. PAD W/TRANSFORMER
CONC. PAD W/STAIRS
CONC. PAD W/SHED
CONC. PAD W/STORAGE TANK
CONC. PAD
CONC. PADS
CONC. PAD W/STAIRS



Sample ID:	SS-5 0-2" COMP	SS-5 2-12" COMP	SS-5 2-12"
Lab Sample ID:	AD20755-009	AD20755-011	320-68020-8
Date Sampled:	12/14/2020	12/14/2020	12/14/2020
Matrix:	Soil	Soil	Soil
Metals (EPA Method SW 846 6010D) - mg/kg			
Chromium	ND	**7.2**	~
Copper	**85**	**72**	~
PCBs (EPA Method 846 8082A) - mg/kg			
Aroclor-1248	ND	**1.3**	~
Aroclor-1254	**0.22**	ND	
Aroclor (Total)	**0.22**	**1.3**	~
PFAS (EPA 537M) - ug/kg			
Perfluorooctanesulfonic add (PFOS)	~	~	**220 B ***
Perfluorooctanoic acid (PFOA)	~	~	**ND (11) ***

Sample ID:	SS-8 0-2"	SS-8 2-12"
Lab Sample ID:	320-68020-13	320-68020-14
Date Sampled:	12/14/2020	12/14/2020
Matrix:	Soil	Soil
PFAS (EPA 537M) - ug/kg		
Perfluorooctanesulfonic acid (PFOS)	**120 B ***	**160 B ***
Perfluorooctanoic acid (PFOA)	**2.2 ***	**4.0 ***

Sample ID:	SS-9 0-2" COMP	SS-9 2-12" COMP	SS-9 0-2"	SS-9 2-12"
Lab Sample ID:	AD20755-017	AD20755-019	320-68020-15	320-68020-16
Date Sampled:	12/14/2020	12/14/2020	12/14/2020	12/14/2020
Matrix:	Soil	Soil	Soil	Soil
Metals (EPA Method SW 846 6010D) - mg/kg				
Chromium	**10**	**5.8**	~	~
Copper	**2,200**	**250**	~	~
Lead	**100**	**11**	~	~
PCBs (EPA Method 846 8082A) - mg/kg				
Aroclor-1248	ND	**0.33**	~	~
Aroclor-1254	**0.19**	ND		
Aroclor (Total)	**0.19**	**0.33**	~	~
PFAS (EPA 537M) - ug/kg				
Perfluorooctanesulfonic acid (PFOS)	~	~	**18 F2 B ***	**13 ***
Perfluorooctanoic acid (PFOA)	~	~	**2.6 F1 ***	**1.5 ***

Sample ID:	SS-10 0-2"	SS-10 2-12"
Lab Sample ID:	320-68020-17	320-68020-18
Date Sampled:	12/14/2020	12/14/2020
Matrix:	Soil	Soil
PFAS (EPA 537M) - ug/kg		
Perfluorooctanesulfonic acid (PFOS)	**4.3 ***	**7.9 ***
Perfluorooctanoic acid (PFOA)	**1.4 ***	0.68

Sample ID:	SS-7 0-2" COMP	SS-7 2-12" COMP	SS-7 0-2"	SS-7 2-12"
Lab Sample ID:	AD20755-013	AD20755-015	320-68020-11	320-68020-12
Date Sampled:	12/14/2020	12/14/2020	12/14/2020	12/14/2020
Matrix:	Soil	Soil	Soil	Soil
Metals (EPA Method SW 846 6010D) - mg/kg				
Chromium	**6.2**	ND	~	~
Copper	**170**	**150**	~	~
PCBs (EPA Method 846 8082A) - mg/kg				
Aroclor-1248	0.060	ND	~	~
Aroclor-1254	ND	**0.15**		
Aroclor (Total)	0.060	**0.15**	~	~
PFAS (EPA 537M) - ug/kg				
Perfluorooctanesulfonic acid (PFOS)	~	~	**4.4 B ***	**36 B ***
Perfluorooctanoic acid (PFOA)	~	~	**2.2 ***	**1.6 ***

Sample ID:	SS-4 0-2"	SS-4 2-12"
Lab Sample ID:	320-68020-20	320-68020-6
Date Sampled:	12/14/2020	12/14/2020
Matrix:	Soil	Soil
PFAS (EPA 537M) - ug/kg		
Perfluorooctanesulfonic acid (PFOS)	**5.6 H F1 ***	**ND (22) ***
Perfluorooctanoic acid (PFOA)	**5.3 H F1 ***	**ND (9.5) ***

Sample ID:	SS-2 0-2"	SS-2 2-12"
Lab Sample ID:	320-68020-3	320-68020-4
Date Sampled:	12/14/2020	12/14/2020
Matrix:	Soil	Soil
PFAS (EPA 537M) - ug/kg		
Perfluorooctanesulfonic acid (PFOS)	**2.1 ***	**2.5 ***

Contaminant of Concern	NYSDEC Guidance Values for Anticipated Site Use		
	Unrestricted	Industrial	Protection of Groundwater
Per- and Polyfluoroalkyl Substances (PFAS) (EPA 537M) - ug/kg			
Perfluorooctanesulfonic acid (PFOS)	0.88	440	1.0
Perfluorooctanoic acid (PFOA)	0.66	600	0.8

Contaminant of Concern	NYCRR Part 375 6.8a Unrestricted Use SCOs	NYCRR Part 375 6.8b Industrial Restricted Use SCOs	NYCRR Part 375 6.8b Protection of Groundwater Restricted Use SCOs
Metals (EPA Method SW 846 6010D) - mg/kg			
Barium	350	10,000	820
Chromium	1	800	19
Copper	50	10,000	1,720
Lead	63	3,900	450
Nickel	30	10,000	130
Zinc	109	10,000	2,480
PolyChlorinated Biphenyls (PCBs) (EPA Method 846 8082A) - mg/kg			
Aroclor-1248	0.1	25	3.2
Aroclor-1254	0.1	25	3.2
Aroclor (Total)	0.1	25	3.2

Sample ID:	SS-3 0-2" COMP	SS-3 2-12" COMP	SS-3 0-2"	SS-3 2-12"
Lab Sample ID:	AD20755-005	AD20755-007	320-68020-5	320-68020-19
Date Sampled:	12/14/2020	12/14/2020	12/14/2020	12/14/2020
Matrix:	Soil	Soil	Soil	Soil
Metals (EPA Method SW 846 6010D) - mg/kg				
Chromium	**9.9**	ND	~	~
Copper	**63**	**120**	~	~
PCBs (EPA Method 846 8082A) - mg/kg				
Aroclor-1254	**0.15**	**0.15**	~	~
Aroclor (Total)	**0.15**	**0.15**	~	~
PFAS (EPA 537M) - ug/kg				
Perfluorooctanesulfonic acid (PFOS)	~	~	**24 ***	**18 H ***
Perfluorooctanoic acid (PFOA)	~	~	**2.8 F1 ***	**2.9 H ***

Sample ID:	SS-1 0-2" COMP	SS-1 2-12" COMP	SS-1 0-2"	SS-1 2-12"
Lab Sample ID:	AD20755-001	AD20755-003	320-68020-1	320-68020-2
Date Sampled:	12/14/2020	12/14/2020	12/14/2020	12/14/2020
Matrix:	Soil	Soil	Soil	Soil
Metals (EPA Method SW 846 6010D) - mg/kg				
Barium	**490**	260	~	~
Chromium	**110**	**110**	~	~
Copper	**93**	**130**	~	~
Nickel	**31**	16	~	~
Zinc	**190**	**140**	~	~
PFAS (EPA 537M) - ug/kg				
Perfluorooctanesulfonic acid (PFOS)	~	~	**1.3 J ***	0.81

Sample ID:	SS-6 0-2"	SS-6 2-12"
Lab Sample ID:	320-68020-9	320-68020-10
Date Sampled:	12/14/2020	12/14/2020
Matrix:	Soil	Soil
PFAS (EPA 537M) - ug/kg		
Perfluorooctanesulfonic add (PFOS)	**510 B *****	**79 B ***
Perfluorooctanoic acid (PFOA)	**12 J ***	**ND (8.9) ***

LEGEND

SUBJECT SITE EXTENT (APPROX.)

SS–1 SURFACE SOIL SAMPLE LOCATION

Notes:

BOLD Result exceeds NYCRR Part 375 6.8a Unrestricted Use Soil Cleanup Objectives (SCOs)

* Result exceeds NYCRR Part 375 6.8b Protection of Groundwater Restricted Use SCOs

*** Result exceeds NYCRR Part 375 6.8b Industrial Restricted Use SCOs

~ = Not Analyzed

J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

F1 : MS and/or MSD recovery exceeds control limits.

H : Sample was prepped or analyzed beyond the specified holding time

B : Compound was found in the blank and sample.

BASE MAP SOURCE: (C) 2023 MICROSOFT CORPORATION (C) MAXAR (C) CNES (2023) DISTRIBUTION AIRBUS DS

50 0 50

SCALE : 1" = 50'

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INTERIM REMEDIAL MEASURES PLAN FOR 35 FIREMAN'S MEMORIAL DRIVE

S/B/L 33.14-1-1

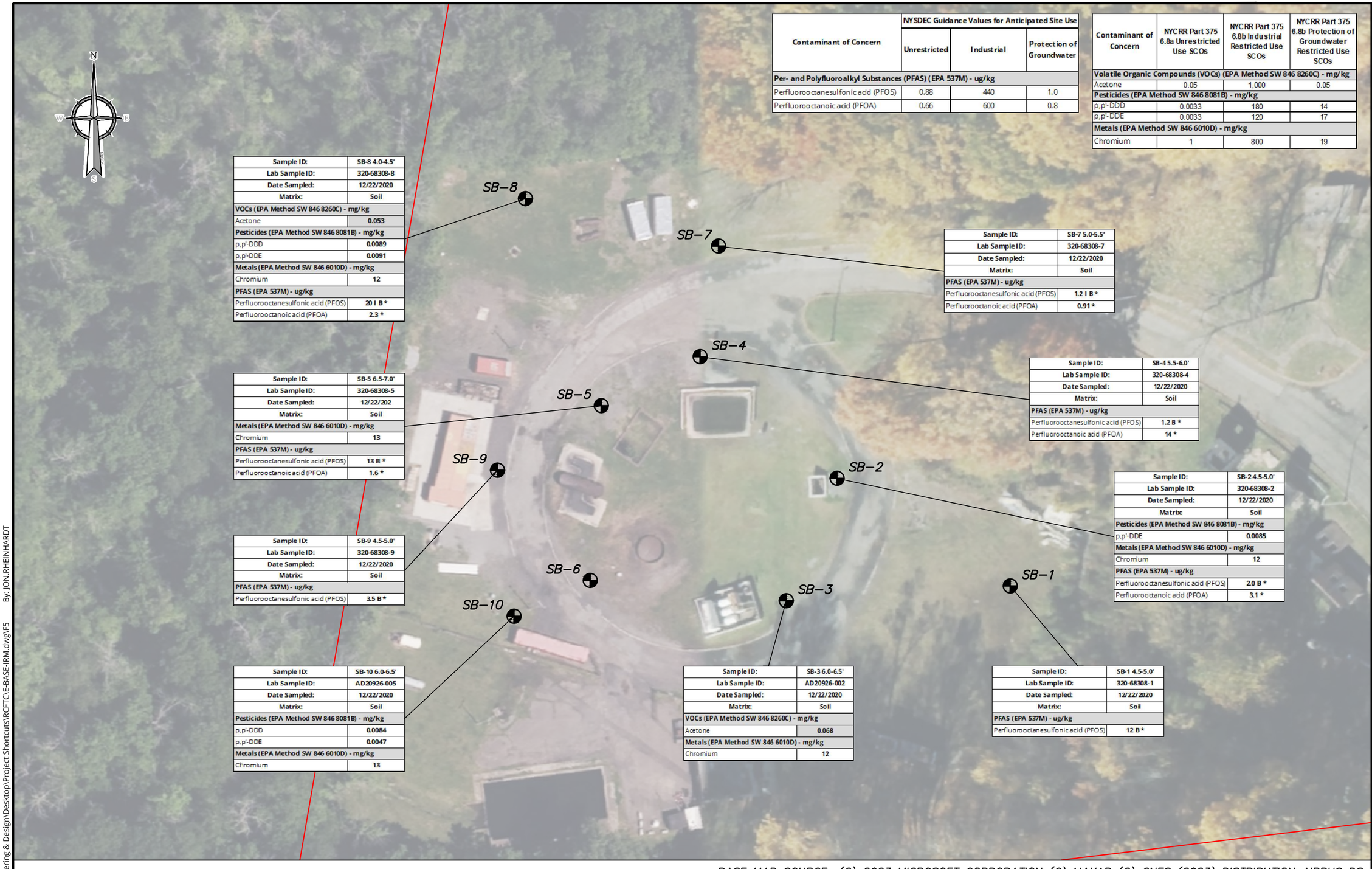
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PROJECT NUMBER: 19000442G1
DRAWING NAME: E-BASE-IRM
SHEET TITLE: SURFACE SOIL SAMPLE EXCEEDANCE MAP
FIELD BOOK: XX PAGE: XX
SHEET NUMBER: FIGURE 4

By: JON.RHEINHARDT
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Contaminant of Concern	NYSDEC Guidance Values for Anticipated Site Use		
	Unrestricted	Industrial	Protection of Groundwater
Per- and Polyfluoroalkyl Substances (PFAS) (EPA 537M) - ug/kg			
Perfluorooctanesulfonic acid (PFOS)	0.88	440	1.0
Perfluorooctanoic acid (PFOA)	0.66	600	0.8

Contaminant of Concern	NYCRR Part 375 6.8a Unrestricted Use SCOs	NYCRR Part 375 6.8b Industrial Restricted Use SCOs	NYCRR Part 375 6.8b Protection of Groundwater Restricted Use SCOs
Volatile Organic Compounds (VOCs) (EPA Method SW 846 8260C) - mg/kg			
Acetone	0.05	1,000	0.05
Pesticides (EPA Method SW 846 8081B) - mg/kg			
p,p'-DDD	0.0033	180	14
p,p'-DDE	0.0033	120	17
Metals (EPA Method SW 846 6010D) - mg/kg			
Chromium	1	800	19

Sample ID:	SB-8 4.0-4.5'
Lab Sample ID:	320-68308-8
Date Sampled:	12/22/2020
Matrix:	Soil
VOCs (EPA Method SW 846 8260C) - mg/kg	
Acetone	0.053
Pesticides (EPA Method SW 846 8081B) - mg/kg	
p,p'-DDD	0.0089
p,p'-DDE	0.0091
Metals (EPA Method SW 846 6010D) - mg/kg	
Chromium	12
PFAS (EPA 537M) - ug/kg	
Perfluorooctanesulfonic acid (PFOS)	20 I B *
Perfluorooctanoic acid (PFOA)	2.3 *

Sample ID:	SB-7 5.0-5.5'
Lab Sample ID:	320-68308-7
Date Sampled:	12/22/2020
Matrix:	Soil
PFAS (EPA 537M) - ug/kg	
Perfluorooctanesulfonic acid (PFOS)	1.2 I B *
Perfluorooctanoic acid (PFOA)	0.91 *

Sample ID:	SB-5 6.5-7.0'
Lab Sample ID:	320-68308-5
Date Sampled:	12/22/202
Matrix:	Soil
Metals (EPA Method SW 846 6010D) - mg/kg	
Chromium	13
PFAS (EPA 537M) - ug/kg	
Perfluorooctanesulfonic acid (PFOS)	13 B *
Perfluorooctanoic acid (PFOA)	1.6 *

Sample ID:	SB-4 5.5-6.0'
Lab Sample ID:	320-68308-4
Date Sampled:	12/22/2020
Matrix:	Soil
PFAS (EPA 537M) - ug/kg	
Perfluorooctanesulfonic acid (PFOS)	1.2 B *
Perfluorooctanoic acid (PFOA)	14 *

Sample ID:	SB-2 4.5-5.0'
Lab Sample ID:	320-68308-2
Date Sampled:	12/22/2020
Matrix:	Soil
Pesticides (EPA Method SW 846 8081B) - mg/kg	
p,p'-DDE	0.0085
Metals (EPA Method SW 846 6010D) - mg/kg	
Chromium	12
PFAS (EPA 537M) - ug/kg	
Perfluorooctanesulfonic acid (PFOS)	2.0 B *
Perfluorooctanoic acid (PFOA)	3.1 *

Sample ID:	SB-9 4.5-5.0'
Lab Sample ID:	320-68308-9
Date Sampled:	12/22/2020
Matrix:	Soil
PFAS (EPA 537M) - ug/kg	
Perfluorooctanesulfonic acid (PFOS)	3.5 B *

Sample ID:	SB-10 6.0-6.5'
Lab Sample ID:	AD20926-005
Date Sampled:	12/22/2020
Matrix:	Soil
Pesticides (EPA Method SW 846 8081B) - mg/kg	
p,p'-DDD	0.0084
p,p'-DDE	0.0047
Metals (EPA Method SW 846 6010D) - mg/kg	
Chromium	13

Sample ID:	SB-3 6.0-6.5'
Lab Sample ID:	AD20926-002
Date Sampled:	12/22/2020
Matrix:	Soil
VOCs (EPA Method SW 846 8260C) - mg/kg	
Acetone	0.068
Metals (EPA Method SW 846 6010D) - mg/kg	
Chromium	12

Sample ID:	SB-1 4.5-5.0'
Lab Sample ID:	320-68308-1
Date Sampled:	12/22/2020
Matrix:	Soil
PFAS (EPA 537M) - ug/kg	
Perfluorooctanesulfonic acid (PFOS)	12 B *

LEGEND

SUBJECT SITE EXTENT (APPROX.)

SS–1 SOIL BORING LOCATION

Notes:

BOLD Result exceeds NYCRR Part 375 6.8a Unrestricted Use Soil Cleanup Objectives (SCOs)

* Result exceeds NYCRR Part 375 6.8b Protection of Groundwater Restricted Use SCOs

*** Result exceeds NYCRR Part 375 6.8b Industrial Restricted Use SCOs

– = Not Analyzed

J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

I = Value is EMPC (estimated maximum possible concentration).

B : Compound was found in the blank and sample.

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50 0 50

SCALE : 1" = 50'

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FIELD BOOK: XX
PAGE: XX
SHEET NUMBER: FIGURE 5

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Contaminant of Concern	NYSDEC Guidance Values for Anticipated Site Use		
	Unrestricted	Industrial	Protection of Groundwater
Per- and Polyfluoroalkyl Substances (PFAS) (EPA 537M) - ug/kg			
Perfluorooctanesulfonic acid (PFOS)	0.88	440	1.0
Perfluorooctanoic acid (PFOA)	0.66	600	0.8

Contaminant of Concern	NYCRR Part 375 6.8a Unrestricted Use SCOs	NYCRR Part 375 6.8b Industrial Restricted Use SCOs	NYCRR Part 375 6.8b Protection of Groundwater Restricted Use SCOs
Pesticides (EPA Method SW 846 8081B) - mg/kg			
p,p'-DDE	0.0033	120	17
Metals (EPA Method SW 846 6010D) - mg/kg			
Chromium	1	1	400
Copper	50	10,000	1,720
Zinc	109	10,000	2,480

Sample ID:	AOC#3 Haz Waste Recycle
Lab Sample ID:	320-69540-3
Date Sampled:	1/29/2020
Matrix:	Soil
Pesticides (EPA Method SW 846 8081B) - mg/kg	
p,p'-DDE	**0.012**
Metals (EPA Method SW 846 6010D) - mg/kg	
Chromium	**12**
PFAS (EPA 537M) - ug/kg	
Perfluorooctanesulfonic acid (PFOS)	**ND (4.6) ***
Perfluorooctanoic acid (PFOA)	**ND (2.0) ***

AOC #3 HAZ WASTE RECYCLE

AOC #4 VEHICLE EXTRACTION

Sample ID:	AOC#4 Vehicle Extraction
Lab Sample ID:	320-69540-4
Date Sampled:	1/29/2020
Matrix:	Soil
Metals (EPA Method SW 846 6010D) - mg/kg	
Chromium	**18**
Zinc	**230**
PFAS (EPA 537M) - ug/kg	
Perfluorooctanesulfonic acid (PFOS)	**ND (3.8) ***
Perfluorooctanoic acid (PFOA)	**ND (1.6) ***

Sample ID:	AOC#5 Burn Building Composite Native
Lab Sample ID:	320-69540-7
Date Sampled:	1/29/2020
Matrix:	Soil
Metals (EPA Method SW 846 6010D) - mg/kg	
Chromium	**7.9**
Copper	**130**
Zinc	**110**
PFAS (EPA 537M) - ug/kg	
Perfluorooctanesulfonic acid (PFOS)	**3.2 ***

Sample ID:	AOC#5 Burn Building Composite Fill
Lab Sample ID:	320-69540-8
Date Sampled:	1/29/2020
Matrix:	Soil
Metals (EPA Method SW 846 6010D) - mg/kg	
Copper	**7.1**
Zinc	**86**
PFAS (EPA 537M) - ug/kg	
Perfluorooctanesulfonic acid (PFOS)	**4.3 ***
Perfluorooctanoic acid (PFOA)	**0.87 ***

AOC #5 BURN BUILDING COMPOSITE NATIVE

AOC #5 BURN BUILDING COMPOSITE WEST

AOC #5 BURN BUILDING COMPOSITE EAST

AOC #5 BURN BUILDING COMPOSITE FILL

Sample ID:	AOC#5 Burn Building Composite East
Lab Sample ID:	320-69540-7
Date Sampled:	1/29/2020
Matrix:	Soil
Metals (EPA Method SW 846 6010D) - mg/kg	
Chromium	**7.6**
Copper	**59**

Sample ID:	AOC#5 Burn Building Composite West
Lab Sample ID:	AD21585-006
Date Sampled:	1/29/2020
Matrix:	Soil
Metals (EPA Method SW 846 6010D) - mg/kg	
Chromium	**8.2**
Copper	**130**
Zinc	**110**

Sample ID:	AOC#2 Generator
Lab Sample ID:	320-69540-2
Date Sampled:	1/29/2020
Matrix:	Soil
Metals (EPA Method SW 846 6010D) - mg/kg	
Chromium	**15**
Zinc	**150**
PFAS (EPA 537M) - ug/kg	
Perfluorooctanesulfonic acid (PFOS)	**0.97**

AOC #2 GENERATOR

Sample ID:	AOC#1 Transformer Pad
Lab Sample ID:	320-69540-1
Date Sampled:	1/29/2020
Matrix:	Soil
Metals (EPA Method SW 846 6010D) - mg/kg	
Chromium	**14**
PFAS (EPA 537M) - ug/kg	
Perfluorooctanesulfonic acid (PFOS)	**17 ***

AOC #1 TRANSFORMER PAD

LEGEND

SUBJECT SITE EXTENT (APPROX.)

SS-1 SOIL BORING LOCATION

Notes:

BOLD Result exceeds NYCRR Part 375 6.8a Unrestricted Use Soil Cleanup Objectives (SCOs)

* Result exceeds NYCRR Part 375 6.8b Protection of Groundwater Restricted Use SCOs

*** Result exceeds NYCRR Part 375 6.8b Industrial Restricted Use SCOs

ND (#) = Not Detected above Method Detection Limit

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SCALE : 1" = 80'

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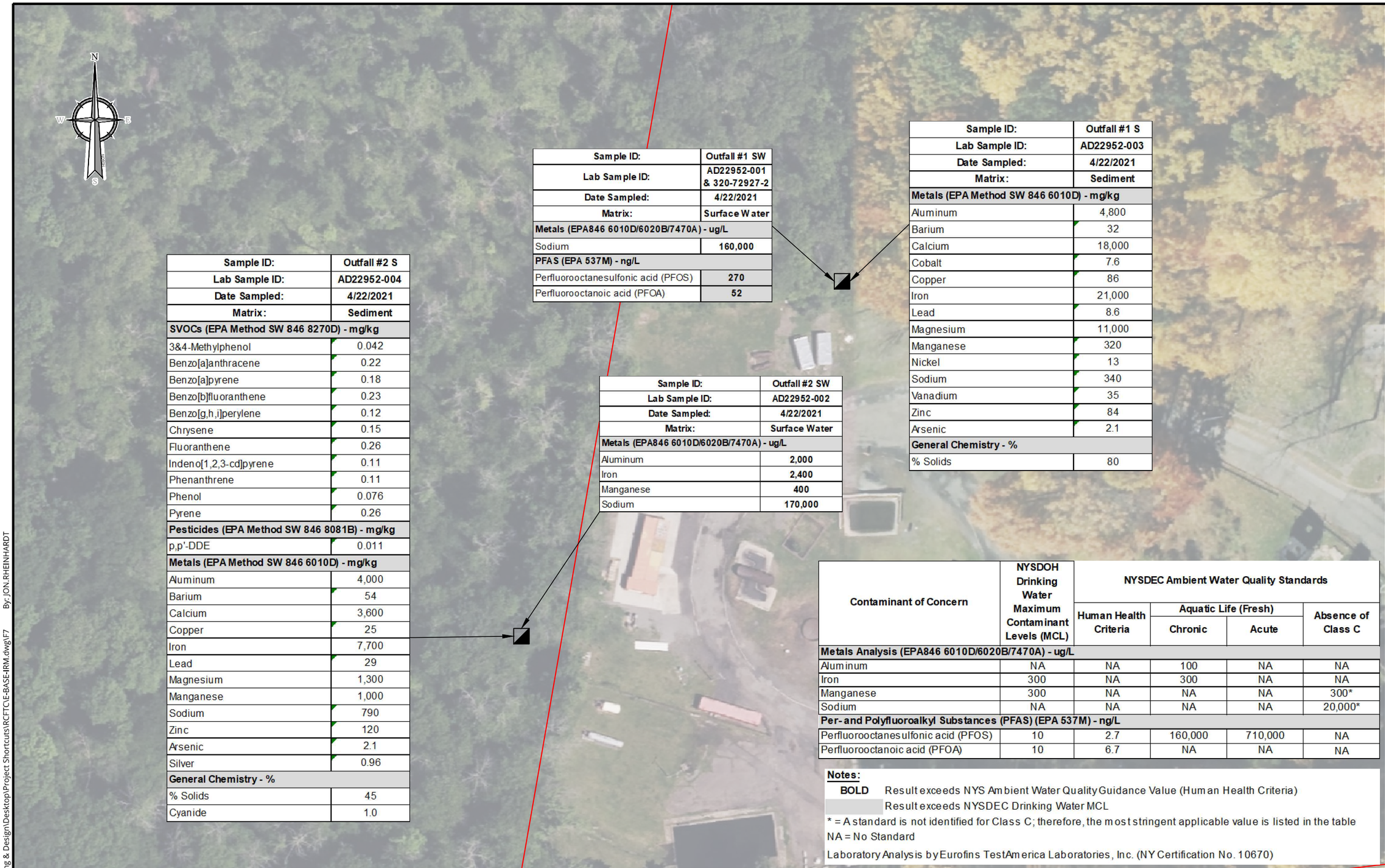
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PROJECT NUMBER: 19000442G1
DRAWING NAME: E-BASE-IRM
SHEET TITLE: AOC SOIL BORING SAMPLE EXCEEDANCE MAP
FIELD BOOK: XX PAGE: XX
SHEET NUMBER: FIGURE 6

By: JON.RHEINHARDT
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Sample ID:	Outfall #2 S
Lab Sample ID:	AD22952-004
Date Sampled:	4/22/2021
Matrix:	Sediment
SVOCs (EPA Method SW 846 8270D) - mg/kg	
3&4-Methylphenol	0.042
Benzo[a]anthracene	0.22
Benzo[a]pyrene	0.18
Benzo[b]fluoranthene	0.23
Benzo[g,h,i]perylene	0.12
Chrysene	0.15
Fluoranthene	0.26
Indeno[1,2,3-cd]pyrene	0.11
Phenanthrene	0.11
Phenol	0.076
Pyrene	0.26
Pesticides (EPA Method SW 846 8081B) - mg/kg	
p,p'-DDE	0.011
Metals (EPA Method SW 846 6010D) - mg/kg	
Aluminum	4,000
Barium	54
Calcium	3,600
Copper	25
Iron	7,700
Lead	29
Magnesium	1,300
Manganese	1,000
Sodium	790
Zinc	120
Arsenic	2.1
Silver	0.96
General Chemistry - %	
% Solids	45
Cyanide	1.0

Sample ID:	Outfall #1 SW
Lab Sample ID:	AD22952-001 & 320-72927-2
Date Sampled:	4/22/2021
Matrix:	Surface Water
Metals (EPA846 6010D/6020B/7470A) - ug/L	
Sodium	160,000
PFAS (EPA 537M) - ng/L	
Perfluorooctanesulfonic acid (PFOS)	270
Perfluorooctanoic acid (PFOA)	52

Sample ID:	Outfall #2 SW
Lab Sample ID:	AD22952-002
Date Sampled:	4/22/2021
Matrix:	Surface Water
Metals (EPA846 6010D/6020B/7470A) - ug/L	
Aluminum	2,000
Iron	2,400
Manganese	400
Sodium	170,000

Sample ID:	Outfall #1 S
Lab Sample ID:	AD22952-003
Date Sampled:	4/22/2021
Matrix:	Sediment
Metals (EPA Method SW 846 6010D) - mg/kg	
Aluminum	4,800
Barium	32
Calcium	18,000
Cobalt	7.6
Copper	86
Iron	21,000
Lead	8.6
Magnesium	11,000
Manganese	320
Nickel	13
Sodium	340
Vanadium	35
Zinc	84
Arsenic	2.1
General Chemistry - %	
% Solids	80

Contaminant of Concern	NYSDOH Drinking Water Maximum Contaminant Levels (MCL)	NYSDEC Ambient Water Quality Standards			
		Human Health Criteria	Aquatic Life (Fresh)		Absence of Class C
			Chronic	Acute	
Metals Analysis (EPA846 6010D/6020B/7470A) - ug/L					
Aluminum	NA	NA	100	NA	NA
Iron	300	NA	300	NA	NA
Manganese	300	NA	NA	NA	300*
Sodium	NA	NA	NA	NA	20,000*
Per- and Polyfluoroalkyl Substances (PFAS) (EPA 537M) - ng/L					
Perfluorooctanesulfonic acid (PFOS)	10	2.7	160,000	710,000	NA
Perfluorooctanoic acid (PFOA)	10	6.7	NA	NA	NA

Notes:

BOLD Result exceeds NYS Ambient Water Quality Guidance Value (Human Health Criteria)

Result exceeds NYSDEC Drinking Water MCL

* = A standard is not identified for Class C; therefore, the most stringent applicable value is listed in the table

NA = No Standard

Laboratory Analysis by Eurofins TestAmerica Laboratories, Inc. (NY Certification No. 10670)

LEGEND

SUBJECT SITE EXTENT (APPROX.)

OUTFALL DEBRIS / STORMWATER SAMPLE LOCATION (COLLOCATED)

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SCALE : 1" = 60'

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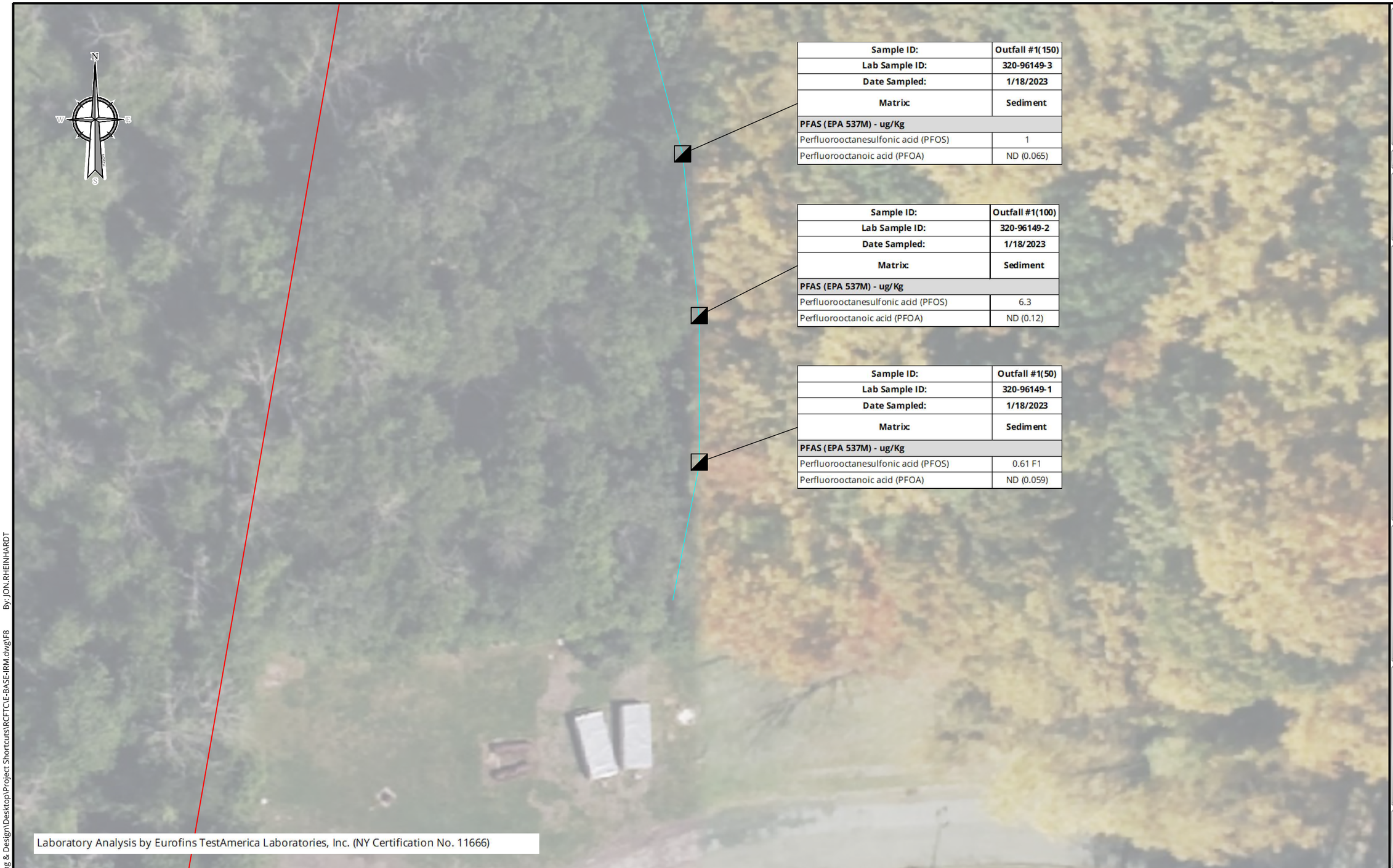
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DRAWING NAME: E-BASE-IRM
SHEET TITLE: OUTFALL DEBRIS / STORMWATER SAMPLE EXCEEDANCE MAP
FIELD BOOK: XX PAGE: XX
SHEET NUMBER: FIGURE 7

By: JON.RHEINHARDT
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Sample ID:	Outfall #1(150)
Lab Sample ID:	320-96149-3
Date Sampled:	1/18/2023
Matrix:	Sediment
PFAS (EPA 537M) - ug/Kg	
Perfluorooctanesulfonic acid (PFOS)	1
Perfluorooctanoic acid (PFOA)	ND (0.065)

Sample ID:	Outfall #1(100)
Lab Sample ID:	320-96149-2
Date Sampled:	1/18/2023
Matrix:	Sediment
PFAS (EPA 537M) - ug/Kg	
Perfluorooctanesulfonic acid (PFOS)	6.3
Perfluorooctanoic acid (PFOA)	ND (0.12)

Sample ID:	Outfall #1(50)
Lab Sample ID:	320-96149-1
Date Sampled:	1/18/2023
Matrix:	Sediment
PFAS (EPA 537M) - ug/Kg	
Perfluorooctanesulfonic acid (PFOS)	0.61 F1
Perfluorooctanoic acid (PFOA)	ND (0.059)

Laboratory Analysis by Eurofins TestAmerica Laboratories, Inc. (NY Certification No. 11666)

LEGEND

SUBJECT SITE EXTENT (APPROX.)

OUTFALL STREAM (APPROX.)

OUTFALL SURFACE WATER SAMPLE LOCATION

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SCALE : 1" = 30'

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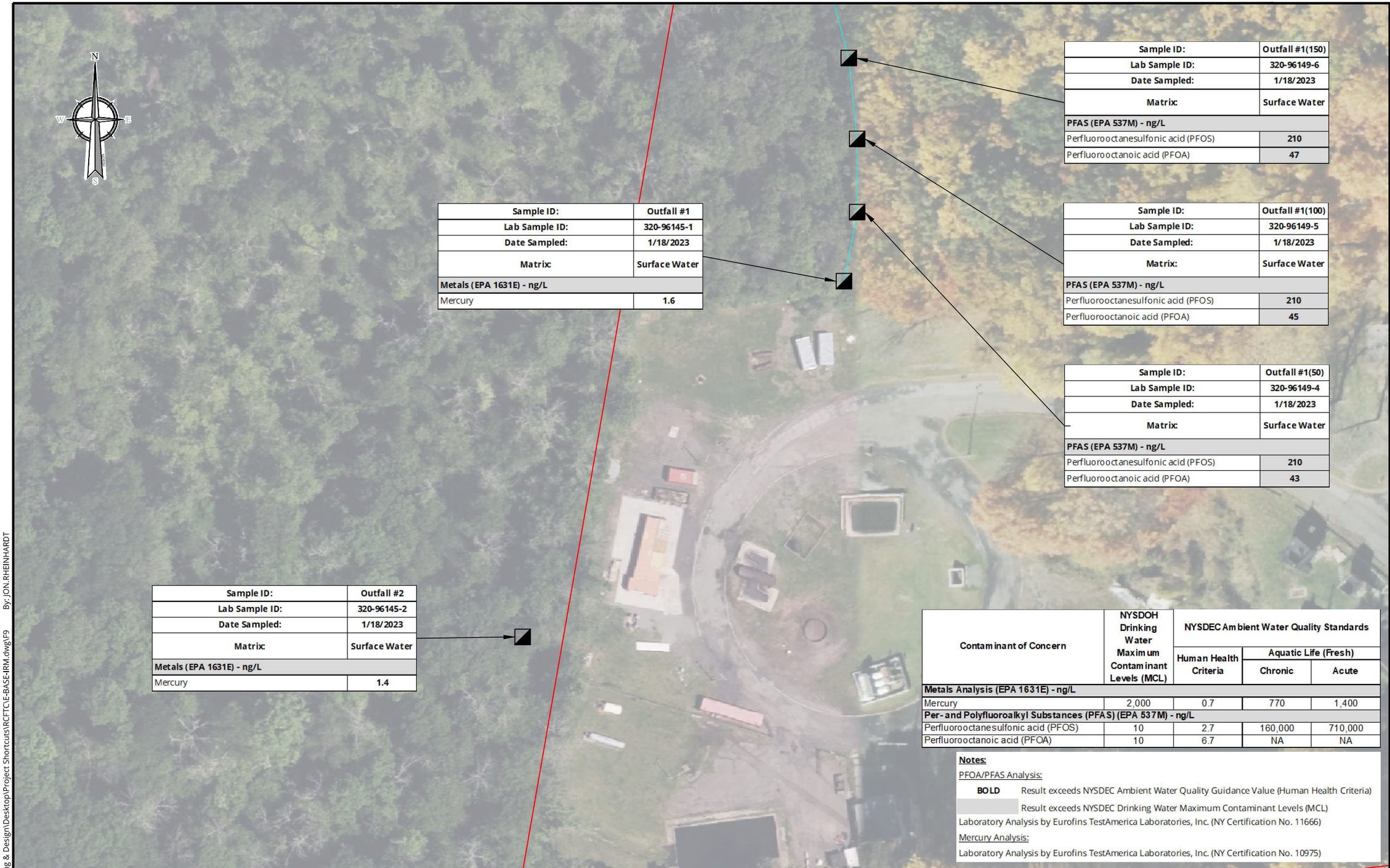
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PROJECT NUMBER: 19000442G1
DRAWING NAME: E-BASE-IRM

SHEET TITLE: OUTFALL SEDIMENT SAMPLE EXCEEDANCE MAP
FIELD BOOK: XX PAGE: XX

SHEET NUMBER: FIGURE 8

By: JON.RHEINHARDT
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Sample ID:	Outfall #1
Lab Sample ID:	320-96145-1
Date Sampled:	1/18/2023
Matrix:	Surface Water
Metals (EPA 1631E) - ng/L	
Mercury	1.6

Sample ID:	Outfall #2
Lab Sample ID:	320-96145-2
Date Sampled:	1/18/2023
Matrix:	Surface Water
Metals (EPA 1631E) - ng/L	
Mercury	1.4

Sample ID:	Outfall #1(150)
Lab Sample ID:	320-96149-6
Date Sampled:	1/18/2023
Matrix:	Surface Water
PFAS (EPA 537M) - ng/L	
Perfluorooctanesulfonic acid (PFOS)	210
Perfluorooctanoic acid (PFOA)	47

Sample ID:	Outfall #1(100)
Lab Sample ID:	320-96149-5
Date Sampled:	1/18/2023
Matrix:	Surface Water
PFAS (EPA 537M) - ng/L	
Perfluorooctanesulfonic acid (PFOS)	210
Perfluorooctanoic acid (PFOA)	45

Sample ID:	Outfall #1(50)
Lab Sample ID:	320-96149-4
Date Sampled:	1/18/2023
Matrix:	Surface Water
PFAS (EPA 537M) - ng/L	
Perfluorooctanesulfonic acid (PFOS)	210
Perfluorooctanoic acid (PFOA)	43

Contaminant of Concern	NYSDOH Drinking Water Maximum Contaminant Levels (MCL)	NYSDEC Ambient Water Quality Standards		
		Human Health Criteria	Aquatic Life (Fresh)	
			Chronic	Acute
Metals Analysis (EPA 1631E) - ng/L				
Mercury	2,000	0.7	770	1,400
Per- and Polyfluoroalkyl Substances (PFAS) (EPA 537M) - ng/L				
Perfluorooctanesulfonic acid (PFOS)	10	2.7	160,000	710,000
Perfluorooctanoic acid (PFOA)	10	6.7	NA	NA

Notes:

PFOA/PFAS Analysis:

BOLD Result exceeds NYSDEC Ambient Water Quality Guidance Value (Human Health Criteria)

Result exceeds NYSDEC Drinking Water Maximum Contaminant Levels (MCL)

Laboratory Analysis by Eurofins TestAmerica Laboratories, Inc. (NY Certification No. 11666)

Mercury Analysis:

Laboratory Analysis by Eurofins TestAmerica Laboratories, Inc. (NY Certification No. 10975)

LEGEND

SUBJECT SITE EXTENT (APPROX.)

OUTFALL STREAM (APPROX.)

OUTFALL SEDIMENT SAMPLE LOCATION

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SCALE : 1" = 60'

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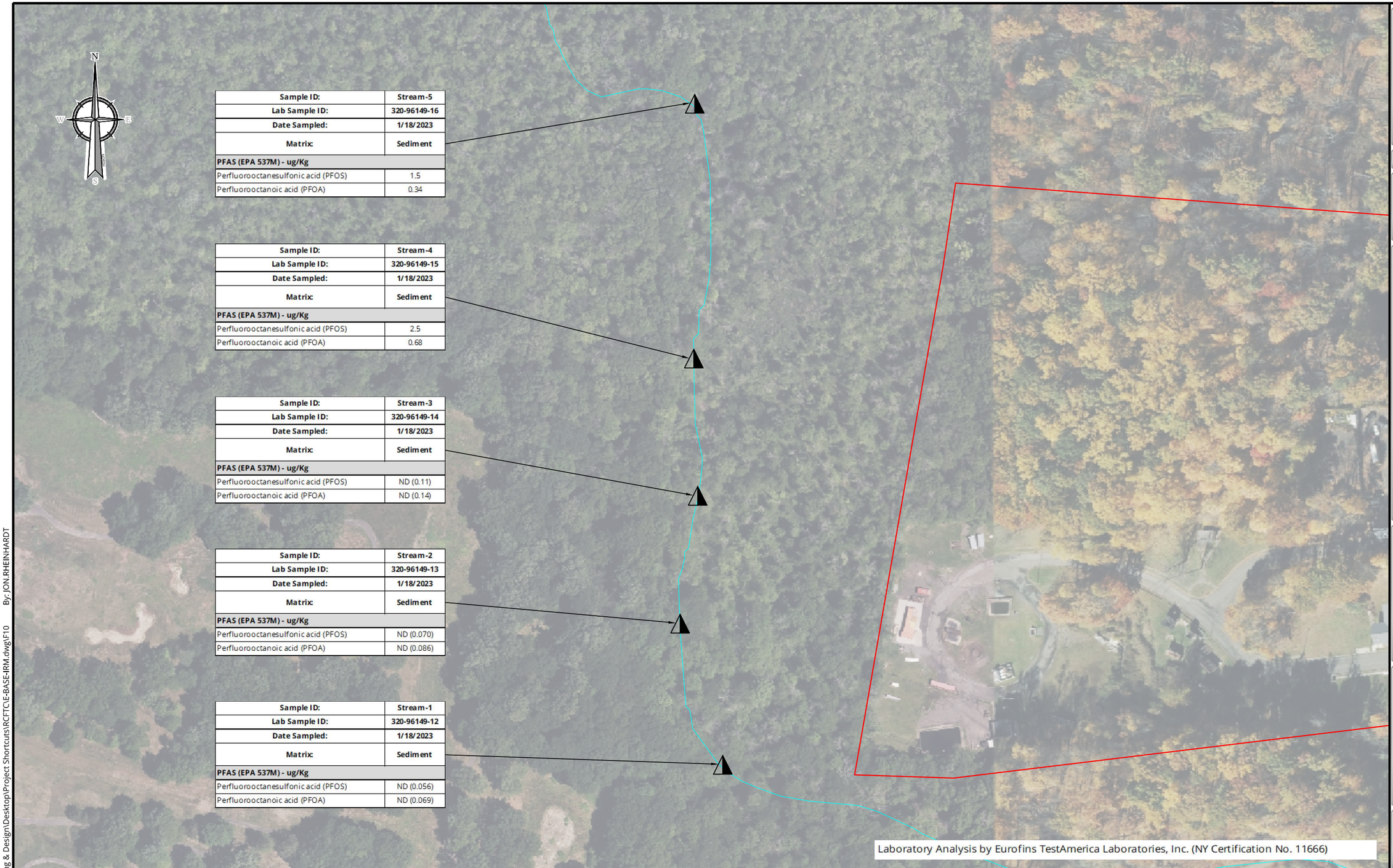
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PROJECT NUMBER: 19000442G1
DRAWING NAME: E-BASE-IRM
SHEET TITLE: OUTFALL SURFACE WATER SAMPLE EXCEEDANCE MAP
FIELD BOOK: XX PAGE: XX
SHEET NUMBER: FIGURE 9

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Sample ID:	Stream-5
Lab Sample ID:	320-96149-16
Date Sampled:	1/18/2023
Matrix:	Sediment
PFAS (EPA 537M) - ug/Kg	
Perfluorooctanesulfonic acid (PFOS)	1.5
Perfluorooctanoic acid (PFOA)	0.34

Sample ID:	Stream-4
Lab Sample ID:	320-96149-15
Date Sampled:	1/18/2023
Matrix:	Sediment
PFAS (EPA 537M) - ug/Kg	
Perfluorooctanesulfonic acid (PFOS)	2.5
Perfluorooctanoic acid (PFOA)	0.68

Sample ID:	Stream-3
Lab Sample ID:	320-96149-14
Date Sampled:	1/18/2023
Matrix:	Sediment
PFAS (EPA 537M) - ug/Kg	
Perfluorooctanesulfonic acid (PFOS)	ND (0.11)
Perfluorooctanoic acid (PFOA)	ND (0.14)

Sample ID:	Stream-2
Lab Sample ID:	320-96149-13
Date Sampled:	1/18/2023
Matrix:	Sediment
PFAS (EPA 537M) - ug/Kg	
Perfluorooctanesulfonic acid (PFOS)	ND (0.070)
Perfluorooctanoic acid (PFOA)	ND (0.086)

Sample ID:	Stream-1
Lab Sample ID:	320-96149-12
Date Sampled:	1/18/2023
Matrix:	Sediment
PFAS (EPA 537M) - ug/Kg	
Perfluorooctanesulfonic acid (PFOS)	ND (0.056)
Perfluorooctanoic acid (PFOA)	ND (0.069)

Laboratory Analysis by Eurofins TestAmerica Laboratories, Inc. (NY Certification No. 11666)

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LEGEND

SUBJECT SITE EXTENT (APPROX.)

OUTFALL STREAM (APPROX.)

STREAM SEDIMENT SAMPLE LOCATION

150 0 150

SCALE : 1" = 150'

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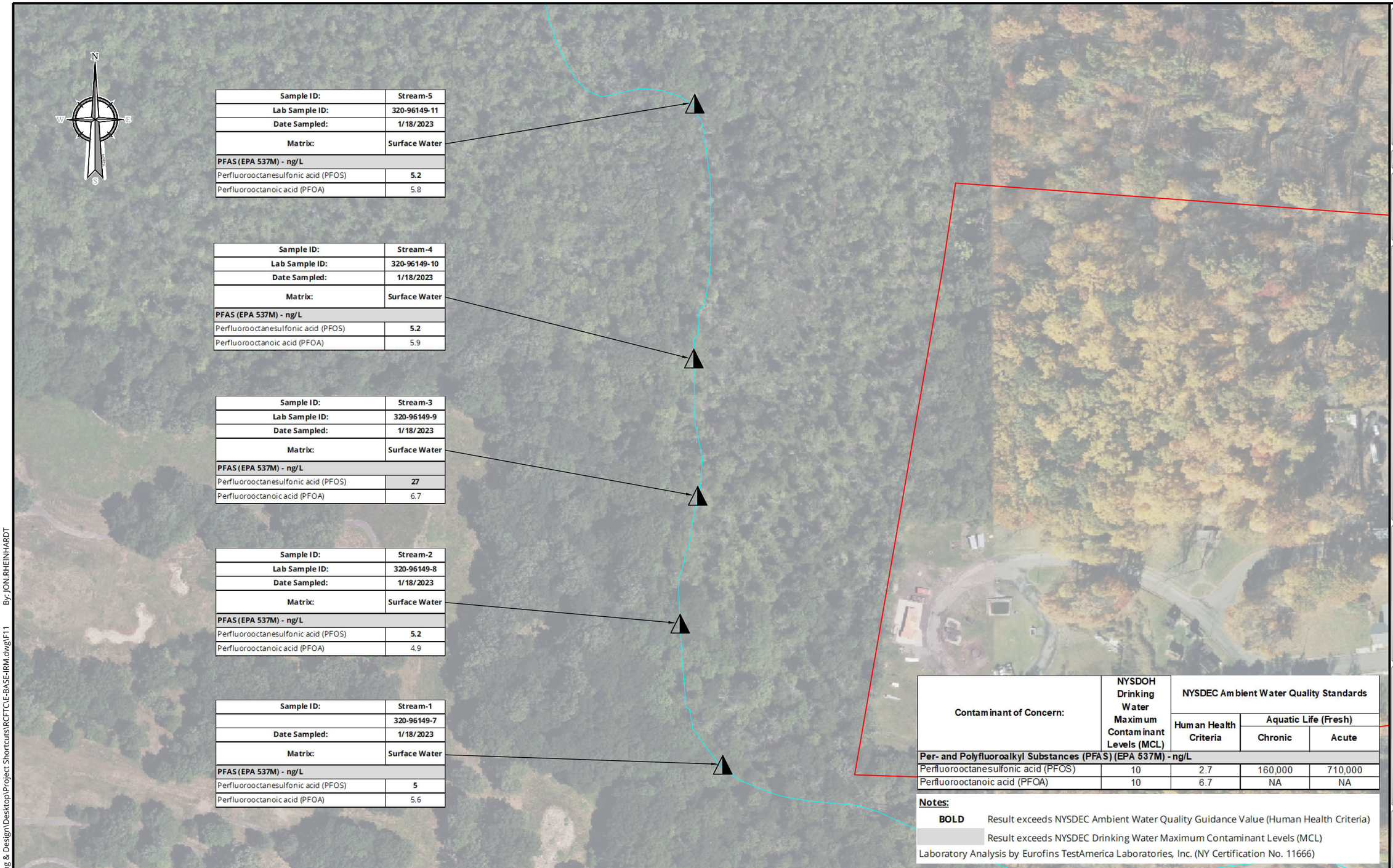
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PROJECT NUMBER: 19000442G1
DRAWING NAME: E-BASE-IRM
SHEET TITLE: STREAM SEDIMENT SAMPLE EXCEEDANCE MAP
FIELD BOOK: XX PAGE: XX
SHEET NUMBER: FIGURE 10

By: JON.RHEINHARDT dt\OneDrive - Colliers Engineering & Design\Desktop\Project Shortcuts\RCFT\CE-BASE-IRM.dwg\F10



Sample ID:	Stream-5
Lab Sample ID:	320-96149-11
Date Sampled:	1/18/2023
Matrix:	Surface Water
PFAS (EPA 537M) - ng/L	
Perfluorooctanesulfonic acid (PFOS)	**5.2**
Perfluorooctanoic acid (PFOA)	5.8

Sample ID:	Stream-4
Lab Sample ID:	320-96149-10
Date Sampled:	1/18/2023
Matrix:	Surface Water
PFAS (EPA 537M) - ng/L	
Perfluorooctanesulfonic acid (PFOS)	**5.2**
Perfluorooctanoic acid (PFOA)	5.9

Sample ID:	Stream-3
Lab Sample ID:	320-96149-9
Date Sampled:	1/18/2023
Matrix:	Surface Water
PFAS (EPA 537M) - ng/L	
Perfluorooctanesulfonic acid (PFOS)	**27**
Perfluorooctanoic acid (PFOA)	6.7

Sample ID:	Stream-2
Lab Sample ID:	320-96149-8
Date Sampled:	1/18/2023
Matrix:	Surface Water
PFAS (EPA 537M) - ng/L	
Perfluorooctanesulfonic acid (PFOS)	**5.2**
Perfluorooctanoic acid (PFOA)	4.9

Sample ID:	Stream-1
	320-96149-7
Date Sampled:	1/18/2023
Matrix:	Surface Water
PFAS (EPA 537M) - ng/L	
Perfluorooctanesulfonic acid (PFOS)	**5**
Perfluorooctanoic acid (PFOA)	5.6

Contaminant of Concern:	NYSDOH Drinking Water Maximum Contaminant Levels (MCL)	NYSDEC Ambient Water Quality Standards		
		Human Health Criteria	Aquatic Life (Fresh)	
			Chronic	Acute
Per- and Polyfluoroalkyl Substances (PFAS) (EPA 537M) - ng/L				
Perfluorooctanesulfonic acid (PFOS)	10	2.7	160,000	710,000
Perfluorooctanoic acid (PFOA)	10	6.7	NA	NA

Notes:

BOLD Result exceeds NYSDEC Ambient Water Quality Guidance Value (Human Health Criteria)

Result exceeds NYSDEC Drinking Water Maximum Contaminant Levels (MCL)

Laboratory Analysis by Eurofins TestAmerica Laboratories, Inc. (NY Certification No. 11666)

LEGEND

SUBJECT SITE EXTENT (APPROX.)

OUTFALL STREAM (APPROX.)

STREAM SURFACE WATER SAMPLE LOCATION

BASE MAP SOURCE: (C) 2023 MICROSOFT CORPORATION (C) MAXAR (C) CNES (2023) DISTRIBUTION AIRBUS DS

150 0 150

SCALE : 1" = 150'

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FOR
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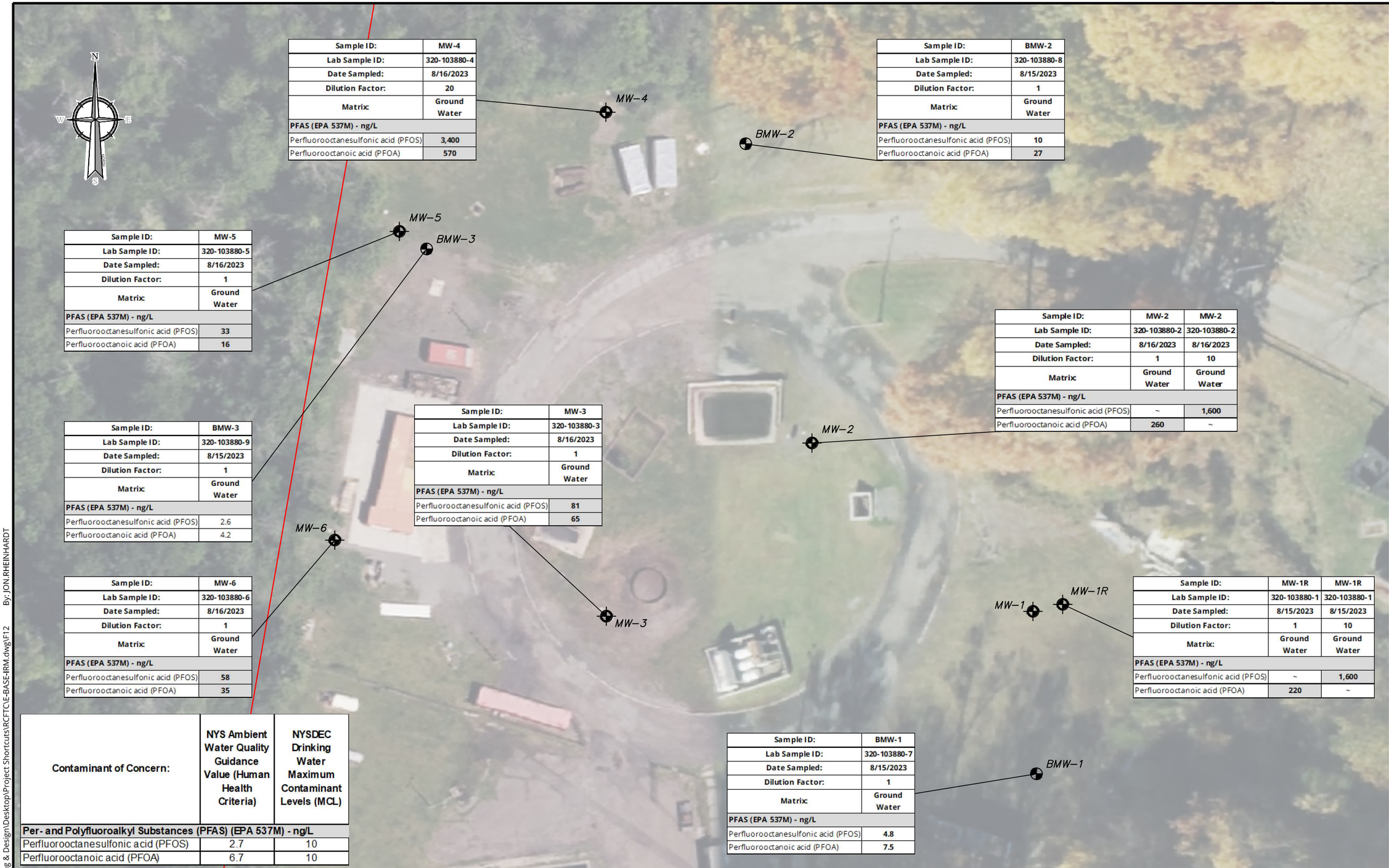
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PROJECT NUMBER: 19000442G1
DRAWING NAME: E-BASE-IRM
SHEET TITLE: STREAM SURFACE WATER SAMPLE EXCEEDANCE MAP
FIELD BOOK: XX
PAGE: XX
SHEET NUMBER: FIGURE 11

By: JON.RHEINHARDT
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Sample ID:	MW-4
Lab Sample ID:	320-103880-4
Date Sampled:	8/16/2023
Dilution Factor:	20
Matrix:	Ground Water
PFAS (EPA 537M) - ng/L	
Perfluorooctanesulfonic acid (PFOS)	3,400
Perfluorooctanoic acid (PFOA)	570

Sample ID:	BMW-2
Lab Sample ID:	320-103880-8
Date Sampled:	8/15/2023
Dilution Factor:	1
Matrix:	Ground Water
PFAS (EPA 537M) - ng/L	
Perfluorooctanesulfonic acid (PFOS)	10
Perfluorooctanoic acid (PFOA)	27

Sample ID:	MW-5
Lab Sample ID:	320-103880-5
Date Sampled:	8/16/2023
Dilution Factor:	1
Matrix:	Ground Water
PFAS (EPA 537M) - ng/L	
Perfluorooctanesulfonic acid (PFOS)	33
Perfluorooctanoic acid (PFOA)	16

Sample ID:	MW-2	MW-2
Lab Sample ID:	320-103880-2	320-103880-2
Date Sampled:	8/16/2023	8/16/2023
Dilution Factor:	1	10
Matrix:	Ground Water	Ground Water
PFAS (EPA 537M) - ng/L		
Perfluorooctanesulfonic acid (PFOS)	~	1,600
Perfluorooctanoic acid (PFOA)	260	~

Sample ID:	BMW-3
Lab Sample ID:	320-103880-9
Date Sampled:	8/15/2023
Dilution Factor:	1
Matrix:	Ground Water
PFAS (EPA 537M) - ng/L	
Perfluorooctanesulfonic acid (PFOS)	2.6
Perfluorooctanoic acid (PFOA)	4.2

Sample ID:	MW-3
Lab Sample ID:	320-103880-3
Date Sampled:	8/16/2023
Dilution Factor:	1
Matrix:	Ground Water
PFAS (EPA 537M) - ng/L	
Perfluorooctanesulfonic acid (PFOS)	81
Perfluorooctanoic acid (PFOA)	65

Sample ID:	MW-6
Lab Sample ID:	320-103880-6
Date Sampled:	8/16/2023
Dilution Factor:	1
Matrix:	Ground Water
PFAS (EPA 537M) - ng/L	
Perfluorooctanesulfonic acid (PFOS)	58
Perfluorooctanoic acid (PFOA)	35

Sample ID:	MW-1R	MW-1R
Lab Sample ID:	320-103880-1	320-103880-1
Date Sampled:	8/15/2023	8/15/2023
Dilution Factor:	1	10
Matrix:	Ground Water	Ground Water
PFAS (EPA 537M) - ng/L		
Perfluorooctanesulfonic acid (PFOS)	~	1,600
Perfluorooctanoic acid (PFOA)	220	~

Contaminant of Concern:	NYS Ambient Water Quality Guidance Value (Human Health Criteria)	NYSDEC Drinking Water Maximum Contaminant Levels (MCL)
Per- and Polyfluoroalkyl Substances (PFAS) (EPA 537M) - ng/L		
Perfluorooctanesulfonic acid (PFOS)	2.7	10
Perfluorooctanoic acid (PFOA)	6.7	10

Sample ID:	BMW-1
Lab Sample ID:	320-103880-7
Date Sampled:	8/15/2023
Dilution Factor:	1
Matrix:	Ground Water
PFAS (EPA 537M) - ng/L	
Perfluorooctanesulfonic acid (PFOS)	4.8
Perfluorooctanoic acid (PFOA)	7.5

LEGEND

- SUBJECT SITE EXTENT (APPROX.)
- MW–1 OVERBURDEN MONITORING WELL
- BMW–1 BEDROCK MONITORING WELL

Notes:

BOLD Result exceeds NYSDEC Ambient Water Quality Guidance Value (Human Health Criteria)

Result exceeds NYSDEC Drinking Water Maximum Contaminant Levels (MCL)

~ = Not Analyzed

Laboratory Analysis by Eurofins TestAmerica Laboratories, Inc. (NY Certification No. 10670)

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40 0 40

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35 FIREMAN'S MEMORIAL DRIVE

S/B/L 33.14-1-1

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PROJECT NUMBER: 19000442G1
DRAWING NAME: E-BASE-IRM

SHEET TITLE: GROUNDWATER SAMPLE EXCEEDANCE MAP
FIELD BOOK: XX PAGE: XX

SHEET NUMBER: FIGURE 12

By: JON.RHEINHARDT

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LEGEND

- SUBJECT SITE EXTENT (APPROX.)
- MW–1 OVERBURDEN MONITORING WELL
- INFERRED GROUNDWATER CONTOUR

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19000442G1	E-BASE-IRM

SHEET TITLE: GROUNDWATER CONTOUR MAP
AUGUST 15, 2023

FIELD BOOK: XX PAGE: XX

SHEET NUMBER: FIGURE 13

By: JON.RHEINHARDT
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LEGEND

- SUBJECT SITE EXTENT (APPROX.)
- MW–1 OVERBURDEN MONITORING WELL
- INFERRED GROUNDWATER CONTOUR

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30 0 30

SCALE : 1" = 30'

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DRAWING NAME: E-BASE-IRM

SHEET TITLE: GROUNDWATER CONTOUR MAP OCTOBER 25, 2023
FIELD BOOK: XX PAGE: XX

SHEET NUMBER: FIGURE 14

By: JON.RHEINHARDT
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BEDROCK STRIKE AND DIP DATA: SCIENTIFIC INVESTIGATION REPORT 2010–5245, FIGURE 17

LEGEND

- SUBJECT SITE EXTENT (APPROX.)
- BMW–1 BEDROCK MONITORING WELL
- BEDROCK DIP (DEGREE OF SLOPE SHOWN)
- INFERRED GROUNDWATER CONTOUR

40 0 40

SCALE : 1" = 40'

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DRAWING NAME: E-BASE-IRM

SHEET TITLE: BEDROCK GROUNDWATER CONTOUR MAP OCTOBER 25, 2023
FIELD BOOK: XX PAGE: XX

SHEET NUMBER: FIGURE 15

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LEGEND

- SUBJECT SITE EXTENT (APPROX.)
- A —— A' TRANSECT
- BEDROCK DIP (DEGREE OF SLOPE SHOWN)
- MW–1 OVERBURDEN MONITORING WELL
- BMW–1 BEDROCK MONITORING WELL

BASE MAP SOURCE: (C) 2023 MICROSOFT CORPORATION (C) MAXAR (C) CNES (2023) DISTRIBUTION AIRBUS DS
BEDROCK STRIKE AND DIP DATA: SCIENTIFIC INVESTIGATION REPORT 2010–5245, FIGURE 17

40 0 40

SCALE : 1" = 40'

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INTERIM REMEDIAL MEASURES PLAN FOR 35 FIREMAN'S MEMORIAL DRIVE

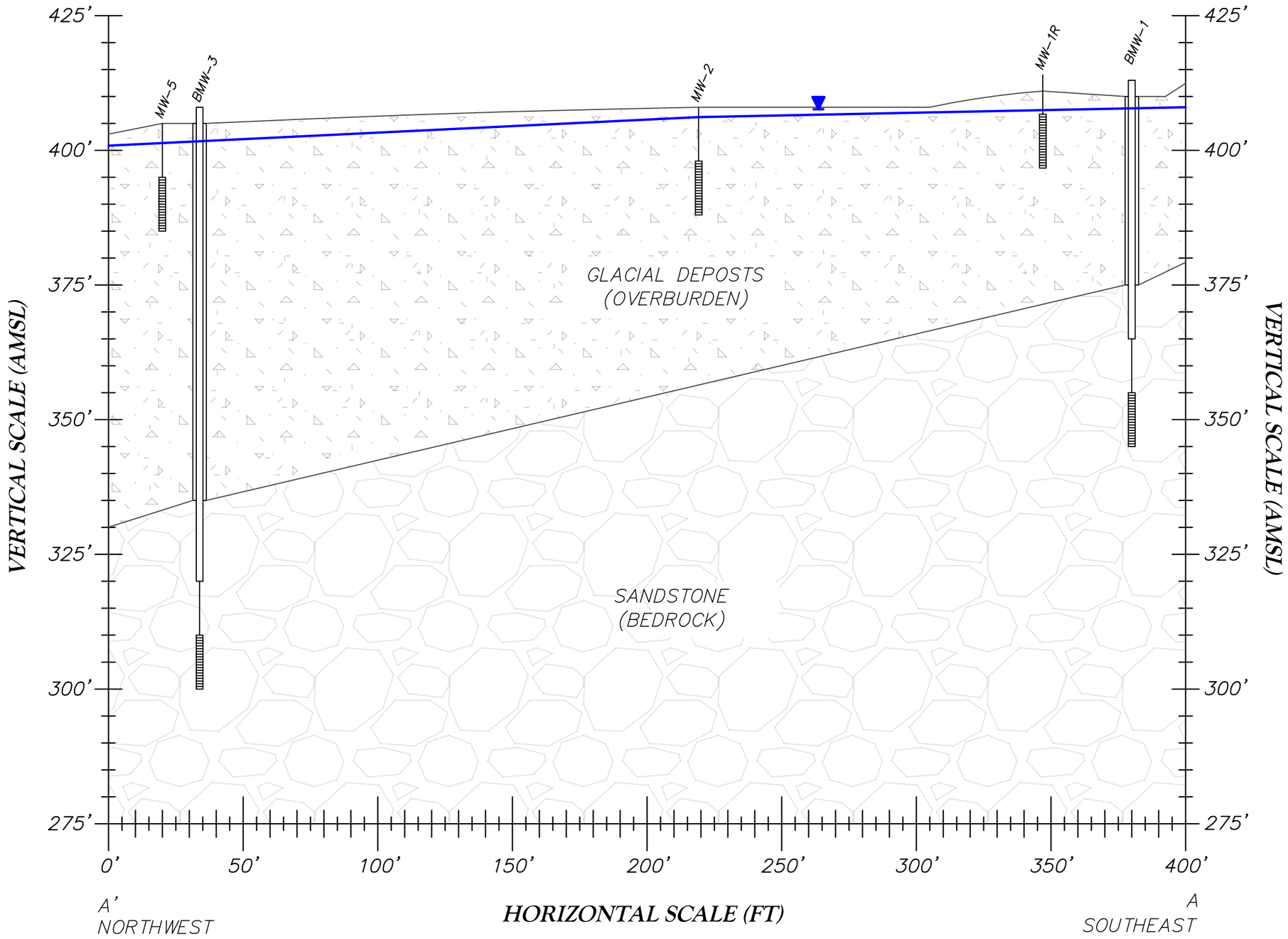
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PROJECT NUMBER: 19000442G1
DRAWING NAME: E-BASE-IRM
SHEET TITLE: CROSS SECTION REFERENCE MAP
FIELD BOOK: XX
PAGE: XX
SHEET NUMBER: FIGURE 16



LEGEND

WATER TABLE (APPROX.)

BEDROCK MONITORING WELL

OVERBURDEN MONITORING WELL

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INTERIM REMEDIAL MEASURES PLAN FOR 35 FIREMAN'S MEMORIAL DRIVE

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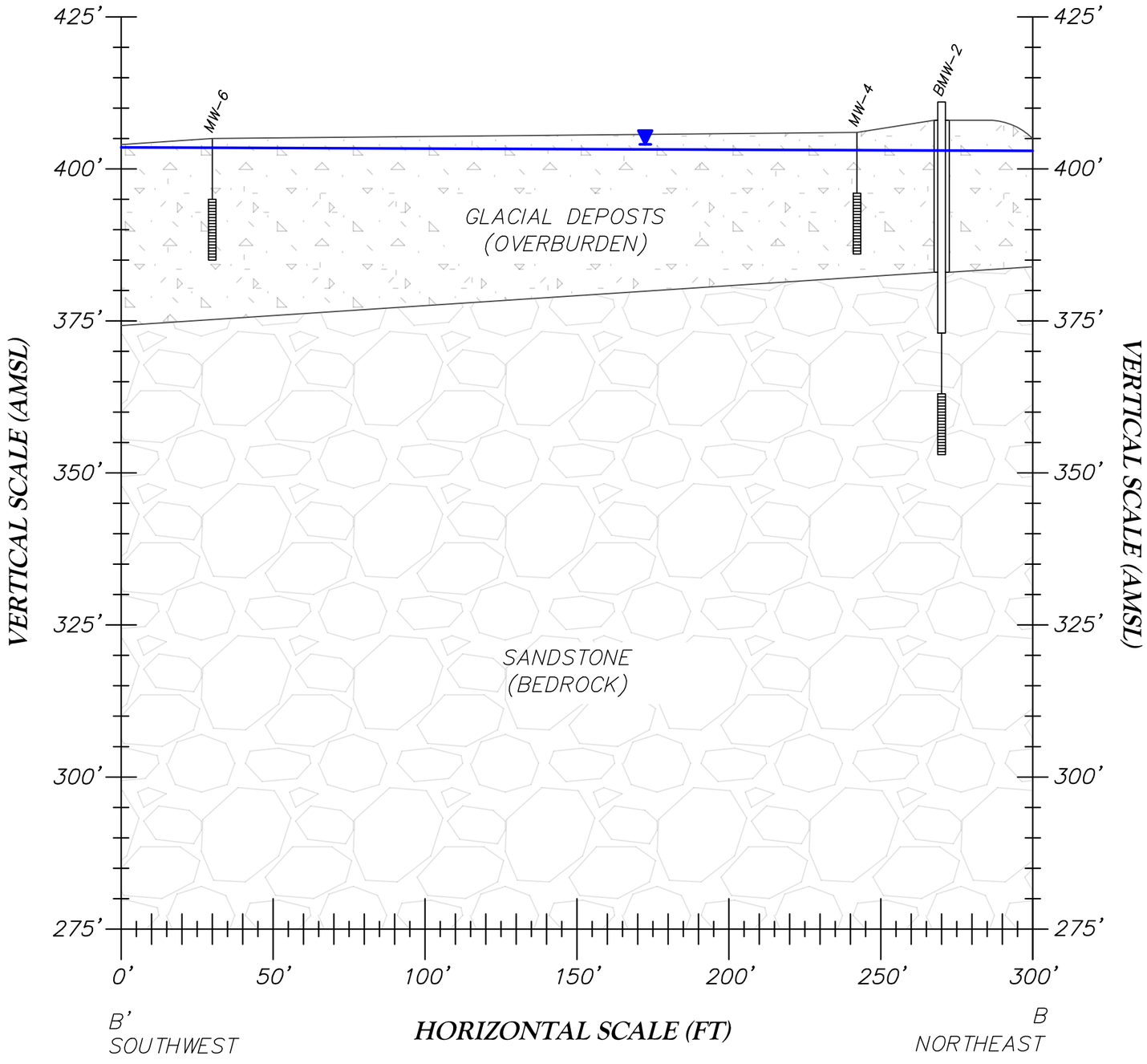
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19000442G1	E-BASE-IRM

SHEET TITLE: CROSS SECTION A-A'

FIELD BOOK: XX PAGE: XX

SHEET NUMBER: FIGURE 17

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LEGEND

WATER TABLE (APPROX.)

BEDROCK MONITORING WELL

OVERBURDEN MONITORING WELL

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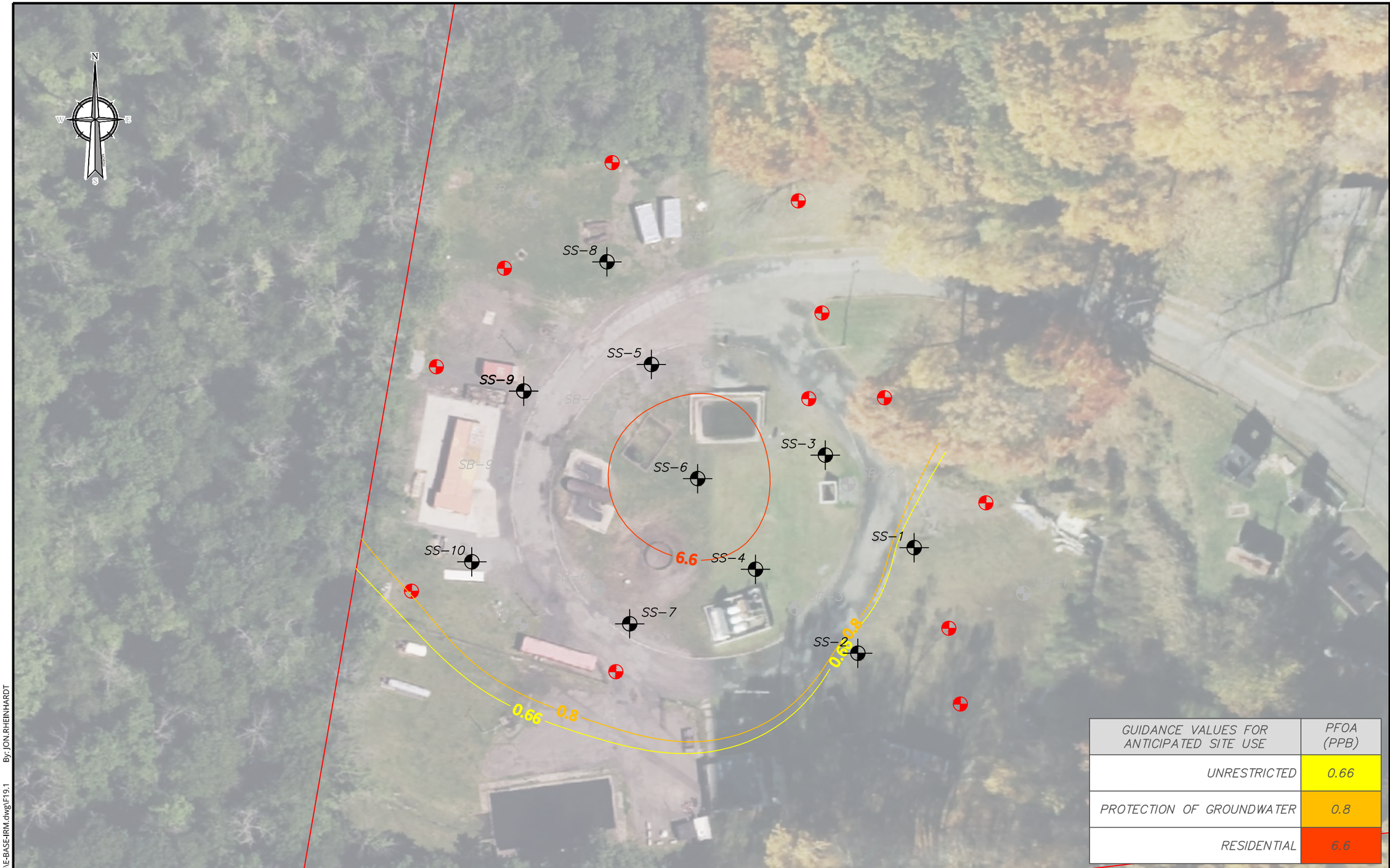
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PROJECT NUMBER:	DRAWING NAME:
19000442G1	E-BASE-IRM

SHEET TITLE: CROSS SECTION B-B'

FIELD BOOK: XX PAGE: XX

SHEET NUMBER: FIGURE 18



GUIDANCE VALUES FOR ANTICIPATED SITE USE	PFOA (PPB)
UNRESTRICTED	0.66
PROTECTION OF GROUNDWATER	0.8
RESIDENTIAL	6.6

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LEGEND

- SUBJECT SITE EXTENT (APPROX.)
- SS–1 SOIL BORING LOCATION
- SS–1 SURFACE SOIL SAMPLE LOCATION
- PROPOSED SOIL BORING LOCATION

50 0 50

SCALE : 1" = 50'

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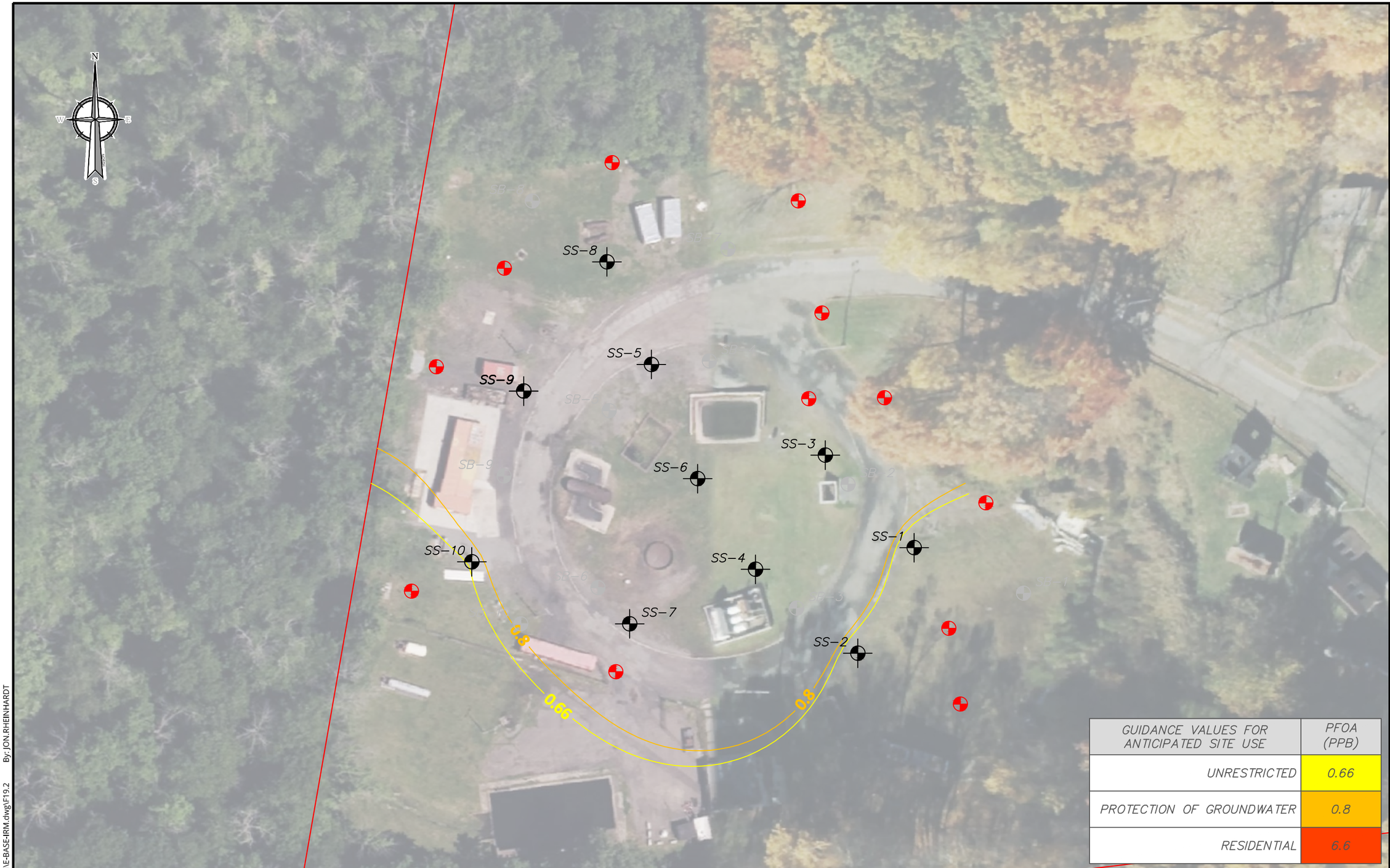
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DRAWING NAME: E-BASE-IRM

SHEET TITLE: PROPOSED LOWER TRAINING FIELD SOIL BORINGS / PFOA ISOPLETH CONCENTRATIONS 0-2 INCHES

SHEET NUMBER: FIGURE 19.1



GUIDANCE VALUES FOR ANTICIPATED SITE USE	PFOA (PPB)
UNRESTRICTED	0.66
PROTECTION OF GROUNDWATER	0.8
RESIDENTIAL	6.6

LEGEND

- SUBJECT SITE EXTENT (APPROX.)
- SS–1 SOIL BORING LOCATION
- SS–1 SURFACE SOIL SAMPLE LOCATION
- PROPOSED SOIL BORING LOCATION

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50 0 50

SCALE : 1" = 50'

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INTERIM REMEDIAL MEASURES PLAN FOR 35 FIREMAN'S MEMORIAL DRIVE

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PROJECT NUMBER: 19000442G1
DRAWING NAME: E-BASE-IRM

SHEET TITLE: PROPOSED LOWER TRAINING FIELD SOIL BORINGS / PFOA ISOPLETH CONCENTRATIONS 2-12 INCHES

SHEET NUMBER: FIGURE 19.2



GUIDANCE VALUES FOR ANTICIPATED SITE USE	PFOA (PPB)
UNRESTRICTED	0.66
PROTECTION OF GROUNDWATER	0.8
RESIDENTIAL	6.6

BASE MAP SOURCE: (C) 2023 MICROSOFT CORPORATION (C) MAXAR (C) CNES (2023) DISTRIBUTION AIRBUS DS

LEGEND

- SUBJECT SITE EXTENT (APPROX.)
- SS–1 SOIL BORING LOCATION
- SS–1 SURFACE SOIL SAMPLE LOCATION
- PROPOSED SOIL BORING LOCATION

50 0 50

SCALE : 1" = 50'

2019\19000442G\Environmental\E-BASE-IRM.dwg\F19.3 By: JON.RHEINHARDT

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INTERIM REMEDIAL MEASURES PLAN
FOR
35 FIREMAN'S MEMORIAL DRIVE

S/B/L 33.14-1-1

VILLAGE OF POMONA, ROCKLAND COUNTY, NY

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AS SHOWN	08/13/2025	JSR	DJK/NAD

PROJECT NUMBER: 19000442G1
DRAWING NAME: E-BASE-IRM

SHEET TITLE: PROPOSED LOWER TRAINING FIELD SOIL BORINGS / PFOA ISOPLETH CONCENTRATIONS AT DEPTH

SHEET NUMBER: FIGURE 19.3

GUIDANCE VALUES FOR ANTICIPATED SITE USE	PFOS (PPB)
UNRESTRICTED	0.88
PROTECTION OF GROUNDWATER	1.0
RESIDENTIAL	8.8
RESTRICTED RESIDENTIAL	44
COMMERCIAL/INDUSTRIAL	440

SS-8
SS-5
SS-9
SS-3
SS-6
SS-1
SS-10
SS-4
SS-7
SS-2
44
8.8
0.88
1

LEGEND

- SUBJECT SITE EXTENT (APPROX.)
- SS-1 SOIL BORING LOCATION
- SS-1 SURFACE SOIL SAMPLE LOCATION
- PROPOSED SOIL BORING LOCATION

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50 0 50

SCALE : 1" = 50'

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INTERIM REMEDIAL MEASURES PLAN
FOR
35 FIREMAN'S MEMORIAL DRIVE

S/B/L 33.14-1-1

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PROJECT NUMBER: 19000442G1
DRAWING NAME: E-BASE-IRM
SHEET TITLE: PROPOSED LOWER TRAINING FIELD SOIL BORINGS / PFOS ISOPLETH CONCENTRATIONS 0-2 INCHES
SHEET NUMBER: FIGURE 20.1

GUIDANCE VALUES FOR ANTICIPATED SITE USE	PFOS (PPB)
UNRESTRICTED	0.88
PROTECTION OF GROUNDWATER	1.0
RESIDENTIAL	8.8
RESTRICTED RESIDENTIAL	44
COMMERCIAL/INDUSTRIAL	440

SS-8
SS-5
SS-9
SS-3
SS-6
SS-10
SS-4
SS-1
SS-7
SS-2
44
8.8
0.88
1

LEGEND

- SUBJECT SITE EXTENT (APPROX.)
- SS-1 SOIL BORING LOCATION
- SS-1 SURFACE SOIL SAMPLE LOCATION
- PROPOSED SOIL BORING LOCATION

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50 0 50

SCALE : 1" = 50'

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INTERIM REMEDIAL MEASURES PLAN FOR 35 FIREMAN'S MEMORIAL DRIVE

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PROJECT NUMBER: 19000442G1
DRAWING NAME: E-BASE-IRM
SHEET TITLE: PROPOSED LOWER TRAINING FIELD SOIL BORINGS / PFOS ISOPLETH CONCENTRATIONS 2-12 INCHES
SHEET NUMBER: FIGURE 20.2

2019\19000442G\Environmental\E-BASE-IRM.dwg\F20.2 By: JON.RHEINHARDT



GUIDANCE VALUES FOR ANTICIPATED SITE USE	PFOS (PPB)
UNRESTRICTED	0.88
PROTECTION OF GROUNDWATER	1.0
RESIDENTIAL	8.8
RESTRICTED RESIDENTIAL	44
COMMERCIAL/INDUSTRIAL	440

LEGEND

- SUBJECT SITE EXTENT (APPROX.)
- SS–1 SOIL BORING LOCATION
- SS–1 SURFACE SOIL SAMPLE LOCATION
- PROPOSED SOIL BORING LOCATION

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50 0 50

SCALE : 1" = 50'

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INTERIM REMEDIAL MEASURES PLAN FOR 35 FIREMAN'S MEMORIAL DRIVE

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PROJECT NUMBER: 19000442G1
DRAWING NAME: E-BASE-IRM
SHEET TITLE: PROPOSED LOWER TRAINING FIELD SOIL BORINGS / PFOS ISOPLETH CONCENTRATIONS AT DEPTH
SHEET NUMBER: FIGURE 20.3

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LEGEND

- SUBJECT SITE EXTENT (APPROX.)
- MW–6 MONITORING WELL LOCATION
- INFERRED GROUNDWATER CONTOUR (OCTOBER 25, 2023)
- PROPOSED OVERBURDEN MONITORING WELL

50 0 50

SCALE : 1" = 50'

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PROJECT NUMBER: 19000442G1
DRAWING NAME: E-BASE-IRM

SHEET TITLE: PROPOSED SHALLOW WATER TABLE MONITORING WELL LOCATONS
FIELD BOOK: XX PAGE: XX

SHEET NUMBER: FIGURE 21

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LEGEND

- SUBJECT SITE EXTENT (APPROX.)
- SS-1 SOIL BORING LOCATION
- PROPOSED SOIL BORING LOCATION

10 0 10

SCALE : 1" = 10'

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INTERIM REMEDIAL MEASURES PLAN
FOR
35 FIREMAN'S MEMORIAL DRIVE

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PROJECT NUMBER: 19000442G1
DRAWING NAME: E-BASE-IRM

SHEET TITLE: PROPOSED BORINGS AT AOC #1 TRANSFORMER PAD
FIELD BOOK: XX PAGE: XX

SHEET NUMBER: FIGURE 22

2019\19000442G\Environmental\E-BASE-IRM.dwg\F22 By: JON.RHEINHARDT

APPENDIX A

300 Tice Boulevard, Suite 101
Woodcliff Lake, New Jersey 07677
Main: 877 627 3772

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Sampling & Analysis Plan

Rockland County Fire Training Center
35 Firemen's Memorial Drive
Village of Pomona, Rockland County, New York

CED Project No.: 19000442G1

Soil – Lower Training Field

A total of twelve (12) soil borings will be advanced via direct push technology to the soil-groundwater interface. Up to three (3) soil samples will be collected from each boring: one from 0 to 2 inches bgs, one from 6 to 12 inches bgs, and one at the capillary fringe. This will result in up to thirty-six (36) soil samples.

All samples will be analyzed for PFAS (40 compounds as per NYSDEC) using USEPA Method 1633A by an NELAP-accredited laboratory. Samples will be collected using a stainless steel trowel. Soil sampling is expected to be completed in approximately two (2) days, and laboratory analyses will follow a standard 10–15 business day (approximately two to three-week) turnaround.

QA/QC: One trip blank, one duplicate, one matrix spike, one matrix spike duplicate, and one equipment blank will also be collected.

Expected duration of sampling: 2 days.

Soil – Transformer Pad

Five (5) soil borings will be advanced via direct push technology to the soil-groundwater interface, with approximate 5-foot step-outs in each cardinal direction from the location of "AOC#1 Transformer Pad."

Up to three (3) soil samples will be collected from each boring: one from 0 to 2 inches bgs, one from 2 to 12 inches bgs, and one at the capillary fringe, for a total of fifteen (15) soil samples.

All samples will be analyzed for PFAS (40 compounds as per NYSDEC) using USEPA Method 1633A by an NELAP-accredited laboratory. Samples will be collected using a stainless steel trowel. Soil sampling is expected to be completed in approximately one (1) day, and laboratory analyses will follow a standard 10–15 business day (approximately two to three-week) turnaround.

QA/QC: One trip blank, one duplicate, one matrix spike, one matrix spike duplicate, and one equipment blank will also be collected.

Expected duration of sampling: 1 day.

Groundwater

Thirteen (13) monitoring wells will be sampled, with one sample collected from each well, for a total of thirteen (13) groundwater samples.

All samples will be analyzed for PFAS (40 compounds as per NYSDEC) using USEPA Method 1633A by an NELAP-accredited laboratory. Samples will be collected using PFAS-free sampling pumps and components. Groundwater sampling is expected to be completed in approximately two (2) days, with laboratory analyses following a standard 10–15 business day (approximately two to three-week) turnaround.

QA/QC: One trip blank, one equipment blank per day, one duplicate, one matrix spike, and one matrix spike duplicate will be collected. The duplicate, matrix spike, and matrix spike duplicate will be obtained from one of three bedrock wells. Equipment blanks will be performed on all equipment that contacts the sampled water, including silicon or HDPE tubing.

Expected duration of sampling: 2 days.

Decontamination Procedures

Drilling and sampling equipment (e.g., direct push tooling and hollow-stem augers) will be decontaminated between each sampling location using a phosphate-free detergent (Liquinox), tap water, and deionized water. Any sampling equipment contacting the sampled media will either be single-use disposable or decontaminated between uses following the procedures described above.

APPENDIX B

Engineers
Planners
Surveyors
Landscape Architects
Environmental Scientists

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www.maserconsulting.com

November 12, 2019

VIA E-MAIL

Brittany O'Brien
Project Manager
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway
Albany, NY 12233-7016

Re: Work Plan for Environmental Investigation
Rockland County Fire Training Center
35 Firemen's Memorial Drive
Pomona, New York 10970
MC Project No. 19000442G

Dear Ms. O'Brien:

Maser Consulting is pleased to submit this work plan to conduct an environmental investigation at the Rockland County Fire Training Center. In a correspondence dated December 18, 2018, the County was notified by the New York State Department of Environmental Conservation (NYSDEC) that compounds typically associated with fire suppression chemicals were identified in water supply wells located in the vicinity of the Fire Training Center. On October 9, 2019, Rockland County entered into a Consent Order with NYSDEC (Index No. CO 3-20190108-02) to perform an environmental investigation of the Fire Training Center grounds to include areas where firefighting foam was used and where other areas of concern might exist.

The scope of work provided in this work plan outlines the tasks that Maser Consulting believes will be necessary to plan, develop and implement an investigation of surface soil, sub-surface soils, sediments, surface water and groundwater that will meet NYSDEC requirements under DER-10 and other state regulatory mandates. Work tasks described herein may be subject to change based on the findings of a preliminary site investigation (Phase I Environmental Site Assessment or equivalent), a site reconnaissance inspection designed to identify potential areas of concerns based on chemical storage, interviews with long-time employees of the Fire Training Center, and anecdotal information on the use and distribution of firefighting foam and a review of facility records maintained by the State, County and local governments. Any changes or additions to this scope of work will not be implemented without the approval of NYSDEC.

The following scope of work has been separated into phases for ease of review. The order in which the phases are presented generally follows the sequence in which the project will be accomplished; however, depending upon the outcome of pre-work investigations —and other yet-to-be quantified variables, this work plan may be performed in a sequence as deemed appropriate by NYSDEC and Maser Consulting to meet project schedules and objectives.

SECTION I – SCOPE OF SERVICES

Based on information provided, we propose to complete the following tasks. It is noted that proposed sampling locations and site plan are provided on the Site Plan (Figures 1 & 2). It is also noted that the Fire Training Center has plans to demolish the existing Burn Training Building and the Tower Building so that upgraded facilities can be constructed.

TASK 1: PRE-INVESTIGATION TASKS

Prior to the implementation of a site investigation, several preparatory tasks are anticipated. Preparatory tasks include the following:

- **Development of a Health & Safety Plan**. In accordance with DER-10 and Maser Consulting's Corporate Health & Safety Plan, a health & safety plan will be prepared. This Plan will be used to identify all known and suspected on-site hazards, provide standard operating procedures for field work, identify proper personnel protection equipment, employee training requirements, routes of exposure, emergency contact information and routes to the nearest health care facility.
- **Review of Client-Provided and NYSDOH-provided information**. Under this task, Maser Consulting will review all relevant information provided by the Fire Training Center or government agencies on the use and application of fire suppression chemicals and review of storm sewer locations and outfall locations. In addition, Maser Consulting will review the information to be provide by the government agencies including the Rockland County Department of Health including water quality information from area water supply wells, hydrogeological data, topographic information as well as a review of the facilities in the vicinity of the Fire Training Center that may store, handle or use chemicals containing per-fluorinated and poly-fluoroalkyl substances.
- **Development of a Quality Assurance/ Quality Control (QA/QC) Plan**: developing a QA/QC Plan for this investigation will be an important element to ensure the collection of accurate and reliable environmental data. The State of New York maintains a Reporting List of 21 PFAA compounds with detection limits as low as 10parts per trillion (ppt). In order to eliminate the potential sources of artificial or cross contamination of the sampled media, the QA/QC plan will describe safe guards to preserve sample integrity.
- **Sampling and Analysis Plan**: complementing the QA/QC plan will be a Sampling and Analysis Plan which will describe the materials and methods used for sample collection, sample holding time requirements, transportation and chain of custody procedures.

TASK 2: INVESTIGATION OF SURFACE SOILS

Once the location of surface soil samples are proposed by Maser Consulting and approved by NYSDEC, Maser Consulting will implement a surface soils investigation. Samples will be collected in accordance with the QA/QC and Sampling and Analytical Plans to eliminate the potential for artificial or cross contamination. Soil samples are anticipated to be collected with pre-cleaned, disposable trowels, hand augers or other acceptable device(s) consistent with DER-10 protocols. It is expected that up to twenty (20) surface soil samples will be collected and analyzed for the contaminants of concern. Since, NYSDEC has not yet provided water quality information, we operate with the understanding that the State will require analysis for the 21 PFAA compounds in the State's Reporting List. We note however, that the analytical parameters list—and subsequent analytical costs—could change based on the outcome of discussions with NYSDEC as described under Task 1.

TASK 3: INVESTIGATION OF SUBSURFACE SOILS

In coordination with the work in Task 2 above, Maser Consulting will implement an investigation of subsurface soils. For this task, a New York State-licensed driller will be utilized. Soil cores will be advanced continuously from the surface to the depth of groundwater which is anticipated to be encountered at approximately 10 – 12 feet below ground surface. Soil cores will be opened, described, photographed and field screened for signs of contamination. Sections of the soil core that exhibit signs of contamination will be collected for laboratory analysis. If no signs of contamination are noted within the soil core- and there are no apparent lithological sections observed (silt or clay lenses) that might tend to absorb contaminants, then the core section immediately above the capillary fringe will be sampled for analysis.

Similar to the surface soils investigation described above, subsurface soil samples will be analyzed for New York State's Reporting List of 21 PFAA Compounds. For this investigation we anticipate the collection and analysis of up to ten (10) subsurface soil samples from up to ten (10) soil boring locations—or one sample per borehole.

Where appropriate, soil cuttings will be replaced into the borehole from which they originated (in the same general stratigraphic sequence). Excess soil cuttings will be containerized on site. Disposal options will be considered once the soil quality data is received from the analytical lab.

TASK 4: GROUNDWATER INVESTIGATION

Using the same New York licensed driller—and utilizing to the extent practical--the soil borings installed as part of Task 3 above, Maser Consulting will oversee and direct a groundwater investigation. This investigation will consist of the installation of up to six (6) 2-inch diameter PVC groundwater monitoring wells. Wells are anticipated to be fifteen (15) feet deep with ten (10) feet of screen. Monitoring wells will be designed to straddle the water table so that any contaminants/product floating on the water table can be readily identified.

Approximately two-weeks after monitoring well installation and development, each well will be sampled. Samples will be collected with NYSDEC-approved materials and methods in accordance with the QA/QC Plan. Well development and purge water will be containerized in 55-gallon drums and staged on-site. Disposal options for the well development water and sample-purge water will be reviewed once the water quality data is provided by the laboratory. As a general rule of thumb, it is expected that well development and purge water can be disposed to the surface if the water meets the following criteria: water is derived from the water table aquifer and will recharge the same aquifer from which it originated; disposed water will contain no visible signs of sheens or floating product; water will have no detectable odors and water will not be allowed to flow or discharge directly or indirectly to the nearby wetland-or enter the storm water system. If the water fails to meet any of these criterion, the water will be containerized for future characterization and disposal.

TASK 5: SURFACE WATER INVESTIGATION

In coordination with the other investigative elements of this work plan, Maser Consulting will conduct a surface water quality investigation. Surface waters will be sampled at specific locations corresponding to the existing permitted outfalls where SPDES water quality sampling is conducted at predetermined intervals. Maser Consulting anticipates collecting two (2) surface water samples at locations where storm sewers discharge to the nearby wetlands. Samples will be collected directly from the surface water body directly into the sample bottles without the use of specialized sampling equipment.

Surface water samples are expected to be analyzed for New York State's Reporting List of 21 PFAA Compounds.

TASK 6: SEDIMENT QUALITY INVESTIGATION

Based on a site visit conducted in October 2019, Maser Consulting noted a series of storm sewers in the area where fire suppression foam is typically used. Since the suppression foam has the ability to enter into the storm sewer system and impact sediments within the system, the sediments could be considered a source of down-stream contamination. In order to evaluate whether the sediments have been impacted, Maser Consulting proposes a sediment sampling investigation.

We propose to collect two (2) sediment samples at the outfall locations of the storm sewer system. It is our understanding that outfall sampling for the facility's present SPDES permit is already conducted at these outfalls. The contaminants of concern however are not in the present SPDES analytical list.

TASK 7: UPDATE OF EXISTING SITE SURVEY

By virtue of having provided other engineering and survey work at the Rockland County Firemen's Training Center, Maser Consulting maintains an existing site plan for this facility. Following the implementation of the environmental investigation, Maser Consulting will update the site plan to show all sampling locations—as well as any other pertinent features or structures.

TASK 8: ADDITIONAL AREAS OF CONCERN

Based upon a site reconnaissance inspection performed on November 6, 2019, several additional areas of concern were noted by Maser Consulting observers. These areas included several transformer pads, former AST tank locations, an existing diesel fuel AST which supports a back-up generator for the facility, an area for vehicle extrication training, a burn training building and a recycling and disposal center for household hazardous waste. Inspection of these areas failed to identify any signs of leaks, spills or discharges that would require immediate action. It is noted however that costs the environmental sampling for the suspected media impacted by PFAA's, also includes analysis for volatile and semi-volatile organic compounds, petroleum compounds, PCB's and metals that are characteristic of the contamination from more traditional sources at the potential additional areas of concern. If required, these non-PFAA's analytes can be included in the Sampling and Analytical Plan and implemented under this scope of work. However, Maser Consulting recommends that environmental sampling for PFAA's be conducted separately and independently from any sampling conducted to characterize contamination from traditional sources.

TASK 9: REPORTING

Once the investigation is conducted and laboratory analytical results for soil, sediment, surface and groundwater are received—and presuming no further investigation is required based on the results, Maser Consulting will prepare a Site Investigation Report. The report will include:

- Soil boring logs and well construction logs
- Soil, sediment and surface water sampling locations
- Soil boring and groundwater monitoring well locations
- A description of investigations completed at the site
- A summary and discussion of the laboratory analytical results and comparison of those results to NYSDEC standards
- Site location and sample location maps.
- The laboratory analytical reports.
- Recommendations based on the site activities and findings.

If you should have any questions or comments, or require clarification of the proposed workplan tasks, please don't hesitate to call.

Very truly yours,

MASER CONSULTING P.A.

David J. Keil, P.G.
Geographic Discipline Leader

DJK/ca

Cc: E. Hausamann
R. Gruffi

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APPENDIX C

50 Chestnut Ridge Road
Suite 101
Montvale New Jersey 07645
Main: 877 627 3772

Colliers
Engineering
& Design

VIA Email: Brittany.Obrien-Drake@dec.ny.gov

October 21, 2022

Brittany O'Brien-Drake, Project Manager
Remedial Bureau D, Division of Environmental Remediation
NYS Department of Environmental Conservation
625 Broadway, 12th Floor Albany, New York 12233-7013

Revised Letter Work Plan for
Rockland County Fire Training Center
35 Firemen's Memorial Drive
Pomona, New York, Rockland County
Colliers Engineering & Design Project No.: 19000442G1

Dear Brittany,

Colliers Engineering & Design CT, P.C. (DBA Maser Consulting Engineering & Land Surveying) is pleased to submit this letter work plan to perform the NYSDEC-requested work at the Rockland County Fire Training Center (RCFTC)). The work plan was developed based on, correspondences from Brittany O'Brien/NYSDEC to Rockland County dated May 2, 2022, and September 12, 2022.

Scope of Work

TASK 1.0: PRE-WORK SITE INSPECTION AND MEETING WITH RCFTC REPRESENTATIVES

Prior to the start of field work, CED proposes a site inspection and meeting with facility managers at the Fire Training Center. The purpose of the meeting will be to determine locations of the proposed new groundwater monitoring wells to ensure they are located in areas that will not interfere with training activities and which will not conflict with RCFTC plans for new building construction.

As part of the scope, CED will also assess Outfall #1 and its downgradient environs for any logistical issues that would hinder the collection of downstream surface water and sediment samples as requested by NYSDEC in its May 2, 2022 correspondence. While on site, CED will also monitor and inspect the existing monitoring wells to ensure they are properly prepared for future sampling as described under Task 4 of this work plan. CED will also screen the well head space for signs of volatile organic compounds with the aid of a photo-ionization detector. In addition, we will collect a round of synoptic water levels measurement at the existing water table wells.

Updates to the Health & Safety Plan to accommodate the new work tasks will also be incorporated into this Task.

TASK 2.0: INSTALLATION OF THREE (3) BEDROCK MONITORING WELLS

As requested by NYSDEC, three (3) bedrock groundwater monitoring wells will be installed. The objective of these wells is to determine whether contamination in the shallow water table aquifer identified during the previous site characterization work, has migrated vertically into the bedrock aquifer. In order to prevent the mixing of PFAS-contaminated groundwater from the water table aquifer into the bedrock aquifer, the wells will be required to be double-cased. The procedure for bedrock well installation by a NYSDEC and Rockland County-approved well driller is described as follows:

- Drill will utilize an air rotary rig to drill a 10-inch diameter borehole into the shallow bedrock aquifer.

- 10-inch steel casing will be driven into the top of rock-estimated to be between 20 and 25 feet below grade level. This outer casing will prevent any mixing of the water table aquifer with the shallow bedrock aquifer. It is expected that casing will be installed ten (10) feet into bedrock and grouted in-place.

- After a minimum 24-hour period to allow curing of the grout, a borehole will be advanced through the 10-inch casing to an estimated depth of 35 feet below grade. A secondary 6-inch steel casing will be installed at that depth and then grouted in place.

- After a minimum 24-hour period to allow curing of the grout, an open rock borehole will be drilled to approximately 50 feet below grade. It is noted that the final well depth will be determined by field conditions and the volume of water within the bedrock wellbore. It is expected that all bedrock wells will be completed at generally the same depth and in the same water bearing strata or fracture zone.

- After the wells are sampled, sampling results will help determine whether the well can remain as an open rock hole to 50 feet below grade, whether the open borehole should be extended deeper into the bedrock or whether a 2-inch PVC well should be set into the well bore. -upon completion, the wells will be developed with the use of a submersible pump flowing at an estimate rate of 3 to 5 gallons per minute. The wells will be developed for one hour or until clear, sediment free water is produced. During well development, water quality parameters will be collected at regular 5-minute intervals. Water quality parameters will consist of turbidity, dissolved oxygen, specific conductance, redox potential. pH and temperature. All investigation derived wastes (i.e., drill cuttings and well development water) will be segregated and containerized for characterization and potential off-site disposal.

The proposed locations of the three (3) bedrock wells are shown in Figure 1. Actual well locations will be subject to NYSDEC-approval and any logistical interferences identified in the Pre-Work Site Inspection performed under Task 1. It is noted that any water to be used in the well drilling process (if any) will come from PFAS-free sources.

The well bore locations will be cleared of underground obstructions, obstacles and utilities prior to mobilization.

Following installation, the new wells will be surveyed for horizontal and vertical control.

It is noted that NYSDEC also requested that standard borehole geophysics be considered to identify transmissive zones, fracture depths and orientation during this phase of the work. Geophysical methods will be considered following the collection and analysis of groundwater samples—as describe under Task 4 of this work plan.

TASK 3.0: REVIEW OF REGIONAL GEOLOGY AND PRIVATE WELL CONSTRUCTION INFORMATION

As requested by NYSDEC, regional geology and private well construction information should be reviewed. As a work element to complete this task, CED will submit Freedom of Information requests to the local, County and State agencies with jurisdiction over this information.

Requests for private well data including well locations, depths, screen intervals, geological strata, pumping data and water quality data will be sought. Upon receipt of this material—and depending on the volume and complexity of the material received, CED will provide a summary review of the material and provide recommendations for additional tasks to support the NYSDEC request.

TASK 4.0: REINSTALL GROUNDWATER MONITORING WELL MW-1

As noted in the CED Site Characterization Report, groundwater monitoring well MW-1 was inadvertently destroyed in March 2020 during the demolition of one of the former fire training buildings. As part of this scope of work, MW-1 will be replaced. MW-1 will be generally located in the vicinity of the original well and have similar dimensions with a depth of twenty (20) feet and fifteen (15) of well screen. MW-1 will serve as an upgradient well to the PFAS plume in the water table aquifer in the lower training field. The location for replacement well MW-1 is shown in Figure 1- subject to NYSDEC-approval and any logistical concerns identified during the pre-work site inspection.

As part of this Task 4 scope of work, CED will also conduct at least one round of synoptic water level measurements. The data collected will be used to generate conceptual site groundwater flow maps for both the water table and the bedrock aquifers.

TASK 5.0: COMPREHENSIVE ROUND OF GROUNDWATER SAMPLES

Upon completion and development of three bedrock wells and replacement well MW-1, CED will perform one round of comprehensive well sampling. Only PFAS-free sampling pumps and components will be utilized for well purging and sampling—identical to the processed used to sample wells during the previous site characterization investigation.

A total of nine (9) wells will be sampled for PFAS compounds. Three (3) wells will be bedrock wells; six (6) wells will be water table wells. Analysis for PFAS-only will be performed by Test America/Eurofins laboratories under standard laboratory turn-around times.

The well sampling will take place at least two weeks after the newly installed wells have been developed—to allow time for the wells to equilibrate with the aquifer. For the water table monitoring well MW-1, well development water and well purge water will be handled in accordance with the procedures outlined in the approved site characterization work plan. For the bedrock monitoring wells, well development water and well purge water will be containerized for waste disposal characteristics. It is noted that well cuttings, well development water and well purge water will be segregated based on origin (i.e., investigation-derived waste (IDW) from replacement well MW-1 will be segregated from IDW generated during the installation, development and purging of the bedrock monitoring wells).

Sampling of the wells will follow the identical procedures as those employed during the original site characterization investigation.

Well sampling will follow the same low-flow purge procedures as previously employed for the Site Characterization Investigation. The criteria for well sampling will be the stabilization (three consecutive readings at five-minute intervals- within 10%) of the following water quality characteristics: turbidity, dissolved oxygen and specific conductance---or two hours of low flow purging, whichever comes first. CED will record this data on the Well Sampling Logs for each well.

TASK 6.0: COLLECT CO-LOCATED SURFACE WATER & SEDIMENT SAMPLES OUTFALL#1

To determine whether surface water and sediment contamination in Outfall #1 has migrated downstream into the adjacent wetland, CED will collect a series of co-located surface water and sediment samples. The locations of these samples is subject to approval by NYSDEC and any logistical or access constraints identified in Task 0 above. CED will collect three (3) co-located sediment and surface water samples in the wetland at locations that are approximately 50, 100 and 150 feet downstream of Outfall #1. Samples will be analyzed for PFAS only. Sampling procedures, equipment and protocols will be identical to those used for Surface Water and Sediment (Debris) sampling for the original Site Characterization Investigation.

A Sampling & Analytical Plan (SAP) (Attachment 1) has been developed for this work plan. The SAP describes the number of samples to be collected per matrix—as well as quality control and quality assurance samples including trip blanks, field blanks, duplicates, matrix spike, matrix spike duplicate and equipment blanks.

TASK 7.0; REPORTING

Following the receipt of analytical data from laboratory (Category B reports) and a data usability summary report (DUSR) from an independent third-party validator (who will upload the DUSR into NYSDEC's EQuIS Database).

CED will generate a report that will include but not be limited to the following elements: materials and methods for the investigation, sampling location map, well locations, well construction logs, analytical data tables, data review and interpretation, photo-documentation, conceptual groundwater flow diagrams, report finding, conclusions and recommendations.

If you have any questions or comments regarding this revised letter work plan, please do not hesitate to call.

Sincerely,

Colliers Engineering & Design CT, P.C.
(DBA Maser Consulting Engineering & Land Surveying)



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