

May 29, 2025

Caroline Jalanti
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233-7014

via email: caroline.jalanti@dec.ny.gov

Re: Beacon Terminal – Revised Soil Cover Plan
BCP Site: C314117
GBTS Project: 22003-0094

Dear Ms. Jalanti:

This Revised Soil Cover Plan for the Beacon Terminal BCP Site C314117 has been prepared by Gallagher Bassett Technical Services (GBTS) to provide specifications for the installation of the required cover system.

BACKGROUND

An “opportunity to cure violation” letter was issued by the NYSDEC on December 1, 2022, which required the Volunteer to implement the remedial action independent of site redevelopment. In accordance with the NYSDEC Remedial Action Work Plan (RAWP, January 2014), the following components of the remedy have been implemented: the excavation of Area 1 (toluene-contaminated subsurface soil), Area 3 (polychlorinated biphenyls [PCBs] and metals in surface soil), and Area 4 (metals in surface soil); and, the closure of the monitoring well network.

To complete the remedy a composite cover system must be installed at locations where restricted residential use soil cleanup objective (RRU SCOs) exceedances remain. The composite cover system will be comprised of hardscape (existing building slabs), the thickness of which will be documented in the Construction Completion Report (CCR), or two feet of clean fill (meeting NYCRR Part 375.6.7(d) RRU SCOs) above a demarcation layer (e.g., orange snow fencing). The upper six inches of soil will be of sufficient quality to support vegetation.

Track 4 RRU SCO exceedances in surficial soil samples (collected from 2008 - 2009) were documented at fourteen (14) locations, outside of the remedied excavation areas (Area 1, 3, and 4). Additional surficial soil sampling was completed in December 2024 to account for surface soil data gaps in forested areas. Twelve (12) surface soil samples were collected and analyzed for volatile organic compounds (VOCs) and a subset (25%) were analyzed for semi-volatile organic compounds (SVOCs), including tentatively identified compounds (TICs), metals, pesticides/PCBs, and per- and polyfluoroalkyl substances (PFAS), in accordance with the NYSDEC-approved Soil Sampling Work Plan (October 2024). Arsenic was detected above RRU SCOs (Track 4 criteria) in one composite soil sample (5SS-1c; 21.4 parts per million [ppm], RRU SCO 16 ppm) and in its duplicate (DUP-20241211; 20.9 ppm). Metals, VOCs, SVOCs, and PFAS were reported below RRU SCOs, and VOC TICs, SVOC TICs, pesticides and PCBs were not detected.

Surface soil sample locations, RRU exceedances, and the proposed cover are depicted in the Cover System Map provided in Attachment A, and tabulated data (December 2024) are provided in Attachment B.

Fifteen (15) surficial soil sample locations (January 2008 – December 2024) documented track 4 RRU SCO exceedances. Each location requires 900 square-foot circles of composite cover (clean fill, hardscape, or a combination of the cover types).

The table below describes the cover types to be applied at each soil sample location:

| Sample Name | Grid | Cover Type | Estimated Clean Fill Volume (cubic yards) |
|----------------|--------------------|--------------------------|---|
| 2B-05 | E3 and F3 | Clean fill | 12 |
| 2B-15 | B6 | Hardscape | N/A |
| 2B-15A | B5 | Hardscape | N/A |
| 2B-15C | B6 | Hardscape | N/A |
| 2HB-03 | E6 | Hardscape and Clean Fill | 7 |
| 2HB-05 | E8 | Hardscape and Clean Fill | 7 |
| 2HB-06 | D9 | Hardscape | N/A |
| 2HB-08 | C7 | Hardscape and Clean Fill | 3 |
| 3HB-01 | D9 | Hardscape | N/A |
| 3HB-05 | C1 | Clean Fill | 12 |
| 2TP-2 | E2, E3, F2, and F3 | Clean Fill | 12 |
| 2TP-8 | E3 | Clean Fill | 12 |
| 2TP-11/2TP-11B | G4 | Clean Fill | 12 |
| 2TP-15 | G3 | Clean Fill | 12 |
| 5SS-1c | A7 | Clean Fill | 12 |

SITE PREPARATION SERVICES

Qualifications of On-site Remedial Personnel

Prior to the initiation of work, the identities and qualifications of the project managers and associated staff will be supplied to the NYSDEC. The Volunteer will ensure that qualified contractors are used. All on-site staff will be appropriately trained in accordance with Occupational Safety and Health Administration (OSHA) practices (29 CFR, Part 1910).

Health and Safety Plan (HASP)

All activities will be performed in accordance with the HASP provided in the RAWP. The HASP will be reviewed with site personnel and subcontractors prior to the initiation of specific fieldwork where contaminated media are likely to be encountered. All proposed work will be performed in "Level D" personal protective equipment. Field personnel (including subcontractors) will be prepared to continue services wearing more protective levels of equipment should field conditions warrant.

Community Air Monitoring

The NYSDOH Generic Community Air Monitoring Plan (CAMP; provided in Attachment C) will be initiated during all cover system installation activities, and during any other fieldwork that is reasonably likely to generate significant dust or vapors. The implementation of the CAMP will document the presence or absence of VOCs and dust in the air surrounding the work zone, which may migrate off-site due to fieldwork activities. This plan provides guidance on the need for implementing more stringent dust and emission controls based on air quality data.

Mitigation measures may include reducing the surface area of contaminated soil being disturbed at one time, watering exposed soils to reduce fugitive dust and odors, or stopping excavation activities. Dust suppression activities will be conducted during construction activities that will disturb on-site soils and may include misting, reduction in soil movement, or cessation of excavation.

Trail Use Management

The public will have access to Fisherman's Trail during installation of the cover system. If contractors need to make use of the trail to transport materials, flaggers will be positioned at the perimeter of the work zone on the Fisherman's Trail. Work will be halted and CAMP data reviewed before trail users are allowed to access the work zone.

Notifications

The NYSDEC will be notified in writing at least one week prior to the initiation of any of the on-site work, and during the course of the fieldwork if deemed necessary by on-site personnel. Changes to fieldwork scheduling will be provided via phone and/or email.

PROPOSED FIELDWORK

Community Air Monitoring Program (CAMP)

The RAWP CAMP will be implemented during all cover system installation activities. Air will be monitored upwind, downwind, and adjacent to the fisherman's trial for the presence of volatile organic compounds and dust.

Vegetation Clearing

Vegetation will be cleared in forested areas requiring installation of a clean soil cover. Clearing will include removal of large logs, brush, and small diameter trees (< 4-inch diameter). Stumps will be cut flush to existing grade or removed if required for soil remediation. Any depressions created from this process will be filled with NYSDEC-approved certified clean soil. Removed vegetation may be chipped or otherwise minimally processed on site and returned to the surface in areas outside the work zone.

Grubbing and excess soil/root disturbance is not permitted. Should clearing and equipment access result in significant exposed soils, a temporary or permanent vegetative cover shall be installed within 14 days in accordance with the Erosion and Sediment Control Plan (provided in Attachment D).

Cover System Installation

The cover system (required in areas where soil contamination exceeds Track 4 RRU SCOs) will be comprised of either soils meeting SCOs as described in 6 NYCRR Part 375.6.7 (d) RRU (determined to be suitable to sustain sufficient growth of vegetation in the upper 6 inches, and underlain with a demarcation layer) and or hardscape.

NYSDEC-approved soils for the cover system are currently stockpiled to the west of building B-7 (Grids E3, E4, F3 and F4). Documentation of the certified clean soils, including the soil request for reuse form (submitted to NYSDEC December 2023), supplementary PFAS sampling data (submitted to NYSDEC December 2023), and written NYSDEC-approval (June 2014) included as Attachment E.

Two feet of certified clean fill underlain by a demarcation layer (e.g., orange snow fencing) will act as cover for: forested areas (5SS-1C, 3HB-05, 2TP-8, 2TP-2, 2TP-15, and 2TP-11); areas with exposed soils (2HB-08, 2HB-03 and 2HB-05); and, the area with degraded asphalt pavement (2B-05). Certified clean fill will be applied in 900 square-foot circles centered over each sample location, modified as warranted by the presence of nearby site features, e.g., building outer walls, hardscape along the waterfront, etc.).

Building slabs, which are presumed to be 6 to 8 inches thick, will act as hardscape cover for soil contamination beneath Buildings B-1 (2HB-06 and 3HB-01) and B-5 (2B-15A, 2B-15, and 2B-15C), and as partial cover (together with clean fill) for soil contamination adjacent to Building slabs B-2, B-3, B-5, and B-7 (2HB-03, 2HB-05, and 2HB-08).

Exploratory Borings

Building slab thickness will be confirmed using exploratory cores at building slabs B-1, B-2, B-3, B-5, and B-7, which will be documented in the CCR. All slab cores will be restored with concrete to match existing conditions.

Reporting

GBTS and Bellucci Engineering (the remedial engineer) will oversee the installation of the cover system. Daily Status Reports documenting soil cover plan implementation, locations of work, summary of all complaints, summary of CAMP findings, and details of notable site conditions will be submitted within 24 hours of completion of each reporting period.

A CCR will be submitted following the completion of the cover system.

SCHEDULE

| <u>Week(s)</u> | <u>Activity</u> |
|----------------|---|
| 1 | Revised Soil Cover Plan (SCP) submitted to the NYSDEC |
| 2 | Approval of SCP by NYSDEC |
| 3 | Site Preparations |
| 4 | Cover System Installation |
| 5 | Exploratory Cores |
| 6-7 | CCR preparation and submittal to NYSDEC |

CERTIFICATION

I Daniel Bellucci am the remedial engineer of record for this project and I am certifying that I am familiar with all requirements of approved RAWP and the Construction Completion Report and the Final Engineering Report will be certified by me.

PE Name: **Daniel Bellucci**

PE License Number: 099470

PE Signature: 

Date: May 29, 2025



If you have any questions or comments, or require clarification on any item, please do not hesitate to contact me at (845) 867-4715.

Respectfully submitted,
Gallagher Bassett Technical Services



Caroline Clark
Project Manager, Environmental Consultant

Reviewed by,
Gallagher Bassett Technical Services



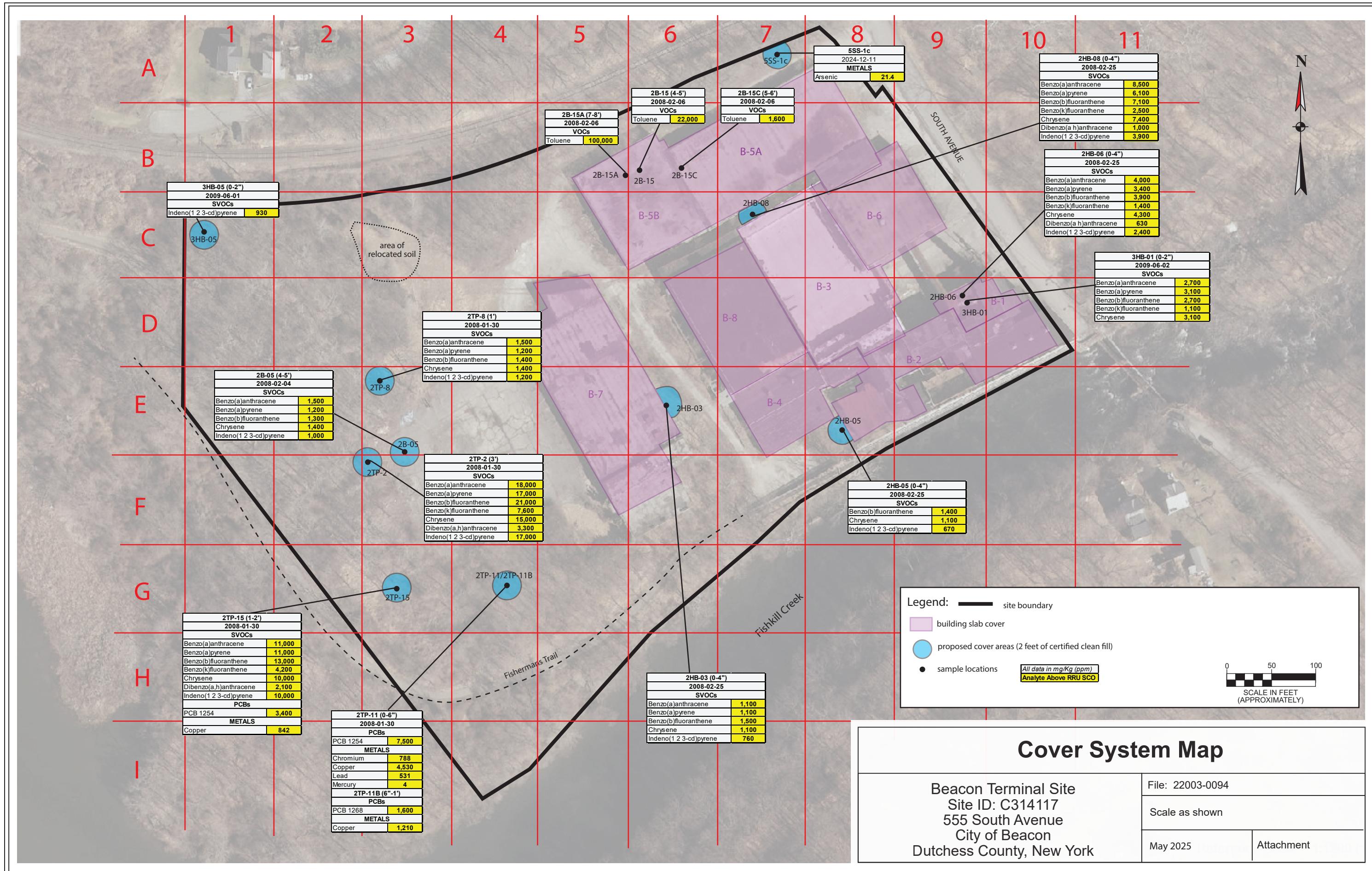
Scott Spitzer
Technical Director, Environmental Consulting

ATTACHMENTS:

- A Cover System Map
- B Surface Soil Data Table (December 2024)
- C Community Air Monitoring Plan
- D Erosion and Sediment Control Plan
- E Soil Importation Approval Letter, Soil Request for Reuse Form, Laboratory Results (December 2023)

ATTACHMENT A

Cover System Map



ATTACHMENT B

Surface Soil Data Table (December 2024)

Table 1: VOCs in Soils

BCP Site ID: C314117

GBTS File: 22003-0094

| All data in mg/Kg (ppm) U= Not Detected ≥ value | Sample Date Dilution | 5SS-1v | | 5SS-2v | | 5SS-3v | | 5SS-4v | |
|--|----------------------------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|
| | | 2024-12-11 | | 2024-12-11 | | 2024-12-11 | | 2024-12-11 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| VOCs, 8260 | RRU SCO | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier |
| 1,1,1,2-tetrachloroethane | NA | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| 1,1,1-trichloroethane | 100 | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| 1,1,2,2-tetrachloroethane | NA | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| 1,1,2-trichloro-1,2,2-trifluoroethane | NA | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| 1,1,2-trichloroethane | NA | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| 1,1-dichloroethane | 26 | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| 1,1-dichloroethylene (1,1-DCE) | 100 | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| 1,2,3-trichlorobenzene | NA | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| 1,2,3-trichloropropane | NA | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| 1,2,4-trichlorobenzene | NA | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| 1,2,4-trimethylbenzene | 52 | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| 1,2-dibromo-3-chloropropane | NA | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| 1,2-dibromoethane | NA | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| 1,2-dichlorobenzene | 100 | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| 1,2-dichloroethane | 3.1 | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| 1,2-dichloropropane | NA | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| 1,3,5-trimethylbenzene | 52 | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| 1,3-dichlorobenzene | 49 | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| 1,4-dichlorobenzene | 13 | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| 1,4-dioxane | 13 | 0.056 | U | 0.037 | U | 0.047 | U | 0.045 | U |
| 2-butanone (MEK) | 100 | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| 2-hexanone | NA | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| 4-methyl-2-pentanone | NA | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| acetone | 100 | 0.0056 | U | 0.0037 | U | 0.0062 | J | 0.0045 | U |
| acrolein | NA | 0.0056 | U | 0.0037 | U | 0.0047 | U | 0.0045 | U |
| acrylonitrile | NA | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| benzene | 4.8 | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| bromochloromethane | NA | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| bromodichloromethane | NA | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| bromoform | NA | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| bromomethane | NA | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| carbon disulfide | NA | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| carbon tetrachloride | 2.4 | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| chlorobenzene | 100 | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| chloroethane | NA | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| chloroform | 49 | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| chloromethane | NA | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| cis-1,2-dichloroethylene (cis-DCE) | 100 | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| cis-1,3-dichloropropylene | NA | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| cyclohexane | NA | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| dibromochloromethane | NA | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| dibromomethane | NA | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| dichlorodifluoromethane | NA | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| ethyl benzene | 41 | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| hexachlorobutadiene | NA | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| isopropylbenzene | 100 | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| methyl acetate | NA | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| methyl tert-butyl ether (MTBE) | 100 | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| methylcyclohexane | NA | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| methylene chloride | 100 | 0.0056 | U | 0.0037 | U | 0.0047 | U | 0.0045 | U |
| n-butylbenzene | 100 | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| n-propylbenzene | 100 | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| o-xylene | 100 | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| p- & m- xylenes | 100 | 0.0056 | U | 0.0037 | U | 0.0047 | U | 0.0045 | U |
| p-isopropyltoluene | NA | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| sec-butylbenzene | 100 | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| styrene | NA | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| tert-butyl alcohol (TBA) | NA | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| tert-butylbenzene | 100 | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| tetrachloroethylene (PCE) | 19 | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| toluene | 100 | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| trans-1,2-dichloroethylene (trans-DCE) | 100 | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| trans-1,3-dichloropropylene | NA | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| trichloroethylene (TCE) | 21 | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| trichlorofluoromethane | NA | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| v vinyl chloride (VC) | 0.9 | 0.0028 | U | 0.0018 | U | 0.0024 | U | 0.0023 | U |
| xylenes, total | 100 | 0.0084 | U | 0.0055 | U | 0.0071 | U | 0.0068 | U |

Analyte Detected

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 1: VOCs in Soils

BCP Site ID: C314117

GBTS File: 22003-0094

| All data in mg/Kg (ppm) U= Not Detected ≥ value | Sample Date Dilution | 5SS-5v | | 5SS-6v | | 5SS-7v | | 5SS-8v | |
|--|----------------------------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|
| | | 2024-12-11 | | 2024-12-11 | | 2024-12-11 | | 2024-12-11 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| VOCs, 8260 | RRU SCO | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier |
| 1,1,1,2-tetrachloroethane | NA | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| 1,1,1-trichloroethane | 100 | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| 1,1,2,2-tetrachloroethane | NA | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| 1,1,2-trichloro-1,2,2-trifluoroethane | NA | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| 1,1,2-trichloroethane | NA | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| 1,1-dichloroethane | 26 | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| 1,1-dichloroethylene (1,1-DCE) | 100 | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| 1,2,3-trichlorobenzene | NA | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| 1,2,3-trichloropropane | NA | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| 1,2,4-trichlorobenzene | NA | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| 1,2,4-trimethylbenzene | 52 | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| 1,2-dibromo-3-chloropropane | NA | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| 1,2-dibromoethane | NA | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| 1,2-dichlorobenzene | 100 | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| 1,2-dichloroethane | 3.1 | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| 1,2-dichloropropane | NA | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| 1,3,5-trimethylbenzene | 52 | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| 1,3-dichlorobenzene | 49 | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| 1,4-dichlorobenzene | 13 | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| 1,4-dioxane | 13 | 0.041 | U | 0.051 | U | 0.062 | U | 0.085 | U |
| 2-butanone (MEK) | 100 | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| 2-hexanone | NA | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| 4-methyl-2-pentanone | NA | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| acetone | 100 | 0.0041 | U | 0.0051 | U | 0.0062 | U | 0.0085 | U |
| acrolein | NA | 0.0041 | U | 0.0051 | U | 0.0062 | U | 0.0085 | U |
| acrylonitrile | NA | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| benzene | 4.8 | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| bromochloromethane | NA | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| bromodichloromethane | NA | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| bromoform | NA | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| bromomethane | NA | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| carbon disulfide | NA | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| carbon tetrachloride | 2.4 | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| chlorobenzene | 100 | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| chloroethane | NA | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| chloroform | 49 | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| chloromethane | NA | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| cis-1,2-dichloroethylene (cis-DCE) | 100 | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| cis-1,3-dichloropropylene | NA | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| cyclohexane | NA | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| dibromochloromethane | NA | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| dibromomethane | NA | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| dichlorodifluoromethane | NA | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| ethyl benzene | 41 | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| hexachlorobutadiene | NA | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| isopropylbenzene | 100 | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| methyl acetate | NA | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| methyl tert-butyl ether (MTBE) | 100 | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| methylcyclohexane | NA | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| methylene chloride | 100 | 0.0041 | U | 0.0051 | U | 0.0062 | U | 0.0085 | U |
| n-butylbenzene | 100 | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| n-propylbenzene | 100 | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| o-xylene | 100 | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| p- & m- xylenes | 100 | 0.0041 | U | 0.0051 | U | 0.0062 | U | 0.0085 | U |
| p-isopropyltoluene | NA | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| sec-butylbenzene | 100 | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| styrene | NA | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| tert-butyl alcohol (TBA) | NA | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| tert-butylbenzene | 100 | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| tetrachloroethylene (PCE) | 19 | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| toluene | 100 | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| trans-1,2-dichloroethylene (trans-DCE) | 100 | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| trans-1,3-dichloropropylene | NA | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| trichloroethylene (TCE) | 21 | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| trichlorofluoromethane | NA | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| v vinyl chloride (VC) | 0.9 | 0.0021 | U | 0.0026 | U | 0.0031 | U | 0.0043 | U |
| xylenes, total | 100 | 0.0062 | U | 0.0077 | U | 0.0092 | U | 0.013 | U |

Analyte Detected

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table Page 2 of 9

Table 1: VOCs in Soils

BCP Site ID: C314117

GBTS File: 22003-0094

| All data in mg/Kg (ppm) U= Not Detected ≥ value | Sample Date Dilution | 5SS-9v | | 5SS-10v | | 5SS-11v | | 5SS-12v | |
|--|----------------------------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|
| | | 2024-12-11 | | 2024-12-11 | | 2024-12-11 | | 2024-12-11 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| VOCs, 8260 | RRU SCO | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier |
| 1,1,1,2-tetrachloroethane | NA | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| 1,1,1-trichloroethane | 100 | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| 1,1,2,2-tetrachloroethane | NA | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| 1,1,2-trichloro-1,2,2-trifluoroethane | NA | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| 1,1,2-trichloroethane | NA | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| 1,1-dichloroethane | 26 | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| 1,1-dichloroethylene (1,1-DCE) | 100 | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| 1,2,3-trichlorobenzene | NA | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| 1,2,3-trichloropropane | NA | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| 1,2,4-trichlorobenzene | NA | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| 1,2,4-trimethylbenzene | 52 | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| 1,2-dibromo-3-chloropropane | NA | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| 1,2-dibromoethane | NA | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| 1,2-dichlorobenzene | 100 | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| 1,2-dichloroethane | 3.1 | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| 1,2-dichloropropane | NA | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| 1,3,5-trimethylbenzene | 52 | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| 1,3-dichlorobenzene | 49 | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| 1,4-dichlorobenzene | 13 | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| 1,4-dioxane | 13 | 0.029 | U | 0.07 | U | 0.037 | U | 0.054 | U |
| 2-butanone (MEK) | 100 | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| 2-hexanone | NA | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| 4-methyl-2-pentanone | NA | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| acetone | 100 | 0.0046 | J | 0.081 | | 0.011 | | 0.0054 | U |
| acrolein | NA | 0.0029 | U | 0.007 | U | 0.0037 | U | 0.0054 | U |
| acrylonitrile | NA | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| benzene | 4.8 | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| bromochloromethane | NA | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| bromodichloromethane | NA | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| bromoform | NA | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| bromomethane | NA | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| carbon disulfide | NA | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| carbon tetrachloride | 2.4 | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| chlorobenzene | 100 | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| chloroethane | NA | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| chloroform | 49 | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| chloromethane | NA | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| cis-1,2-dichloroethylene (cis-DCE) | 100 | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| cis-1,3-dichloropropylene | NA | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| cyclohexane | NA | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| dibromochloromethane | NA | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| dibromomethane | NA | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| dichlorodifluoromethane | NA | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| ethyl benzene | 41 | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| hexachlorobutadiene | NA | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| isopropylbenzene | 100 | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| methyl acetate | NA | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| methyl tert-butyl ether (MTBE) | 100 | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| methylcyclohexane | NA | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| methylene chloride | 100 | 0.0029 | U | 0.007 | U | 0.0037 | U | 0.0054 | U |
| n-butylbenzene | 100 | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| n-propylbenzene | 100 | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| o-xylene | 100 | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| p- & m- xylenes | 100 | 0.0029 | U | 0.007 | U | 0.0037 | U | 0.0054 | U |
| p-isopropyltoluene | NA | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| sec-butylbenzene | 100 | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| styrene | NA | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| tert-butyl alcohol (TBA) | NA | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| tert-butylbenzene | 100 | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| tetrachloroethylene (PCE) | 19 | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| toluene | 100 | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| trans-1,2-dichloroethylene (trans-DCE) | 100 | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| trans-1,3-dichloropropylene | NA | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| trichloroethylene (TCE) | 21 | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| trichlorofluoromethane | NA | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| v vinyl chloride (VC) | 0.9 | 0.0015 | U | 0.0035 | U | 0.0019 | U | 0.0027 | U |
| xylenes, total | 100 | 0.0044 | U | 0.011 | U | 0.0056 | U | 0.008 | U |

Analyte Detected

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 2: VOC TICs in Soils

BCP Site ID: C314117

GBTS File: 22003-0094

| Sample | | 5SS-1v | | 5SS-2v | | 5SS-3v | | 5SS-4v | |
|-------------------------|---------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|
| All data in mg/Kg (ppm) | Date | 2024-12-11 | | 2024-12-11 | | 2024-12-11 | | 2024-12-11 | |
| | | Dilution | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| VOC TICs | RRU SCO | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier |
| Total Reported VOC-TICs | NA | 0 | U | 0 | U | 0 | U | 0 | U |

| Sample | | 5SS-5v | | 5SS-6v | | 5SS-7v | | 5SS-8v | |
|-------------------------|---------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|
| All data in mg/Kg (ppm) | Date | 2024-12-11 | | 2024-12-11 | | 2024-12-11 | | 2024-12-11 | |
| | | Dilution | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| VOC TICs | RRU SCO | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier |
| Total Reported VOC-TICs | NA | 0 | U | 0 | U | 0 | U | 0 | U |

| Sample | | 5SS-9v | | 5SS-10v | | 5SS-11v | | 5SS-12v | |
|-------------------------|---------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|
| All data in mg/Kg (ppm) | Date | 2024-12-11 | | 2024-12-11 | | 2024-12-11 | | 2024-12-11 | |
| | | Dilution | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| VOC TICs | RRU SCO | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier |
| Total Reported VOC-TICs | NA | 0 | U | 0 | U | 0 | U | 0 | U |

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 3: SVOCs in Soils

BCP Site ID: C314117

GBTS File: 22003-0094

| Sample | 5SS-1c | | DUP-20241211 | | 5SS-8c | | 5SS-11c | | | |
|------------------------------------|---------|------------|--------------|--------|-----------|------------|-----------|--------|------------|--|
| | Date | 2024-12-11 | 2024-12-11 | | 2 | 2024-12-11 | | 2 | 2024-12-11 | |
| | | Dilution | 2 | 2 | | 2 | 2 | | 2 | |
| SVOCs, 8270 | RRU SCO | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier | |
| 1,1'-biphenyl | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| 1,2,4,5-tetrachlorobenzene | NA | 0.13 | U | 0.114 | U | 0.109 | U | 0.114 | U | |
| 1,2,4-trichlorobenzene | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| 1,2-dichlorobenzene | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| 1,2-diphenylhydrazine (azobenzene) | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| 1,3-dichlorobenzene | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| 1,4-dichlorobenzene | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| 2,3,4,6-tetrachlorophenol | NA | 0.13 | U | 0.114 | U | 0.109 | U | 0.114 | U | |
| 2,4,5-trichlorophenol | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| 2,4,6-trichlorophenol | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| 2,4-dichlorophenol | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| 2,4-dimethylphenol | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| 2,4-dinitrophenol | NA | 0.13 | U | 0.114 | U | 0.109 | U | 0.114 | U | |
| 2,4-dinitrotoluene | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| 2-chloronaphthalene | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| 2-chlorophenol | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| 2-methylnaphthalene | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| 2-methylphenol | 100 | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| 2-nitroaniline | NA | 0.13 | U | 0.114 | U | 0.109 | U | 0.114 | U | |
| 2-nitrophenol | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| 3- & 4-methylphenols | 100 | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| 3,3'-dichlorobenzidine | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| 3-nitroaniline | NA | 0.13 | U | 0.114 | U | 0.109 | U | 0.114 | U | |
| 4,6-dinitro-2-methylphenol | NA | 0.13 | U | 0.114 | U | 0.109 | U | 0.114 | U | |
| 4-bromophenyl phenyl ether | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| 4-chloro-3-methylphenol | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| 4-chloroaniline | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| 4-chlorophenyl phenyl ether | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| 4-nitroaniline | NA | 0.13 | U | 0.114 | U | 0.109 | U | 0.114 | U | |
| 4-nitrophenol | NA | 0.13 | U | 0.114 | U | 0.109 | U | 0.114 | U | |
| acenaphthene | 100 | 0.065 | U | 0.144 | D | 0.0547 | U | 0.0572 | U | |
| acenaphthylene | 100 | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| acetophenone | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| aniline | NA | 0.26 | U | 0.228 | U | 0.218 | U | 0.229 | U | |
| anthracene | 100 | 0.0871 | JD | 0.264 | D | 0.0547 | U | 0.0572 | U | |
| atrazine | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| benzaldehyde | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| benzidine | NA | 0.26 | U | 0.228 | U | 0.218 | U | 0.229 | U | |
| benzo(a)anthracene | 1 | 0.307 | D | 0.615 | D | 0.0547 | U | 0.093 | JD | |
| benzo(a)pyrene | 1 | 0.175 | D | 0.35 | D | 0.0547 | U | 0.0593 | JD | |
| benzo(b)fluoranthene | 1 | 0.298 | D | 0.623 | D | 0.0547 | U | 0.109 | JD | |
| benzo(g,h,i)perylene | 100 | 0.174 | D | 0.35 | D | 0.0547 | U | 0.0572 | U | |
| benzo(k)fluoranthene | 3.9 | 0.188 | D | 0.305 | D | 0.0547 | U | 0.1 | JD | |
| benzoic acid | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| benzyl alcohol | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| benzyl butyl phthalate | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| bis(2-chloroethoxy)methane | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| bis(2-chloroethyl)ether | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| bis(2-chloroisopropyl)ether | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| bis(2-ethylhexyl)phthalate | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| caprolactam | NA | 0.13 | U | 0.114 | U | 0.109 | U | 0.114 | U | |
| carbazole | NA | 0.065 | U | 0.0856 | JD | 0.0547 | U | 0.0572 | U | |
| chrysene | 3.9 | 0.292 | D | 0.545 | D | 0.0547 | U | 0.0867 | JD | |
| dibenzo(a,h)anthracene | 0.33 | 0.065 | U | 0.0974 | JD | 0.0547 | U | 0.0572 | U | |
| dibenzofuran | 59 | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| diethyl phthalate | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| dimethyl phthalate | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| di-n-butyl phthalate | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| di-n-octyl phthalate | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| fluoranthene | 100 | 0.587 | D | 1.25 | D | 0.0547 | U | 0.139 | D | |
| fluorene | 100 | 0.065 | U | 0.0865 | JD | 0.0547 | U | 0.0572 | U | |
| hexachlorobenzene | 1.2 | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| hexachlorobutadiene | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| hexachlorocyclooctadiene | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| hexachloroethane | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| indeno(1,2,3-cd)pyrene | 0.5 | 0.228 | D | 0.38 | D | 0.0547 | U | 0.0572 | U | |
| isophorone | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| naphthalene | 100 | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| nitrobenzene | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| n-nitrosodimethylamine | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| n-nitroso-di-n-propylamine | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| n-nitrosodiphenylamine | NA | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| pentachlorophenol | 6.7 | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| phenanthrene | 100 | 0.395 | D | 0.973 | D | 0.0547 | U | 0.0572 | U | |
| phenol | 100 | 0.065 | U | 0.0571 | U | 0.0547 | U | 0.0572 | U | |
| pyrene | 100 | 0.586 | D | 1.21 | D | 0.0547 | U | 0.0572 | U | |

Analyte Detected

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 4: SVOC TICs in Soils

BCP Site ID: C314117

GBTS File: 22003-0094

TECHNICAL
SERVICES

| Sample | | 5SS-1c | | DUP-20241211 | | 5SS-8c | | 5SS-11c | |
|--------------------------|---------|--------|------------|--------------|-----------|--------|------------|----------|-----------|
| | | Date | 2024-12-11 | Dilution | 2 | Date | 2024-12-11 | Dilution | 2 |
| SVOC TICs | RRU SCO | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier |
| Total Reported SVOC-TICs | NA | 0 | U | 0 | U | 0 | U | 0 | U |

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 5: Pesticides and PCBs in Soils

BCP Site ID: C314117

GBTS File: 22003-0094

| Sample Date Dilution | | 5SS-1c | | DUP-20241211 | | 5SS-8c | | 5SS-11c | |
|----------------------------|----------------|---------------|------------------|---------------|------------------|---------------|------------------|---------------|------------------|
| | | 2024-12-11 | | 2024-12-11 | | 2024-12-11 | | 2024-12-11 | |
| | | 5 | | 5 | | 5 | | 5 | |
| Pesticides, 8081 | RRU SCO | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier |
| 4,4'-DDD | 13 | 0.0025 | U | 0.00222 | U | 0.00211 | U | 0.00223 | U |
| 4,4'-DDE | 8.9 | 0.0025 | U | 0.00222 | U | 0.00211 | U | 0.00223 | U |
| 4,4'-DDT | 7.9 | 0.0025 | U | 0.00222 | U | 0.00211 | U | 0.00223 | U |
| Aldrin | 0.097 | 0.0025 | U | 0.00222 | U | 0.00211 | U | 0.00223 | U |
| alpha-BHC | 0.48 | 0.0025 | U | 0.00222 | U | 0.00211 | U | 0.00223 | U |
| alpha-Chlordane | 4.2 | 0.0025 | U | 0.00222 | U | 0.00211 | U | 0.00223 | U |
| beta-BHC | 0.36 | 0.0025 | U | 0.00222 | U | 0.00211 | U | 0.00223 | U |
| Chlordane (total) | NA | 0.05 | U | 0.0443 | U | 0.0422 | U | 0.0446 | U |
| delta-BHC | 100 | 0.0025 | U | 0.00222 | U | 0.00211 | U | 0.00223 | U |
| Dieldrin | 0.2 | 0.0025 | U | 0.00222 | U | 0.00211 | U | 0.00223 | U |
| Endosulfan I | 24 | 0.0025 | U | 0.00222 | U | 0.00211 | U | 0.00223 | U |
| Endosulfan II | 24 | 0.0025 | U | 0.00222 | U | 0.00211 | U | 0.00223 | U |
| Endosulfan sulfate | 24 | 0.0025 | U | 0.00222 | U | 0.00211 | U | 0.00223 | U |
| Endrin | 11 | 0.0025 | U | 0.00222 | U | 0.00211 | U | 0.00223 | U |
| Endrin aldehyde | NA | 0.0025 | U | 0.00222 | U | 0.00211 | U | 0.00223 | U |
| Endrin ketone | NA | 0.0025 | U | 0.00222 | U | 0.00211 | U | 0.00223 | U |
| gamma-BHC (Lindane) | 1.3 | 0.0025 | U | 0.00222 | U | 0.00211 | U | 0.00223 | U |
| gamma-Chlordane | NA | 0.0025 | U | 0.00222 | U | 0.00211 | U | 0.00223 | U |
| Heptachlor | 2.1 | 0.0025 | U | 0.00222 | U | 0.00211 | U | 0.00223 | U |
| Heptachlor Epoxide | NA | 0.0025 | U | 0.00222 | U | 0.00211 | U | 0.00223 | U |
| Methoxychlor | NA | 0.0025 | U | 0.00222 | U | 0.00211 | U | 0.00223 | U |
| Toxaphene | NA | 0.25 | U | 0.222 | U | 0.211 | U | 0.223 | U |
| Sample Date Dilution | | 5SS-1c | | DUP-20241211 | | 5SS-8c | | 5SS-11c | |
| | | 2024-12-11 | | 2024-12-11 | | 2024-12-11 | | 2024-12-11 | |
| | | 1 | | 1 | | 1 | | 1 | |
| PCBs, 8082 | RRU SCO | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier |
| Aroclor 1016 | 1.00 | 0.0252 | U | 0.0224 | U | 0.0213 | U | 0.0225 | U |
| Aroclor 1221 | 1.00 | 0.0252 | U | 0.0224 | U | 0.0213 | U | 0.0225 | U |
| Aroclor 1232 | 1.00 | 0.0252 | U | 0.0224 | U | 0.0213 | U | 0.0225 | U |
| Aroclor 1242 | 1.00 | 0.0252 | U | 0.0224 | U | 0.0213 | U | 0.0225 | U |
| Aroclor 1248 | 1.00 | 0.0252 | U | 0.0224 | U | 0.0213 | U | 0.0225 | U |
| Aroclor 1254 | 1.00 | 0.0252 | U | 0.0224 | U | 0.0213 | U | 0.0225 | U |
| Aroclor 1260 | 1.00 | 0.0252 | U | 0.0224 | U | 0.0213 | U | 0.0225 | U |
| Aroclor, Total | 1.00 | 0.0252 | U | 0.0224 | U | 0.0213 | U | 0.0225 | U |

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 6: TAL Metals in Soils

BCP Site ID: C314117

GBTS File: 22003-0094

| Sample | Date | 5SS-1c | | DUP-20241211 | | 5SS-8c | | 5SS-11c | |
|------------------------------|----------------|---------------|------------------|---------------|------------------|---------------|------------------|---------------|------------------|
| | | 2024-12-11 | | 2024-12-11 | | 2024-12-11 | | 2024-12-11 | |
| | | Dilution | 1 | Dilution | 1 | Dilution | 1 | Dilution | 1 |
| Metals, 6010 and 7473 | RRU SCO | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier |
| aluminum | NA | 16,000 | | 14,400 | | 17,700 | | 24,300 | |
| antimony | NA | 7.55 | | 7.71 | | 2.73 | U | 2.86 | U |
| arsenic | 16 | 21.4 | | 20.9 | | 10.2 | | 9.23 | |
| barium | 400 | 78.9 | | 73.9 | | 96.5 | | 76.2 | |
| beryllium | 72 | 0.78 | B | 0.715 | B | 0.834 | B | 0.961 | B |
| cadmium | 4.3 | 0.39 | U | 0.343 | U | 0.328 | U | 0.343 | U |
| calcium | NA | 29,600 | | 18,100 | | 5,000 | | 1,990 | |
| chromium | 180 | 20.8 | | 20.6 | | 21.8 | | 21.4 | |
| chromium (hexavalent) | 110 | 0.78 | U | 0.685 | U | 0.656 | U | 0.686 | U |
| cobalt | NA | 9.21 | | 8.57 | | 12.8 | | 9.08 | |
| copper | 270 | 38.4 | | 34 | | 37.6 | | 22.3 | |
| iron | NA | 23,600 | | 21,200 | | 28,000 | | 22,800 | |
| lead | 400 | 92.6 | | 98.8 | | 27.5 | | 40.9 | |
| magnesium | NA | 18,200 | | 12,000 | | 6,050 | | 4,270 | |
| manganese | 2,000 | 487 | | 447 | | 860 | | 391 | |
| mercury | 0.81 | 0.201 | | 0.147 | | 0.0779 | | 0.161 | |
| nickel | 310 | 27.6 | | 26.2 | | 31.5 | | 24.4 | |
| potassium | NA | 2,470 | | 2,380 | | 2,560 | | 1,150 | |
| selenium | 180 | 3.59 | | 3.46 | | 4.41 | | 3.65 | |
| silver | 180 | 0.655 | U | 0.575 | U | 0.551 | U | 0.577 | U |
| sodium | NA | 110 | | 99.7 | | 68 | | 57.2 | U |
| thallium | NA | 3.25 | U | 2.85 | U | 2.73 | U | 2.86 | U |
| vanadium | NA | 32.7 | | 33.7 | | 28.9 | | 45.5 | |
| zinc | 10,000 | 206 | | 191 | | 95.7 | | 119 | |
| cyanide (total) | 27 | 0.78 | U | 0.685 | U | 0.656 | U | 0.686 | U |

Analyte Detected

Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 7: PFAS and 1,4-Dioxane in Soils

BCP Site ID: C314117

GBTS Project: 22003-0094

| U= Not Detected ≥ value Data in µg/Kg (ppb) | Sample Date Dilution | 5SS-1c | | DUP-20241211 | | 5SS-8c | | 5SS-11c | |
|--|----------------------------|------------|-----------|--------------|-----------|------------|-----------|------------|-----------|
| | | 2024-12-11 | | 2024-12-11 | | 2024-12-11 | | 2024-12-11 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| PFAS | RRU | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier |
| 11CL-PF3QUDS | NA | 0.000485 | U | 0.000425 | U | 0.000407 | U | 0.000427 | U |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2 FTS) | NA | 0.00118 | U | 0.00103 | U | 0.000989 | U | 0.00104 | U |
| 1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2 FTS) | NA | 0.000929 | U | 0.000814 | U | 0.000779 | U | 0.000817 | U |
| 1H,1H,2H,2H-perfluoroctanesulfonic acid (6:2 FTS) | NA | 0.00117 | U | 0.00103 | U | 0.000982 | U | 0.00103 | U |
| 3-perfluoroheptyl propanoic acid (FHpPA) | NA | 0.00234 | U | 0.00205 | U | 0.00196 | U | 0.00206 | U |
| 3-perfluoropentyl propanoic acid (FPePA) | NA | 0.00327 | U | 0.00287 | U | 0.00275 | U | 0.00288 | U |
| 3-perfluoropropyl propanoic acid (FPrPA) | NA | 0.000989 | U | 0.000867 | U | 0.00083 | U | 0.00087 | U |
| 9CL-PF3ONS | NA | 0.000384 | U | 0.000336 | U | 0.000322 | U | 0.000338 | U |
| ADONA | NA | 0.000272 | U | 0.000238 | U | 0.000228 | U | 0.000239 | U |
| HFPO-DA (Gen-X) | NA | 0.000949 | U | 0.000831 | U | 0.000796 | U | 0.000835 | U |
| N-EtFOSA | NA | 0.000309 | U | 0.000271 | U | 0.000259 | U | 0.000272 | U |
| N-EtFOSAA | NA | 0.000303 | U | 0.000265 | U | 0.000254 | U | 0.000266 | U |
| N-EtFOSE | NA | 0.00109 | U | 0.000953 | U | 0.000913 | U | 0.000957 | U |
| N-MeFOSA | NA | 0.000281 | U | 0.000246 | U | 0.000236 | U | 0.000247 | U |
| N-MeFOSAA | NA | 0.000231 | U | 0.000202 | U | 0.000194 | U | 0.000203 | U |
| N-MeFOSE | NA | 0.000954 | U | 0.000835 | U | 0.0008 | U | 0.000839 | U |
| perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | NA | 0.000217 | U | 0.00019 | U | 0.000182 | U | 0.000191 | U |
| perfluoro-1-decanesulfonic acid (PFDS) | NA | 0.000298 | U | 0.000261 | U | 0.00025 | U | 0.000262 | U |
| perfluoro-1-heptanesulfonic acid (PFHpS) | NA | 0.000242 | U | 0.000212 | U | 0.000203 | U | 0.000213 | U |
| perfluoro-1-nonanesulfonic acid (PFNS) | NA | 0.000194 | U | 0.00017 | U | 0.000162 | U | 0.00017 | U |
| perfluoro-1-octanesulfonamide (FOSA) | NA | 0.000228 | U | 0.0002 | U | 0.000191 | U | 0.0002 | U |
| perfluoro-1-pentanesulfonate (FPFeS) | NA | 0.000245 | U | 0.000215 | U | 0.000206 | U | 0.000216 | U |
| perfluoro-3,6-dioxaheptanoic acid (NFDHA) | NA | 0.000301 | U | 0.000264 | U | 0.000253 | U | 0.000265 | U |
| perfluoro-4-oxapentanoic acid (PFMPA) | NA | 9.68E-05 | U | 8.48E-05 | U | 8.12E-05 | U | 8.51E-05 | U |
| perfluoro-5-oxahexanoic acid (PFMBA) | NA | 0.00015 | U | 0.000131 | U | 0.000126 | U | 0.000132 | U |
| perfluorobutanesulfonic acid (PPBS) | NA | 0.000173 | U | 0.000152 | U | 0.000145 | U | 0.000152 | U |
| perfluorodecanoic acid (PFDA) | NA | 0.000323 | | 0.000275 | | 0.00025 | U | 0.000262 | U |
| perfluorododecanesulfonic acid (PFDoS) | NA | 0.000264 | U | 0.000231 | U | 0.000221 | U | 0.000232 | U |
| perfluorododecanoic acid (PFDoA) | NA | 0.000254 | U | 0.000223 | U | 0.000213 | U | 0.000224 | U |
| perfluoroheptanoic acid (PFHpA) | NA | 0.000164 | U | 0.000144 | U | 0.000151 | J | 0.000181 | J |
| perfluorohexanesulfonic acid (PFHxS) | NA | 0.000279 | U | 0.000245 | U | 0.000234 | U | 0.000246 | U |
| perfluorohexanoic acid (PFHxA) | NA | 8.27E-05 | U | 7.25E-05 | U | 0.000077 | J | 0.000123 | J |
| perfluoro-n-butanic acid (PFBA) | NA | 0.00017 | U | 0.000149 | U | 0.000143 | U | 0.00015 | U |
| perfluorononanoic acid (PFNA) | NA | 0.000531 | | 0.000432 | | 0.000302 | | 0.000414 | |
| perfluoroctanesulfonic acid (PFOS) | 44 | 0.00172 | | 0.00163 | | 0.00124 | | 0.00122 | |
| perfluorooctanoic acid (PFOA) | 33 | 0.000728 | | 0.00057 | | 0.0007 | | 0.000528 | |
| perfluoropentanoic acid (FPFeA) | NA | 0.00017 | U | 0.000149 | U | 0.000143 | U | 0.00015 | U |
| perfluorotetradecanoic acid (PFTA) | NA | 0.000161 | U | 0.000141 | U | 0.000135 | U | 0.000141 | U |
| perfluorotridecanoic acid (PFTrDA) | NA | 0.000195 | U | 0.000171 | U | 0.000164 | U | 0.000172 | U |
| perfluoroundecanoic acid (PFUnA) | NA | 0.000492 | | 0.000444 | | 0.000259 | U | 0.000272 | U |

| Data in mg/Kg (ppm) | Sample Date Dilution | 5SS-1c | | DUP-20241211 | | 5SS-8c | | 5SS-11c | |
|----------------------|----------------------------|------------|-----------|--------------|-----------|------------|-----------|------------|-----------|
| | | 2024-12-11 | | 2024-12-11 | | 2024-12-11 | | 2024-12-11 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1,4-Dioxane 8270 SIM | RRU SCO | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier |
| 1,4-dioxane | 13 | 0.0194 | U | 0.0194 | U | 0.0194 | U | 0.0194 | U |

Analyte Detected

Notes: SCOs/guidance values based on NYSDEC Part 375-6.8 and current NYSDEC guidance NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

ATTACHMENT C

Community Air Monitoring Plan

New York State Department of Health Generic Community Air Monitoring Plan

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical-specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for volatile organic compounds (VOCs) and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate NYSDEC/NYSDOH staff.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. "Periodic" monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a reading prior to

leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.
- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.
- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

All 15-minute readings must be recorded and be available for State (DEC and DOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored **continuously** at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

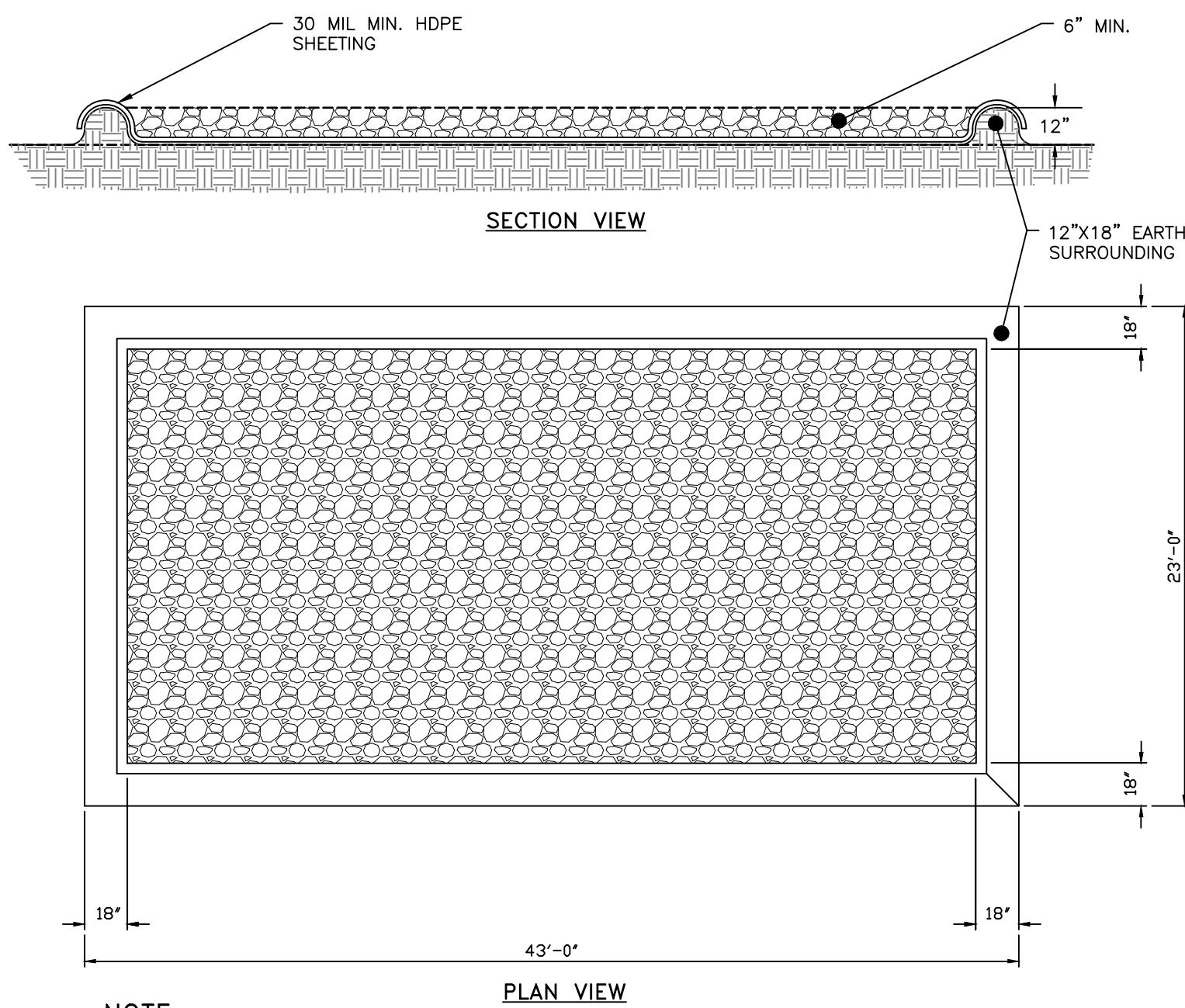
- If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.
- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m^3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m^3 of the upwind level and in preventing visible dust migration.

All readings must be recorded and be available for State (DEC and DOH) personnel to review.

ATTACHMENT D

Erosion and Sediment Control Plan



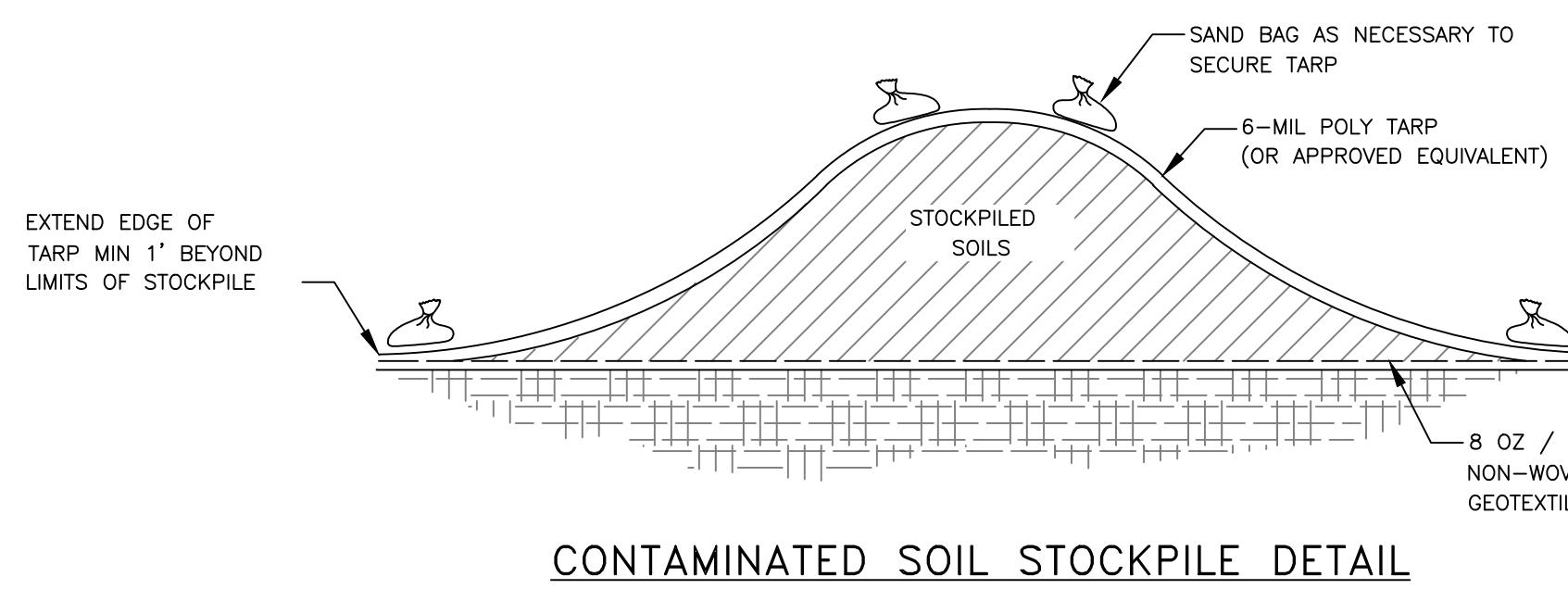


PLAN VIEW

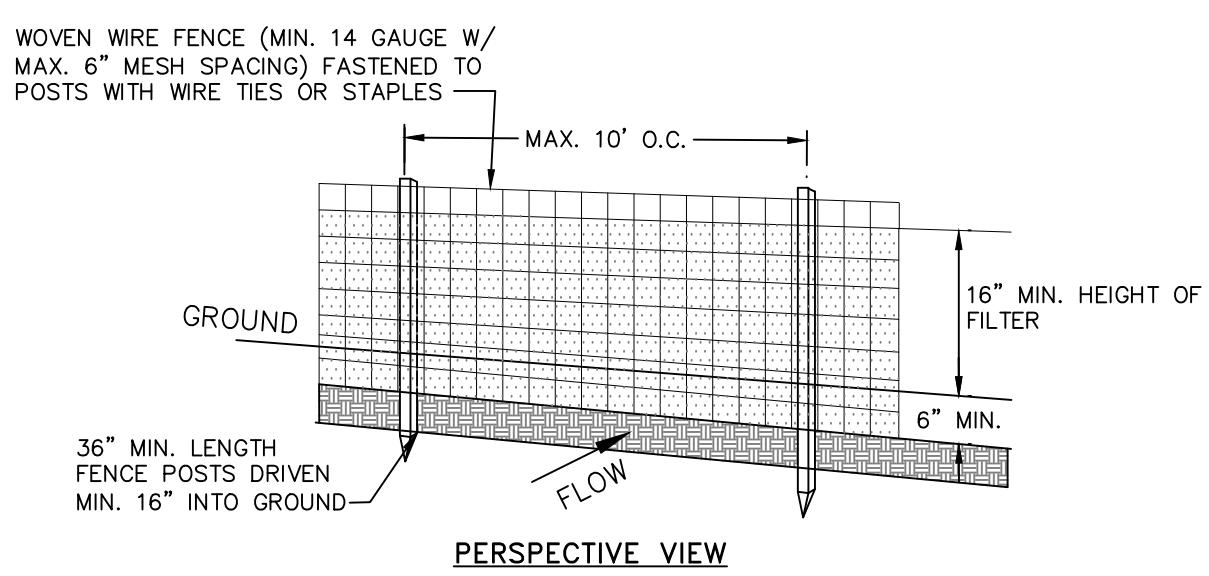
NOTE:

1. THE ENVIRONMENTAL CONTRACTOR PROPOSES TO ONLY HAUL CONTAMINATED SOIL ON DRY WEATHER DAYS. IN THIS CASE, CONTAMINATED SOIL WILL BE REMOVED FROM THE TRUCK TIRES BY DRY BRUSHING THE TIRES CLEAN OVER A 30-MIL PLASTIC BARRIER. THE BARRIER WILL BE CLEANED AT THE END OF EACH DAY.
2. STONE SIZE – USE 1-4 INCH STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT THICKNESS – NOT LESS THAN SIX (6) INCHES.

TRUCK DECONTAMINATION PAD DETAIL
NOT TO SCALE



CONTAMINATED SOIL STOCKPILE DETAIL
NOT TO SCALE

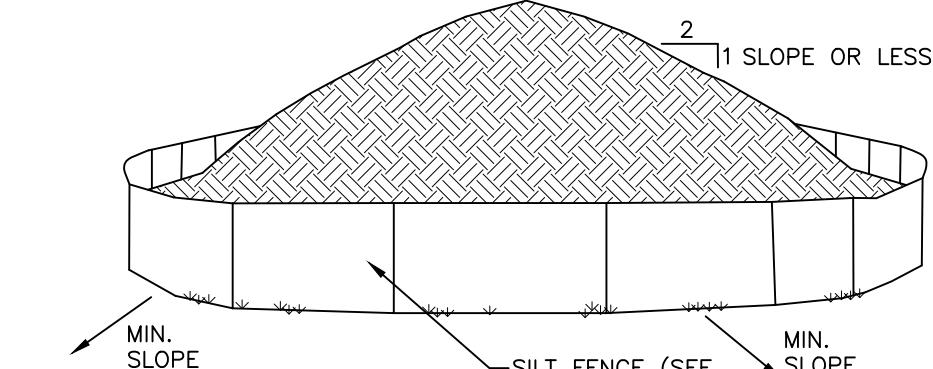


NOTES:

SECTION VIEW

1. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N OR APPROVED EQUAL.
3. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE OR APPROVED EQUAL.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

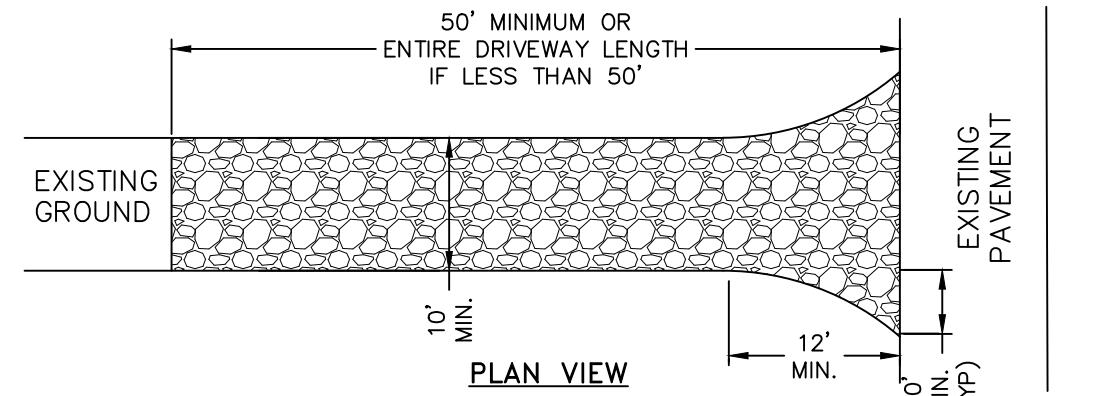
SILT FENCE DETAIL
NOT TO SCALE



TEMPORARY SOIL STOCKPILE DETAIL
NOT TO SCALE

1. 1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. EACH PILE SHALL BE SURROUNDED WITH SILT FENCING, THEN STABILIZED WITH VEGETATION OR COVERED.

2. EACH PILE SHALL BE SURROUNDED WITH SILT FENCING, THEN STABILIZED WITH VEGETATION OR COVERED.

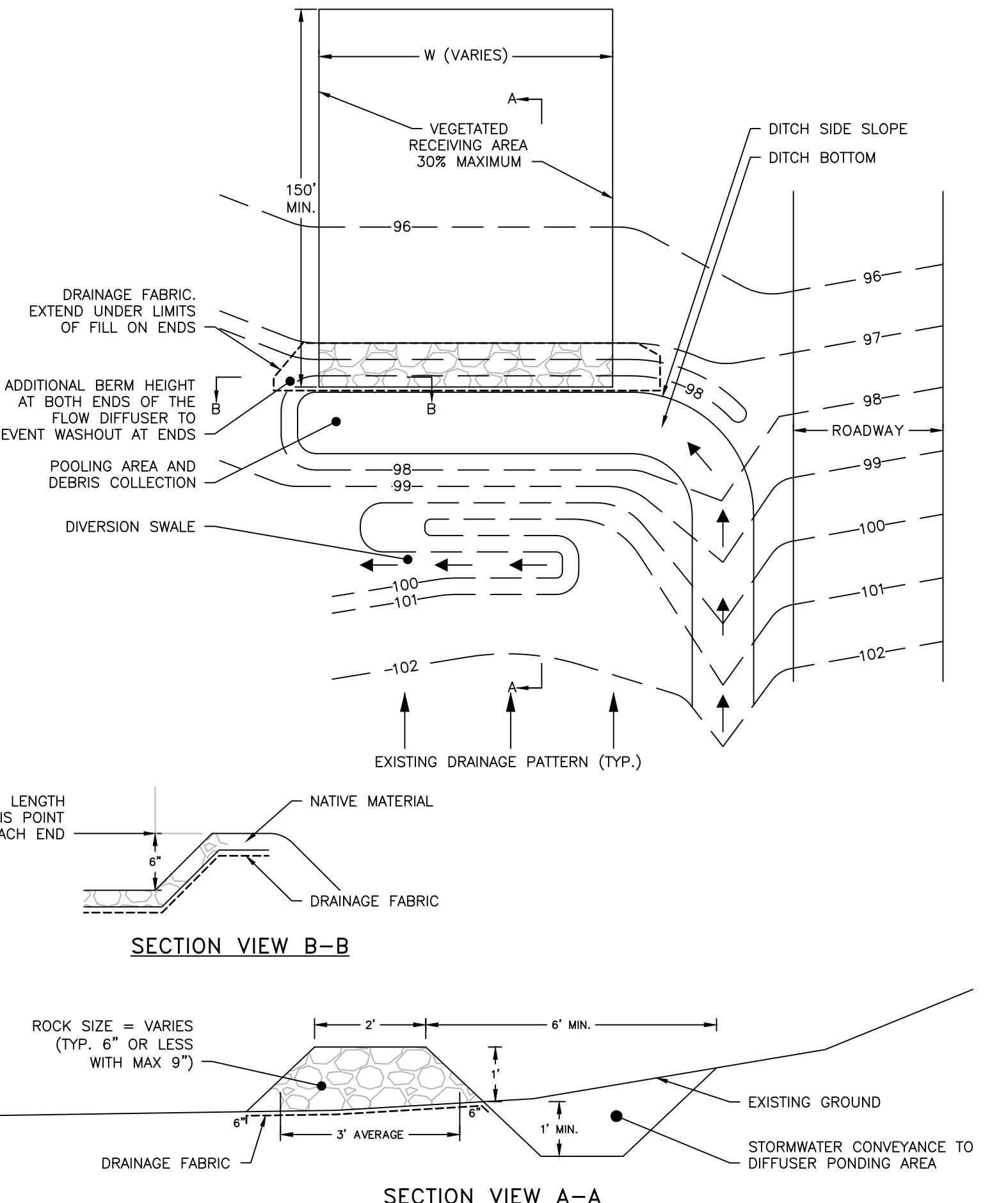


- 2 -

NOTES:

1. STONE SIZE – USE 1–4 INCH STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. THICKNESS – NOT LESS THAN SIX (6) INCHES.
3. WIDTH – 12 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. 24 FOOT MINIMUM IF SINGLE ENTRANCE TO SITE.
4. GEOTEXTILE – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
5. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
6. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS–OF–WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURE USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS–OF–WAY MUST BE REMOVED IMMEDIATELY.
7. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
8. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION
ENTRANCE DETAIL
NOT TO SCALE



E:
TYPICAL ELEVATIONS SHOWN HERE ARE TO ILLUSTRATE THE
LOCATION OF THE FLOW DIFFUSER.

FLOW DIFFUSER DETAIL

NOT TO SCALE



**HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING P.C.
174 MAIN ST., BEACON, NEW YORK 12508
13 CHAMBERS ST., NEWBURGH, NEW YORK 12550
PH: 845-440-6926**

EROSION & SEDIMENT CONTROL DETAILS

555 SOUTH AVENUE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 5954-16-751258

JOB #: 2016:027
DATE: 1/25/2024
SCALE: 1" = 40'
TITLE: CD-1
SHEET: 2 OF 2

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK EDUCATION LAW

ATTACHMENT E

**Soil Importation Approval Letter,
Soil Request for Reuse Form,
Laboratory Results (December 2023)**



NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION



Request to Import/Reuse Fill or Soil

This form is based on the information required by DER-10, Section 5.4(e). Use of this form is not a substitute for reading the applicable Technical Guidance document.

SECTION 1 – SITE BACKGROUND

The allowable site use is:

Have Ecological Resources been identified?

Is this soil originating from the site?

How many cubic yards of soil will be imported/reused?

If greater than 1000 cubic yards will be imported, enter volume to be imported:

SECTION 2 – MATERIAL OTHER THAN SOIL

Is the material to be imported gravel, rock or stone?

Does it contain less than 10%, by weight, material that would pass a size 10 sieve?

Does it contain less than 10%, by weight, material that would pass a size 100 sieve?

Is this virgin material from a permitted mine or quarry?

Is this material recycled concrete or brick from a DEC registered processing facility?

SECTION 3 - SAMPLING

Provide a brief description of the number and type of samples collected in the space below:

Collected (7) composite sample to be analyzed for PFAs via Method 1633. Each composite sample consists of 3 discrete samples from different locations in the fill pile.

Example Text: 5 discrete samples were collected and analyzed for VOCs. 2 composite samples were collected and analyzed for SVOCs, Inorganics & PCBs/Pesticides.

If the material meets requirements of DER-10 section 5.4(e)5 (other material), no chemical testing needed.

SECTION 3 CONT'D - SAMPLING

Provide a brief written summary of the sampling results or attach evaluation tables (compare to DER-10, Appendix 5):

Soils were previously approved by the NYSDEC in June 2014. Due to updated guidance the NYSDEC requested PFAs analysis. No PFAs exceedances were observed in the soil data (December 2023).

Example Text: Arsenic was detected up to 17 ppm in 1 (of 5) samples; the allowable level is 16 ppm.

If Ecological Resources have been identified use the “If Ecological Resources are Present” column in Appendix 5.

SECTION 4 – SOURCE OF FILL

Name of person providing fill and relationship to the source:

Fairway Wallkill, LLC

Location where fill was obtained:

145 Golf Links Rd, Middletown, NY 10940

Identification of any state or local approvals as a fill source:

NYSDEC (June 2014)

If no approvals are available, provide a brief history of the use of the property that is the fill source:

Soil was imported from a residential development site in Middletown, New York, known as “Fairways”, which had previously been approved by NYSDEC as a source of clean soil

Provide a list of supporting documentation included with this request:

Analytical Report, Data Summary Table, NYSDEC previous approval (June 9, 2014)

The information provided on this form is accurate and complete.



Signature

12/14/2023

Date

Caroline Clark

Print Name

Gallagher Bassett

Firm

Table 1: PFAS in Soils

BCP Site ID: C314117

GBTS Project: 22003-0094

| PFAS | UU | RRU | Sample | | SP-01 COMP | | SP-02 COMP | | SP-03 COMP | | SP-04 COMP | | SP-05 COMP | | SP-06 COMP | | SP-07 COMP | |
|--|------|-----|--------|----------|------------|---|------------|---|------------|---|------------|---|------------|---|------------|---|------------|---|
| | | | Date | Dilution | 2023-12-05 | | 2023-12-05 | | 2023-12-05 | | 2023-12-05 | | 2023-12-05 | | 2023-12-05 | | 2023-12-05 | |
| | | | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 11CL-PF3OUdS | NA | NA | 0.0003 | U | 0.0003 | U | 0.0003 | U | 0.0003 | U | 0.0004 | U | 0.0004 | U | 0.0004 | U | 0.0004 | U |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2 FTS) | NA | NA | 0.0008 | U | 0.0008 | U | 0.0008 | U | 0.0008 | U | 0.001 | U | 0.0009 | U | 0.0009 | U | 0.0009 | U |
| 1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2 FTS) | NA | NA | 0.0007 | U | 0.0006 | U | 0.0006 | U | 0.0008 | U | 0.0007 | U | 0.0007 | U | 0.0007 | U | 0.0007 | U |
| 1H,1H,2H,2H-perfluoroctanesulfonic acid (6:2 FTS) | NA | NA | 0.0007 | U | 0.0006 | U | 0.0006 | U | 0.0008 | U | 0.0007 | U | 0.0007 | U | 0.0007 | U | 0.0007 | U |
| 3-perfluoroheptyl propanoic acid (FHpPA) | NA | NA | 0.0017 | U | 0.0016 | U | 0.0016 | U | 0.0019 | U | 0.0017 | U | 0.0018 | U | 0.0018 | U | 0.0018 | U |
| 3-perfluoropentyl propanoic acid (FPePA) | NA | NA | 0.0023 | U | 0.0023 | U | 0.0023 | U | 0.0027 | U | 0.0024 | U | 0.0025 | U | 0.0025 | U | 0.0025 | U |
| 3-perfluoropropyl propanoic acid (FPrPA) | NA | NA | 0.001 | J | 0.0009 | J | 0.0007 | U | 0.0008 | U | 0.0007 | U | 0.0007 | U | 0.0008 | U | 0.0008 | U |
| 9CL-PF3ONS | NA | NA | 0.0003 | U | 0.0003 | U | 0.0003 | U | 0.0003 | U | 0.0003 | U | 0.0003 | U | 0.0003 | U | 0.0003 | U |
| ADONA | NA | NA | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U |
| HFPO-DA (Gen-X) | NA | NA | 0.0007 | U | 0.0007 | U | 0.0007 | U | 0.0008 | U | 0.0007 | U | 0.0007 | U | 0.0007 | U | 0.0007 | U |
| N-EtFOSA | NA | NA | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0003 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U |
| N-EtFOSAA | NA | NA | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U |
| N-EtFOSE | NA | NA | 0.0008 | U | 0.0008 | U | 0.0008 | U | 0.0009 | U | 0.0008 | U | 0.0008 | U | 0.0008 | U | 0.0008 | U |
| N-MeFOSA | NA | NA | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U |
| N-MeFOSAA | NA | NA | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U |
| N-MeFOSE | NA | NA | 0.0007 | U | 0.0007 | U | 0.0007 | U | 0.0008 | U | 0.0007 | U | 0.0007 | U | 0.0007 | U | 0.0007 | U |
| perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | NA | NA | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U |
| perfluoro-1-decanesulfonic acid (PFDS) | NA | NA | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U |
| perfluoro-1-heptanesulfonic acid (PFHPS) | NA | NA | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U |
| perfluoro-1-nananesulfonic acid (PFNS) | NA | NA | 0.0001 | U | 0.0001 | U | 0.0001 | U | 0.0002 | U | 0.0001 | U | 0.0001 | U | 0.0001 | U | 0.0001 | U |
| perfluoro-1-octanesulfonamide (FOSA) | NA | NA | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U |
| perfluoro-1-pentanesulfonate (PPPeS) | NA | NA | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U |
| perfluoro-3,6-dioxaheptanoic acid (NFDHA) | NA | NA | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U |
| perfluoro-4-oxapentanoic acid (PFMPA) | NA | NA | 0.0004 | J | 0.0004 | J | 0.0005 | | 0.0002 | J | 8E-05 | J | 0.0001 | J | 0.0002 | J | 0.0002 | J |
| perfluoro-5-oxahexanoic acid (PFMBA) | NA | NA | 0.0001 | U | 0.0001 | U | 0.0001 | U | 0.0001 | U | 0.0001 | U | 0.0001 | U | 0.0001 | U | 0.0001 | U |
| perfluorobutanesulfonic acid (PFBS) | NA | NA | 0.0001 | U | 0.0001 | U | 0.0001 | U | 0.0001 | U | 0.0001 | U | 0.0001 | U | 0.0001 | U | 0.0001 | U |
| perfluorodecanoic acid (PFDA) | NA | NA | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U |
| perfluorododecanesulfonic acid (PFDoS) | NA | NA | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U |
| perfluorododecanoic acid (PFDoA) | NA | NA | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U |
| perfluoroheptanoic acid (PFHpA) | NA | NA | 0.0001 | U | 0.0001 | U | 0.0001 | U | 0.0001 | U | 0.0001 | U | 0.0001 | U | 0.0001 | U | 0.0001 | U |
| perfluorohexanesulfonic acid (PFHxS) | NA | NA | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U |
| perfluorohexanoic acid (PFHxA) | NA | NA | 6E-05 | U | 6E-05 | U | 6E-05 | U | 7E-05 | U | 6E-05 | U | 6E-05 | U | 6E-05 | U | 6E-05 | U |
| perfluoro-n-butanoic acid (PFBA) | NA | NA | 0.0011 | | 0.0007 | J | 0.0019 | | 0.0012 | | 0.0005 | J | 0.001 | | 0.0012 | | 0.0012 | |
| perfluorononanoic acid (PFNA) | NA | NA | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U |
| perfluoroctanesulfonic acid (PFOS) | 0.88 | 44 | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U |
| perfluoroctanoic acid (PFOA) | 0.66 | 33 | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U |
| perfluoropentanoic acid (PPPeA) | NA | NA | 0.0004 | J | 0.0002 | J | 0.0002 | J | 0.0001 | U |
| perfluorotetradecanoic acid (PFTA) | NA | NA | 0.0001 | U | 0.0001 | U | 0.0001 | U | 0.0001 | U | 0.0001 | U | 0.0001 | U | 0.0001 | U | 0.0001 | U |
| perfluorotridecanoic acid (PFTrDA) | NA | NA | 0.0001 | U | 0.0001 | U | 0.0001 | U | 0.0002 | U | 0.0001 | U | 0.0001 | U | 0.0001 | U | 0.0001 | U |
| perfluoroundecanoic acid (PFUnA) | NA | NA | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U | 0.0003 | U | 0.0002 | U | 0.0002 | U | 0.0002 | U |

Analyte Detected

Analyte Above UU Guidance/SCO

Analyte Above RRU Guidance/SCO

Notes: SCOs/guidance values based on NYSDEC Part 375-6.8 and current NYSDEC guidance NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 2: PFAS in Groundwater

BCP Site ID: C314117

GBTS Project: 22003-0094

| | | Sample ID | FB-20231205 | |
|--|--|-------------|----------------|-----------|
| Data in ng/L (parts per trillion, ppt) | | Sample Date | 2023-12-05 | |
| U= Not Detected ≥ value | | Dilution | 1 | |
| PFAS | | Guidance | Result | Qualifier |
| 11CL-PF3OUdS | | NA | 0.00133 | U |
| 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2 FTS) | | NA | 0.00198 | U |
| 1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2 FTS) | | NA | 0.00173 | U |
| 1H,1H,2H,2H-perfluoroctanesulfonic acid (6:2 FTS) | | NA | 0.00102 | U |
| 3-perfluoroheptyl propanoic acid (FHpPA) | | NA | 0.00915 | U |
| 3-perfluoropentyl propanoic acid (FPePA) | | NA | 0.00708 | U |
| 3-perfluoropropyl propanoic acid (FPrPA) | | NA | 0.00196 | U |
| 9CL-PF3ONS | | NA | 0.00117 | J |
| ADONA | | NA | 0.00051 | U |
| HFPO-DA (Gen-X) | | NA | 0.00312 | U |
| N-EtFOSA | | NA | 0.00174 | U |
| N-EtFOSAA | | NA | 0.001 | U |
| N-EtFOSE | | NA | 0.00386 | U |
| N-MeFOSA | | NA | 0.00153 | U |
| N-MeFOSAA | | NA | 0.00076 | U |
| N-MeFOSE | | NA | 0.00386 | U |
| perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | | NA | 0.00048 | U |
| perfluoro-1-decanesulfonic acid (PFDS) | | NA | 0.00128 | U |
| perfluoro-1-heptanesulfonic acid (PFHpS) | | NA | 0.00088 | U |
| perfluoro-1-nananesulfonic acid (PFNS) | | NA | 0.00083 | U |
| perfluoro-1-octanesulfonamide (FOSA) | | NA | 0.00085 | U |
| perfluoro-1-pentanesulfonate (PFPeS) | | NA | 0.00073 | U |
| perfluoro-3,6-dioxaheptanoic acid (NFDHA) | | NA | 0.00207 | U |
| perfluoro-4-oxapentanoic acid (PFMMPA) | | NA | 0.00031 | J |
| perfluoro-5-oxahexanoic acid (PFMBA) | | NA | 0.00102 | J |
| perfluorobutanesulfonic acid (PFBS) | | NA | 0.00054 | J |
| perfluorodecanoic acid (PFDA) | | NA | 0.00073 | U |
| perfluorododecanesulfonic acid (PFDoS) | | NA | 0.0009 | U |
| perfluorododecanoic acid (PFDoA) | | NA | 0.00085 | U |
| perfluoroheptanoic acid (PFHpa) | | NA | 0.00069 | U |
| perfluorohexanesulfonic acid (PFHxS) | | NA | 0.00066 | U |
| perfluorohexanoic acid (PFHxA) | | NA | 0.00085 | J |
| perfluoro-n-butanoic acid (PFBA) | | NA | 0.00032 | U |
| perfluorononanoic acid (PFNA) | | NA | 0.0005 | U |
| perfluorooctanesulfonic acid (PFOS) | | 2.7 | 0.00079 | U |
| perfluorooctanoic acid (PFOA) | | 6.7 | 0.00041 | U |
| perfluoropentanoic acid (PFPeA) | | NA | 0.00022 | U |
| perfluorotetradecanoic acid (PFTA) | | NA | 0.00067 | U |
| perfluorotridecanoic acid (PTTrDA) | | NA | 0.00072 | U |
| perfluoroundecanoic acid (PFUnA) | | NA | 0.00109 | U |
| TOTAL PFAS | | | 0.00389 | |

Analyte Detected

Analyte ≥ NYSDEC Guidance/AWQS

Notes: AWQS based on NYSDEC TOGS 1.1.1 (Class GA) NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted



Technical Report

prepared for:

Gallagher Bassett - Poughkeepsie, NY

22 IBM Road, Suite 101

Poughkeepsie NY, 12601

Attention: Caroline Clark

Report Date: 12/13/2023

Client Project ID: 22003-0094

York Project (SDG) No.: 23L0283

CT Cert. No. PH-0723

New Jersey Cert. No. CT005 and NY037



New York Cert. Nos. 10854 and 12058

PA Cert. No. 68-04440

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132-02 89th AVENUE
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RICHMOND HILL, NY 11418
ClientServices@yorklab.com

Report Date: 12/13/2023
Client Project ID: 22003-0094
York Project (SDG) No.: 23L0283

Gallagher Bassett - Poughkeepsie, NY
22 IBM Road, Suite 101
Poughkeepsie NY, 12601
Attention: Caroline Clark

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on December 06, 2023 and listed below. The project was identified as your project: **22003-0094**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Sample and Analysis Qualifiers section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the Sample and Data Qualifiers Relating to This Work Order section of this report and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

| <u>York Sample ID</u> | <u>Client Sample ID</u> | <u>Matrix</u> | <u>Date Collected</u> | <u>Date Received</u> |
|-----------------------|-------------------------|---------------|-----------------------|----------------------|
| 23L0283-01 | SP-01 comp | Soil | 12/05/2023 | 12/06/2023 |
| 23L0283-02 | SP-02 comp | Soil | 12/05/2023 | 12/06/2023 |
| 23L0283-03 | SP-03 comp | Soil | 12/05/2023 | 12/06/2023 |
| 23L0283-04 | SP-04 comp | Soil | 12/05/2023 | 12/06/2023 |
| 23L0283-05 | SP-05 comp | Soil | 12/05/2023 | 12/06/2023 |
| 23L0283-06 | SP-06 comp | Soil | 12/05/2023 | 12/06/2023 |
| 23L0283-07 | SP-07 comp | Soil | 12/05/2023 | 12/06/2023 |
| 23L0283-08 | FB-20231205 | Water | 12/05/2023 | 12/06/2023 |

General Notes for York Project (SDG) No.: 23L0283

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

Approved By: 

Date: 12/13/2023

Cassie L. Mosher
Laboratory Manager





Sample Information

Client Sample ID: SP-01 comp

York Sample ID: 23L0283-01

| <u>York Project (SDG) No.</u> | <u>Client Project ID</u> | <u>Matrix</u> | <u>Collection Date/Time</u> | <u>Date Received</u> |
|-------------------------------|--------------------------|---------------|-----------------------------|----------------------|
| 23L0283 | 22003-0094 | Soil | December 5, 2023 3:00 pm | 12/06/2023 |

PFAS, EPA 1633 Target List

Sample Prepared by Method: EPA 1633 Prep

Log-in Notes:

Sample Notes:

| CAS No. | Parameter | Result | Flag | Units | Reported to LOD/MDL | LOQ | Dilution | Reference Method | Date/Time Prepared | Date/Time Analyzed | Analyst |
|-------------|--|--------------|------|-----------|---------------------|-------|----------|---|--------------------|--------------------|---------|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | ug/kg dry | 0.123 | 0.195 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:26 | ESJ |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | ND | | ug/kg dry | 0.0585 | 0.221 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:26 | ESJ |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | ND | | ug/kg dry | 0.116 | 0.221 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:26 | ESJ |
| 355-46-4 | * Perfluorohexanesulfonic acid (PFHxS) | ND | | ug/kg dry | 0.198 | 0.202 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:26 | ESJ |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | ND | | ug/kg dry | 0.190 | 0.221 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:26 | ESJ |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | ND | | ug/kg dry | 0.184 | 0.205 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:26 | ESJ |
| 375-95-1 | Perfluorononanoic acid (PFNA) | ND | | ug/kg dry | 0.209 | 0.221 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:26 | ESJ |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | ND | | ug/kg dry | 0.211 | 0.221 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:26 | ESJ |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | ND | | ug/kg dry | 0.219 | 0.221 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:26 | ESJ |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | ND | | ug/kg dry | 0.180 | 0.221 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:26 | ESJ |
| 72629-94-8 | Perfluorotridecanoic acid (PTrDA) | ND | | ug/kg dry | 0.138 | 0.221 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:26 | ESJ |
| 376-06-7 | Perfluorotetradecanoic acid (PFTA) | ND | | ug/kg dry | 0.114 | 0.221 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:26 | ESJ |
| 2355-31-9 | N-MeFOSAA | ND | | ug/kg dry | 0.163 | 0.221 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:26 | ESJ |
| 2991-50-6 | N-EtFOSAA | ND | | ug/kg dry | 0.214 | 0.221 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:26 | ESJ |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 0.405 | J | ug/kg dry | 0.120 | 0.442 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:26 | ESJ |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | | ug/kg dry | 0.161 | 0.221 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:26 | ESJ |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | ug/kg dry | 0.171 | 0.221 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:26 | ESJ |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | | ug/kg dry | 0.211 | 0.213 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:26 | ESJ |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | ug/kg dry | 0.657 | 0.839 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:26 | ESJ |
| 39108-34-4 | 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | ug/kg dry | 0.834 | 0.848 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:26 | ESJ |
| 375-22-4 | Perfluoro-n-butanoic acid (PFBA) | 1.13 | | ug/kg dry | 0.120 | 0.883 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:26 | ESJ |
| 113507-82-7 | * Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | | ug/kg dry | 0.153 | 0.393 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 05:26 | ESJ |



Sample Information

Client Sample ID: SP-01 comp

York Sample ID: 23L0283-01

York Project (SDG) No.
23L0283

Client Project ID
22003-0094

Matrix
Soil

Collection Date/Time
December 5, 2023 3:00 pm

Date Received
12/06/2023

PFAS, EPA 1633 Target List

Sample Prepared by Method: EPA 1633 Prep

Log-in Notes:

Sample Notes:

| CAS No. | Parameter | Result | Flag | Units | Reported to LOD/MDL | LOQ | Dilution | Reference Method | Date/Time Prepared | Date/Time Analyzed | Analyst |
|-------------|--|--------|------|-----------|---------------------|-------|----------|--|--------------------|--------------------|---------|
| 151772-58-6 | * Perfluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | | ug/kg dry | 0.213 | 0.442 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 05:26 | ESJ |
| 377-73-1 | * Perfluoro-4-oxapentanoic acid (PFMBA) | 0.378 | J | ug/kg dry | 0.0685 | 0.442 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 05:26 | ESJ |
| 863090-89-5 | * Perfluoro-5-oxahexanoic acid (PFMBA) | ND | | ug/kg dry | 0.106 | 0.442 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 05:26 | ESJ |
| 2706-91-4 | * Perfluoro-1-pentanesulfonate (PFPeS) | ND | | ug/kg dry | 0.173 | 0.208 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:26 | ESJ |
| 757124-72-4 | * 1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS) | ND | | ug/kg dry | 0.657 | 0.828 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:26 | ESJ |
| 13252-13-6 | * HFPO-DA (Gen-X) | ND | | ug/kg dry | 0.671 | 0.883 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:26 | ESJ |
| 763051-92-9 | * 11CL-PF3OuDS | ND | | ug/kg dry | 0.343 | 0.835 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:26 | ESJ |
| 756426-58-1 | * 9CL-PF3ONS | ND | | ug/kg dry | 0.272 | 0.826 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:26 | ESJ |
| 919005-14-4 | * ADONA | ND | | ug/kg dry | 0.192 | 0.835 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:26 | ESJ |
| 79780-39-5 | * Perfluorododecanesulfonic acid (PFDoS) | ND | | ug/kg dry | 0.187 | 0.214 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 05:26 | ESJ |
| 68259-12-1 | * Perfluoro-1-nananesulfonic acid (PFNS) | ND | | ug/kg dry | 0.137 | 0.212 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:26 | ESJ |
| 356-02-5 | * 3-Perfluoropropyl propanoic acid (FPrPA) | 1.04 | J | ug/kg dry | 0.700 | 1.10 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 05:26 | ESJ |
| 914637-49-3 | * 3-Perfluoropentyl propanoic acid (FPePA) | ND | | ug/kg dry | 2.32 | 5.52 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 05:26 | ESJ |
| 812-70-4 | * 3-Perfluoroheptyl propanoic acid (FHpPA) | ND | | ug/kg dry | 1.66 | 5.52 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 05:26 | ESJ |
| 24448-09-7 | * N-MeFOSE | ND | | ug/kg dry | 0.675 | 2.21 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 05:26 | ESJ |
| 31506-32-8 | * N-MeFOSA | ND | | ug/kg dry | 0.199 | 0.221 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 05:26 | ESJ |
| 1691-99-2 | * N-EtFOSE | ND | | ug/kg dry | 0.770 | 2.21 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 05:26 | ESJ |
| 4151-50-2 | * N-EtFOSA | ND | | ug/kg dry | 0.219 | 0.221 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 05:26 | ESJ |

| Surrogate Recoveries | Result | Acceptance Range |
|---|--------|------------------|
| Surrogate: M3PFBS | 19.5 % | 25-150 |
| Surrogate: M5PFHxA | 29.8 % | 25-150 |
| Surrogate: M4PFHxA | 98.7 % | 25-150 |
| Surrogate: M3PFHxS | 124 % | 25-150 |
| Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA) | 125 % | 25-150 |
| Surrogate: M6PFDA | 126 % | 25-150 |



Sample Information

Client Sample ID: SP-01 comp

York Sample ID: 23L0283-01

York Project (SDG) No.
23L0283

Client Project ID
22003-0094

Matrix
Soil

Collection Date/Time
December 5, 2023 3:00 pm

Date Received
12/06/2023

PFAS, EPA 1633 Target List

Sample Prepared by Method: EPA 1633 Prep

| CAS No. | Parameter | Result | Flag | Units | Reported to LOD/MDL | LOQ | Dilution | Reference Method | Date/Time Prepared | Date/Time Analyzed | Analyst |
|---------|---|--------|------|-------|------------------------|-----|----------|------------------|-----------------------|-----------------------|---------|
| | Surrogate: M7PFDa | 130 % | | | 25-150 | | | | | | |
| | Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA) | 109 % | | | 25-150 | | | | | | |
| | Surrogate: M2PFTeDA | 93.1 % | | | 10-150 | | | | | | |
| | Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA) | 1.26 % | | | 25-150 | | | | | | |
| | Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS) | 128 % | | | 25-150 | | | | | | |
| | Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA) | 1.61 % | | | 25-150 | | | | | | |
| | Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA) | 101 % | | | 10-150 | | | | | | |
| | Surrogate: d3-N-MeFOSAA | 117 % | | | 25-150 | | | | | | |
| | Surrogate: d5-N-EtFOSAA | 114 % | | | 25-150 | | | | | | |
| | Surrogate: M2-6:2 FTS | 123 % | | | 25-200 | | | | | | |
| | Surrogate: M2-8:2 FTS | 127 % | | | 25-200 | | | | | | |
| | Surrogate: M9PFNA | 123 % | | | 25-150 | | | | | | |
| | Surrogate: M2-4:2 FTS | 39.3 % | | | 25-150 | | | | | | |
| | Surrogate: d-N-MeFOSA | 74.8 % | | | 25-150 | | | | | | |
| | Surrogate: d-N-EtFOSA | 101 % | | | 25-150 | | | | | | |
| | Surrogate: M3HFPO-DA | 26.6 % | | | 25-150 | | | | | | |
| | Surrogate: d9-N-EtFOSE | 55.3 % | | | 25-150 | | | | | | |
| | Surrogate: d7-N-MeFOSE | 67.0 % | | | 25-150 | | | | | | |

Total Solids

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Units | Reported to LOQ | Dilution | Reference Method | Date/Time Prepared | Date/Time Analyzed | Analyst |
|---------|------------|--------|------|-------|--------------------|----------|------------------|-----------------------|-----------------------|---------|
| solids | * % Solids | 90.6 | | % | 0.100 | 1 | SM 2540G | 12/07/2023 12:34 | 12/07/2023 15:34 | AC |

Sample Information

Client Sample ID: SP-02 comp

York Sample ID: 23L0283-02

York Project (SDG) No.
23L0283

Client Project ID
22003-0094

Matrix
Soil

Collection Date/Time
December 5, 2023 3:00 pm

Date Received
12/06/2023

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:



Sample Information

Client Sample ID: SP-02 comp

York Sample ID: 23L0283-02

| <u>York Project (SDG) No.</u> | <u>Client Project ID</u> | <u>Matrix</u> | <u>Collection Date/Time</u> | <u>Date Received</u> |
|-------------------------------|--------------------------|---------------|-----------------------------|----------------------|
| 23L0283 | 22003-0094 | Soil | December 5, 2023 3:00 pm | 12/06/2023 |

Sample Prepared by Method: EPA 1633 Prep

| CAS No. | Parameter | Result | Flag | Units | Reported to LOD/MDL | LOQ | Dilution | Reference Method | Date/Time Prepared | Date/Time Analyzed | Analyst |
|-------------|--|--------------|------|-----------|---------------------|-------|----------|--|--------------------|--------------------|---------|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | ug/kg dry | 0.120 | 0.192 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:43 | ESJ |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | ND | | ug/kg dry | 0.0574 | 0.217 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:43 | ESJ |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | ND | | ug/kg dry | 0.114 | 0.217 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:43 | ESJ |
| 355-46-4 | * Perfluorohexanesulfonic acid (PFHxS) | ND | | ug/kg dry | 0.194 | 0.198 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:43 | ESJ |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | ND | | ug/kg dry | 0.186 | 0.217 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:43 | ESJ |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | ND | | ug/kg dry | 0.181 | 0.201 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:43 | ESJ |
| 375-95-1 | Perfluorononanoic acid (PFNA) | ND | | ug/kg dry | 0.205 | 0.217 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:43 | ESJ |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | ND | | ug/kg dry | 0.207 | 0.217 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:43 | ESJ |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | ND | | ug/kg dry | 0.214 | 0.217 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:43 | ESJ |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | ND | | ug/kg dry | 0.176 | 0.217 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:43 | ESJ |
| 72629-94-8 | Perfluorotridecanoic acid (PFTrDA) | ND | | ug/kg dry | 0.135 | 0.217 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:43 | ESJ |
| 376-06-7 | Perfluorotetradecanoic acid (PFTA) | ND | | ug/kg dry | 0.112 | 0.217 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:43 | ESJ |
| 2355-31-9 | N-MeFOSAA | ND | | ug/kg dry | 0.160 | 0.217 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:43 | ESJ |
| 2991-50-6 | N-EtFOSAA | ND | | ug/kg dry | 0.210 | 0.217 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:43 | ESJ |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 0.150 | J | ug/kg dry | 0.118 | 0.433 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:43 | ESJ |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | | ug/kg dry | 0.158 | 0.217 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:43 | ESJ |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | ug/kg dry | 0.168 | 0.217 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:43 | ESJ |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | | ug/kg dry | 0.207 | 0.209 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:43 | ESJ |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | ug/kg dry | 0.644 | 0.823 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:43 | ESJ |
| 39108-34-4 | 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | ug/kg dry | 0.817 | 0.832 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:43 | ESJ |
| 375-22-4 | Perfluoro-n-butanoic acid (PFBA) | 0.721 | J | ug/kg dry | 0.118 | 0.866 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:43 | ESJ |
| 113507-82-7 | * Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | | ug/kg dry | 0.150 | 0.385 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 05:43 | ESJ |
| 151772-58-6 | * Perfluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | | ug/kg dry | 0.209 | 0.433 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 05:43 | ESJ |
| 377-73-1 | * Perfluoro-4-oxapentanoic acid (PFMPA) | 0.383 | J | ug/kg dry | 0.0671 | 0.433 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 05:43 | ESJ |



Sample Information

Client Sample ID: SP-02 comp

York Sample ID: 23L0283-02

York Project (SDG) No.
23L0283

Client Project ID
22003-0094

Matrix
Soil

Collection Date/Time
December 5, 2023 3:00 pm

Date Received
12/06/2023

PFAS, EPA 1633 Target List

Sample Prepared by Method: EPA 1633 Prep

Log-in Notes:

Sample Notes:

| CAS No. | Parameter | Result | Flag | Units | Reported to LOD/MDL | LOQ | Dilution | Reference Method | Date/Time Prepared | Date/Time Analyzed | Analyst |
|--|--|---------------|-------------------------|-----------|---------------------|-------|----------|--|--------------------|--------------------|---------|
| 863090-89-5 | * Perfluoro-5-oxahexanoic acid (PFMBA) | ND | | ug/kg dry | 0.104 | 0.433 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 05:43 | ESJ |
| 2706-91-4 | * Perfluoro-1-pentanesulfonate (PFPeS) | ND | | ug/kg dry | 0.170 | 0.204 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:43 | ESJ |
| 757124-72-4 | * 1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS) | ND | | ug/kg dry | 0.644 | 0.812 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:43 | ESJ |
| 13252-13-6 | * HFPO-DA (Gen-X) | ND | | ug/kg dry | 0.658 | 0.866 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:43 | ESJ |
| 763051-92-9 | * 11CL-PF3OUDS | ND | | ug/kg dry | 0.337 | 0.819 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:43 | ESJ |
| 756426-58-1 | * 9CL-PF3ONS | ND | | ug/kg dry | 0.266 | 0.810 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:43 | ESJ |
| 919005-14-4 | * ADONA | ND | | ug/kg dry | 0.188 | 0.819 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:43 | ESJ |
| 79780-39-5 | * Perfluorododecanesulfonic acid (PFDoS) | ND | | ug/kg dry | 0.183 | 0.210 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 05:43 | ESJ |
| 68259-12-1 | * Perfluoro-1-nonanesulfonic acid (PFNS) | ND | | ug/kg dry | 0.134 | 0.208 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 05:43 | ESJ |
| 356-02-5 | * 3-Perfluoropropyl propanoic acid (FPrPA) | 0.865 | J | ug/kg dry | 0.686 | 1.08 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 05:43 | ESJ |
| 914637-49-3 | * 3-Perfluoropentyl propanoic acid (FPePA) | ND | | ug/kg dry | 2.27 | 5.41 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 05:43 | ESJ |
| 812-70-4 | * 3-Perfluoroheptyl propanoic acid (FHpPA) | ND | | ug/kg dry | 1.62 | 5.41 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 05:43 | ESJ |
| 24448-09-7 | * N-MeFOSE | ND | | ug/kg dry | 0.662 | 2.17 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 05:43 | ESJ |
| 31506-32-8 | * N-MeFOSA | ND | | ug/kg dry | 0.195 | 0.217 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 05:43 | ESJ |
| 1691-99-2 | * N-EtFOSE | ND | | ug/kg dry | 0.755 | 2.17 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 05:43 | ESJ |
| 4151-50-2 | * N-EtFOSA | ND | | ug/kg dry | 0.214 | 0.217 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 05:43 | ESJ |
| Surrogate Recoveries | | Result | Acceptance Range | | | | | | | | |
| <i>Surrogate: M3PFBS</i> | | 21.6 % | 25-150 | | | | | | | | |
| <i>Surrogate: M5PFHxA</i> | | 35.5 % | 25-150 | | | | | | | | |
| <i>Surrogate: M4PFHpA</i> | | 108 % | 25-150 | | | | | | | | |
| <i>Surrogate: M3PFHxS</i> | | 131 % | 25-150 | | | | | | | | |
| <i>Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)</i> | | 126 % | 25-150 | | | | | | | | |
| <i>Surrogate: M6PFDA</i> | | 117 % | 25-150 | | | | | | | | |
| <i>Surrogate: M7PFUdA</i> | | 122 % | 25-150 | | | | | | | | |
| <i>Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)</i> | | 112 % | 25-150 | | | | | | | | |
| <i>Surrogate: M2PFTeDA</i> | | 81.8 % | 10-150 | | | | | | | | |



Sample Information

| | |
|--|--|
| <u>Client Sample ID:</u> SP-02 comp | <u>York Sample ID:</u> 23L0283-02 |
| <u>York Project (SDG) No.</u> 23L0283 | <u>Client Project ID</u> 22003-0094 |
| | <u>Matrix</u> Soil <u>Collection Date/Time</u> December 5, 2023 3:00 pm <u>Date Received</u> 12/06/2023 |

PFAS, EPA 1633 Target List

Sample Prepared by Method: EPA 1633 Prep

| CAS No. | Parameter | Result | Flag | Units | Reported to LOD/MDL | LOQ | Dilution | Reference Method | Date/Time Prepared | Date/Time Analyzed | Analyst |
|---------|---|--------|------|-------|---------------------|-----|----------|------------------|--------------------|--------------------|---------|
| | Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA) | 1.57 % | | | 25-150 | | | | | | |
| | Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS) | 110 % | | | 25-150 | | | | | | |
| | Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA) | 1.69 % | | | 25-150 | | | | | | |
| | Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA) | 91.0 % | | | 10-150 | | | | | | |
| | Surrogate: d3-N-MeFOSAA | 111 % | | | 25-150 | | | | | | |
| | Surrogate: d5-N-EtFOSAA | 113 % | | | 25-150 | | | | | | |
| | Surrogate: M2-6:2 FTS | 107 % | | | 25-200 | | | | | | |
| | Surrogate: M2-8:2 FTS | 118 % | | | 25-200 | | | | | | |
| | Surrogate: M9PFNA | 124 % | | | 25-150 | | | | | | |
| | Surrogate: M2-4:2 FTS | 48.4 % | | | 25-150 | | | | | | |
| | Surrogate: d-N-MeFOSA | 70.6 % | | | 25-150 | | | | | | |
| | Surrogate: d-N-EtFOSA | 102 % | | | 25-150 | | | | | | |
| | Surrogate: M3HFPO-DA | 30.4 % | | | 25-150 | | | | | | |
| | Surrogate: d9-N-EtFOSE | 46.1 % | | | 25-150 | | | | | | |
| | Surrogate: d7-N-MeFOSE | 54.5 % | | | 25-150 | | | | | | |

Total Solids

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Units | Reported to LOQ | Dilution | Reference Method | Date/Time Prepared | Date/Time Analyzed | Analyst |
|---------|------------|--------|------|-------|-----------------|----------|------------------|--------------------|--------------------|---------|
| solids | * % Solids | 91.3 | | % | 0.100 | 1 | SM 2540G | 12/07/2023 12:34 | 12/07/2023 15:34 | AC |

Sample Information

| | |
|--|--|
| <u>Client Sample ID:</u> SP-03 comp | <u>York Sample ID:</u> 23L0283-03 |
| <u>York Project (SDG) No.</u> 23L0283 | <u>Client Project ID</u> 22003-0094 |
| | <u>Matrix</u> Soil <u>Collection Date/Time</u> December 5, 2023 3:00 pm <u>Date Received</u> 12/06/2023 |

PFAS, EPA 1633 Target List

Sample Prepared by Method: EPA 1633 Prep

| CAS No. | Parameter | Result | Flag | Units | Reported to LOD/MDL | LOQ | Dilution | Reference Method | Date/Time Prepared | Date/Time Analyzed | Analyst |
|----------|---------------------------------------|--------|------|-----------|---------------------|-------|----------|------------------|--------------------|--------------------|---------|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | ug/kg dry | 0.120 | 0.192 | 1 | EPA 1633 Draft 3 | 12/09/2023 12:55 | 12/11/2023 06:31 | ESJ |



Sample Information

Client Sample ID: SP-03 comp

York Sample ID: 23L0283-03

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|------------------------|-------------------|--------|--------------------------|---------------|
| 23L0283 | 22003-0094 | Soil | December 5, 2023 3:00 pm | 12/06/2023 |

PFAS, EPA 1633 Target List

Sample Prepared by Method: EPA 1633 Prep

Log-in Notes:

Sample Notes:

| CAS No. | Parameter | Result | Flag | Units | Reported to LOD/MDL | LOQ | Dilution | Reference Method | Date/Time Prepared | Date/Time Analyzed | Analyst |
|-------------|--|--------------|------|-----------|---------------------|-------|----------|---|--------------------|--------------------|---------|
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | ND | | ug/kg dry | 0.0575 | 0.217 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:31 | ESJ |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | ND | | ug/kg dry | 0.114 | 0.217 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:31 | ESJ |
| 355-46-4 | * Perfluorohexanesulfonic acid (PFHxS) | ND | | ug/kg dry | 0.194 | 0.199 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:31 | ESJ |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | ND | | ug/kg dry | 0.187 | 0.217 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:31 | ESJ |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | ND | | ug/kg dry | 0.181 | 0.202 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:31 | ESJ |
| 375-95-1 | Perfluorononanoic acid (PFNA) | ND | | ug/kg dry | 0.205 | 0.217 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:31 | ESJ |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | ND | | ug/kg dry | 0.207 | 0.217 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:31 | ESJ |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | ND | | ug/kg dry | 0.215 | 0.217 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:31 | ESJ |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | ND | | ug/kg dry | 0.177 | 0.217 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:31 | ESJ |
| 72629-94-8 | Perfluorotridecanoic acid (PFTrDA) | ND | | ug/kg dry | 0.136 | 0.217 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:31 | ESJ |
| 376-06-7 | Perfluorotetradecanoic acid (PFTA) | ND | | ug/kg dry | 0.112 | 0.217 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:31 | ESJ |
| 2355-31-9 | N-MeFOSAA | ND | | ug/kg dry | 0.161 | 0.217 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:31 | ESJ |
| 2991-50-6 | N-EtFOSAA | ND | | ug/kg dry | 0.211 | 0.217 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:31 | ESJ |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | 0.227 | J | ug/kg dry | 0.118 | 0.434 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:31 | ESJ |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | | ug/kg dry | 0.158 | 0.217 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:31 | ESJ |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | ug/kg dry | 0.168 | 0.217 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:31 | ESJ |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | | ug/kg dry | 0.207 | 0.210 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:31 | ESJ |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | ug/kg dry | 0.646 | 0.825 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:31 | ESJ |
| 39108-34-4 | 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | ug/kg dry | 0.820 | 0.834 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:31 | ESJ |
| 375-22-4 | Perfluoro-n-butanoic acid (PFBA) | 1.93 | | ug/kg dry | 0.118 | 0.868 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:31 | ESJ |
| 113507-82-7 | * Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | | ug/kg dry | 0.151 | 0.386 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 06:31 | ESJ |
| 151772-58-6 | * Perfluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | | ug/kg dry | 0.210 | 0.434 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 06:31 | ESJ |
| 377-73-1 | * Perfluoro-4-oxapentanoic acid (PFMPA) | 0.489 | | ug/kg dry | 0.0673 | 0.434 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 06:31 | ESJ |



Sample Information

Client Sample ID: SP-03 comp

York Sample ID: 23L0283-03

York Project (SDG) No.
23L0283

Client Project ID
22003-0094

Matrix
Soil

Collection Date/Time
December 5, 2023 3:00 pm

Date Received
12/06/2023

PFAS, EPA 1633 Target List

Sample Prepared by Method: EPA 1633 Prep

Log-in Notes:

Sample Notes:

| CAS No. | Parameter | Result | Flag | Units | Reported to LOD/MDL | LOQ | Dilution | Reference Method | Date/Time Prepared | Date/Time Analyzed | Analyst |
|-------------|--|--------|------|-----------|---------------------|-------|----------|--|--------------------|--------------------|---------|
| 863090-89-5 | * Perfluoro-5-oxahexanoic acid (PFMBA) | ND | | ug/kg dry | 0.104 | 0.434 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 06:31 | ESJ |
| 2706-91-4 | * Perfluoro-1-pentanesulfonate (PPeS) | ND | | ug/kg dry | 0.170 | 0.204 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:31 | ESJ |
| 757124-72-4 | * 1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS) | ND | | ug/kg dry | 0.646 | 0.814 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:31 | ESJ |
| 13252-13-6 | * HFPO-DA (Gen-X) | ND | | ug/kg dry | 0.660 | 0.868 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:31 | ESJ |
| 763051-92-9 | * 11CL-PF3OUDS | ND | | ug/kg dry | 0.338 | 0.821 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:31 | ESJ |
| 756426-58-1 | * 9CL-PF3ONS | ND | | ug/kg dry | 0.267 | 0.812 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:31 | ESJ |
| 919005-14-4 | * ADONA | ND | | ug/kg dry | 0.189 | 0.821 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:31 | ESJ |
| 79780-39-5 | * Perfluorododecanesulfonic acid (PFDoS) | ND | | ug/kg dry | 0.183 | 0.211 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 06:31 | ESJ |
| 68259-12-1 | * Perfluoro-1-nonanesulfonic acid (PFNS) | ND | | ug/kg dry | 0.135 | 0.208 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:31 | ESJ |
| 356-02-5 | * 3-Perfluoropropyl propanoic acid (FPrPA) | ND | | ug/kg dry | 0.688 | 1.09 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 06:31 | ESJ |
| 914637-49-3 | * 3-Perfluoropentyl propanoic acid (FPePA) | ND | | ug/kg dry | 2.28 | 5.43 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 06:31 | ESJ |
| 812-70-4 | * 3-Perfluoroheptyl propanoic acid (FHpPA) | ND | | ug/kg dry | 1.63 | 5.43 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 06:31 | ESJ |
| 24448-09-7 | * N-MeFOSE | ND | | ug/kg dry | 0.663 | 2.17 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 06:31 | ESJ |
| 31506-32-8 | * N-MeFOSA | ND | | ug/kg dry | 0.195 | 0.217 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 06:31 | ESJ |
| 1691-99-2 | * N-EtFOSE | ND | | ug/kg dry | 0.757 | 2.17 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 06:31 | ESJ |
| 4151-50-2 | * N-EtFOSA | ND | | ug/kg dry | 0.215 | 0.217 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 06:31 | ESJ |

| Surrogate Recoveries | Result | Acceptance Range |
|---|--------|------------------|
| Surrogate: M3PFBS | 23.7 % | 25-150 |
| Surrogate: M5PFHxA | 34.9 % | 25-150 |
| Surrogate: M4PFHxA | 101 % | 25-150 |
| Surrogate: M3PFHxS | 128 % | 25-150 |
| Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA) | 115 % | 25-150 |
| Surrogate: M6PFDA | 123 % | 25-150 |
| Surrogate: M7PFUdA | 111 % | 25-150 |
| Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA) | 112 % | 25-150 |
| Surrogate: M2PFTeDA | 80.4 % | 10-150 |



Sample Information

| | |
|--|---|
| <u>Client Sample ID:</u> SP-03 comp | <u>York Sample ID:</u> 23L0283-03 |
| <u>York Project (SDG) No.</u> 23L0283 | <u>Client Project ID</u> 22003-0094 |
| | <u>Matrix</u> Soil <u>Collection Date/Time</u> December 5, 2023 3:00 pm <u>Date Received</u> 12/06/2023 |

PFAS, EPA 1633 Target List

Sample Prepared by Method: EPA 1633 Prep

| CAS No. | Parameter | Result | Flag | Units | Reported to LOD/MDL | LOQ | Dilution | Reference Method | Date/Time Prepared | Date/Time Analyzed | Analyst |
|---------|---|--------|------|-------|---------------------|-----|----------|------------------|--------------------|--------------------|---------|
| | Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA) | 1.14 % | | | 25-150 | | | | | | |
| | Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS) | 129 % | | | 25-150 | | | | | | |
| | Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA) | 1.77 % | | | 25-150 | | | | | | |
| | Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA) | 106 % | | | 10-150 | | | | | | |
| | Surrogate: d3-N-MeFOSAA | 114 % | | | 25-150 | | | | | | |
| | Surrogate: d5-N-EtFOSAA | 119 % | | | 25-150 | | | | | | |
| | Surrogate: M2-6:2 FTS | 111 % | | | 25-200 | | | | | | |
| | Surrogate: M2-8:2 FTS | 116 % | | | 25-200 | | | | | | |
| | Surrogate: M9PFNA | 119 % | | | 25-150 | | | | | | |
| | Surrogate: M2-4:2 FTS | 45.6 % | | | 25-150 | | | | | | |
| | Surrogate: d-N-MeFOSA | 81.1 % | | | 25-150 | | | | | | |
| | Surrogate: d-N-EtFOSA | 138 % | | | 25-150 | | | | | | |
| | Surrogate: M3HFPO-DA | 30.3 % | | | 25-150 | | | | | | |
| | Surrogate: d9-N-EtFOSE | 62.9 % | | | 25-150 | | | | | | |
| | Surrogate: d7-N-MeFOSE | 69.6 % | | | 25-150 | | | | | | |

Total Solids

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Units | Reported to LOQ | Dilution | Reference Method | Date/Time Prepared | Date/Time Analyzed | Analyst |
|---------|------------|--------|------|-------|-----------------|----------|------------------|--------------------|--------------------|---------|
| solids | * % Solids | 91.2 | | % | 0.100 | 1 | SM 2540G | 12/07/2023 12:34 | 12/07/2023 15:34 | AC |

Sample Information

| | |
|--|---|
| <u>Client Sample ID:</u> SP-04 comp | <u>York Sample ID:</u> 23L0283-04 |
| <u>York Project (SDG) No.</u> 23L0283 | <u>Client Project ID</u> 22003-0094 |
| | <u>Matrix</u> Soil <u>Collection Date/Time</u> December 5, 2023 3:00 pm <u>Date Received</u> 12/06/2023 |

PFAS, EPA 1633 Target List

Sample Prepared by Method: EPA 1633 Prep

| CAS No. | Parameter | Result | Flag | Units | Reported to LOD/MDL | LOQ | Dilution | Reference Method | Date/Time Prepared | Date/Time Analyzed | Analyst |
|----------|---------------------------------------|--------|------|-----------|---------------------|-------|----------|------------------|--------------------|--------------------|---------|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | ug/kg dry | 0.141 | 0.225 | 1 | EPA 1633 Draft 3 | 12/09/2023 12:55 | 12/11/2023 06:47 | ESJ |



Sample Information

Client Sample ID: SP-04 comp

York Sample ID: 23L0283-04

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|------------------------|-------------------|--------|--------------------------|---------------|
| 23L0283 | 22003-0094 | Soil | December 5, 2023 3:00 pm | 12/06/2023 |

PFAS, EPA 1633 Target List

Sample Prepared by Method: EPA 1633 Prep

Log-in Notes:

Sample Notes:

| CAS No. | Parameter | Result | Flag | Units | Reported to LOD/MDL | LOQ | Dilution | Reference Method | Date/Time Prepared | Date/Time Analyzed | Analyst |
|-------------|--|--------------|------|-----------|---------------------|-------|----------|---|--------------------|--------------------|---------|
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | ND | | ug/kg dry | 0.0674 | 0.254 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:47 | ESJ |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | ND | | ug/kg dry | 0.134 | 0.254 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:47 | ESJ |
| 355-46-4 | * Perfluorohexanesulfonic acid (PFHxS) | ND | | ug/kg dry | 0.228 | 0.233 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:47 | ESJ |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | ND | | ug/kg dry | 0.219 | 0.254 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:47 | ESJ |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | ND | | ug/kg dry | 0.212 | 0.237 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:47 | ESJ |
| 375-95-1 | Perfluorononanoic acid (PFNA) | ND | | ug/kg dry | 0.240 | 0.254 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:47 | ESJ |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | ND | | ug/kg dry | 0.243 | 0.254 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:47 | ESJ |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | ND | | ug/kg dry | 0.252 | 0.254 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:47 | ESJ |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | ND | | ug/kg dry | 0.207 | 0.254 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:47 | ESJ |
| 72629-94-8 | Perfluorotridecanoic acid (PFTrDA) | ND | | ug/kg dry | 0.159 | 0.254 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:47 | ESJ |
| 376-06-7 | Perfluorotetradecanoic acid (PFTA) | ND | | ug/kg dry | 0.131 | 0.254 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:47 | ESJ |
| 2355-31-9 | N-MeFOSAA | ND | | ug/kg dry | 0.188 | 0.254 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:47 | ESJ |
| 2991-50-6 | N-EtFOSAA | ND | | ug/kg dry | 0.247 | 0.254 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:47 | ESJ |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | ND | | ug/kg dry | 0.139 | 0.509 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:47 | ESJ |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | | ug/kg dry | 0.186 | 0.254 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:47 | ESJ |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | ug/kg dry | 0.197 | 0.254 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:47 | ESJ |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | | ug/kg dry | 0.243 | 0.246 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:47 | ESJ |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | ug/kg dry | 0.757 | 0.967 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:47 | ESJ |
| 39108-34-4 | 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | ug/kg dry | 0.960 | 0.977 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:47 | ESJ |
| 375-22-4 | Perfluoro-n-butanoic acid (PFBA) | 1.20 | | ug/kg dry | 0.139 | 1.02 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:47 | ESJ |
| 113507-82-7 | * Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | | ug/kg dry | 0.177 | 0.453 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 06:47 | ESJ |
| 151772-58-6 | * Perfluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | | ug/kg dry | 0.246 | 0.509 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 06:47 | ESJ |
| 377-73-1 | * Perfluoro-4-oxapentanoic acid (PFMPA) | 0.162 | J | ug/kg dry | 0.0789 | 0.509 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 06:47 | ESJ |



Sample Information

Client Sample ID: SP-04 comp

York Sample ID: 23L0283-04

York Project (SDG) No.
23L0283

Client Project ID
22003-0094

Matrix
Soil

Collection Date/Time
December 5, 2023 3:00 pm

Date Received
12/06/2023

PFAS, EPA 1633 Target List

Sample Prepared by Method: EPA 1633 Prep

Log-in Notes:

Sample Notes:

| CAS No. | Parameter | Result | Flag | Units | Reported to LOD/MDL | LOQ | Dilution | Reference Method | Date/Time Prepared | Date/Time Analyzed | Analyst |
|-------------|--|--------|------|-----------|---------------------|-------|----------|--|--------------------|--------------------|---------|
| 863090-89-5 | * Perfluoro-5-oxahexanoic acid (PFMBA) | ND | | ug/kg dry | 0.122 | 0.509 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 06:47 | ESJ |
| 2706-91-4 | * Perfluoro-1-pentanesulfonate (PFPeS) | ND | | ug/kg dry | 0.200 | 0.239 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:47 | ESJ |
| 757124-72-4 | * 1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS) | ND | | ug/kg dry | 0.757 | 0.954 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:47 | ESJ |
| 13252-13-6 | * HFPO-DA (Gen-X) | ND | | ug/kg dry | 0.773 | 1.02 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:47 | ESJ |
| 763051-92-9 | * 11CL-PF3OUDs | ND | | ug/kg dry | 0.396 | 0.962 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:47 | ESJ |
| 756426-58-1 | * 9CL-PF3ONS | ND | | ug/kg dry | 0.313 | 0.952 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:47 | ESJ |
| 919005-14-4 | * ADONA | ND | | ug/kg dry | 0.221 | 0.962 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:47 | ESJ |
| 79780-39-5 | * Perfluorododecanesulfonic acid (PFDoS) | ND | | ug/kg dry | 0.215 | 0.247 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 06:47 | ESJ |
| 68259-12-1 | * Perfluoro-1-nonanesulfonic acid (PFNS) | ND | | ug/kg dry | 0.158 | 0.244 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 06:47 | ESJ |
| 356-02-5 | * 3-Perfluoropropyl propanoic acid (FPrPA) | ND | | ug/kg dry | 0.807 | 1.27 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 06:47 | ESJ |
| 914637-49-3 | * 3-Perfluoropentyl propanoic acid (FPePA) | ND | | ug/kg dry | 2.67 | 6.36 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 06:47 | ESJ |
| 812-70-4 | * 3-Perfluoroheptyl propanoic acid (FHpPA) | ND | | ug/kg dry | 1.91 | 6.36 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 06:47 | ESJ |
| 24448-09-7 | * N-MeFOSE | ND | | ug/kg dry | 0.777 | 2.54 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 06:47 | ESJ |
| 31506-32-8 | * N-MeFOSA | ND | | ug/kg dry | 0.229 | 0.254 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 06:47 | ESJ |
| 1691-99-2 | * N-EtFOSE | ND | | ug/kg dry | 0.887 | 2.54 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 06:47 | ESJ |
| 4151-50-2 | * N-EtFOSA | ND | | ug/kg dry | 0.252 | 0.254 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 06:47 | ESJ |

| Surrogate Recoveries | Result | Acceptance Range |
|---|--------|------------------|
| Surrogate: M3PFBS | 47.6 % | 25-150 |
| Surrogate: M5PFHxA | 59.6 % | 25-150 |
| Surrogate: M4PFHxA | 110 % | 25-150 |
| Surrogate: M3PFHxS | 130 % | 25-150 |
| Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA) | 112 % | 25-150 |
| Surrogate: M6PFDA | 128 % | 25-150 |
| Surrogate: M7PFUdA | 128 % | 25-150 |
| Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA) | 107 % | 25-150 |
| Surrogate: M2PFTeDA | 100 % | 10-150 |



Sample Information

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|--|--|
| <u>Client Sample ID:</u> SP-04 comp | <u>York Sample ID:</u> 23L0283-04 |
| <u>York Project (SDG) No.</u> 23L0283 | <u>Client Project ID</u> 22003-0094 |

PFAS, EPA 1633 Target List

Sample Prepared by Method: EPA 1633 Prep

| CAS No. | Parameter | Result | Flag | Units | Reported to LOD/MDL | LOQ | Dilution | Reference Method | Date/Time Prepared | Date/Time Analyzed | Analyst |
|---------|---|--------|------|-------|------------------------|-----|----------|------------------|-----------------------|-----------------------|---------|
| | Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA) | 1.21 % | | | 25-150 | | | | | | |
| | Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS) | 123 % | | | 25-150 | | | | | | |
| | Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA) | 3.54 % | | | 25-150 | | | | | | |
| | Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA) | 106 % | | | 10-150 | | | | | | |
| | Surrogate: d3-N-MeFOSAA | 114 % | | | 25-150 | | | | | | |
| | Surrogate: d5-N-EtFOSAA | 114 % | | | 25-150 | | | | | | |
| | Surrogate: M2-6:2 FTS | 111 % | | | 25-200 | | | | | | |
| | Surrogate: M2-8:2 FTS | 123 % | | | 25-200 | | | | | | |
| | Surrogate: M9PFNA | 125 % | | | 25-150 | | | | | | |
| | Surrogate: M2-4:2 FTS | 72.3 % | | | 25-150 | | | | | | |
| | Surrogate: d-N-MeFOSA | 91.9 % | | | 25-150 | | | | | | |
| | Surrogate: d-N-EtFOSA | 116 % | | | 25-150 | | | | | | |
| | Surrogate: M3HFPO-DA | 59.5 % | | | 25-150 | | | | | | |
| | Surrogate: d9-N-EtFOSE | 69.1 % | | | 25-150 | | | | | | |
| | Surrogate: d7-N-MeFOSE | 72.9 % | | | 25-150 | | | | | | |

Total Solids

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Units | Reported to LOQ | Dilution | Reference Method | Date/Time Prepared | Date/Time Analyzed | Analyst |
|---------|------------|--------|------|-------|--------------------|----------|------------------|-----------------------|-----------------------|---------|
| solids | * % Solids | 78.6 | | % | 0.100 | 1 | SM 2540G | 12/07/2023 12:34 | 12/07/2023 15:34 | AC |

Sample Information

| | |
|--|--|
| <u>Client Sample ID:</u> SP-05 comp | <u>York Sample ID:</u> 23L0283-05 |
| <u>York Project (SDG) No.</u> 23L0283 | <u>Client Project ID</u> 22003-0094 |

PFAS, EPA 1633 Target List

Sample Prepared by Method: EPA 1633 Prep

| CAS No. | Parameter | Result | Flag | Units | Reported to LOD/MDL | LOQ | Dilution | Reference Method | Date/Time Prepared | Date/Time Analyzed | Analyst |
|----------|---------------------------------------|--------|------|-----------|------------------------|-------|----------|------------------|-----------------------|-----------------------|---------|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | ug/kg dry | 0.129 | 0.206 | 1 | EPA 1633 Draft 3 | 12/09/2023 12:55 | 12/11/2023 07:03 | ESJ |



Sample Information

Client Sample ID: SP-05 comp

York Sample ID: 23L0283-05

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|------------------------|-------------------|--------|--------------------------|---------------|
| 23L0283 | 22003-0094 | Soil | December 5, 2023 3:00 pm | 12/06/2023 |

PFAS, EPA 1633 Target List

Sample Prepared by Method: EPA 1633 Prep

Log-in Notes:

Sample Notes:

| CAS No. | Parameter | Result | Flag | Units | Reported to LOD/MDL | LOQ | Dilution | Reference Method | Date/Time Prepared | Date/Time Analyzed | Analyst |
|-------------|--|---------------|------|-----------|---------------------|-------|----------|---|--------------------|--------------------|---------|
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | ND | | ug/kg dry | 0.0616 | 0.233 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:03 | ESJ |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | ND | | ug/kg dry | 0.122 | 0.233 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:03 | ESJ |
| 355-46-4 | * Perfluorohexanesulfonic acid (PFHxS) | ND | | ug/kg dry | 0.208 | 0.213 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:03 | ESJ |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | ND | | ug/kg dry | 0.200 | 0.233 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:03 | ESJ |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | ND | | ug/kg dry | 0.194 | 0.216 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:03 | ESJ |
| 375-95-1 | Perfluorononanoic acid (PFNA) | ND | | ug/kg dry | 0.220 | 0.233 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:03 | ESJ |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | ND | | ug/kg dry | 0.222 | 0.233 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:03 | ESJ |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | ND | | ug/kg dry | 0.230 | 0.233 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:03 | ESJ |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | ND | | ug/kg dry | 0.189 | 0.233 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:03 | ESJ |
| 72629-94-8 | Perfluorotridecanoic acid (PFTrDA) | ND | | ug/kg dry | 0.145 | 0.233 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:03 | ESJ |
| 376-06-7 | Perfluorotetradecanoic acid (PFTA) | ND | | ug/kg dry | 0.120 | 0.233 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:03 | ESJ |
| 2355-31-9 | N-MeFOSAA | ND | | ug/kg dry | 0.172 | 0.233 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:03 | ESJ |
| 2991-50-6 | N-EtFOSAA | ND | | ug/kg dry | 0.226 | 0.233 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:03 | ESJ |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | ND | | ug/kg dry | 0.127 | 0.465 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:03 | ESJ |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | | ug/kg dry | 0.170 | 0.233 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:03 | ESJ |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | ug/kg dry | 0.180 | 0.233 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:03 | ESJ |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | | ug/kg dry | 0.222 | 0.224 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:03 | ESJ |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | ug/kg dry | 0.692 | 0.884 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:03 | ESJ |
| 39108-34-4 | 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | ug/kg dry | 0.878 | 0.893 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:03 | ESJ |
| 375-22-4 | Perfluoro-n-butanoic acid (PFBA) | 0.540 | J | ug/kg dry | 0.127 | 0.930 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:03 | ESJ |
| 113507-82-7 | * Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | | ug/kg dry | 0.162 | 0.414 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 07:03 | ESJ |
| 151772-58-6 | * Perfluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | | ug/kg dry | 0.224 | 0.465 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 07:03 | ESJ |
| 377-73-1 | * Perfluoro-4-oxapentanoic acid (PFMPA) | 0.0830 | J | ug/kg dry | 0.0721 | 0.465 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 07:03 | ESJ |



Sample Information

Client Sample ID: SP-05 comp

York Sample ID: 23L0283-05

York Project (SDG) No.
23L0283

Client Project ID
22003-0094

Matrix
Soil

Collection Date/Time
December 5, 2023 3:00 pm

Date Received
12/06/2023

PFAS, EPA 1633 Target List

Sample Prepared by Method: EPA 1633 Prep

Log-in Notes:

Sample Notes:

| CAS No. | Parameter | Result | Flag | Units | Reported to LOD/MDL | LOQ | Dilution | Reference Method | Date/Time Prepared | Date/Time Analyzed | Analyst |
|-------------|--|--------|------|-----------|---------------------|-------|----------|--|--------------------|--------------------|---------|
| 863090-89-5 | * Perfluoro-5-oxahexanoic acid (PFMBA) | ND | | ug/kg dry | 0.112 | 0.465 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 07:03 | ESJ |
| 2706-91-4 | * Perfluoro-1-pentanesulfonate (PFPeS) | ND | | ug/kg dry | 0.183 | 0.219 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:03 | ESJ |
| 757124-72-4 | * 1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS) | ND | | ug/kg dry | 0.692 | 0.872 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:03 | ESJ |
| 13252-13-6 | * HFPO-DA (Gen-X) | ND | | ug/kg dry | 0.707 | 0.930 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:03 | ESJ |
| 763051-92-9 | * 11CL-PF3OUDS | ND | | ug/kg dry | 0.362 | 0.879 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:03 | ESJ |
| 756426-58-1 | * 9CL-PF3ONS | ND | | ug/kg dry | 0.286 | 0.870 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:03 | ESJ |
| 919005-14-4 | * ADONA | ND | | ug/kg dry | 0.202 | 0.879 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:03 | ESJ |
| 79780-39-5 | * Perfluorododecanesulfonic acid (PFDoS) | ND | | ug/kg dry | 0.196 | 0.226 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 07:03 | ESJ |
| 68259-12-1 | * Perfluoro-1-nonanesulfonic acid (PFNS) | ND | | ug/kg dry | 0.144 | 0.223 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:03 | ESJ |
| 356-02-5 | * 3-Perfluoropropyl propanoic acid (FPrPA) | ND | | ug/kg dry | 0.737 | 1.16 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 07:03 | ESJ |
| 914637-49-3 | * 3-Perfluoropentyl propanoic acid (FPePA) | ND | | ug/kg dry | 2.44 | 5.81 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 07:03 | ESJ |
| 812-70-4 | * 3-Perfluoroheptyl propanoic acid (FHpPA) | ND | | ug/kg dry | 1.74 | 5.81 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 07:03 | ESJ |
| 24448-09-7 | * N-MeFOSE | ND | | ug/kg dry | 0.710 | 2.33 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 07:03 | ESJ |
| 31506-32-8 | * N-MeFOSA | ND | | ug/kg dry | 0.209 | 0.233 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 07:03 | ESJ |
| 1691-99-2 | * N-EtFOSE | ND | | ug/kg dry | 0.810 | 2.33 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 07:03 | ESJ |
| 4151-50-2 | * N-EtFOSA | ND | | ug/kg dry | 0.230 | 0.233 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 07:03 | ESJ |

| Surrogate Recoveries | Result | Acceptance Range |
|---|--------|------------------|
| Surrogate: M3PFBS | 51.1 % | 25-150 |
| Surrogate: M5PFHxA | 79.2 % | 25-150 |
| Surrogate: M4PFHxA | 133 % | 25-150 |
| Surrogate: M3PFHxS | 122 % | 25-150 |
| Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA) | 120 % | 25-150 |
| Surrogate: M6PFDA | 127 % | 25-150 |
| Surrogate: M7PFUdA | 119 % | 25-150 |
| Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA) | 119 % | 25-150 |
| Surrogate: M2PFTeDA | 88.7 % | 10-150 |



Sample Information

| | |
|--|--|
| <u>Client Sample ID:</u> SP-05 comp | <u>York Sample ID:</u> 23L0283-05 |
| <u>York Project (SDG) No.</u> 23L0283 | <u>Client Project ID</u> 22003-0094 |
| | <u>Matrix</u> Soil <u>Collection Date/Time</u> December 5, 2023 3:00 pm <u>Date Received</u> 12/06/2023 |

PFAS, EPA 1633 Target List

Sample Prepared by Method: EPA 1633 Prep

| CAS No. | Parameter | Result | Flag | Units | Reported to LOD/MDL | LOQ | Dilution | Reference Method | Date/Time Prepared | Date/Time Analyzed | Analyst |
|---------|---|--------|------|-------|---------------------|-----|----------|------------------|--------------------|--------------------|---------|
| | Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA) | 2.51 % | | | 25-150 | | | | | | |
| | Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS) | 135 % | | | 25-150 | | | | | | |
| | Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA) | 5.69 % | | | 25-150 | | | | | | |
| | Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA) | 110 % | | | 10-150 | | | | | | |
| | Surrogate: d3-N-MeFOSAA | 118 % | | | 25-150 | | | | | | |
| | Surrogate: d5-N-EtFOSAA | 121 % | | | 25-150 | | | | | | |
| | Surrogate: M2-6:2 FTS | 119 % | | | 25-200 | | | | | | |
| | Surrogate: M2-8:2 FTS | 160 % | | | 25-200 | | | | | | |
| | Surrogate: M9PFNA | 119 % | | | 25-150 | | | | | | |
| | Surrogate: M2-4:2 FTS | 76.5 % | | | 25-150 | | | | | | |
| | Surrogate: d-N-MeFOSA | 78.0 % | | | 25-150 | | | | | | |
| | Surrogate: d-N-EtFOSA | 93.0 % | | | 25-150 | | | | | | |
| | Surrogate: M3HFPO-DA | 72.7 % | | | 25-150 | | | | | | |
| | Surrogate: d9-N-EtFOSE | 72.2 % | | | 25-150 | | | | | | |
| | Surrogate: d7-N-MeFOSE | 75.3 % | | | 25-150 | | | | | | |

Total Solids

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Units | Reported to LOQ | Dilution | Reference Method | Date/Time Prepared | Date/Time Analyzed | Analyst |
|---------|------------|--------|------|-------|-----------------|----------|---|--------------------|--------------------|---------|
| solids | * % Solids | 85.5 | | % | 0.100 | 1 | SM 2540G Certifications: CTDOH-PH-0723 | 12/07/2023 12:34 | 12/07/2023 15:34 | AC |

Sample Information

| | |
|--|--|
| <u>Client Sample ID:</u> SP-06 comp | <u>York Sample ID:</u> 23L0283-06 |
| <u>York Project (SDG) No.</u> 23L0283 | <u>Client Project ID</u> 22003-0094 |
| | <u>Matrix</u> Soil <u>Collection Date/Time</u> December 5, 2023 3:00 pm <u>Date Received</u> 12/06/2023 |

PFAS, EPA 1633 Target List

Sample Prepared by Method: EPA 1633 Prep

| CAS No. | Parameter | Result | Flag | Units | Reported to LOD/MDL | LOQ | Dilution | Reference Method | Date/Time Prepared | Date/Time Analyzed | Analyst |
|----------|---------------------------------------|--------|------|-----------|---------------------|-------|----------|--|--------------------|--------------------|---------|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | ug/kg dry | 0.131 | 0.209 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:19 | ESJ |



Sample Information

Client Sample ID: SP-06 comp

York Sample ID: 23L0283-06

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|------------------------|-------------------|--------|--------------------------|---------------|
| 23L0283 | 22003-0094 | Soil | December 5, 2023 3:00 pm | 12/06/2023 |

PFAS, EPA 1633 Target List

Sample Prepared by Method: EPA 1633 Prep

Log-in Notes:

Sample Notes:

| CAS No. | Parameter | Result | Flag | Units | Reported to LOD/MDL | LOQ | Dilution | Reference Method | Date/Time Prepared | Date/Time Analyzed | Analyst |
|-------------|--|--------------|------|-----------|---------------------|-------|----------|---|--------------------|--------------------|---------|
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | ND | | ug/kg dry | 0.0626 | 0.236 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:19 | ESJ |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | ND | | ug/kg dry | 0.124 | 0.236 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:19 | ESJ |
| 355-46-4 | * Perfluorohexanesulfonic acid (PFHxS) | ND | | ug/kg dry | 0.212 | 0.216 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:19 | ESJ |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | ND | | ug/kg dry | 0.203 | 0.236 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:19 | ESJ |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | ND | | ug/kg dry | 0.197 | 0.220 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:19 | ESJ |
| 375-95-1 | Perfluorononanoic acid (PFNA) | ND | | ug/kg dry | 0.223 | 0.236 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:19 | ESJ |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | ND | | ug/kg dry | 0.226 | 0.236 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:19 | ESJ |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | ND | | ug/kg dry | 0.234 | 0.236 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:19 | ESJ |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | ND | | ug/kg dry | 0.193 | 0.236 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:19 | ESJ |
| 72629-94-8 | Perfluorotridecanoic acid (PFTrDA) | ND | | ug/kg dry | 0.148 | 0.236 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:19 | ESJ |
| 376-06-7 | Perfluorotetradecanoic acid (PFTA) | ND | | ug/kg dry | 0.122 | 0.236 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:19 | ESJ |
| 2355-31-9 | N-MeFOSAA | ND | | ug/kg dry | 0.175 | 0.236 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:19 | ESJ |
| 2991-50-6 | N-EtFOSAA | ND | | ug/kg dry | 0.229 | 0.236 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:19 | ESJ |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | ND | | ug/kg dry | 0.129 | 0.473 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:19 | ESJ |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | | ug/kg dry | 0.173 | 0.236 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:19 | ESJ |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | ug/kg dry | 0.183 | 0.236 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:19 | ESJ |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | | ug/kg dry | 0.226 | 0.228 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:19 | ESJ |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | ug/kg dry | 0.703 | 0.898 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:19 | ESJ |
| 39108-34-4 | 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | ug/kg dry | 0.892 | 0.908 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:19 | ESJ |
| 375-22-4 | Perfluoro-n-butanoic acid (PFBA) | 1.01 | | ug/kg dry | 0.129 | 0.946 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:19 | ESJ |
| 113507-82-7 | * Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | | ug/kg dry | 0.164 | 0.421 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 07:19 | ESJ |
| 151772-58-6 | * Perfluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | | ug/kg dry | 0.228 | 0.473 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 07:19 | ESJ |
| 377-73-1 | * Perfluoro-4-oxapentanoic acid (PFMPA) | 0.124 | J | ug/kg dry | 0.0733 | 0.473 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 07:19 | ESJ |



Sample Information

Client Sample ID: SP-06 comp

York Sample ID: 23L0283-06

York Project (SDG) No.
23L0283

Client Project ID
22003-0094

Matrix
Soil

Collection Date/Time
December 5, 2023 3:00 pm

Date Received
12/06/2023

PFAS, EPA 1633 Target List

Sample Prepared by Method: EPA 1633 Prep

Log-in Notes:

Sample Notes:

| CAS No. | Parameter | Result | Flag | Units | Reported to LOD/MDL | LOQ | Dilution | Reference Method | Date/Time Prepared | Date/Time Analyzed | Analyst |
|-------------|--|--------|------|-----------|---------------------|-------|----------|--|--------------------|--------------------|---------|
| 863090-89-5 | * Perfluoro-5-oxahexanoic acid (PFMBA) | ND | | ug/kg dry | 0.113 | 0.473 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 07:19 | ESJ |
| 2706-91-4 | * Perfluoro-1-pentanesulfonate (PPeS) | ND | | ug/kg dry | 0.186 | 0.222 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:19 | ESJ |
| 757124-72-4 | * 1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS) | ND | | ug/kg dry | 0.703 | 0.887 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:19 | ESJ |
| 13252-13-6 | * HFPO-DA (Gen-X) | ND | | ug/kg dry | 0.719 | 0.946 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:19 | ESJ |
| 763051-92-9 | * 11CL-PF3OUDS | ND | | ug/kg dry | 0.368 | 0.894 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:19 | ESJ |
| 756426-58-1 | * 9CL-PF3ONS | ND | | ug/kg dry | 0.291 | 0.884 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:19 | ESJ |
| 919005-14-4 | * ADONA | ND | | ug/kg dry | 0.206 | 0.894 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:19 | ESJ |
| 79780-39-5 | * Perfluorododecanesulfonic acid (PFDoS) | ND | | ug/kg dry | 0.200 | 0.229 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 07:19 | ESJ |
| 68259-12-1 | * Perfluoro-1-nonanesulfonic acid (PFNS) | ND | | ug/kg dry | 0.147 | 0.227 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:19 | ESJ |
| 356-02-5 | * 3-Perfluoropropyl propanoic acid (FPrPA) | ND | | ug/kg dry | 0.749 | 1.18 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 07:19 | ESJ |
| 914637-49-3 | * 3-Perfluoropentyl propanoic acid (FPePA) | ND | | ug/kg dry | 2.48 | 5.91 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 07:19 | ESJ |
| 812-70-4 | * 3-Perfluoroheptyl propanoic acid (FHpPA) | ND | | ug/kg dry | 1.77 | 5.91 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 07:19 | ESJ |
| 24448-09-7 | * N-MeFOSE | ND | | ug/kg dry | 0.722 | 2.36 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 07:19 | ESJ |
| 31506-32-8 | * N-MeFOSA | ND | | ug/kg dry | 0.213 | 0.236 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 07:19 | ESJ |
| 1691-99-2 | * N-EtFOSE | ND | | ug/kg dry | 0.824 | 2.36 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 07:19 | ESJ |
| 4151-50-2 | * N-EtFOSA | ND | | ug/kg dry | 0.234 | 0.236 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 07:19 | ESJ |

| Surrogate Recoveries | Result | Acceptance Range |
|---|--------|------------------|
| Surrogate: M3PFBS | 28.0 % | 25-150 |
| Surrogate: M5PFHxA | 37.9 % | 25-150 |
| Surrogate: M4PFHxA | 100 % | 25-150 |
| Surrogate: M3PFHxS | 127 % | 25-150 |
| Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA) | 105 % | 25-150 |
| Surrogate: M6PFDA | 121 % | 25-150 |
| Surrogate: M7PFUdA | 121 % | 25-150 |
| Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA) | 106 % | 25-150 |
| Surrogate: M2PFTeDA | 82.2 % | 10-150 |



Sample Information

| | |
|--|--|
| <u>Client Sample ID:</u> SP-06 comp | <u>York Sample ID:</u> 23L0283-06 |
| <u>York Project (SDG) No.</u> 23L0283 | <u>Client Project ID</u> 22003-0094 |
| | <u>Matrix</u> Soil <u>Collection Date/Time</u> December 5, 2023 3:00 pm <u>Date Received</u> 12/06/2023 |

PFAS, EPA 1633 Target List

Sample Prepared by Method: EPA 1633 Prep

| CAS No. | Parameter | Result | Flag | Units | Reported to LOD/MDL | LOQ | Dilution | Reference Method | Date/Time Prepared | Date/Time Analyzed | Analyst |
|---------|---|--------|------|-------|---------------------|-----|----------|------------------|--------------------|--------------------|---------|
| | Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA) | 1.19 % | | | 25-150 | | | | | | |
| | Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS) | 134 % | | | 25-150 | | | | | | |
| | Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA) | 2.09 % | | | 25-150 | | | | | | |
| | Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA) | 90.6 % | | | 10-150 | | | | | | |
| | Surrogate: d3-N-MeFOSAA | 114 % | | | 25-150 | | | | | | |
| | Surrogate: d5-N-EtFOSAA | 118 % | | | 25-150 | | | | | | |
| | Surrogate: M2-6:2 FTS | 106 % | | | 25-200 | | | | | | |
| | Surrogate: M2-8:2 FTS | 145 % | | | 25-200 | | | | | | |
| | Surrogate: M9PFNA | 116 % | | | 25-150 | | | | | | |
| | Surrogate: M2-4:2 FTS | 45.0 % | | | 25-150 | | | | | | |
| | Surrogate: d-N-MeFOSA | 77.9 % | | | 25-150 | | | | | | |
| | Surrogate: d-N-EtFOSA | 106 % | | | 25-150 | | | | | | |
| | Surrogate: M3HFPO-DA | 33.3 % | | | 25-150 | | | | | | |
| | Surrogate: d9-N-EtFOSE | 59.0 % | | | 25-150 | | | | | | |
| | Surrogate: d7-N-MeFOSE | 64.2 % | | | 25-150 | | | | | | |

Total Solids

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Units | Reported to LOQ | Dilution | Reference Method | Date/Time Prepared | Date/Time Analyzed | Analyst |
|---------|------------|--------|------|-------|-----------------|----------|------------------|--------------------|--------------------|---------|
| solids | * % Solids | 83.1 | | % | 0.100 | 1 | SM 2540G | 12/07/2023 12:34 | 12/07/2023 15:34 | AC |

Sample Information

| | |
|--|--|
| <u>Client Sample ID:</u> SP-07 comp | <u>York Sample ID:</u> 23L0283-07 |
| <u>York Project (SDG) No.</u> 23L0283 | <u>Client Project ID</u> 22003-0094 |
| | <u>Matrix</u> Soil <u>Collection Date/Time</u> December 5, 2023 3:00 pm <u>Date Received</u> 12/06/2023 |

PFAS, EPA 1633 Target List

Sample Prepared by Method: EPA 1633 Prep

| CAS No. | Parameter | Result | Flag | Units | Reported to LOD/MDL | LOQ | Dilution | Reference Method | Date/Time Prepared | Date/Time Analyzed | Analyst |
|----------|---------------------------------------|--------|------|-----------|---------------------|-------|----------|------------------|--------------------|--------------------|---------|
| 375-73-5 | * Perfluorobutanesulfonic acid (PFBS) | ND | | ug/kg dry | 0.132 | 0.211 | 1 | EPA 1633 Draft 3 | 12/09/2023 12:55 | 12/11/2023 07:36 | ESJ |



Sample Information

Client Sample ID: SP-07 comp

York Sample ID: 23L0283-07

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|------------------------|-------------------|--------|--------------------------|---------------|
| 23L0283 | 22003-0094 | Soil | December 5, 2023 3:00 pm | 12/06/2023 |

PFAS, EPA 1633 Target List

Sample Prepared by Method: EPA 1633 Prep

Log-in Notes:

Sample Notes:

| CAS No. | Parameter | Result | Flag | Units | Reported to LOD/MDL | LOQ | Dilution | Reference Method | Date/Time Prepared | Date/Time Analyzed | Analyst |
|-------------|--|--------------|------|-----------|---------------------|-------|----------|---|--------------------|--------------------|---------|
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | ND | | ug/kg dry | 0.0632 | 0.239 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:36 | ESJ |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | ND | | ug/kg dry | 0.125 | 0.239 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:36 | ESJ |
| 355-46-4 | * Perfluorohexanesulfonic acid (PFHxS) | ND | | ug/kg dry | 0.213 | 0.218 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:36 | ESJ |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | ND | | ug/kg dry | 0.205 | 0.239 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:36 | ESJ |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | ND | | ug/kg dry | 0.199 | 0.222 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:36 | ESJ |
| 375-95-1 | Perfluorononanoic acid (PFNA) | ND | | ug/kg dry | 0.225 | 0.239 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:36 | ESJ |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | ND | | ug/kg dry | 0.228 | 0.239 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:36 | ESJ |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | ND | | ug/kg dry | 0.236 | 0.239 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:36 | ESJ |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | ND | | ug/kg dry | 0.194 | 0.239 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:36 | ESJ |
| 72629-94-8 | Perfluorotridecanoic acid (PFTrDA) | ND | | ug/kg dry | 0.149 | 0.239 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:36 | ESJ |
| 376-06-7 | Perfluorotetradecanoic acid (PFTA) | ND | | ug/kg dry | 0.123 | 0.239 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:36 | ESJ |
| 2355-31-9 | N-MeFOSAA | ND | | ug/kg dry | 0.176 | 0.239 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:36 | ESJ |
| 2991-50-6 | N-EtFOSAA | ND | | ug/kg dry | 0.231 | 0.239 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:36 | ESJ |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | ND | | ug/kg dry | 0.130 | 0.477 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:36 | ESJ |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | | ug/kg dry | 0.174 | 0.239 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:36 | ESJ |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | ug/kg dry | 0.185 | 0.239 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:36 | ESJ |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | | ug/kg dry | 0.228 | 0.230 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:36 | ESJ |
| 27619-97-2 | * 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | ug/kg dry | 0.710 | 0.906 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:36 | ESJ |
| 39108-34-4 | 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | ug/kg dry | 0.900 | 0.916 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:36 | ESJ |
| 375-22-4 | Perfluoro-n-butanoic acid (PFBA) | 1.18 | | ug/kg dry | 0.130 | 0.954 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097,NELAC-NY12058,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:36 | ESJ |
| 113507-82-7 | * Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | | ug/kg dry | 0.166 | 0.425 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 07:36 | ESJ |
| 151772-58-6 | * Perfluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | | ug/kg dry | 0.230 | 0.477 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 07:36 | ESJ |
| 377-73-1 | * Perfluoro-4-oxapentanoic acid (PFMPA) | 0.154 | J | ug/kg dry | 0.0739 | 0.477 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 07:36 | ESJ |



Sample Information

Client Sample ID: SP-07 comp

York Sample ID: 23L0283-07

York Project (SDG) No.
23L0283

Client Project ID
22003-0094

Matrix
Soil

Collection Date/Time
December 5, 2023 3:00 pm

Date Received
12/06/2023

PFAS, EPA 1633 Target List

Sample Prepared by Method: EPA 1633 Prep

Log-in Notes:

Sample Notes:

| CAS No. | Parameter | Result | Flag | Units | Reported to LOD/MDL | LOQ | Dilution | Reference Method | Date/Time Prepared | Date/Time Analyzed | Analyst |
|-------------|--|--------|------|-----------|---------------------|-------|----------|--|--------------------|--------------------|---------|
| 863090-89-5 | * Perfluoro-5-oxahexanoic acid (PFMBA) | ND | | ug/kg dry | 0.114 | 0.477 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 07:36 | ESJ |
| 2706-91-4 | * Perfluoro-1-pentanesulfonate (PFPeS) | ND | | ug/kg dry | 0.187 | 0.224 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:36 | ESJ |
| 757124-72-4 | * 1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS) | ND | | ug/kg dry | 0.710 | 0.894 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:36 | ESJ |
| 13252-13-6 | * HFPO-DA (Gen-X) | ND | | ug/kg dry | 0.725 | 0.954 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:36 | ESJ |
| 763051-92-9 | * 11CL-PF3OUDS | ND | | ug/kg dry | 0.371 | 0.902 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:36 | ESJ |
| 756426-58-1 | * 9CL-PF3ONS | ND | | ug/kg dry | 0.293 | 0.892 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:36 | ESJ |
| 919005-14-4 | * ADONA | ND | | ug/kg dry | 0.207 | 0.902 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:36 | ESJ |
| 79780-39-5 | * Perfluorododecanesulfonic acid (PFDoS) | ND | | ug/kg dry | 0.202 | 0.231 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 07:36 | ESJ |
| 68259-12-1 | * Perfluoro-1-nonanesulfonic acid (PFNS) | ND | | ug/kg dry | 0.148 | 0.229 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 ,NJDEP-NY037 | 12/09/2023 12:55 | 12/11/2023 07:36 | ESJ |
| 356-02-5 | * 3-Perfluoropropyl propanoic acid (FPrPA) | ND | | ug/kg dry | 0.756 | 1.19 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 07:36 | ESJ |
| 914637-49-3 | * 3-Perfluoropentyl propanoic acid (FPePA) | ND | | ug/kg dry | 2.50 | 5.96 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 07:36 | ESJ |
| 812-70-4 | * 3-Perfluoroheptyl propanoic acid (FHpPA) | ND | | ug/kg dry | 1.79 | 5.96 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 07:36 | ESJ |
| 24448-09-7 | * N-MeFOSE | ND | | ug/kg dry | 0.729 | 2.39 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 07:36 | ESJ |
| 31506-32-8 | * N-MeFOSA | ND | | ug/kg dry | 0.215 | 0.239 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 07:36 | ESJ |
| 1691-99-2 | * N-EtFOSE | ND | | ug/kg dry | 0.831 | 2.39 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 07:36 | ESJ |
| 4151-50-2 | * N-EtFOSA | ND | | ug/kg dry | 0.236 | 0.239 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NH2097 | 12/09/2023 12:55 | 12/11/2023 07:36 | ESJ |

| Surrogate Recoveries | Result | Acceptance Range |
|---|--------|------------------|
| Surrogate: M3PFBS | 22.6 % | 25-150 |
| Surrogate: M5PFHxA | 35.0 % | 25-150 |
| Surrogate: M4PFHpA | 104 % | 25-150 |
| Surrogate: M3PFHxS | 115 % | 25-150 |
| Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA) | 117 % | 25-150 |
| Surrogate: M6PFDA | 139 % | 25-150 |
| Surrogate: M7PFUdA | 129 % | 25-150 |
| Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA) | 130 % | 25-150 |
| Surrogate: M2PFTeDA | 97.8 % | 10-150 |



Sample Information

| | |
|--|--|
| <u>Client Sample ID:</u> SP-07 comp | <u>York Sample ID:</u> 23L0283-07 |
| <u>York Project (SDG) No.</u> 23L0283 | <u>Client Project ID</u> 22003-0094 |

PFAS, EPA 1633 Target List

Sample Prepared by Method: EPA 1633 Prep

| CAS No. | Parameter | Result | Flag | Units | Reported to LOD/MDL | LOQ | Dilution | Reference Method | Date/Time Prepared | Date/Time Analyzed | Analyst |
|---------|---|---------|------|-------|------------------------|-----|----------|------------------|-----------------------|-----------------------|---------|
| | Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA) | 0.891 % | | | 25-150 | | | | | | |
| | Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS) | 118 % | | | 25-150 | | | | | | |
| | Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA) | 1.48 % | | | 25-150 | | | | | | |
| | Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA) | 101 % | | | 10-150 | | | | | | |
| | Surrogate: d3-N-MeFOSAA | 113 % | | | 25-150 | | | | | | |
| | Surrogate: d5-N-EtFOSAA | 116 % | | | 25-150 | | | | | | |
| | Surrogate: M2-6:2 FTS | 102 % | | | 25-200 | | | | | | |
| | Surrogate: M2-8:2 FTS | 113 % | | | 25-200 | | | | | | |
| | Surrogate: M9PFNA | 123 % | | | 25-150 | | | | | | |
| | Surrogate: M2-4:2 FTS | 40.9 % | | | 25-150 | | | | | | |
| | Surrogate: d-N-MeFOSA | 81.1 % | | | 25-150 | | | | | | |
| | Surrogate: d-N-EtFOSA | 98.7 % | | | 25-150 | | | | | | |
| | Surrogate: M3HFPO-DA | 34.5 % | | | 25-150 | | | | | | |
| | Surrogate: d9-N-EtFOSE | 60.2 % | | | 25-150 | | | | | | |
| | Surrogate: d7-N-MeFOSE | 67.1 % | | | 25-150 | | | | | | |

Total Solids

Sample Prepared by Method: % Solids Prep

| CAS No. | Parameter | Result | Flag | Units | Reported to LOQ | Dilution | Reference Method | Date/Time Prepared | Date/Time Analyzed | Analyst |
|---------|------------|--------|------|-------|--------------------|----------|------------------|-----------------------|-----------------------|---------|
| solids | * % Solids | 83.9 | | % | 0.100 | 1 | SM 2540G | 12/07/2023 12:34 | 12/07/2023 15:34 | AC |

Sample Information

| | |
|--|--|
| <u>Client Sample ID:</u> FB-20231205 | <u>York Sample ID:</u> 23L0283-08 |
| <u>York Project (SDG) No.</u> 23L0283 | <u>Client Project ID</u> 22003-0094 |

PFAS, EPA 1633 Target List

Sample Prepared by Method: EPA 1633 Prep

| CAS No. | Parameter | Result | Flag | Units | Reported to LOD/MDL | LOQ | Dilution | Reference Method | Date/Time Prepared | Date/Time Analyzed | Analyst |
|----------|-------------------------------------|--------|------|-------|------------------------|------|----------|------------------|-----------------------|-----------------------|---------|
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | 0.535 | J | ng/L | 0.454 | 1.71 | 1 | EPA 1633 Draft 3 | 12/10/2023 16:52 | 12/12/2023 18:48 | KT |



Sample Information

Client Sample ID: FB-20231205

York Sample ID: 23L0283-08

| York Project (SDG) No. | Client Project ID | Matrix | Collection Date/Time | Date Received |
|------------------------|-------------------|--------|--------------------------|---------------|
| 23L0283 | 22003-0094 | Water | December 5, 2023 3:00 pm | 12/06/2023 |

PFAS, EPA 1633 Target List

Sample Prepared by Method: EPA 1633 Prep

Log-in Notes:

Sample Notes:

| CAS No. | Parameter | Result | Flag | Units | Reported to LOD/MDL | LOQ | Dilution | Reference Method | Date/Time Prepared | Date/Time Analyzed | Analyst |
|-------------|--|--------------|------|-------|---------------------|------|----------|---|--------------------|--------------------|---------|
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | 0.853 | J | ng/L | 0.338 | 1.93 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037 | 12/10/2023 16:52 | 12/12/2023 18:48 | KT |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | ND | | ng/L | 0.686 | 1.93 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037 | 12/10/2023 16:52 | 12/12/2023 18:48 | KT |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | ND | | ng/L | 0.657 | 1.77 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037 | 12/10/2023 16:52 | 12/12/2023 18:48 | KT |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | ND | | ng/L | 0.406 | 1.93 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037 | 12/10/2023 16:52 | 12/12/2023 18:48 | KT |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | ND | | ng/L | 0.792 | 1.80 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037 | 12/10/2023 16:52 | 12/12/2023 18:48 | KT |
| 375-95-1 | Perfluorononanoic acid (PFNA) | ND | | ng/L | 0.502 | 1.93 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037 | 12/10/2023 16:52 | 12/12/2023 18:48 | KT |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | ND | | ng/L | 0.725 | 1.93 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037 | 12/10/2023 16:52 | 12/12/2023 18:48 | KT |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | ND | | ng/L | 1.09 | 1.93 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037 | 12/10/2023 16:52 | 12/12/2023 18:48 | KT |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | ND | | ng/L | 0.850 | 1.93 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037 | 12/10/2023 16:52 | 12/12/2023 18:48 | KT |
| 72629-94-8 | Perfluorotridecanoic acid (PFTrDA) | ND | | ng/L | 0.715 | 1.93 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037 | 12/10/2023 16:52 | 12/12/2023 18:48 | KT |
| 376-06-7 | * Perfluorotetradecanoic acid (PFTA) | ND | | ng/L | 0.667 | 1.93 | 1 | EPA 1633 Draft 3 Certifications: NJDEP-NY037 | 12/10/2023 16:52 | 12/12/2023 18:48 | KT |
| 2355-31-9 | N-MeFOSAA | ND | | ng/L | 0.763 | 1.93 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037 | 12/10/2023 16:52 | 12/12/2023 18:48 | KT |
| 2991-50-6 | N-EtFOSAA | ND | | ng/L | 0.995 | 1.93 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037 | 12/10/2023 16:52 | 12/12/2023 18:48 | KT |
| 2706-90-3 | Perfluoropentanoic acid (PFPeA) | ND | | ng/L | 0.222 | 3.86 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037 | 12/10/2023 16:52 | 12/12/2023 18:48 | KT |
| 754-91-6 | * Perfluoro-1-octanesulfonamide (FOSA) | ND | | ng/L | 0.850 | 1.93 | 1 | EPA 1633 Draft 3 Certifications: NJDEP-NY037 | 12/10/2023 16:52 | 12/12/2023 18:48 | KT |
| 375-92-8 | * Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | | ng/L | 0.879 | 1.85 | 1 | EPA 1633 Draft 3 Certifications: NJDEP-NY037 | 12/10/2023 16:52 | 12/12/2023 18:48 | KT |
| 335-77-3 | * Perfluoro-1-decanesulfonic acid (PFDS) | ND | | ng/L | 1.28 | 1.86 | 1 | EPA 1633 Draft 3 Certifications: NJDEP-NY037 | 12/10/2023 16:52 | 12/12/2023 18:48 | KT |
| 27619-97-2 | 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | | ng/L | 1.02 | 7.34 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037 | 12/10/2023 16:52 | 12/12/2023 18:48 | KT |
| 39108-34-4 | 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | | ng/L | 1.98 | 7.42 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037 | 12/10/2023 16:52 | 12/12/2023 18:48 | KT |
| 375-22-4 | Perfluoro-n-butanoic acid (PFBA) | ND | | ng/L | 0.319 | 7.73 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037 | 12/10/2023 16:52 | 12/12/2023 18:48 | KT |
| 113507-82-7 | Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | | ng/L | 0.483 | 3.44 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NY12058 | 12/10/2023 16:52 | 12/12/2023 18:48 | KT |
| 151772-58-6 | Perfluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | | ng/L | 2.07 | 3.86 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NY12058 | 12/10/2023 16:52 | 12/12/2023 18:48 | KT |
| 377-73-1 | Perfluoro-4-oxapentanoic acid (PFMPA) | 0.309 | J | ng/L | 0.242 | 3.86 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NY12058 | 12/10/2023 16:52 | 12/12/2023 18:48 | KT |



Sample Information

Client Sample ID: FB-20231205

York Sample ID: 23L0283-08

York Project (SDG) No.
23L0283

Client Project ID
22003-0094

Matrix
Water

Collection Date/Time
December 5, 2023 3:00 pm

Date Received
12/06/2023

PFAS, EPA 1633 Target List

Sample Prepared by Method: EPA 1633 Prep

Log-in Notes:

Sample Notes:

| CAS No. | Parameter | Result | Flag | Units | Reported to LOD/MDL | LOQ | Dilution | Reference Method | Date/Time Prepared | Date/Time Analyzed | Analyst |
|-------------|--|--------|------|-------|---------------------|------|----------|---|--------------------|--------------------|---------|
| 863090-89-5 | Perfluoro-5-oxahexanoic acid (PFMBA) | 1.02 | J | ng/L | 0.358 | 3.86 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NY12058 | 12/10/2023 16:52 | 12/12/2023 18:48 | KT |
| 2706-91-4 | Perfluoro-1-pentanesulfonate (PFPeS) | ND | | ng/L | 0.734 | 1.82 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037 | 12/10/2023 16:52 | 12/12/2023 18:48 | KT |
| 757124-72-4 | 1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS) | ND | | ng/L | 1.73 | 7.25 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037 | 12/10/2023 16:52 | 12/12/2023 18:48 | KT |
| 13252-13-6 | HFPO-DA (Gen-X) | ND | | ng/L | 3.12 | 7.73 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037 | 12/10/2023 16:52 | 12/12/2023 18:48 | KT |
| 763051-92-9 | 11CL-PF3OuDs | ND | | ng/L | 1.33 | 7.30 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037 | 12/10/2023 16:52 | 12/12/2023 18:48 | KT |
| 756426-58-1 | 9CL-PF3ONS | 1.17 | J | ng/L | 0.676 | 7.23 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037 | 12/10/2023 16:52 | 12/12/2023 18:48 | KT |
| 919005-14-4 | ADONA | ND | | ng/L | 0.512 | 7.30 | 1 | EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037 | 12/10/2023 16:52 | 12/12/2023 18:48 | KT |
| 79780-39-5 | * Perfluorododecanesulfonic acid (PFDoS) | ND | | ng/L | 0.899 | 1.87 | 1 | EPA 1633 Draft 3 Certifications: | 12/10/2023 16:52 | 12/12/2023 18:48 | KT |
| 68259-12-1 | * Perfluoro-1-nonanesulfonic acid (PFNS) | ND | | ng/L | 0.831 | 1.86 | 1 | EPA 1633 Draft 3 Certifications: NJDEP-NY037 | 12/10/2023 16:52 | 12/12/2023 18:48 | KT |
| 356-02-5 | * 3-Perfluoropropyl propanoic acid (FPrPA) | ND | | ng/L | 1.96 | 4.83 | 1 | EPA 1633 Draft 3 Certifications: | 12/10/2023 16:52 | 12/12/2023 18:48 | KT |
| 914637-49-3 | * 3-Perfluoropentyl propanoic acid (FPePA) | ND | | ng/L | 7.08 | 24.2 | 1 | EPA 1633 Draft 3 Certifications: | 12/10/2023 16:52 | 12/12/2023 18:48 | KT |
| 812-70-4 | * 3-Perfluoroheptyl propanoic acid (FHpPA) | ND | | ng/L | 9.15 | 24.2 | 1 | EPA 1633 Draft 3 Certifications: | 12/10/2023 16:52 | 12/12/2023 18:48 | KT |
| 24448-09-7 | * N-MeFOSE | ND | | ng/L | 3.86 | 19.3 | 1 | EPA 1633 Draft 3 Certifications: | 12/10/2023 16:52 | 12/12/2023 18:48 | KT |
| 31506-32-8 | * N-MeFOSA | ND | | ng/L | 1.53 | 1.93 | 1 | EPA 1633 Draft 3 Certifications: | 12/10/2023 16:52 | 12/12/2023 18:48 | KT |
| 1691-99-2 | * N-EtFOSE | ND | | ng/L | 3.86 | 19.3 | 1 | EPA 1633 Draft 3 Certifications: | 12/10/2023 16:52 | 12/12/2023 18:48 | KT |
| 4151-50-2 | * N-EtFOSA | ND | | ng/L | 1.74 | 1.93 | 1 | EPA 1633 Draft 3 Certifications: | 12/10/2023 16:52 | 12/12/2023 18:48 | KT |

| Surrogate Recoveries | Result | Acceptance Range |
|---|--------|------------------|
| Surrogate: M3PFBS | 2.60 % | 25-150 |
| Surrogate: M5PFHxA | 4.26 % | 25-150 |
| Surrogate: M4PFHxA | 24.2 % | 25-150 |
| Surrogate: M3PFHxS | 35.7 % | 25-150 |
| Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA) | 32.3 % | 25-150 |
| Surrogate: M6PFDA | 42.7 % | 25-150 |
| Surrogate: M7PFUDA | 54.8 % | 25-150 |
| Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDOD) | 62.5 % | 25-150 |
| Surrogate: M2PFTeDA | 61.4 % | 10-150 |



Sample Information

Client Sample ID: FB-20231205

York Sample ID: 23L0283-08

York Project (SDG) No.
23L0283

Client Project ID
22003-0094

Matrix
Water

Collection Date/Time
December 5, 2023 3:00 pm

Date Received
12/06/2023

PFAS, EPA 1633 Target List

Sample Prepared by Method: EPA 1633 Prep

Log-in Notes:

Sample Notes:

| CAS No. | Parameter | Result | Flag | Units | Reported to LOD/MDL | LOQ | Dilution | Reference Method | Date/Time Prepared | Date/Time Analyzed | Analyst |
|---------|---|---------|------|-------|------------------------|-----|----------|------------------|-----------------------|-----------------------|---------|
| | Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA) | 0.603 % | | | 25-150 | | | | | | |
| | Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS) | 43.4 % | | | 25-150 | | | | | | |
| | Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA) | 0.258 % | | | 25-150 | | | | | | |
| | Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA) | 39.0 % | | | 10-150 | | | | | | |
| | Surrogate: d3-N-MeFOSAA | 43.7 % | | | 25-150 | | | | | | |
| | Surrogate: d5-N-EtFOSAA | 56.0 % | | | 25-150 | | | | | | |
| | Surrogate: M2-6:2 FTS | 27.2 % | | | 25-200 | | | | | | |
| | Surrogate: M2-8:2 FTS | 35.8 % | | | 25-200 | | | | | | |
| | Surrogate: M9PFNA | 38.3 % | | | 25-150 | | | | | | |
| | Surrogate: M2-4:2 FTS | 5.02 % | | | 25-150 | | | | | | |
| | Surrogate: d-N-MeFOSA | 51.6 % | | | 25-150 | | | | | | |
| | Surrogate: d-N-EtFOSA | 54.5 % | | | 25-150 | | | | | | |
| | Surrogate: M3HFPO-DA | 3.45 % | | | 25-150 | | | | | | |
| | Surrogate: d9-N-EtFOSE | 59.0 % | | | 25-150 | | | | | | |
| | Surrogate: d7-N-MeFOSE | 59.5 % | | | 25-150 | | | | | | |



Analytical Batch Summary

Batch ID: BL30377**Preparation Method:** % Solids Prep**Prepared By:** AC

| YORK Sample ID | Client Sample ID | Preparation Date |
|----------------|------------------|------------------|
| 23L0283-01 | SP-01 comp | 12/07/23 |
| 23L0283-02 | SP-02 comp | 12/07/23 |
| 23L0283-03 | SP-03 comp | 12/07/23 |
| 23L0283-04 | SP-04 comp | 12/07/23 |
| 23L0283-05 | SP-05 comp | 12/07/23 |
| 23L0283-06 | SP-06 comp | 12/07/23 |
| 23L0283-07 | SP-07 comp | 12/07/23 |
| BL30377-DUP1 | Duplicate | 12/07/23 |

Batch ID: BL30615**Preparation Method:** EPA 1633 Prep**Prepared By:** JD

| YORK Sample ID | Client Sample ID | Preparation Date |
|----------------|------------------|------------------|
| 23L0283-01 | SP-01 comp | 12/09/23 |
| 23L0283-02 | SP-02 comp | 12/09/23 |
| 23L0283-03 | SP-03 comp | 12/09/23 |
| 23L0283-04 | SP-04 comp | 12/09/23 |
| 23L0283-05 | SP-05 comp | 12/09/23 |
| 23L0283-06 | SP-06 comp | 12/09/23 |
| 23L0283-07 | SP-07 comp | 12/09/23 |
| BL30615-BLK1 | Blank | 12/09/23 |
| BL30615-BS1 | LCS | 12/09/23 |
| BL30615-BS2 | LCS | 12/09/23 |
| BL30615-MS1 | Matrix Spike | 12/09/23 |
| BL30615-MSD1 | Matrix Spike Dup | 12/09/23 |

Batch ID: BL30619**Preparation Method:** EPA 1633 Prep**Prepared By:** AM

| YORK Sample ID | Client Sample ID | Preparation Date |
|----------------|------------------|------------------|
| 23L0283-08 | FB-20231205 | 12/10/23 |
| BL30619-BLK1 | Blank | 12/10/23 |
| BL30619-BS1 | LCS | 12/10/23 |
| BL30619-BS2 | LCS | 12/10/23 |
| BL30619-DUP1 | Duplicate | 12/10/23 |



PFAS Target compounds by LC/MS-MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

| Analyte | Result | Reporting Limit | Units | Spike Level | Source* Result | %REC Limits | Flag | RPD RPD | RPD Limit | RPD Flag |
|--|--------|-----------------|-----------|-------------|----------------|-------------|------|---------|-----------|---|
| Batch BL30615 - EPA 1633 Prep | | | | | | | | | | |
| Blank (BL30615-BLK1) | | | | | | | | | | |
| | | | | | | | | | | Prepared: 12/09/2023 Analyzed: 12/11/2023 |
| Perfluorobutanesulfonic acid (PFBS) | ND | 0.174 | ug/kg wet | | | | | | | |
| Perfluorohexanoic acid (PFHxA) | ND | 0.197 | " | | | | | | | |
| Perfluoroheptanoic acid (PFHpA) | ND | 0.197 | " | | | | | | | |
| Perfluorohexanesulfonic acid (PFHxS) | ND | 0.180 | " | | | | | | | |
| Perfluorooctanoic acid (PFOA) | ND | 0.197 | " | | | | | | | |
| Perfluorooctanesulfonic acid (PFOS) | ND | 0.183 | " | | | | | | | |
| Perfluorononanoic acid (PFNA) | ND | 0.197 | " | | | | | | | |
| Perfluorodecanoic acid (PFDA) | ND | 0.197 | " | | | | | | | |
| Perfluoroundecanoic acid (PFUnA) | ND | 0.197 | " | | | | | | | |
| Perfluorododecanoic acid (PFDoA) | ND | 0.197 | " | | | | | | | |
| Perfluorotridecanoic acid (PFTrDA) | ND | 0.197 | " | | | | | | | |
| Perfluorotetradecanoic acid (PFTA) | ND | 0.197 | " | | | | | | | |
| N-MeFOSAA | ND | 0.197 | " | | | | | | | |
| N-EtFOSAA | ND | 0.197 | " | | | | | | | |
| Perfluoropentanoic acid (PFPeA) | ND | 0.394 | " | | | | | | | |
| Perfluoro-1-octanesulfonamide (FOSA) | ND | 0.197 | " | | | | | | | |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | 0.197 | " | | | | | | | |
| Perfluoro-1-decanesulfonic acid (PFDS) | ND | 0.190 | " | | | | | | | |
| 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | 0.748 | " | | | | | | | |
| 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | 0.756 | " | | | | | | | |
| Perfluoro-n-butanoic acid (PFBA) | ND | 0.787 | " | | | | | | | |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | 0.350 | " | | | | | | | |
| Perfluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | 0.394 | " | | | | | | | |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ND | 0.394 | " | | | | | | | |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ND | 0.394 | " | | | | | | | |
| Perfluoro-1-pentanesulfonate (PFPeS) | ND | 0.185 | " | | | | | | | |
| 1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS) | ND | 0.738 | " | | | | | | | |
| HFPO-DA (Gen-X) | ND | 0.787 | " | | | | | | | |
| 11CL-PF3OUdS | ND | 0.744 | " | | | | | | | |
| 9CL-PF3ONS | ND | 0.736 | " | | | | | | | |
| ADONA | ND | 0.744 | " | | | | | | | |
| Perfluorododecanesulfonic acid (PFDoS) | ND | 0.191 | " | | | | | | | |
| Perfluoro-1-nonanesulfonic acid (PFNS) | ND | 0.189 | " | | | | | | | |
| 3-Perfluoropropyl propanoic acid (FPrPA) | ND | 0.984 | " | | | | | | | |
| 3-Perfluoropentyl propanoic acid (FPePA) | ND | 4.92 | " | | | | | | | |
| 3-Perfluoroheptyl propanoic acid (FHpPA) | ND | 4.92 | " | | | | | | | |
| N-MeFOSE | ND | 1.97 | " | | | | | | | |
| N-MeFOSA | ND | 0.197 | " | | | | | | | |
| N-EtFOSE | ND | 1.97 | " | | | | | | | |
| N-EtFOSA | ND | 0.197 | " | | | | | | | |
| <i>Surrogate: M3PFBS</i> | 2.35 | " | 1.91 | | 123 | 25-150 | | | | |
| <i>Surrogate: M5PFHxA</i> | 2.50 | " | 2.05 | | 122 | 25-150 | | | | |
| <i>Surrogate: M4PFHpA</i> | 2.51 | " | 2.05 | | 122 | 25-150 | | | | |
| <i>Surrogate: M3PFHxS</i> | 2.15 | " | 1.94 | | 111 | 25-150 | | | | |
| <i>Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)</i> | 2.23 | " | 2.05 | | 109 | 25-150 | | | | |
| <i>Surrogate: M6PFDA</i> | 1.04 | " | 1.02 | | 101 | 25-150 | | | | |



PFAS Target compounds by LC/MS-MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

| Analyte | Result | Reporting Limit | Units | Spike Level | Source* Result | %REC | %REC Limits | Flag | RPD | RPD Limit | Flag |
|---------|--------|-----------------|-------|-------------|----------------|------|-------------|------|-----|-----------|------|
|---------|--------|-----------------|-------|-------------|----------------|------|-------------|------|-----|-----------|------|

Batch BL30615 - EPA 1633 Prep

| Blank (BL30615-BLK1) | | | | | | | Prepared: 12/09/2023 Analyzed: 12/11/2023 | | | | |
|---|-------|--|-----------|------|--|------|---|--|--|--|--|
| Surrogate: M7PFUdA | 0.982 | | ug/kg wet | 1.02 | | 95.9 | 25-150 | | | | |
| Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA) | 0.917 | | " | 1.02 | | 89.6 | 25-150 | | | | |
| Surrogate: M2PFTeDA | 0.735 | | " | 1.02 | | 71.8 | 10-150 | | | | |
| Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA) | 9.87 | | " | 8.22 | | 120 | 25-150 | | | | |
| Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS) | 1.94 | | " | 1.96 | | 98.7 | 25-150 | | | | |
| Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA) | 5.00 | | " | 4.10 | | 122 | 25-150 | | | | |
| Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA) | 1.63 | | " | 2.05 | | 79.5 | 10-150 | | | | |
| Surrogate: d3-N-MeFOSAA | 3.31 | | " | 4.10 | | 80.8 | 25-150 | | | | |
| Surrogate: d5-N-EtFOSAA | 3.23 | | " | 4.10 | | 78.9 | 25-150 | | | | |
| Surrogate: M2-6:2 FTS | 3.90 | | " | 3.90 | | 100 | 25-200 | | | | |
| Surrogate: M2-8:2 FTS | 3.20 | | " | 3.94 | | 81.3 | 25-200 | | | | |
| Surrogate: M9PFNA | 0.00 | | " | 1.02 | | | 25-150 | | | | |
| Surrogate: M2-4:2 FTS | 4.48 | | " | 3.85 | | 116 | 25-150 | | | | |
| Surrogate: d-N-MeFOSA | 1.45 | | " | 2.05 | | 70.9 | 25-150 | | | | |
| Surrogate: d-N-EtFOSA | 1.70 | | " | 2.05 | | 82.9 | 25-150 | | | | |
| Surrogate: M3HFPO-DA | 10.4 | | " | 8.22 | | 127 | 25-150 | | | | |
| Surrogate: d9-N-EtFOSE | 9.36 | | " | 20.5 | | 45.6 | 25-150 | | | | |
| Surrogate: d7-N-MeFOSE | 12.5 | | " | 20.5 | | 60.8 | 25-150 | | | | |

| LCS (BL30615-BS1) | | | | | | | Prepared: 12/09/2023 Analyzed: 12/11/2023 | | | | |
|--|------|-------|-----------|------|--|------|---|--|--|--|--|
| Perfluorobutanesulfonic acid (PFBS) | 3.19 | 0.176 | ug/kg wet | 3.53 | | 90.6 | 50-150 | | | | |
| Perfluorohexanoic acid (PFHxA) | 3.27 | 0.199 | " | 3.98 | | 82.1 | 50-150 | | | | |
| Perfluoroheptanoic acid (PFHpA) | 3.42 | 0.199 | " | 3.98 | | 85.9 | 50-150 | | | | |
| Perfluorohexanesulfonic acid (PFHxS) | 3.14 | 0.182 | " | 3.65 | | 86.1 | 50-150 | | | | |
| Perfluorooctanoic acid (PFOA) | 3.61 | 0.199 | " | 3.98 | | 90.6 | 50-150 | | | | |
| Perfluorooctanesulfonic acid (PFOS) | 3.76 | 0.185 | " | 3.71 | | 101 | 50-150 | | | | |
| Perfluorononanoic acid (PFNA) | 4.15 | 0.199 | " | 3.98 | | 104 | 50-150 | | | | |
| Perfluorodecanoic acid (PFDA) | 3.79 | 0.199 | " | 3.98 | | 95.0 | 50-150 | | | | |
| Perfluoroundecanoic acid (PFUnA) | 3.79 | 0.199 | " | 3.98 | | 95.0 | 50-150 | | | | |
| Perfluorododecanoic acid (PFDa) | 3.79 | 0.199 | " | 3.98 | | 93.0 | 50-150 | | | | |
| Perfluorotridecanoic acid (PFTrDA) | 3.60 | 0.199 | " | 3.98 | | 90.5 | 50-150 | | | | |
| Perfluorotetradecanoic acid (PFTA) | 3.30 | 0.199 | " | 3.98 | | 82.7 | 50-150 | | | | |
| N-MeFOSAA | 3.75 | 0.199 | " | 3.98 | | 94.2 | 50-150 | | | | |
| N-EtFOSAA | 3.41 | 0.199 | " | 3.98 | | 85.5 | 50-150 | | | | |
| Perfluoropentanoic acid (PPPeA) | 7.29 | 0.398 | " | 7.97 | | 91.5 | 50-150 | | | | |
| Perfluoro-1-octanesulfonamide (FOSA) | 4.30 | 0.199 | " | 3.98 | | 108 | 50-150 | | | | |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 3.90 | 0.199 | " | 3.80 | | 102 | 50-150 | | | | |
| Perfluoro-1-decanesulfonic acid (PFDS) | 3.14 | 0.192 | " | 3.84 | | 81.7 | 50-150 | | | | |
| 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | 14.3 | 0.757 | " | 15.1 | | 94.3 | 50-150 | | | | |
| 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | 14.0 | 0.765 | " | 15.3 | | 91.7 | 50-150 | | | | |
| Perfluoro-n-butanoic acid (PFBA) | 14.7 | 0.797 | " | 15.9 | | 92.2 | 50-150 | | | | |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | 6.40 | 0.355 | " | 7.09 | | 90.2 | 50-150 | | | | |
| Perfluoro-3,6-dioxaheptanoic acid (NFDHA) | 8.67 | 0.398 | " | 7.97 | | 109 | 50-150 | | | | |
| Perfluoro-4-oxapentanoic acid (PFMPA) | 8.05 | 0.398 | " | 7.97 | | 101 | 50-150 | | | | |
| Perfluoro-5-oxahexanoic acid (PFMBA) | 7.22 | 0.398 | " | 7.97 | | 90.6 | 50-150 | | | | |



PFAS Target compounds by LC/MS-MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

| Analyte | Result | Reporting Limit | Units | Spike Level | Source* Result | %REC | %REC Limits | Flag | RPD | RPD Limit | Flag |
|--|--------|-----------------|-----------|-------------|----------------|------|-------------|-----------|-----|-----------|------|
| Batch BL30615 - EPA 1633 Prep | | | | | | | | | | | |
| LCS (BL30615-BS1) | | | | | | | | | | | |
| Prepared: 12/09/2023 Analyzed: 12/11/2023 | | | | | | | | | | | |
| Perfluoro-1-pentanesulfonate (PFPeS) | 3.94 | 0.187 | ug/kg wet | 3.75 | | 105 | 50-150 | | | | |
| 1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS) | 14.6 | 0.747 | " | 14.9 | | 97.6 | 50-150 | | | | |
| HFPO-DA (Gen-X) | 8.13 | 0.797 | " | 7.97 | | 102 | 50-150 | | | | |
| 11CL-PF3OUdS | 3.57 | 0.753 | " | 7.53 | | 47.4 | 50-150 | Low Bias | | | |
| 9CL-PF3ONS | 4.72 | 0.745 | " | 7.45 | | 63.4 | 50-150 | | | | |
| ADONA | 5.94 | 0.753 | " | 7.53 | | 78.8 | 50-150 | | | | |
| Perfluorododecanesulfonic acid (PFDoS) | 2.56 | 0.193 | " | 3.86 | | 66.3 | 50-150 | | | | |
| Perfluoro-1-nananesulfonic acid (PFNS) | 4.16 | 0.191 | " | 3.82 | | 109 | 50-150 | | | | |
| 3-Perfluoropropyl propanoic acid (FPrPA) | 16.1 | 0.996 | " | 15.9 | | 101 | 50-150 | | | | |
| 3-Perfluoropentyl propanoic acid (FPePA) | 60.6 | 4.98 | " | 79.7 | | 76.0 | 50-150 | | | | |
| 3-Perfluoroheptyl propanoic acid (FHpPA) | 49.4 | 4.98 | " | 79.7 | | 62.0 | 50-150 | | | | |
| N-MeFOSE | 40.5 | 1.99 | " | 39.8 | | 102 | 50-150 | | | | |
| N-MeFOSA | 3.49 | 0.199 | " | 3.98 | | 87.6 | 50-150 | | | | |
| N-EtFOSE | 38.6 | 1.99 | " | 39.8 | | 96.9 | 50-150 | | | | |
| N-EtFOSA | 6.52 | 0.199 | " | 3.98 | | 164 | 50-150 | High Bias | | | |
| <i>Surrogate: M3PFBS</i> | 1.90 | | " | 1.93 | | 98.3 | 25-150 | | | | |
| <i>Surrogate: M5PFHxA</i> | 1.80 | | " | 2.08 | | 86.6 | 25-150 | | | | |
| <i>Surrogate: M4PFHpA</i> | 1.55 | | " | 2.08 | | 74.6 | 25-150 | | | | |
| <i>Surrogate: M3PFHxS</i> | 1.36 | | " | 1.97 | | 69.4 | 25-150 | | | | |
| <i>Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)</i> | 1.26 | | " | 2.08 | | 60.9 | 25-150 | | | | |
| <i>Surrogate: M6PFDA</i> | 0.578 | | " | 1.04 | | 55.8 | 25-150 | | | | |
| <i>Surrogate: M7PFUdA</i> | 0.548 | | " | 1.04 | | 52.9 | 25-150 | | | | |
| <i>Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)</i> | 0.507 | | " | 1.04 | | 48.9 | 25-150 | | | | |
| <i>Surrogate: M2PFTeDA</i> | 0.462 | | " | 1.04 | | 44.6 | 10-150 | | | | |
| <i>Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBa)</i> | 9.85 | | " | 8.32 | | 118 | 25-150 | | | | |
| <i>Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)</i> | 1.06 | | " | 1.99 | | 53.3 | 25-150 | | | | |
| <i>Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)</i> | 4.20 | | " | 4.15 | | 101 | 25-150 | | | | |
| <i>Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)</i> | 0.925 | | " | 2.08 | | 44.5 | 10-150 | | | | |
| <i>Surrogate: d3-N-MeFOSAA</i> | 1.80 | | " | 4.15 | | 43.3 | 25-150 | | | | |
| <i>Surrogate: d5-N-EtFOSAA</i> | 1.73 | | " | 4.15 | | 41.8 | 25-150 | | | | |
| <i>Surrogate: M2-6:2 FTS</i> | 2.52 | | " | 3.94 | | 64.0 | 25-200 | | | | |
| <i>Surrogate: M2-8:2 FTS</i> | 2.29 | | " | 3.98 | | 57.5 | 25-200 | | | | |
| <i>Surrogate: M9PFNA</i> | 0.00 | | " | 1.04 | | | 25-150 | | | | |
| <i>Surrogate: M2-4:2 FTS</i> | 3.37 | | " | 3.89 | | 86.5 | 25-150 | | | | |
| <i>Surrogate: d-N-MeFOSA</i> | 0.970 | | " | 2.08 | | 46.7 | 25-150 | | | | |
| <i>Surrogate: d-N-EtFOSA</i> | 0.795 | | " | 2.08 | | 38.3 | 25-150 | | | | |
| <i>Surrogate: M3HFPO-DA</i> | 7.79 | | " | 8.32 | | 93.7 | 25-150 | | | | |
| <i>Surrogate: d9-N-EtFOSE</i> | 5.87 | | " | 20.8 | | 28.3 | 25-150 | | | | |
| <i>Surrogate: d7-N-MeFOSE</i> | 7.20 | | " | 20.8 | | 34.7 | 25-150 | | | | |



PFAS Target compounds by LC/MS-MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

| Analyte | Result | Reporting Limit | Units | Spike Level | Source* Result | %REC | %REC Limits | Flag | RPD | RPD Limit | Flag |
|--|--------|-----------------|-----------|-------------|----------------|------|-------------|-----------|-----|-----------|------|
| Batch BL30615 - EPA 1633 Prep | | | | | | | | | | | |
| LCS (BL30615-BS2) | | | | | | | | | | | |
| Prepared: 12/09/2023 Analyzed: 12/11/2023 | | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | 0.751 | 0.174 | ug/kg wet | 0.695 | | 108 | 50-150 | | | | |
| Perfluorohexanoic acid (PFHxA) | 0.771 | 0.196 | " | 0.786 | | 98.1 | 50-150 | | | | |
| Perfluoroheptanoic acid (PFHpA) | 0.813 | 0.196 | " | 0.786 | | 103 | 50-150 | | | | |
| Perfluorohexanesulfonic acid (PFHxS) | 0.837 | 0.180 | " | 0.719 | | 116 | 50-150 | | | | |
| Perfluorooctanoic acid (PFOA) | 0.738 | 0.196 | " | 0.786 | | 93.9 | 50-150 | | | | |
| Perfluorooctanesulfonic acid (PFOS) | 0.925 | 0.183 | " | 0.731 | | 127 | 50-150 | | | | |
| Perfluorononanoic acid (PFNA) | 0.848 | 0.196 | " | 0.786 | | 108 | 50-150 | | | | |
| Perfluorodecanoic acid (PFDA) | 0.697 | 0.196 | " | 0.786 | | 88.7 | 50-150 | | | | |
| Perfluoroundecanoic acid (PFUnA) | 0.825 | 0.196 | " | 0.786 | | 105 | 50-150 | | | | |
| Perfluorododecanoic acid (PFDoA) | 0.701 | 0.196 | " | 0.786 | | 89.2 | 50-150 | | | | |
| Perfluorotridecanoic acid (PFTrDA) | 0.872 | 0.196 | " | 0.786 | | 111 | 50-150 | | | | |
| Perfluorotetradecanoic acid (PFTA) | 0.818 | 0.196 | " | 0.786 | | 104 | 50-150 | | | | |
| N-MeFOSAA | 0.738 | 0.196 | " | 0.786 | | 93.9 | 50-150 | | | | |
| N-EtFOSAA | 0.701 | 0.196 | " | 0.786 | | 89.3 | 50-150 | | | | |
| Perfluoropentanoic acid (PFPeA) | 1.62 | 0.393 | " | 1.57 | | 103 | 50-150 | | | | |
| Perfluoro-1-octanesulfonamide (FOSA) | 1.10 | 0.196 | " | 0.786 | | 140 | 50-150 | | | | |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 0.989 | 0.196 | " | 0.750 | | 132 | 50-150 | | | | |
| Perfluoro-1-decanesulfonic acid (PFDS) | 0.749 | 0.190 | " | 0.758 | | 98.8 | 50-150 | | | | |
| 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | 3.48 | 0.747 | " | 2.99 | | 117 | 50-150 | | | | |
| 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | 3.12 | 0.754 | " | 3.02 | | 103 | 50-150 | | | | |
| Perfluoro-n-butanoic acid (PFBA) | 3.25 | 0.786 | " | 3.14 | | 103 | 50-150 | | | | |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | 1.54 | 0.350 | " | 1.40 | | 110 | 50-150 | | | | |
| Perfluoro-3,6-dioxaheptanoic acid (NFDHA) | 1.37 | 0.393 | " | 1.57 | | 87.2 | 50-150 | | | | |
| Perfluoro-4-oxapentanoic acid (PFMPA) | 1.76 | 0.393 | " | 1.57 | | 112 | 50-150 | | | | |
| Perfluoro-5-oxahexanoic acid (PFMBA) | 1.67 | 0.393 | " | 1.57 | | 106 | 50-150 | | | | |
| Perfluoro-1-pentanesulfonate (PFPeS) | 1.01 | 0.185 | " | 0.739 | | 136 | 50-150 | | | | |
| 1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS) | 3.27 | 0.737 | " | 2.95 | | 111 | 50-150 | | | | |
| HFPO-DA (Gen-X) | 1.98 | 0.786 | " | 1.57 | | 126 | 50-150 | | | | |
| 11CL-PF3OUdS | 0.713 | 0.743 | " | 1.49 | | 48.0 | 50-150 | Low Bias | | | |
| 9CL-PF3ONS | 0.945 | 0.735 | " | 1.47 | | 64.3 | 50-150 | | | | |
| ADONA | 1.33 | 0.743 | " | 1.49 | | 89.5 | 50-150 | | | | |
| Perfluorododecanesulfonic acid (PFDoS) | 0.695 | 0.191 | " | 0.762 | | 91.2 | 50-150 | | | | |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 0.902 | 0.189 | " | 0.754 | | 120 | 50-150 | | | | |
| 3-Perfluoropropyl propanoic acid (FPrPA) | 2.94 | 0.982 | " | 3.14 | | 93.6 | 50-150 | | | | |
| 3-Perfluoropentyl propanoic acid (FPePA) | 14.3 | 4.91 | " | 15.7 | | 90.8 | 50-150 | | | | |
| 3-Perfluoroheptyl propanoic acid (FHpPA) | 10.4 | 4.91 | " | 15.7 | | 66.1 | 50-150 | | | | |
| N-MeFOSE | 8.35 | 1.96 | " | 7.86 | | 106 | 50-150 | | | | |
| N-MeFOSA | 0.792 | 0.196 | " | 0.786 | | 101 | 50-150 | | | | |
| N-EtFOSE | 9.15 | 1.96 | " | 7.86 | | 116 | 50-150 | | | | |
| N-EtFOSA | 1.51 | 0.196 | " | 0.786 | | 192 | 50-150 | High Bias | | | |
| <i>Surrogate: M3PFBS</i> | 2.01 | | " | 1.91 | | 105 | 25-150 | | | | |
| <i>Surrogate: M5PFHxA</i> | 1.96 | | " | 2.05 | | 95.9 | 25-150 | | | | |
| <i>Surrogate: M4PFHpA</i> | 1.73 | | " | 2.05 | | 84.6 | 25-150 | | | | |
| <i>Surrogate: M3PFHxS</i> | 1.33 | | " | 1.94 | | 68.7 | 25-150 | | | | |
| <i>Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)</i> | 1.57 | | " | 2.05 | | 76.8 | 25-150 | | | | |
| <i>Surrogate: M6PFDA</i> | 0.657 | | " | 1.02 | | 64.3 | 25-150 | | | | |
| <i>Surrogate: M7PFUdA</i> | 0.561 | | " | 1.02 | | 54.9 | 25-150 | | | | |



PFAS Target compounds by LC/MS-MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

| Analyte | Result | Reporting Limit | Units | Spike Level | Source* Result | %REC | %REC Limits | Flag | RPD | RPD Limit | Flag |
|---------|--------|-----------------|-------|-------------|----------------|------|-------------|------|-----|-----------|------|
|---------|--------|-----------------|-------|-------------|----------------|------|-------------|------|-----|-----------|------|

Batch BL30615 - EPA 1633 Prep

| LCS (BL30615-BS2) | Prepared: 12/09/2023 Analyzed: 12/11/2023 | | | | | |
|---|---|--|-----------|------|------|--------|
| Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA) | 0.526 | | ug/kg wet | 1.02 | 51.5 | 25-150 |
| Surrogate: M2PFTeDA | 0.461 | | " | 1.02 | 45.1 | 10-150 |
| Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA) | 9.95 | | " | 8.20 | 121 | 25-150 |
| Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS) | 1.03 | | " | 1.96 | 52.6 | 25-150 |
| Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA) | 4.48 | | " | 4.09 | 110 | 25-150 |
| Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA) | 0.932 | | " | 2.05 | 45.5 | 10-150 |
| Surrogate: d3-N-MeFOSAA | 1.90 | | " | 4.09 | 46.3 | 25-150 |
| Surrogate: d5-N-EtFOSAA | 1.92 | | " | 4.09 | 46.9 | 25-150 |
| Surrogate: M2-6:2 FTS | 2.40 | | " | 3.89 | 61.7 | 25-200 |
| Surrogate: M2-8:2 FTS | 2.11 | | " | 3.93 | 53.7 | 25-200 |
| Surrogate: M9PFNA | 0.00 | | " | 1.02 | | 25-150 |
| Surrogate: M2-4:2 FTS | 3.53 | | " | 3.84 | 92.0 | 25-150 |
| Surrogate: d-N-MeFOSA | 0.999 | | " | 2.05 | 48.8 | 25-150 |
| Surrogate: d-N-EtFOSA | 0.668 | | " | 2.05 | 32.6 | 25-150 |
| Surrogate: M3HFPO-DA | 8.96 | | " | 8.20 | 109 | 25-150 |
| Surrogate: d9-N-EtFOSE | 5.03 | | " | 20.5 | 24.6 | 25-150 |
| Surrogate: d7-N-MeFOSE | 6.28 | | " | 20.5 | 30.7 | 25-150 |

| Matrix Spike (BL30615-MS1) | *Source sample: 23L0173-02 (Matrix Spike) | | | | | | Prepared: 12/09/2023 Analyzed: 12/11/2023 | | |
|--|---|-------|-----------|------|-------|------|---|--|--|
| Perfluorobutanesulfonic acid (PFBS) | 4.11 | 0.202 | ug/kg dry | 4.03 | ND | 102 | 25-150 | | |
| Perfluorohexanoic acid (PFHxA) | 4.24 | 0.228 | " | 4.56 | ND | 93.1 | 25-150 | | |
| Perfluoroheptanoic acid (PFHpA) | 4.39 | 0.228 | " | 4.56 | ND | 96.3 | 25-150 | | |
| Perfluorohexanesulfonic acid (PFHxS) | 4.05 | 0.208 | " | 4.17 | ND | 97.1 | 25-150 | | |
| Perfluoroctanoic acid (PFOA) | 4.24 | 0.228 | " | 4.56 | ND | 93.0 | 25-150 | | |
| Perfluorooctanesulfonic acid (PFOS) | 4.74 | 0.212 | " | 4.24 | ND | 112 | 25-150 | | |
| Perfluorononanoic acid (PFNA) | 4.58 | 0.228 | " | 4.56 | ND | 101 | 25-150 | | |
| Perfluorodecanoic acid (PFDA) | 4.49 | 0.228 | " | 4.56 | ND | 98.6 | 25-150 | | |
| Perfluoroundecanoic acid (PFUnA) | 4.61 | 0.228 | " | 4.56 | ND | 101 | 25-150 | | |
| Perfluorododecanoic acid (PFDoA) | 4.33 | 0.228 | " | 4.56 | ND | 94.9 | 25-150 | | |
| Perfluorotridecanoic acid (PFTrDA) | 5.08 | 0.228 | " | 4.56 | ND | 112 | 25-150 | | |
| Perfluorotetradecanoic acid (PFTA) | 4.42 | 0.228 | " | 4.56 | ND | 97.0 | 25-150 | | |
| N-MeFOSAA | 4.59 | 0.228 | " | 4.56 | ND | 101 | 25-150 | | |
| N-EtFOSAA | 4.62 | 0.228 | " | 4.56 | ND | 101 | 25-150 | | |
| Perfluoropentanoic acid (PFPeA) | 8.80 | 0.456 | " | 9.11 | ND | 96.6 | 25-150 | | |
| Perfluoro-1-octanesulfonamide (FOSA) | 5.36 | 0.228 | " | 4.56 | 0.446 | 108 | 25-150 | | |
| Perfluoro-1-heptanesulfonic acid (PFHPS) | 4.60 | 0.228 | " | 4.35 | ND | 106 | 25-150 | | |
| Perfluoro-1-decanesulfonic acid (PFDS) | 4.39 | 0.220 | " | 4.40 | ND | 99.8 | 25-150 | | |
| 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | 17.0 | 0.866 | " | 17.3 | ND | 98.2 | 25-150 | | |
| 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | 17.1 | 0.875 | " | 17.5 | ND | 97.8 | 25-150 | | |
| Perfluoro-n-butanoic acid (PFBA) | 18.1 | 0.911 | " | 18.2 | ND | 99.6 | 25-150 | | |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | 8.28 | 0.406 | " | 8.11 | ND | 102 | 25-150 | | |
| Perfluoro-3,6-dioxaheptanoic acid (NFDHA) | 8.33 | 0.456 | " | 9.11 | ND | 91.4 | 25-150 | | |
| Perfluoro-4-oxapentanoic acid (PFMPA) | 8.97 | 0.456 | " | 9.11 | ND | 98.4 | 25-150 | | |
| Perfluoro-5-oxahexanoic acid (PFMBA) | 9.26 | 0.456 | " | 9.11 | ND | 102 | 25-150 | | |
| Perfluoro-1-pentanesulfonate (PFPeS) | 4.39 | 0.214 | " | 4.28 | ND | 103 | 25-150 | | |



PFAS Target compounds by LC/MS-MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

| Analyte | Result | Reporting Limit | Units | Spike Level | Source* Result | %REC | %REC Limits | Flag | RPD | RPD Limit | Flag |
|---------|--------|-----------------|-------|-------------|----------------|------|-------------|------|-----|-----------|------|
|---------|--------|-----------------|-------|-------------|----------------|------|-------------|------|-----|-----------|------|

Batch BL30615 - EPA 1633 Prep

| Matrix Spike (BL30615-MS1) | *Source sample: 23L0173-02 (Matrix Spike) | | | | | | Prepared: 12/09/2023 Analyzed: 12/11/2023 | | | | |
|--|---|-------|-----------|-------------|----|-------------|---|--|--|--|--|
| 1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS) | 17.7 | 0.854 | ug/kg dry | 17.1 | ND | 104 | 25-150 | | | | |
| HFPO-DA (Gen-X) | 9.87 | 0.911 | " | 9.11 | ND | 108 | 25-150 | | | | |
| 11CL-PF3OUdS | 7.80 | 0.861 | " | 8.61 | ND | 90.6 | 25-150 | | | | |
| 9CL-PF3ONS | 9.74 | 0.852 | " | 8.52 | ND | 114 | 25-150 | | | | |
| ADONA | 8.49 | 0.861 | " | 8.61 | ND | 98.6 | 25-150 | | | | |
| Perfluorododecanesulfonic acid (PFDoS) | 3.55 | 0.221 | " | 4.42 | ND | 80.4 | 25-150 | | | | |
| Perfluoro-1-nananesulfonic acid (PFNS) | 5.33 | 0.219 | " | 4.37 | ND | 122 | 25-150 | | | | |
| 3-Perfluoropropyl propanoic acid (FPrPA) | 15.6 | 1.14 | " | 18.2 | ND | 85.6 | 25-150 | | | | |
| 3-Perfluoropentyl propanoic acid (FPePA) | 84.0 | 5.70 | " | 91.1 | ND | 92.2 | 25-150 | | | | |
| 3-Perfluoroheptyl propanoic acid (FHpPA) | 79.7 | 5.70 | " | 91.1 | ND | 87.5 | 25-150 | | | | |
| N-MeFOSE | 46.4 | 2.28 | " | 45.6 | ND | 102 | 25-150 | | | | |
| N-MeFOSA | 4.91 | 0.228 | " | 4.56 | ND | 108 | 25-150 | | | | |
| N-EtFOSE | 45.7 | 2.28 | " | 45.6 | ND | 100 | 25-150 | | | | |
| N-EtFOSA | 3.66 | 0.228 | " | 4.56 | ND | 80.3 | 25-150 | | | | |
| <i>Surrogate: M3PFBS</i> | <i>3.05</i> | | <i>"</i> | <i>2.21</i> | | <i>138</i> | <i>25-150</i> | | | | |
| <i>Surrogate: M5PFHxA</i> | <i>3.03</i> | | <i>"</i> | <i>2.38</i> | | <i>128</i> | <i>25-150</i> | | | | |
| <i>Surrogate: M4PFHxA</i> | <i>3.00</i> | | <i>"</i> | <i>2.38</i> | | <i>126</i> | <i>25-150</i> | | | | |
| <i>Surrogate: M3PFHxS</i> | <i>3.02</i> | | <i>"</i> | <i>2.25</i> | | <i>134</i> | <i>25-150</i> | | | | |
| <i>Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)</i> | <i>2.94</i> | | <i>"</i> | <i>2.38</i> | | <i>124</i> | <i>25-150</i> | | | | |
| <i>Surrogate: M6PFDA</i> | <i>1.44</i> | | <i>"</i> | <i>1.18</i> | | <i>122</i> | <i>25-150</i> | | | | |
| <i>Surrogate: M7PFUdA</i> | <i>1.49</i> | | <i>"</i> | <i>1.18</i> | | <i>126</i> | <i>25-150</i> | | | | |
| <i>Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)</i> | <i>1.39</i> | | <i>"</i> | <i>1.18</i> | | <i>117</i> | <i>25-150</i> | | | | |
| <i>Surrogate: M2PFTeDA</i> | <i>1.02</i> | | <i>"</i> | <i>1.18</i> | | <i>85.9</i> | <i>10-150</i> | | | | |
| <i>Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)</i> | <i>11.8</i> | | <i>"</i> | <i>9.51</i> | | <i>124</i> | <i>25-150</i> | | | | |
| <i>Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)</i> | <i>2.86</i> | | <i>"</i> | <i>2.27</i> | | <i>126</i> | <i>25-150</i> | | | | |
| <i>Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)</i> | <i>6.08</i> | | <i>"</i> | <i>4.74</i> | | <i>128</i> | <i>25-150</i> | | | | |
| <i>Surrogate: Perfluoro-I-[13C8]octanesulfonamide (M8FOSA)</i> | <i>2.47</i> | | <i>"</i> | <i>2.38</i> | | <i>104</i> | <i>10-150</i> | | | | |
| <i>Surrogate: d3-N-MeFOSAA</i> | <i>5.23</i> | | <i>"</i> | <i>4.74</i> | | <i>110</i> | <i>25-150</i> | | | | |
| <i>Surrogate: d5-N-EtFOSAA</i> | <i>5.65</i> | | <i>"</i> | <i>4.74</i> | | <i>119</i> | <i>25-150</i> | | | | |
| <i>Surrogate: M2-6:2 FTS</i> | <i>5.57</i> | | <i>"</i> | <i>4.51</i> | | <i>124</i> | <i>25-200</i> | | | | |
| <i>Surrogate: M2-8:2 FTS</i> | <i>5.83</i> | | <i>"</i> | <i>4.56</i> | | <i>128</i> | <i>25-200</i> | | | | |
| <i>Surrogate: M9PNA</i> | <i>0.00</i> | | <i>"</i> | <i>1.18</i> | | | <i>25-150</i> | | | | |
| <i>Surrogate: M2-4:2 FTS</i> | <i>5.64</i> | | <i>"</i> | <i>4.45</i> | | <i>127</i> | <i>25-150</i> | | | | |
| <i>Surrogate: d-N-MeFOSA</i> | <i>1.75</i> | | <i>"</i> | <i>2.38</i> | | <i>73.6</i> | <i>25-150</i> | | | | |
| <i>Surrogate: d-N-EtFOSA</i> | <i>1.73</i> | | <i>"</i> | <i>2.38</i> | | <i>72.7</i> | <i>25-150</i> | | | | |
| <i>Surrogate: M3HFPO-DA</i> | <i>13.3</i> | | <i>"</i> | <i>9.51</i> | | <i>140</i> | <i>25-150</i> | | | | |
| <i>Surrogate: d9-N-EtFOSE</i> | <i>14.7</i> | | <i>"</i> | <i>23.8</i> | | <i>62.0</i> | <i>25-150</i> | | | | |
| <i>Surrogate: d7-N-MeFOSE</i> | <i>16.7</i> | | <i>"</i> | <i>23.8</i> | | <i>70.3</i> | <i>25-150</i> | | | | |



PFAS Target compounds by LC/MS-MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

| Analyte | Result | Reporting Limit | Units | Spike Level | Source* Result | %REC | %REC Limits | Flag | RPD | RPD Limit | Flag |
|---|--------|-----------------|-----------|-------------|----------------|------|-------------|-----------|--------|-----------|----------|
| Batch BL30615 - EPA 1633 Prep | | | | | | | | | | | |
| Matrix Spike Dup (BL30615-MSD1) | | | | | | | | | | | |
| *Source sample: 23L0173-02 (Matrix Spike Dup) Prepared: 12/09/2023 Analyzed: 12/11/2023 | | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | 4.03 | 0.204 | ug/kg dry | 4.09 | ND | 98.5 | 25-150 | | 2.04 | 35 | |
| Perfluorohexanoic acid (PFHxA) | 4.23 | 0.231 | " | 4.62 | ND | 91.5 | 25-150 | | 0.334 | 35 | |
| Perfluoroheptanoic acid (PFHpA) | 4.31 | 0.231 | " | 4.62 | ND | 93.2 | 25-150 | | 1.83 | 35 | |
| Perfluorohexanesulfonic acid (PFHxS) | 3.85 | 0.211 | " | 4.23 | ND | 91.1 | 25-150 | | 5.00 | 35 | |
| Perfluorooctanoic acid (PFOA) | 4.38 | 0.231 | " | 4.62 | ND | 94.8 | 25-150 | | 3.27 | 35 | |
| Perfluorooctanesulfonic acid (PFOS) | 5.01 | 0.215 | " | 4.30 | ND | 117 | 25-150 | | 5.65 | 35 | |
| Perfluorononanoic acid (PFNA) | 4.31 | 0.231 | " | 4.62 | ND | 93.3 | 25-150 | | 6.18 | 35 | |
| Perfluorodecanoic acid (PFDA) | 4.35 | 0.231 | " | 4.62 | ND | 94.2 | 25-150 | | 3.14 | 35 | |
| Perfluoroundecanoic acid (PFUnA) | 4.84 | 0.231 | " | 4.62 | ND | 105 | 25-150 | | 4.81 | 35 | |
| Perfluorododecanoic acid (PFDoA) | 4.32 | 0.231 | " | 4.62 | ND | 93.6 | 25-150 | | 0.0322 | 35 | |
| Perfluorotridecanoic acid (PFTrDA) | 5.01 | 0.231 | " | 4.62 | ND | 108 | 25-150 | | 1.49 | 35 | |
| Perfluorotetradecanoic acid (PFTA) | 4.06 | 0.231 | " | 4.62 | ND | 87.9 | 25-150 | | 8.48 | 35 | |
| N-MeFOSAA | 4.53 | 0.231 | " | 4.62 | ND | 97.9 | 25-150 | | 1.32 | 35 | |
| N-EtFOSAA | 4.26 | 0.231 | " | 4.62 | ND | 92.2 | 25-150 | | 7.99 | 35 | |
| Perfluoropentanoic acid (PFPeA) | 8.52 | 0.462 | " | 9.24 | ND | 92.2 | 25-150 | | 3.21 | 35 | |
| Perfluoro-1-octanesulfonamide (FOSA) | 5.53 | 0.231 | " | 4.62 | 0.446 | 110 | 25-150 | | 3.21 | 35 | |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 5.00 | 0.231 | " | 4.41 | ND | 113 | 25-150 | | 8.30 | 35 | |
| Perfluoro-1-decanesulfonic acid (PFDS) | 4.78 | 0.223 | " | 4.46 | ND | 107 | 25-150 | | 8.64 | 35 | |
| 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | 16.2 | 0.878 | " | 17.6 | ND | 92.3 | 25-150 | | 4.85 | 35 | |
| 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | 16.5 | 0.887 | " | 17.7 | ND | 92.8 | 25-150 | | 3.88 | 35 | |
| Perfluoro-n-butanoic acid (PFBA) | 17.6 | 0.924 | " | 18.5 | ND | 95.4 | 25-150 | | 2.85 | 35 | |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | 8.22 | 0.411 | " | 8.22 | ND | 99.9 | 25-150 | | 0.791 | 30 | |
| Perfluoro-3,6-dioxaheptanoic acid (NFDHA) | 9.02 | 0.462 | " | 9.24 | ND | 97.6 | 25-150 | | 8.00 | 30 | |
| Perfluoro-4-oxapentanoic acid (PFMPA) | 8.75 | 0.462 | " | 9.24 | ND | 94.7 | 25-150 | | 2.41 | 30 | |
| Perfluoro-5-oxahexanoic acid (PFMBA) | 8.83 | 0.462 | " | 9.24 | ND | 95.5 | 25-150 | | 4.74 | 30 | |
| Perfluoro-1-pentanesulfonate (PFPeS) | 4.13 | 0.217 | " | 4.34 | ND | 95.1 | 25-150 | | 6.19 | 30 | |
| 1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS) | 16.9 | 0.866 | " | 17.3 | ND | 97.3 | 25-150 | | 5.14 | 30 | |
| HFPO-DA (Gen-X) | 9.23 | 0.924 | " | 9.24 | ND | 99.9 | 25-150 | | 6.71 | 30 | |
| 11CL-PF3OUdS | 7.83 | 0.873 | " | 8.73 | ND | 89.6 | 25-150 | | 0.297 | 30 | |
| 9CL-PF3ONS | 9.47 | 0.864 | " | 8.64 | ND | 110 | 25-150 | | 2.79 | 30 | |
| ADONA | 8.54 | 0.873 | " | 8.73 | ND | 97.8 | 25-150 | | 0.621 | 30 | |
| Perfluorododecanesulfonic acid (PFDoS) | 3.90 | 0.224 | " | 4.48 | ND | 87.0 | 25-150 | | 9.26 | 30 | |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 5.90 | 0.222 | " | 4.44 | ND | 133 | 25-150 | | 10.0 | 30 | |
| 3-Perfluoropropyl propanoic acid (FPrPA) | 16.5 | 1.16 | " | 18.5 | ND | 89.0 | 25-150 | | 5.27 | 30 | |
| 3-Perfluoropentyl propanoic acid (FPePA) | 89.7 | 5.78 | " | 92.4 | ND | 97.1 | 25-150 | | 6.59 | 30 | |
| 3-Perfluoroheptyl propanoic acid (FHpPA) | 82.0 | 5.78 | " | 92.4 | ND | 88.8 | 25-150 | | 2.85 | 30 | |
| N-MeFOSE | 44.9 | 2.31 | " | 46.2 | ND | 97.2 | 25-150 | | 3.34 | 30 | |
| N-MeFOSA | 4.95 | 0.231 | " | 4.62 | ND | 107 | 25-150 | | 0.858 | 30 | |
| N-EtFOSE | 46.5 | 2.31 | " | 46.2 | ND | 101 | 25-150 | | 1.74 | 30 | |
| N-EtFOSA | 7.36 | 0.231 | " | 4.62 | ND | 159 | 25-150 | High Bias | 67.1 | 30 | Non-dir. |
| <i>Surrogate: M3PFBS</i> | 3.16 | | " | 2.24 | | 141 | 25-150 | | | | |
| <i>Surrogate: M5PFHxA</i> | 3.00 | | " | 2.41 | | 125 | 25-150 | | | | |
| <i>Surrogate: M4PFHpA</i> | 3.02 | | " | 2.41 | | 125 | 25-150 | | | | |
| <i>Surrogate: M3PFHxS</i> | 3.11 | | " | 2.28 | | 136 | 25-150 | | | | |
| <i>Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)</i> | 3.11 | | " | 2.41 | | 129 | 25-150 | | | | |
| <i>Surrogate: M6PFDA</i> | 1.54 | | " | 1.20 | | 128 | 25-150 | | | | |
| <i>Surrogate: M7PFUdA</i> | 1.38 | | " | 1.20 | | 115 | 25-150 | | | | |



PFAS Target compounds by LC/MS-MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

| Analyte | Result | Reporting Limit | Units | Spike Level | Source* Result | %REC | %REC Limits | Flag | RPD | RPD Limit | Flag |
|---------|--------|-----------------|-------|-------------|----------------|------|-------------|------|-----|-----------|------|
|---------|--------|-----------------|-------|-------------|----------------|------|-------------|------|-----|-----------|------|

Batch BL30615 - EPA 1633 Prep

| Matrix Spike Dup (BL30615-MSD1) | *Source sample: 23L0173-02 (Matrix Spike Dup) | | | | | Prepared: 12/09/2023 Analyzed: 12/11/2023 | | | | | |
|---|---|--|-----------|------|--|---|--|--------|--|--|--|
| Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA) | 1.22 | | ug/kg dry | 1.20 | | 101 | | 25-150 | | | |
| Surrogate: M2PFTeDA | 1.02 | | " | 1.20 | | 85.0 | | 10-150 | | | |
| Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA) | 12.2 | | " | 9.65 | | 127 | | 25-150 | | | |
| Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS) | 2.69 | | " | 2.30 | | 117 | | 25-150 | | | |
| Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA) | 6.11 | | " | 4.81 | | 127 | | 25-150 | | | |
| Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA) | 2.70 | | " | 2.41 | | 112 | | 10-150 | | | |
| Surrogate: d3-N-MeFOSAA | 5.43 | | " | 4.81 | | 113 | | 25-150 | | | |
| Surrogate: d5-N-EtFOSAA | 6.03 | | " | 4.81 | | 125 | | 25-150 | | | |
| Surrogate: M2-6:2 FTS | 5.53 | | " | 4.57 | | 121 | | 25-200 | | | |
| Surrogate: M2-8:2 FTS | 6.18 | | " | 4.62 | | 134 | | 25-200 | | | |
| Surrogate: M9PFNA | 0.00 | | " | 1.20 | | | | 25-150 | | | |
| Surrogate: M2-4:2 FTS | 5.96 | | " | 4.52 | | 132 | | 25-150 | | | |
| Surrogate: d-N-MeFOSA | 1.94 | | " | 2.41 | | 80.5 | | 25-150 | | | |
| Surrogate: d-N-EtFOSA | 1.59 | | " | 2.41 | | 66.0 | | 25-150 | | | |
| Surrogate: M3HFPO-DA | 13.0 | | " | 9.65 | | 135 | | 25-150 | | | |
| Surrogate: d9-N-EtFOSE | 16.3 | | " | 24.1 | | 67.5 | | 25-150 | | | |
| Surrogate: d7-N-MeFOSE | 19.3 | | " | 24.1 | | 80.1 | | 25-150 | | | |

Batch BL30619 - EPA 1633 Prep

| Blank (BL30619-BLK1) | | | | | | Prepared: 12/10/2023 Analyzed: 12/12/2023 | | | | |
|--|----|------|------|--|--|---|--|--|--|--|
| Perfluorobutanesulfonic acid (PFBS) | ND | 3.54 | ng/L | | | | | | | |
| Perfluorohexanoic acid (PFHxA) | ND | 4.00 | " | | | | | | | |
| Perfluoroheptanoic acid (PFHpA) | ND | 4.00 | " | | | | | | | |
| Perfluorohexanesulfonic acid (PFHxS) | ND | 3.66 | " | | | | | | | |
| Perfluorooctanoic acid (PFOA) | ND | 4.00 | " | | | | | | | |
| Perfluorooctanesulfonic acid (PFOS) | ND | 3.72 | " | | | | | | | |
| Perfluorononanoic acid (PFNA) | ND | 4.00 | " | | | | | | | |
| Perfluorodecanoic acid (PFDA) | ND | 4.00 | " | | | | | | | |
| Perfluoroundecanoic acid (PFUnA) | ND | 4.00 | " | | | | | | | |
| Perfluorododecanoic acid (PFDoA) | ND | 4.00 | " | | | | | | | |
| Perfluorotridecanoic acid (PFTrDA) | ND | 4.00 | " | | | | | | | |
| Perfluorotetradecanoic acid (PFTA) | ND | 4.00 | " | | | | | | | |
| N-MeFOSAA | ND | 4.00 | " | | | | | | | |
| N-EtFOSAA | ND | 4.00 | " | | | | | | | |
| Perfluoropentanoic acid (PFPeA) | ND | 8.00 | " | | | | | | | |
| Perfluoro-1-octanesulfonamide (FOSA) | ND | 4.00 | " | | | | | | | |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | 3.82 | " | | | | | | | |
| Perfluoro-1-decanesulfonic acid (PFDS) | ND | 3.86 | " | | | | | | | |
| 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | 15.2 | " | | | | | | | |
| 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | 15.4 | " | | | | | | | |
| Perfluoro-n-butanoic acid (PFBA) | ND | 16.0 | " | | | | | | | |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | 7.12 | " | | | | | | | |
| Perfluoro-3,6-dioxahexanoic acid (NFDHA) | ND | 8.00 | " | | | | | | | |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ND | 8.00 | " | | | | | | | |



PFAS Target compounds by LC/MS-MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

| Analyte | Result | Reporting Limit | Units | Spike Level | Source* Result | %REC | %REC Limits | Flag | RPD | RPD Limit | Flag |
|--|--------|-----------------|-------|-------------|----------------|--------|-------------|------|-----|-----------|------|
| Batch BL30619 - EPA 1633 Prep | | | | | | | | | | | |
| Blank (BL30619-BLK1) | | | | | | | | | | | |
| Prepared: 12/10/2023 Analyzed: 12/12/2023 | | | | | | | | | | | |
| Perfluoro-5-oxahexanoic acid (PFMBA) | ND | 8.00 | ng/L | | | | | | | | |
| Perfluoro-1-pentanesulfonate (PFPeS) | ND | 3.76 | " | | | | | | | | |
| 1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS) | ND | 15.0 | " | | | | | | | | |
| HFPO-DA (Gen-X) | ND | 16.0 | " | | | | | | | | |
| 11CL-PF3OUdS | ND | 15.1 | " | | | | | | | | |
| 9CL-PF3ONS | ND | 15.0 | " | | | | | | | | |
| ADONA | ND | 15.1 | " | | | | | | | | |
| Perfluorododecanesulfonic acid (PFDoS) | ND | 3.88 | " | | | | | | | | |
| Perfluoro-1-nananesulfonic acid (PFNS) | ND | 3.84 | " | | | | | | | | |
| 3-Perfluoropropyl propanoic acid (FPrPA) | ND | 10.0 | " | | | | | | | | |
| 3-Perfluoropentyl propanoic acid (FPePA) | ND | 50.0 | " | | | | | | | | |
| 3-Perfluoroheptyl propanoic acid (FHpPA) | ND | 50.0 | " | | | | | | | | |
| N-MeFOSE | ND | 40.0 | " | | | | | | | | |
| N-MeFOSA | ND | 4.00 | " | | | | | | | | |
| N-EtFOSE | ND | 40.0 | " | | | | | | | | |
| N-EtFOSA | ND | 4.00 | " | | | | | | | | |
| <i>Surrogate: M3PFBS</i> | 49.1 | " | 38.8 | | 127 | 25-150 | | | | | |
| <i>Surrogate: M5PFHxA</i> | 52.2 | " | 41.7 | | 125 | 25-150 | | | | | |
| <i>Surrogate: M4PFHpA</i> | 66.9 | " | 41.7 | | 160 | 25-150 | | | | | |
| <i>Surrogate: M3PFHxS</i> | 55.4 | " | 39.5 | | 140 | 25-150 | | | | | |
| <i>Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)</i> | 54.1 | " | 41.7 | | 130 | 25-150 | | | | | |
| <i>Surrogate: M6PFDA</i> | 29.5 | " | 20.8 | | 142 | 25-150 | | | | | |
| <i>Surrogate: M7PFUdA</i> | 31.0 | " | 20.8 | | 149 | 25-150 | | | | | |
| <i>Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)</i> | 22.5 | " | 20.8 | | 108 | 25-150 | | | | | |
| <i>Surrogate: M2PFTeDA</i> | 19.7 | " | 20.8 | | 94.9 | 10-150 | | | | | |
| <i>Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)</i> | 2.10 | " | 167 | | 1.26 | 25-150 | | | | | |
| <i>Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)</i> | 56.3 | " | 39.9 | | 141 | 25-150 | | | | | |
| <i>Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)</i> | 41.1 | " | 83.3 | | 49.4 | 25-150 | | | | | |
| <i>Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)</i> | 53.2 | " | 41.7 | | 128 | 10-150 | | | | | |
| <i>Surrogate: d3-N-MeFOSAA</i> | 94.8 | " | 83.3 | | 114 | 25-150 | | | | | |
| <i>Surrogate: d5-N-EtFOSAA</i> | 102 | " | 83.3 | | 123 | 25-150 | | | | | |
| <i>Surrogate: M2-6:2 FTS</i> | 73.1 | " | 79.2 | | 92.3 | 25-200 | | | | | |
| <i>Surrogate: M2-8:2 FTS</i> | 75.3 | " | 80.0 | | 94.1 | 25-200 | | | | | |
| <i>Surrogate: M9PFNA</i> | 29.3 | " | 20.8 | | 141 | 25-150 | | | | | |
| <i>Surrogate: M2-4:2 FTS</i> | 79.3 | " | 78.2 | | 101 | 25-150 | | | | | |
| <i>Surrogate: d-N-MeFOSA</i> | 42.6 | " | 41.7 | | 102 | 25-150 | | | | | |
| <i>Surrogate: d-N-EtFOSA</i> | 46.8 | " | 41.7 | | 112 | 25-150 | | | | | |
| <i>Surrogate: M3HFPO-DA</i> | 213 | " | 167 | | 128 | 25-150 | | | | | |
| <i>Surrogate: d9-N-EtFOSE</i> | 279 | " | 417 | | 67.0 | 25-150 | | | | | |
| <i>Surrogate: d7-N-MeFOSE</i> | 342 | " | 417 | | 82.0 | 25-150 | | | | | |



PFAS Target compounds by LC/MS-MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

| Analyte | Result | Reporting Limit | Units | Spike Level | Source* Result | %REC | %REC Limits | Flag | RPD | RPD Limit | Flag |
|--|--------|-----------------|-------|-------------|----------------|------|-------------|------|-----------|-----------|------|
| Batch BL30619 - EPA 1633 Prep | | | | | | | | | | | |
| LCS (BL30619-BS1) | | | | | | | | | | | |
| Prepared: 12/10/2023 Analyzed: 12/12/2023 | | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | 73.9 | 3.54 | ng/L | 70.8 | | 104 | 50-150 | | | | |
| Perfluorohexanoic acid (PFHxA) | 78.4 | 4.00 | " | 80.0 | | 98.1 | 50-150 | | | | |
| Perfluoroheptanoic acid (PFHpA) | 76.1 | 4.00 | " | 80.0 | | 95.2 | 50-150 | | | | |
| Perfluorohexanesulfonic acid (PFHxS) | 73.4 | 3.66 | " | 73.2 | | 100 | 50-150 | | | | |
| Perfluorooctanoic acid (PFOA) | 76.5 | 4.00 | " | 80.0 | | 95.6 | 50-150 | | | | |
| Perfluorooctanesulfonic acid (PFOS) | 91.4 | 3.72 | " | 74.4 | | 123 | 50-150 | | | | |
| Perfluorononanoic acid (PFNA) | 86.5 | 4.00 | " | 80.0 | | 108 | 50-150 | | | | |
| Perfluorodecanoic acid (PFDA) | 84.2 | 4.00 | " | 80.0 | | 105 | 50-150 | | | | |
| Perfluoroundecanoic acid (PFUnA) | 82.1 | 4.00 | " | 80.0 | | 103 | 50-150 | | | | |
| Perfluorododecanoic acid (PFDoA) | 89.0 | 4.00 | " | 80.0 | | 111 | 50-150 | | | | |
| Perfluorotridecanoic acid (PFTrDA) | 105 | 4.00 | " | 80.0 | | 131 | 50-150 | | | | |
| Perfluorotetradecanoic acid (PFTA) | 77.8 | 4.00 | " | 80.0 | | 97.3 | 50-150 | | | | |
| N-MeFOSAA | 79.5 | 4.00 | " | 80.0 | | 99.4 | 50-150 | | | | |
| N-EtFOSAA | 76.8 | 4.00 | " | 80.0 | | 96.1 | 50-150 | | | | |
| Perfluoropentanoic acid (PFPeA) | 165 | 8.00 | " | 160 | | 103 | 50-150 | | | | |
| Perfluoro-1-octanesulfonamide (FOSA) | 80.8 | 4.00 | " | 80.0 | | 101 | 50-150 | | | | |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | 95.6 | 3.82 | " | 76.4 | | 125 | 50-150 | | | | |
| Perfluoro-1-decanesulfonic acid (PFDS) | 84.8 | 3.86 | " | 77.2 | | 110 | 50-150 | | | | |
| 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | 317 | 15.2 | " | 304 | | 104 | 50-150 | | | | |
| 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | 342 | 15.4 | " | 307 | | 111 | 50-150 | | | | |
| Perfluoro-n-butanoic acid (PFBA) | 160 | 16.0 | " | 320 | | 50.1 | 50-150 | | | | |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | 156 | 7.12 | " | 142 | | 110 | 50-150 | | | | |
| Perfluoro-3,6-dioxaheptanoic acid (NFDHA) | 156 | 8.00 | " | 160 | | 97.4 | 50-150 | | | | |
| Perfluoro-4-oxapentanoic acid (PFMPA) | 7.74 | 8.00 | " | 160 | | 4.84 | 50-150 | | Low Bias | | |
| Perfluoro-5-oxahexanoic acid (PFMBA) | 325 | 8.00 | " | 160 | | 203 | 50-150 | | High Bias | | |
| Perfluoro-1-pentanesulfonate (PFPeS) | 80.9 | 3.76 | " | 75.2 | | 108 | 50-150 | | | | |
| 1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS) | 316 | 15.0 | " | 300 | | 105 | 50-150 | | | | |
| HFPO-DA (Gen-X) | 198 | 16.0 | " | 160 | | 124 | 50-150 | | | | |
| 11CL-PF3OUdS | 144 | 15.1 | " | 151 | | 95.2 | 50-150 | | | | |
| 9CL-PF3ONS | 170 | 15.0 | " | 150 | | 113 | 50-150 | | | | |
| ADONA | 191 | 15.1 | " | 151 | | 126 | 50-150 | | | | |
| Perfluorododecanesulfonic acid (PFDoS) | 43.6 | 3.88 | " | 77.6 | | 56.2 | 50-150 | | | | |
| Perfluoro-1-nonanesulfonic acid (PFNS) | 101 | 3.84 | " | 76.8 | | 132 | 50-150 | | | | |
| 3-Perfluoropropyl propanoic acid (FPrPA) | 216 | 10.0 | " | 320 | | 67.6 | 50-150 | | | | |
| 3-Perfluoropentyl propanoic acid (FPePA) | 1720 | 50.0 | " | 1600 | | 107 | 50-150 | | | | |
| 3-Perfluoroheptyl propanoic acid (FHpPA) | 1740 | 50.0 | " | 1600 | | 109 | 50-150 | | | | |
| N-MeFOSE | 859 | 40.0 | " | 800 | | 107 | 50-150 | | | | |
| N-MeFOSA | 96.1 | 4.00 | " | 80.0 | | 120 | 50-150 | | | | |
| N-EtFOSE | 715 | 40.0 | " | 800 | | 89.4 | 50-150 | | | | |
| N-EtFOSA | 131 | 4.00 | " | 80.0 | | 164 | 50-150 | | High Bias | | |
| <i>Surrogate: M3PFBS</i> | 50.6 | | " | 38.8 | | 131 | 25-150 | | | | |
| <i>Surrogate: M5PFHxA</i> | 48.3 | | " | 41.7 | | 116 | 25-150 | | | | |
| <i>Surrogate: M4PFHpA</i> | 54.2 | | " | 41.7 | | 130 | 25-150 | | | | |
| <i>Surrogate: M3PFHxS</i> | 54.9 | | " | 39.5 | | 139 | 25-150 | | | | |
| <i>Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)</i> | 56.2 | | " | 41.7 | | 135 | 25-150 | | | | |
| <i>Surrogate: M6PFDA</i> | 27.6 | | " | 20.8 | | 133 | 25-150 | | | | |
| <i>Surrogate: M7PFUdA</i> | 26.5 | | " | 20.8 | | 127 | 25-150 | | | | |



PFAS Target compounds by LC/MS-MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

| Analyte | Result | Reporting Limit | Units | Spike Level | Source* Result | %REC | %REC Limits | Flag | RPD | RPD Limit | Flag |
|---------|--------|-----------------|-------|-------------|----------------|------|-------------|------|-----|-----------|------|
|---------|--------|-----------------|-------|-------------|----------------|------|-------------|------|-----|-----------|------|

Batch BL30619 - EPA 1633 Prep

| LCS (BL30619-BS1) | | | | | | Prepared: 12/10/2023 Analyzed: 12/12/2023 | | | | |
|---|------|--|------|------|--|---|--------|--|--|--|
| Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA) | 23.5 | | ng/L | 20.8 | | 113 | 25-150 | | | |
| Surrogate: M2PFTeDA | 16.5 | | " | 20.8 | | 79.4 | 10-150 | | | |
| Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA) | 1.81 | | " | 167 | | 1.09 | 25-150 | | | |
| Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS) | 53.6 | | " | 39.9 | | 134 | 25-150 | | | |
| Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA) | 31.7 | | " | 83.3 | | 38.0 | 25-150 | | | |
| Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA) | 56.4 | | " | 41.7 | | 135 | 10-150 | | | |
| Surrogate: d3-N-MeFOSAA | 93.8 | | " | 83.3 | | 113 | 25-150 | | | |
| Surrogate: d5-N-EtFOSAA | 99.7 | | " | 83.3 | | 120 | 25-150 | | | |
| Surrogate: M2-6:2 FTS | 92.3 | | " | 79.2 | | 117 | 25-200 | | | |
| Surrogate: M2-8:2 FTS | 86.2 | | " | 80.0 | | 108 | 25-200 | | | |
| Surrogate: M9PFNA | 26.5 | | " | 20.8 | | 127 | 25-150 | | | |
| Surrogate: M2-4:2 FTS | 97.1 | | " | 78.2 | | 124 | 25-150 | | | |
| Surrogate: d-N-MeFOSA | 42.8 | | " | 41.7 | | 103 | 25-150 | | | |
| Surrogate: d-N-EtFOSA | 35.8 | | " | 41.7 | | 85.8 | 25-150 | | | |
| Surrogate: M3HFPO-DA | 204 | | " | 167 | | 122 | 25-150 | | | |
| Surrogate: d9-N-EtFOSE | 278 | | " | 417 | | 66.8 | 25-150 | | | |
| Surrogate: d7-N-MeFOSE | 275 | | " | 417 | | 65.8 | 25-150 | | | |

| LCS (BL30619-BS2) | | | | | | Prepared: 12/10/2023 Analyzed: 12/12/2023 | | | | |
|--|------|------|------|------|--|---|--------|-----------|--|--|
| Perfluorobutanesulfonic acid (PFBS) | 16.5 | 3.54 | ng/L | 14.2 | | 117 | 50-150 | | | |
| Perfluorohexanoic acid (PFHxA) | 15.8 | 4.00 | " | 16.0 | | 98.8 | 50-150 | | | |
| Perfluoroheptanoic acid (PFHpA) | 15.1 | 4.00 | " | 16.0 | | 94.4 | 50-150 | | | |
| Perfluorohexanesulfonic acid (PFHxS) | 15.9 | 3.66 | " | 14.6 | | 109 | 50-150 | | | |
| Perfluoroctanoic acid (PFOA) | 15.8 | 4.00 | " | 16.0 | | 98.6 | 50-150 | | | |
| Perfluorooctanesulfonic acid (PFOS) | 17.3 | 3.72 | " | 14.9 | | 116 | 50-150 | | | |
| Perfluorononanoic acid (PFNA) | 19.5 | 4.00 | " | 16.0 | | 122 | 50-150 | | | |
| Perfluorodecanoic acid (PFDA) | 17.6 | 4.00 | " | 16.0 | | 110 | 50-150 | | | |
| Perfluoroundecanoic acid (PFUnA) | 16.8 | 4.00 | " | 16.0 | | 105 | 50-150 | | | |
| Perfluorododecanoic acid (PFDoA) | 17.8 | 4.00 | " | 16.0 | | 111 | 50-150 | | | |
| Perfluorotridecanoic acid (PFTrDA) | 24.2 | 4.00 | " | 16.0 | | 151 | 50-150 | High Bias | | |
| Perfluorotetradecanoic acid (PFTA) | 17.3 | 4.00 | " | 16.0 | | 108 | 50-150 | | | |
| N-MeFOSAA | 13.7 | 4.00 | " | 16.0 | | 85.6 | 50-150 | | | |
| N-EtFOSAA | 16.2 | 4.00 | " | 16.0 | | 102 | 50-150 | | | |
| Perfluoropentanoic acid (PFPeA) | 33.6 | 8.00 | " | 32.0 | | 105 | 50-150 | | | |
| Perfluoro-1-octanesulfonamide (FOSA) | 17.2 | 4.00 | " | 16.0 | | 108 | 50-150 | | | |
| Perfluoro-1-heptanesulfonic acid (PFHsP) | 18.3 | 3.82 | " | 15.3 | | 120 | 50-150 | | | |
| Perfluoro-1-decanesulfonic acid (PFDS) | 17.4 | 3.86 | " | 15.4 | | 113 | 50-150 | | | |
| 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | 63.6 | 15.2 | " | 60.8 | | 105 | 50-150 | | | |
| 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | 71.1 | 15.4 | " | 61.4 | | 116 | 50-150 | | | |
| Perfluoro-n-butanoic acid (PFBA) | 39.7 | 16.0 | " | 64.0 | | 62.1 | 50-150 | | | |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | 33.0 | 7.12 | " | 28.5 | | 116 | 50-150 | | | |
| Perfluoro-3,6-dioxaheptanoic acid (NFDHA) | 34.4 | 8.00 | " | 32.0 | | 108 | 50-150 | | | |
| Perfluoro-4-oxapentanoic acid (PFMPA) | 1.75 | 8.00 | " | 32.0 | | 5.48 | 50-150 | Low Bias | | |
| Perfluoro-5-oxahexanoic acid (PFMBA) | 57.4 | 8.00 | " | 32.0 | | 179 | 50-150 | High Bias | | |
| Perfluoro-1-pentanesulfonate (PFPeS) | 16.4 | 3.76 | " | 15.0 | | 109 | 50-150 | | | |



PFAS Target compounds by LC/MS-MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

| Analyte | Result | Reporting Limit | Units | Spike Level | Source* Result | %REC | %REC Limits | Flag | RPD | RPD Limit | Flag |
|---|--------|-----------------|-------|-------------|----------------|------|-------------|-----------|-----|-----------|------|
| Batch BL30619 - EPA 1633 Prep | | | | | | | | | | | |
| LCS (BL30619-BS2) | | | | | | | | | | | |
| Prepared: 12/10/2023 Analyzed: 12/12/2023 | | | | | | | | | | | |
| 1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS) | 69.5 | 15.0 | ng/L | 60.0 | | 116 | 50-150 | | | | |
| HFPO-DA (Gen-X) | 35.2 | 16.0 | " | 32.0 | | 110 | 50-150 | | | | |
| 11CL-PF3OUdS | 26.4 | 15.1 | " | 30.2 | | 87.5 | 50-150 | | | | |
| 9CL-PF3ONS | 35.2 | 15.0 | " | 29.9 | | 118 | 50-150 | | | | |
| ADONA | 38.2 | 15.1 | " | 30.2 | | 126 | 50-150 | | | | |
| Perfluorododecanesulfonic acid (PFDoS) | 8.14 | 3.88 | " | 15.5 | | 52.4 | 50-150 | | | | |
| Perfluoro-1-nananesulfonic acid (PFNS) | 19.9 | 3.84 | " | 15.4 | | 130 | 50-150 | | | | |
| 3-Perfluoropropyl propanoic acid (FPrPA) | 44.9 | 10.0 | " | 64.0 | | 70.2 | 50-150 | | | | |
| 3-Perfluoropentyl propanoic acid (FPePA) | 331 | 50.0 | " | 320 | | 103 | 50-150 | | | | |
| 3-Perfluoroheptyl propanoic acid (FHpPA) | 345 | 50.0 | " | 320 | | 108 | 50-150 | | | | |
| N-MeFOSE | 171 | 40.0 | " | 160 | | 107 | 50-150 | | | | |
| N-MeFOSA | 17.5 | 4.00 | " | 16.0 | | 109 | 50-150 | | | | |
| N-EtFOSE | 166 | 40.0 | " | 160 | | 103 | 50-150 | | | | |
| N-EtFOSA | 26.3 | 4.00 | " | 16.0 | | 165 | 50-150 | High Bias | | | |
| Surrogate: M3PFBS | 54.2 | | " | 38.8 | | 140 | 25-150 | | | | |
| Surrogate: M5PFHxA | 55.4 | | " | 41.7 | | 133 | 25-150 | | | | |
| Surrogate: M4PFHpA | 60.6 | | " | 41.7 | | 145 | 25-150 | | | | |
| Surrogate: M3PFHxS | 58.6 | | " | 39.5 | | 148 | 25-150 | | | | |
| Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA) | 55.3 | | " | 41.7 | | 133 | 25-150 | | | | |
| Surrogate: M6PFDA | 26.7 | | " | 20.8 | | 128 | 25-150 | | | | |
| Surrogate: M7PFUdA | 25.8 | | " | 20.8 | | 124 | 25-150 | | | | |
| Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA) | 23.2 | | " | 20.8 | | 112 | 25-150 | | | | |
| Surrogate: M2PFTeDA | 14.4 | | " | 20.8 | | 69.2 | 10-150 | | | | |
| Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBa) | 2.19 | | " | 167 | | 1.31 | 25-150 | | | | |
| Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS) | 55.6 | | " | 39.9 | | 139 | 25-150 | | | | |
| Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA) | 50.3 | | " | 83.3 | | 60.4 | 25-150 | | | | |
| Surrogate: Perfluoro-I-[13C8]octanesulfonamide (M8FOSA) | 50.4 | | " | 41.7 | | 121 | 10-150 | | | | |
| Surrogate: d3-N-MeFOSAA | 84.5 | | " | 83.3 | | 101 | 25-150 | | | | |
| Surrogate: d5-N-EtFOSAA | 86.4 | | " | 83.3 | | 104 | 25-150 | | | | |
| Surrogate: M2-6:2 FTS | 92.2 | | " | 79.2 | | 116 | 25-200 | | | | |
| Surrogate: M2-8:2 FTS | 86.3 | | " | 80.0 | | 108 | 25-200 | | | | |
| Surrogate: M9PNA | 26.7 | | " | 20.8 | | 128 | 25-150 | | | | |
| Surrogate: M2-4:2 FTS | 98.3 | | " | 78.2 | | 126 | 25-150 | | | | |
| Surrogate: d-N-MeFOSA | 40.5 | | " | 41.7 | | 97.2 | 25-150 | | | | |
| Surrogate: d-N-EtFOSA | 40.1 | | " | 41.7 | | 96.1 | 25-150 | | | | |
| Surrogate: M3HFPO-DA | 232 | | " | 167 | | 139 | 25-150 | | | | |
| Surrogate: d9-N-EtFOSE | 219 | | " | 417 | | 52.6 | 25-150 | | | | |
| Surrogate: d7-N-MeFOSE | 274 | | " | 417 | | 65.8 | 25-150 | | | | |



PFAS Target compounds by LC/MS-MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

| Analyte | Result | Reporting Limit | Units | Spike Level | Source* Result | %REC | %REC Limits | Flag | RPD | RPD Limit | Flag |
|---|-------------|-----------------|----------|-------------|----------------|-------------|---------------|------|------|-----------|----------|
| Batch BL30619 - EPA 1633 Prep | | | | | | | | | | | |
| Duplicate (BL30619-DUP1) | | | | | | | | | | | |
| *Source sample: 23L0157-06 (Duplicate) Prepared: 12/10/2023 Analyzed: 12/12/2023 | | | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | 1.09 | 1.59 | ng/L | | 1.48 | | | | 30.3 | 30 | Non-dir. |
| Perfluorohexanoic acid (PFHxA) | 6.80 | 1.80 | " | | 5.78 | | | | 16.3 | 30 | |
| Perfluoroheptanoic acid (PFHpA) | 2.84 | 1.80 | " | | 3.72 | | | | 26.9 | 30 | |
| Perfluorohexanesulfonic acid (PFHxS) | 0.840 | 1.64 | " | | 1.21 | | | | 36.0 | 30 | Non-dir. |
| Perfluorooctanoic acid (PFOA) | 4.77 | 1.80 | " | | 6.08 | | | | 24.1 | 30 | |
| Perfluorooctanesulfonic acid (PFOS) | 5.71 | 1.67 | " | | 4.65 | | | | 20.5 | 30 | |
| Perfluorononanoic acid (PFNA) | 0.969 | 1.80 | " | | 0.884 | | | | 9.13 | 30 | |
| Perfluorodecanoic acid (PFDA) | ND | 1.80 | " | | ND | | | | | 30 | |
| Perfluoroundecanoic acid (PFUnA) | ND | 1.80 | " | | ND | | | | | 30 | |
| Perfluorododecanoic acid (PFDoA) | ND | 1.80 | " | | ND | | | | | 30 | |
| Perfluorotridecanoic acid (PFTrDA) | ND | 1.80 | " | | ND | | | | | 30 | |
| Perfluorotetradecanoic acid (PFTA) | ND | 1.80 | " | | ND | | | | | 30 | |
| N-MeFOSAA | ND | 1.80 | " | | ND | | | | | 30 | |
| N-EtFOSAA | ND | 1.80 | " | | ND | | | | | 30 | |
| Perfluoropentanoic acid (PFPeA) | 10.4 | 3.59 | " | | 12.5 | | | | 17.8 | 30 | |
| Perfluoro-1-octanesulfonamide (FOSA) | ND | 1.80 | " | | ND | | | | | 30 | |
| Perfluoro-1-heptanesulfonic acid (PFHpS) | ND | 1.72 | " | | ND | | | | | 30 | |
| Perfluoro-1-decanesulfonic acid (PFDS) | ND | 1.73 | " | | ND | | | | | 30 | |
| 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS) | ND | 6.83 | " | | ND | | | | | 30 | |
| 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | ND | 6.90 | " | | ND | | | | | 30 | |
| Perfluoro-n-butanoic acid (PFBA) | 4.71 | 7.19 | " | | 7.40 | | | | 44.4 | 30 | Non-dir. |
| Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA) | ND | 3.20 | " | | ND | | | | | 30 | |
| Perfluoro-3,6-dioxaheptanoic acid (NFDHA) | ND | 3.59 | " | | ND | | | | | 30 | |
| Perfluoro-4-oxapentanoic acid (PFMPA) | ND | 3.59 | " | | ND | | | | | 30 | |
| Perfluoro-5-oxahexanoic acid (PFMBA) | 0.515 | 3.59 | " | | 0.372 | | | | 32.4 | 30 | Non-dir. |
| Perfluoro-1-pentanesulfonate (PFPeS) | ND | 1.69 | " | | ND | | | | | 30 | |
| 1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS) | ND | 6.74 | " | | ND | | | | | 30 | |
| HFPO-DA (Gen-X) | 15.1 | 7.19 | " | | 4.43 | | | | 109 | 30 | Non-dir. |
| 11CL-PF3OUdS | ND | 6.79 | " | | ND | | | | | 30 | |
| 9CL-PF3ONS | ND | 6.72 | " | | ND | | | | | 30 | |
| ADONA | 0.539 | 6.79 | " | | ND | | | | | 30 | |
| Perfluorododecanesulfonic acid (PFDoS) | ND | 1.74 | " | | ND | | | | | 30 | |
| Perfluoro-1-nonanesulfonic acid (PFNS) | ND | 1.73 | " | | ND | | | | | 30 | |
| 3-Perfluoropropyl propanoic acid (FPrPA) | ND | 4.49 | " | | ND | | | | | 30 | |
| 3-Perfluoropentyl propanoic acid (FPePA) | ND | 22.5 | " | | ND | | | | | 30 | |
| 3-Perfluoroheptyl propanoic acid (FHpPA) | ND | 22.5 | " | | ND | | | | | 30 | |
| N-MeFOSE | ND | 18.0 | " | | ND | | | | | 30 | |
| N-MeFOSAA | ND | 1.80 | " | | ND | | | | | 30 | |
| N-EtFOSE | ND | 18.0 | " | | ND | | | | | 30 | |
| N-EtFOSAA | ND | 1.80 | " | | ND | | | | | 30 | |
| <i>Surrogate: M3PFBS</i> | <i>1.80</i> | | <i>"</i> | <i>17.4</i> | | <i>10.3</i> | <i>25-150</i> | | | | |
| <i>Surrogate: M5PFHxA</i> | <i>2.47</i> | | <i>"</i> | <i>18.7</i> | | <i>13.2</i> | <i>25-150</i> | | | | |
| <i>Surrogate: M4PFHpA</i> | <i>6.31</i> | | <i>"</i> | <i>18.7</i> | | <i>33.6</i> | <i>25-150</i> | | | | |
| <i>Surrogate: M3PFHxS</i> | <i>8.18</i> | | <i>"</i> | <i>17.7</i> | | <i>46.1</i> | <i>25-150</i> | | | | |
| <i>Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)</i> | <i>8.42</i> | | <i>"</i> | <i>18.7</i> | | <i>44.9</i> | <i>25-150</i> | | | | |
| <i>Surrogate: M6PFDA</i> | <i>4.47</i> | | <i>"</i> | <i>9.35</i> | | <i>47.9</i> | <i>25-150</i> | | | | |
| <i>Surrogate: M7PFUdA</i> | <i>5.62</i> | | <i>"</i> | <i>9.35</i> | | <i>60.2</i> | <i>25-150</i> | | | | |



PFAS Target compounds by LC/MS-MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

| Analyte | Result | Reporting Limit | Units | Spike Level | Source* Result | %REC | %REC Limits | Flag | RPD | RPD Limit | Flag |
|---------|--------|-----------------|-------|-------------|----------------|------|-------------|------|-----|-----------|------|
|---------|--------|-----------------|-------|-------------|----------------|------|-------------|------|-----|-----------|------|

Batch BL30619 - EPA 1633 Prep

| Duplicate (BL30619-DUP1) | *Source sample: 23L0157-06 (Duplicate) | | | | | Prepared: 12/10/2023 Analyzed: 12/12/2023 | | | | |
|---|--|--|------|------|--|---|--|--------|--|--|
| Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA) | 5.45 | | ng/L | 9.35 | | 58.3 | | 25-150 | | |
| Surrogate: M2PFTeDA | 4.90 | | " | 9.35 | | 52.5 | | 10-150 | | |
| Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA) | 1.11 | | " | 75.0 | | 1.48 | | 25-150 | | |
| Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS) | 10.9 | | " | 17.9 | | 60.9 | | 25-150 | | |
| Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA) | 0.774 | | " | 37.4 | | 2.07 | | 25-150 | | |
| Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA) | 10.9 | | " | 18.7 | | 57.9 | | 10-150 | | |
| Surrogate: d3-N-MeFOSAA | 25.9 | | " | 37.4 | | 69.2 | | 25-150 | | |
| Surrogate: d5-N-EtFOSAA | 31.6 | | " | 37.4 | | 84.4 | | 25-150 | | |
| Surrogate: M2-6:2 FTS | 14.1 | | " | 35.6 | | 39.6 | | 25-200 | | |
| Surrogate: M2-8:2 FTS | 16.9 | | " | 35.9 | | 46.9 | | 25-200 | | |
| Surrogate: M9PFNA | 5.33 | | " | 9.35 | | 57.0 | | 25-150 | | |
| Surrogate: M2-4:2 FTS | 7.18 | | " | 35.1 | | 20.4 | | 25-150 | | |
| Surrogate: d-N-MeFOSA | 13.8 | | " | 18.7 | | 73.8 | | 25-150 | | |
| Surrogate: d-N-EtFOSA | 15.8 | | " | 18.7 | | 84.4 | | 25-150 | | |
| Surrogate: M3HFPO-DA | 9.06 | | " | 75.0 | | 12.1 | | 25-150 | | |
| Surrogate: d9-N-EtFOSE | 121 | | " | 187 | | 64.4 | | 25-150 | | |
| Surrogate: d7-N-MeFOSE | 132 | | " | 187 | | 70.7 | | 25-150 | | |



Miscellaneous Physical Parameters - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

| Analyte | Result | Reporting Limit | Units | Spike Level | Source* Result | %REC | %REC Limits | Flag | RPD | RPD Limit | RPD Flag |
|---------|--------|-----------------|-------|-------------|----------------|------|-------------|------|-----|-----------|----------|
|---------|--------|-----------------|-------|-------------|----------------|------|-------------|------|-----|-----------|----------|

Batch BL30377 - % Solids Prep

| | | | | | | | | | | | |
|--------------------------|---|-------|---|--|------|---------------------------------|--|-------|----|--|--|
| Duplicate (BL30377-DUP1) | *Source sample: 23L0283-03 (SP-03 comp) | | | | | Prepared & Analyzed: 12/07/2023 | | | | | |
| % Solids | 90.6 | 0.100 | % | | 91.2 | | | 0.661 | 20 | | |





Sample and Data Qualifiers Relating to This Work Order

J Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL/LOD) or in the case of a TIC, the result is an estimated concentration.

Definitions and Other Explanations

* Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.

ND NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)

RL REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.

LOQ LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence . This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.

LOD LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.

MDL METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.

Reported to This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.

NR Not reported

RPD Relative Percent Difference

Wet The data has been reported on an as-received (wet weight) basis

Low Bias Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.

High Bias High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.

Non-Dir. Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.

New York State Department of Environmental Conservation

Division of Environmental Remediation

Remedial Bureau C, 11th Floor

625 Broadway, Albany, New York 12233-7014

Phone: (518) 402-9662 • **Fax:** (518) 402-9679

Website: www.dec.ny.gov



Joe Martens
Commissioner

Via E-mail and Regular Mail

June 9, 2014

Mr. David Lloyds
Beacon Terminals Associates, LLP.
18 East 22nd Street
New York, NY 10021

Ref: Soil Importation and on-site Stockpiling Plan
Beacon Terminal, Site No: C314117
City of Beacon, Dutchess County

Dear Mr. Lloyds,

The New York State Department of Environmental Conservation (Department) has reviewed Soil Importation and on-site Stockpiling Plan dated June 9, 2014 prepared by Jansen Engineering, PLLC and is hereby approved.

Please contact me at (518) 402-9662 or pbamin@gw.dec.state.ny.us if you have any questions. Thank you.

Sincerely,

Parag Amin, P.E.
Project Manager
Remedial Bureau C

ecc : Y. Jansen, Jansen Engineering, PLLC
P. Ciminello, Ecosystems Strategies, Inc
S. Spitzer, Ecosystems Strategies, Inc
A. Perretta, NYSDOH
D. Crosby, DER