

Data Summary Report for the Supplemental Scope of Work

Regional Air Deposition Study for the Village of Hoosick Falls

September 2022

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Acronyms

6:2 FTS	6:2 fluorotelomer sulfonic acid
8:2 FTS	8:2 fluorotelomer sulfonic acid
bgs	below ground surface
DOH	Department of Health
DUSR	Data Usability Summary Reports
GPS	global positioning system
ITRC	Interstate Technology Regulatory Council
N-MeFOSAA	N-methyl perfluorooctanesulfonamidoacetic acid
mph	miles per hour
N-EtFOSAA	N-ethyl perfluorooctanesulfonamidoacetic acid
NRCS	Natural Resources Conservation Service
NYSDEC	New York State Department of Environmental Conservation
OU	operable unit
PFAS	per- and polyfluoroalkyl substances
PFBA	perfluorobutanoic acid
PFBS	perfluorobutanesulfonic acid
PFCA	perfluoroalkyl carboxylic acid
PFDA	perfluorodecanoic acid
PFDoA	perfluorododecanoic acid
PFDS	perfluorodecanesulfonic acid
PFHpA	perfluoroheptanoic acid
PFHpS	perfluoroheptanesulfonic acid
PFHxA	perfluorohexanoic acid
PFHxS	perfluorohexanesulfonic acid
PFNA	perfluorononanoic acid
PFOA	perfluorooctanoic acid
PFOS	perfluorooctane sulfonate
PFOSA/FOSA	perfluorooctanesulfonamide
PPPeA	perfluoropentanoic acid
PFSA	perfluoroalkane sulfonic acid
PFTA	perfluorotetradecanoic acid
PTriA	perfluorotridecanoic acid
PFUnA	perfluoroundecanoic acid
ppb	parts per billion
QAPP	Quality Assurance Project Plan
SGPP	Saint-Gobain Performance Plastics
SPLP	Synthetic Precipitation Leaching Procedure
TOC	total organic carbon
USDA	United States Department of Agriculture

1 Introduction

The New York State Department of Environmental Conservation (NYSDEC) requested a regional air deposition study in the Hoosick Falls area to evaluate the potential for per- and polyfluoroalkyl substances (PFAS), particularly perfluorooctanoic acid (PFOA), to have been dispersed in the environment through the air deposition pathway. This data summary report includes a summary of the methods, data, and results of the work completed under the NYSDEC-approved Supplemental Scope of Work: Regional Air Deposition Study (Supplemental Scope; C.T. Male/BEC, 2021). Findings from the initial scope of work were presented and submitted to NYSDEC in the Data Summary Report: Regional Air Deposition Study (C.T. Male/BEC, 2022). The datasets from both phases of the study are combined in this report for the purposes of data evaluation.

The study was undertaken in accordance with the NYSDEC Order on Consent and Administrative Settlement between Saint-Gobain Performance Plastics (SGPP), Honeywell International (the Companies), and NYSDEC (Index No. CO 4-20160212-18), dated June 3, 2016, and DER10 – Technical Guidance for Site Investigation and Remediation (NYSDEC, 2010). There are several facilities associated with numerous owners and operators in the Hoosick Falls area which utilized PFAS-containing material over several decades, some of which have yet to be investigated. Therefore, the air deposition study was not originally associated with any single facility or party. Rather, it was to be used to supplement and inform investigations for one or more NYSDEC Class 2 and/or Class P sites in the Hoosick Falls area (C.T. Male, 2019). However, following the initial scope of work, NYSDEC formally established Operable Units (OUs) for the McCaffrey Street Site (DEC Site #442046), located in the Village of Hoosick Falls (Village). The McCaffrey Street Site Operable Unit 03 (OU-03) "includes off-site contamination related to atmospheric deposition of site-related contaminants and direct off-site disposal of site-related liquid and/or solid waste (NYSDEC, 2021)." Accordingly, the study is being used to further define the nature and extent of PFAS in the Hoosick Falls Region resulting from air deposition of PFAS from the McCaffrey Street Site under OU-03.

1.1 Study Phases and Objectives

The study was conducted in two phases—an initial phase and a supplemental phase. For the initial phase, a Regional Air Deposition Study Work Plan for the Village of Hoosick Falls (Initial Work Plan; C.T. Male, 2019) was prepared and submitted to the NYSDEC. The Initial Work Plan was approved by NYSDEC on September 3, 2019. The objective of the initial phase was to determine whether the presence of PFAS was observable and consistent with an air deposition pattern in historically undisturbed soils surrounding the Village. The initial phase of work consisted of 171 soil samples (plus field duplicates) collected from 57 individual sampling locations and a subset of 45 samples submitted for Synthetic Precipitation Leaching Procedure (SPLP) analysis followed by PFAS analysis. All sample locations were carefully vetted to be representative of air deposition and avoid other potential sources/transport pathways in accordance with the Initial Work Plan. The initial study area was designed as a 1,000- to 3,000-foot radial zone beyond the Village and its infrastructure (i.e., municipal water supply and municipal sewer service areas), with sample locations as far as two miles (or 3,000 meters) from the approximate centroid of the Village. This initial sampling area was divided into 16 sectors, as shown on Figure 1, to correlate with the display of wind

conditions by direction on a wind rose. The results from the initial phase indicated that air deposition of PFAS from sources within the Village is observable in historically undisturbed soils outside of the Village. The final NYSDEC-approved data summary report (C.T. Male/BEC, 2022) for the initial phase of work includes the initial results and evaluation of those results. A brief discussion of the initial phase of work is included in Section 1.5 of this report.

Following the initial phase of study, a work plan for the Supplemental Scope was prepared and submitted to the NYSDEC. Approval to proceed with the Supplemental Scope work plan was provided by NYSDEC on August 27, 2021. Access agreements were initiated and field work began shortly thereafter. The objective for the Supplemental Scope was to further define the nature and extent of PFAS in shallow soils in the Hoosick Falls Region resulting from air deposition. The sampling area of the Supplemental Scope was extended an additional 7,000 feet (approximately 2,100 meters) from the outer limits of the initial study area, as shown on Figure 1, with sample locations as far as three miles (or 4,700 meters) from the approximate centroid of the Village. The sample location vetting and selection process and soil sampling procedures from the initial phase were replicated as discussed herein. Samples were collected in all directions with goals of identifying sample locations at a variety of distances from the Village and with a higher density of sampling locations in the predominant upwind (i.e., northwest) and predominant downwind (i.e., southeast) directions. The larger number of sample locations in the northwest sector were designed to provide a more robust dataset which could serve as a proxy for regional background. The larger number of samples in the southeast sector were designed to provide a more robust dataset for comparison with other directions and evaluate the PFAS concentration gradients with distance.

Sampling for the Supplemental Scope was completed in June 2022 and fully validated data were received in July 2022. The results and evaluation of the Supplemental Scope are presented within Section 3 of this report, and much of the evaluation utilizes the data from both the initial and supplemental phases of the study (Section 4).

1.2 Study Area Topography and Wind Pattern

The Village is approximately centered in the Town of Hoosick, in northeastern Rensselaer County, New York (Figure 1). For ease of reference, the Village and surrounding areas are collectively referred to as the "Hoosick Falls Region" or "Region" in this document. The Hoosick Falls Region is located primarily within the Town of Hoosick and centered around the Village, as shown on Figure 1.

The Region includes part of the Taconic Mountains upland province (Lafleur and Ellis, 1988; USDA and NRCS, 2011) and two major river valleys—those of the Hoosic and Walloomsac Rivers. The Village is divided by the Hoosic River, which flows generally south to north in the Region. Approximately three-quarters of the Village lies east of the Hoosic River. The Walloomsac River flows generally east to west in the northern portion of the Region. Ground surface elevations are approximately 400 to 450 feet above mean sea level along the rivers and rise to more than 800 feet above the rivers in the surrounding uplands (Figure 2). Additional details on the Region's weather, hydrology, geology and hydrogeology are presented in the initial data summary report (C.T. Male/BEC, 2022).

The initial phase of the Regional Air Deposition Study included the installation of a weather station on the rooftop of the McCaffrey Street facility in November 2018 to gather meteorological data that represented conditions at the McCaffrey Street facility. This weather station has been collecting data since its installation and provides the only available weather data for the Village. Additional details on the weather station, data collection, operation and maintenance are included in the Initial Work Plan (C.T. Male, 2019) and the initial data summary report (C.T. Male/BEC, 2022).

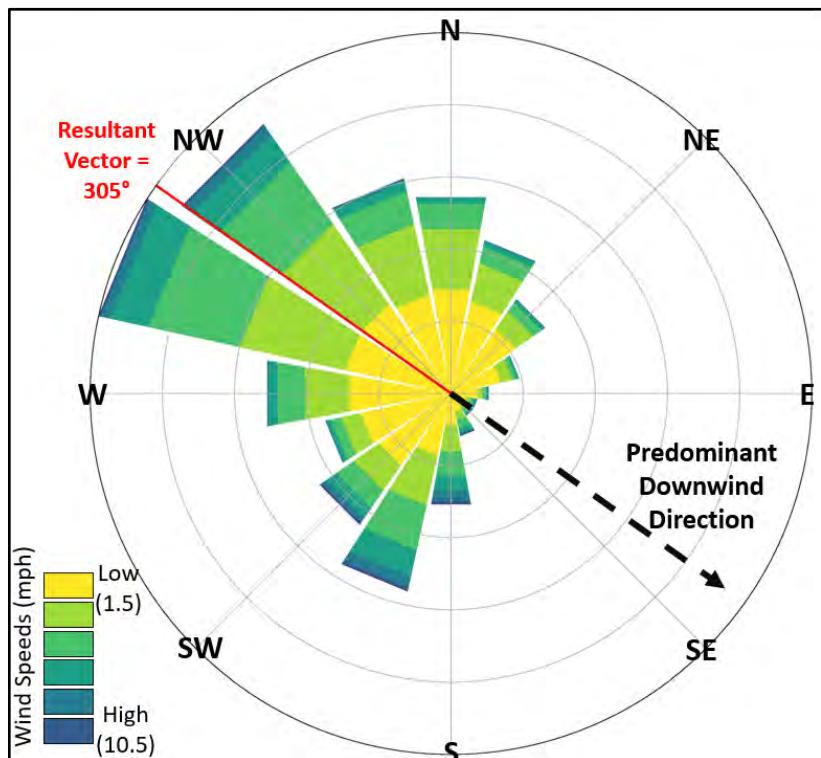
Wind roses (including cumulative and seasonal wind roses) generated over 3.5 years, from the McCaffrey Street Weather Station (Weather Station) between December 2018 and June 2022, are included in Appendix A. A simplified summary

wind rose is also included as

Graphic 1. Resultant wind direction, or average wind direction, is included as a red line on the wind roses. Note that wind speeds of less than 1.5 miles per hour (mph; e.g., calm) are not displayed with an associated wind direction. For example, approximately 30% of the recorded wind speeds at the Weather Station were less than 1.5 mph. These calm conditions are included in the table with each wind rose but are not presented graphically on the wind rose.

Based on the wind roses for the Weather Station, the prevailing wind direction in the vicinity of the Weather Station is predominantly from the northwest toward the

southeast. Note that these updated wind roses demonstrate consistency with those previously presented (C.T. Male/BEC, 2022). There is no other available meteorological data from within the Village and valley; therefore, the data from the McCaffrey Street station are assumed to be representative of the Village and valley for the purposes of the evaluations within this report.



Graphic 1: Wind Rose for McCaffrey Weather Station

1.3 PFAS Distribution from Air Deposition

The central concept of this study is that PFAS mass deposition decreases in all directions with distance from an air emissions source and is greatest in the prevailing downwind direction from an air emissions source. The pattern and magnitude of air deposition resulting from air emissions are dependent on several factors, including emission rates through time (emission history); pollutant characteristics (e.g., gas or particle, particle size distribution, particle density); source characteristics (e.g., air emissions through a stack or vent, emission velocity, source height, and temperature); meteorological conditions (e.g., wind

speed, wind direction, and atmospheric stability) during the time of air emissions; and various other factors (e.g., building downwash effects, vegetation, and topography) that influence air transport and deposition.

Although many of these factors (e.g., air emissions histories, stack/vent heights, or building downwash) are not fully understood throughout the Region, this does not undermine the main concept that long-term meteorological conditions influence regional-scale air deposition patterns; that is, greater deposition closer to the source (i.e., decreasing PFAS concentrations in soil with distance in any direction) and greater deposition in the prevailing downwind direction from air emissions sources (i.e., higher PFAS concentrations in soil in the southeast compared to other directions at similar distances). As stated previously, the Supplemental Scope was designed to provide samples in all directions at a variety of distances and denser sampling in the predominant upwind (i.e., northwest) and predominant downwind (i.e., southeast) directions. Given the objective, to further define the nature and extent of PFAS in shallow soils potentially resulting from air deposition, much of the evaluation within this report focuses on distribution patterns of PFAS in soil with direction and distance.

1.4 PFAS Fate and Transport in Soil

Like most solutes, PFAS deposited on the ground surface are subject to downward migration with infiltrating water (i.e., precipitation). PFAS distribution in soil is complex and may reflect the physical and chemical properties of each PFAS and several site-specific factors such as total organic carbon (TOC), particle surface charges, interfaces between different phases (e.g., the air-water interface), time since deposition, climate, and infiltration rates.

Data regarding physical and chemical properties of PFAS are generally limited, highly variable, based on modeling rather than direct measurements, and are based on acid forms of PFAS not present in the environment (ITRC, 2022). However, PFAS commonly detected in the Region are understood to be highly soluble in water, adsorb poorly to materials with low organic content, mobile in groundwater, and persistent in the environment (ITRC, 2022).

The migration of PFOA and other PFAS in soil has been shown to be controlled primarily by adsorption onto organic matter, specifically organic carbon (Zareitalabad, et al., 2013). Longer-chained PFAS have a higher partition coefficient with regard to organic carbon, resulting in lower mobility within the soil column (ITRC, 2022). Therefore, compared to PFOA (eight carbons in each molecule), perfluorododecanoic acid (PFDoA; 12 carbons in each molecule) and other long-chain linear PFAS migrate through soil columns more slowly than PFOA. Conversely, perfluoropentanoic acid (PFPeA; five carbons in each molecule) migrates more rapidly through soil columns than PFOA. This relationship was generally confirmed with data from the initial phase of the air deposition study. For example, PFDoA (12 carbons), perfluorotridecanoic acid (PFTriA; 13 carbons), and perfluorotetradecanoic acid (PFTA; 14 carbons) were only detected in the shallowest soils (i.e., zero detections in the 110 samples deeper than two inches below the ground surface).

In addition, perfluoroalkane sulfonic acids (PFSAs) tend to adsorb more strongly in soils than perfluoroalkyl carboxylic acids (PFCAs) with an equal number of carbons (Higgins and Luthy, 2007). Therefore, compared to PFOA (a PFCA), perfluorooctane sulfonate (PFOS; a PFSA) migrates more slowly

through soil columns. This relationship was also generally confirmed with data from the initial phase. For example, PFOS was detected at its highest concentrations and frequencies in the shallowest samples while PFOA was detected at its lowest concentrations in the shallowest samples.

PFAS transport in soils is typically conceptualized as involving equilibrium-controlled adsorption processes (e.g., Ahrens, et al., 2011; Anderson, et al., 2019; ITRC, 2022). Equilibrium-controlled adsorption is generally a reversible process (Zheng and Bennett, 2002). Unless the deposition, infiltration, percolation, and retention processes remained constant over an extended period of time, and similar to other water-soluble contaminants, the vertical distribution of solutes such as PFAS in soil is expected to change over time. For example, if deposition of the solute ceased, the solute adsorbed in the shallowest soil interval would then continue to desorb (go back into solution) and migrate further downward in the soil column in the percolating soil water as precipitation and infiltration continue. In other words, the solute concentrations would begin to decline in the shallowest interval relative to deeper intervals.

1.5 Summary of Initial Phase of Study

A thorough narrative on the study approach, methods, data summary, and data evaluation for the initial phase of the study is included within the final NYSDEC-approved Data Summary Report (C.T. Male/BEC, 2022). To assist in evaluation of the Supplemental Scope, the initial scope is briefly summarized in this section.

The objective of the initial phase was to determine whether the presence of PFAS was observable and consistent with an air deposition pattern in historically undisturbed soils surrounding the Village. The sampling design is summarized as follows:

- An area surrounding the Village was divided into 16 sectors on a radial grid (Figure 3).
- Discrete soil sampling was conducted at two to six sampling locations within each sector.
- Soil samples were collected from three intervals (0-0.17 feet below ground surface [bgs], 0.17-1 feet bgs, and 1-2 feet bgs) at each sampling location and analyzed for PFAS, TOC, and pH.
- A representative subset of 45 soil samples was selected for additional SPLP analysis.

The selection of sampling locations within each sector was guided by a desktop review of historical information such as aerial images and property records, a visual inspection of site conditions such as topography, and NYSDEC's input. The goal was to identify locations that met the criteria listed below:

- Undisturbed (not cultivated, farmed, filled, or manicured) for the past 60 years.
- No indication or evidence of dumping/nearby source.
- Outside of floodplain or wetland.
- Sufficient soil thickness available for sample (avoiding bedrock outcrops and areas of shallow bedrock).
- Clear land ownership and ability to obtain access from owner.

Access to properties and visual inspection of each sampling location was conducted with NYSDEC coordination and oversight. Ultimately, 171 soil samples (plus field duplicates) were collected from 57 individual sampling locations, as shown on Figure 3. A representative subset of 45 of these samples were selected, approved by NYSDEC, and submitted for SPLP extraction followed by PFAS analysis. Upon

sampling, two locations were determined to not meet the criteria of being undisturbed (i.e., evidence of fill upon sampling). At NYSDEC's direction, samples were collected and submitted for analysis, but are considered potentially not representative. Therefore, results from these locations were excluded from selected evaluations (e.g., summary statistics) and the number evaluated from the initial phase was 165 samples from 55 locations.

Data from the initial and supplemental phases are evaluated as one dataset within this report; however, for reference, the following tables containing only information from the initial phase have been included in Appendix B as follows:

- Table B1: Initial Phase Sample Location Summary
- Table B2: Soil Sample Descriptions (Initial Phase)
- Table B3: Initial Phase Analytical Results
- Table B4: Initial Phase Summary Statistics

The results from the initial phase of the study indicated that PFAS in shallow soils within the study area were observable and that air emission sources within the Village had potentially contributed to PFAS detections in the study area. For example, PFOA concentrations were generally higher in the downwind (i.e., southeast) direction. Additionally, the PFOA distribution within the soil column (i.e., higher concentrations in deeper samples) indicated historical rather than recent deposition (see Section 1.4).

2 Supplemental Phase Approach and Sampling Methods

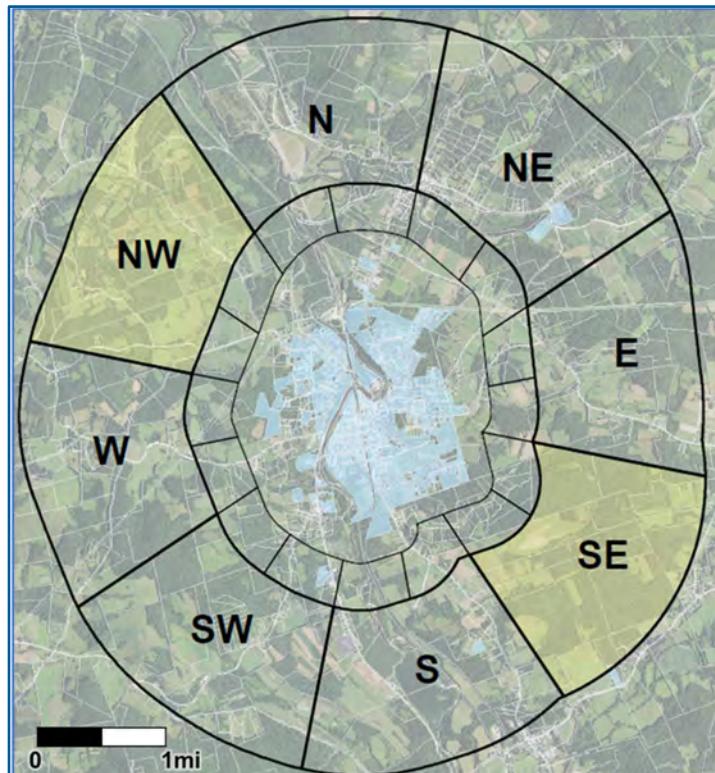
As stated above, the objective for the supplemental phase of the study was to further define the nature and extent of PFAS in shallow soils in the Region resulting from air deposition. The soil sampling in the first phase of the study was completed at locations roughly 1,000 to 3,000 feet beyond the Village, surrounding the Village divided into 16 sectors on a radial grid (Graphic 2 and Figure 3). As detailed in the Supplemental Scope work plan (C.T. Male/BEC, 2021), the area for supplemental sampling was extended an additional 7,000 feet (i.e.,

approximately 3,000 to 10,000 feet or roughly 900 to 3,050 meters from the Village boundary), with sample locations as far as 3 miles (or 4,700 meters) from the approximate centroid of the Village. The supplemental sampling area was divided into eight sectors (roughly correlating to the four cardinal and four intercardinal directions), as shown on Graphic 2. The target number of sample locations in the predominant downwind (southeast) and predominant upwind (northwest) sectors was 10 to 15. The target number of sample locations in the remaining six sectors was 4 to 6.

The purpose for soil sampling in all directions from the Village was to provide data to further define nature and extent of PFAS in soil in the Region

resulting from air emissions and deposition. Data from the supplemental sampling are evaluated with data from the initial phase of this study. As stated in the Supplemental Scope, the larger number of samples in the northwest sector provides a more robust dataset which could serve as a proxy for regional background given the location 3,000 to 10,000 feet from the Village in the predominant upwind direction. The larger number of samples in the southeast sector provides a more robust dataset for comparison with other directions and to possibly evaluate the PFAS concentration gradients with distance.

Sample location vetting and coordination with NYSDEC for the Supplemental Scope were the same as for the initial phase of the study and described in detail in the initial data summary report (C.T. Male/BEC, 2022). Soil samples were collected in the same manner, from the same intervals and submitted to the laboratory for the same analysis as the initial phase. When sampling locations were selected, they were flagged and surveyed using a handheld global positioning system (GPS) unit prior to sampling.



Graphic 2: Supplemental Sampling Sectors

Information regarding topography, tree cover, and other observations were noted during sampling (Table 1).

2.1 Sampling Methods

Sampling commenced in early November 2021 and was conducted in accordance with the Supplemental Scope (C.T. Male/BEC, 2021), Work Plan (C.T. Male, 2019), and Field Sampling Plan (C.T. Male/BEC, 2020a). Stainless-steel hand tools (hand hoe and two hand augers) were used to collect three soil samples, corresponding to three continuous depth intervals, at each sampling location. Each tool was utilized for a specific sampling interval within the bore hole, telescoping with depth to prevent sloughing and cross contamination. Tools used during sampling were decontaminated before and after use and wrapped in polyethylene sheeting until use at the next sampling location. A surface soil sample from 0-0.17 feet bgs (beginning below any vegetative cover), a near-surface soil sample from 0.17-1 feet bgs, and a subsurface soil sample starting from 1-foot bgs were successfully collected at each sampling location. The target interval for the subsurface soil sample was from 1-2 feet bgs; however, at several locations (E12, NW21, S02, SE10, SE13-A, SW02-A, and W01 in Table 1), a depth of 2 feet was not reached, even after several attempts, due to refusal. Descriptions of each soil sample were made at the time of collection (Table 2). Each soil sample was homogenized independently prior to being submitted for laboratory analysis. All soil samples were submitted for laboratory analysis of NYSDEC's list of 21 PFAS, TOC, moisture, and pH in accordance with the Quality Assurance Project Plan (QAPP; C.T. Male/BEC, 2020b).

2.2 Investigation Summary

Based on the approved Supplemental Scope (C.T. Male/BEC, 2021), the target number of sample locations ranged from 32 to 66 total unique sampling locations. Upon completion, a total of 156 samples and seven duplicates were collected from 52 unique sampling locations as part of the supplemental phase of the study. At least four sampling locations were sampled in each sector (Figures 3A and 3B). The combined dataset from the initial and supplemental phases of the study includes 321 soil samples collected from 107 individual sampling locations.

3 Supplemental Scope Results

The sampling locations for the initial and supplemental phases of the study are shown on Figures 3A and 3B. A discussion of the supplemental results, alone and in comparison to the initial results, are presented in this section. The data evaluation within Section 4 utilizes the entire dataset (i.e., initial and supplemental sample results).

Analytical results for soil (reported on a dry weight basis) are included in Table 3, which presents PFAS results sorted by group (i.e., sulfonic acids, carboxylic acids, and sulfonamide acetic acids) and in increasing carbon chain length order. PFAS that were not detected in any soil samples from the Supplemental Scope are not shown in Table 3.

The results of validation of the laboratory analytical data are summarized in the Data Usability Summary Reports (DUSRs) and will be provided to NYSDEC under a separate cover. The data validation was performed in accordance with the QAPP (C.T. Male/BEC, 2020b), NYSDEC requirements, and the requirements for development of DUSRs in Appendix 2B of DER-10, Technical Guidance for Site Investigations and Remediation. Analytical data were determined to be valid and usable as qualified for the purposes of the study with 10 exceptions. Of 40,500 analyses performed, 10 analyses were rejected resulting in a completeness of 99.8%. Seven of the rejected results were for N-methyl perfluorooctanesulfonamidoacetic acid (N-MeFOSAA; Table 3), and three of the rejected results were for N-ethyl perfluorooctanesulfonamidoacetic acid (N-EtFOSAA).

3.1 General Summary and Discussion

Table 4 includes PFAS summary statistics (number of samples, number of detections, minimum, maximum, arithmetic mean, geometric mean, median, and quartiles) for the 156 soil samples from the Supplemental Scope. Note that arithmetic mean, geometric mean, median, 25th percentile, and 75th percentile are presented in Table 4 when detection frequencies were greater than or equal to 50% and the total number of detections was at least five. Duplicates were excluded from summary statistics and evaluations. As shown in Table 4, 14 of the 21 PFAS were detected in at least one soil sample. The following seven PFAS were not detected in any soil samples from the Supplemental Scope:

- Perfluorobutanesulfonic acid (PFBS)
- Perfluorohexanesulfonic acid (PFHxS)
- Perfluoroheptanesulfonic acid (PFHpS)
- Perfluorodecanesulfonic acid (PFDS)
- Perfluorooctanesulfonamide (PFOSA)
- 8:2 Fluorotelomer sulfonic acid (8:2 FTS)
- 6:2 Fluorotelomer sulfonic acid (6:2 FTS)

Of the 14 PFAS detected (Table 4), 11 were PFCAs, and the only non-PFCAs detected were PFOS, N-EtFOSAA, and N-MeFOSAA. The four most frequently detected PFAS, listed in order by decreasing detection frequency, were PFOA (94%), PFOS (60%), perfluoroheptanoic acid (PFHpA; 41%), and perfluorohexanoic acid (PFHxA; 19%). All other detected PFAS were detected in 13% or less of the soil samples (Table 4). PFOA was the predominant PFAS in samples from the Supplemental Scope because it was the most frequently detected and had the highest median and maximum concentrations. The

concentration of PFOA in each soil sample (i.e., samples from both the initial and supplemental phases) is shown on Figures 4A, 4B, and 4C and separated by sampling interval. Detected PFOA concentrations ranged from 0.3 to 13 parts per billion (ppb; equal to nanograms per gram), with the maximum concentration detected in the near-surface soil at locations NW24 and NW13 (Figure 4B).

PFOS was the next most prevalent PFAS, with detection frequency, maximum concentrations, and median concentration second to PFOA. The concentration of PFOS in each soil sample is shown on Figures 5A, 5B, and 5C. Detected PFOS concentrations ranged from 0.24 to 12 ppb, with the maximum concentration detected in surface soil at location NW24 (Figure 5A).

The concentrations in soil samples for nine additional PFAS are shown on figures as indicated below:

- Perfluorobutanoic acid (PFBA) - Figures 6A, 6B, and 6C
- PFPeA - Figures 7A, 7B, and 7C
- PFHxA - Figures 8A, 8B, and 8C
- PFHpA - Figures 9A, 9B, and 9C
- Perfluorononanoic acid (PFNA) - Figures 10A, 10B, and 10C
- Perfluorodecanoic acid (PFDA) - Figures 11A and 11B
- Perfluoroundecanoic acid (PFUnA) - Figures 12A and 12B
- Perfluoroundecanoic acid (PFDoA) - Figure 13
- Perfluoroundecanoic acid (PFTriA) – Figure 14

There are no Soil Cleanup Objectives for PFAS in New York regulations; however, New York State Department of Health (DOH) guidance values (NYSDEC, 2021b) have been prepared for PFOA and PFOS and are included in NYSDEC's PFAS guidance (NYSDEC, 2021a). Table 3 denotes whether the sample results for PFOA and PFOS exceed the various DOH guidance values.

PFOA concentrations were below the Residential guidance value (6.6. ppb) in 89% of the samples. Importantly, there were no exceedances of Residential guidance values in surface soils (0-2 inches bgs), which is the preferred interval to determine potential exposure for residents (NYSDEC, 2021b). Additionally, none of the 156 samples exhibited PFOA concentrations in exceedance of the Restricted Residential guidance value (33 ppb).

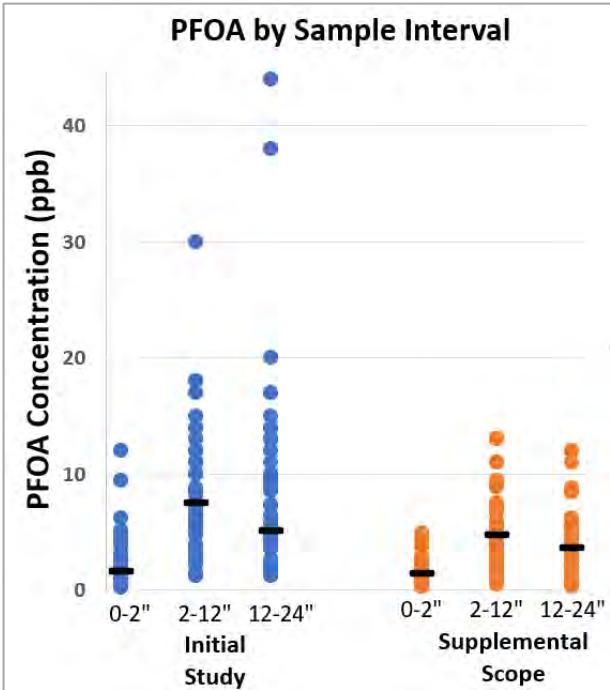
PFOS concentrations were below the Residential guidance value in all samples, except for the surface soil sample collected at NW24 (one of the furthest predominant upwind sample locations; Figure 5A).

Analytical results for TOC, moisture, and pH are also included in Table 3, and the summary statistics are included in Table 4.

3.2 Comparison with Initial Results

As detailed above, the sampling for the Supplemental Scope was designed to replicate that of the initial scope except for distance. (i.e., Supplemental Scope samples were collected further from the Village). In general, the data from the initial phase and the supplemental phase were comparable based on the following (see Table 4 and Table B4):

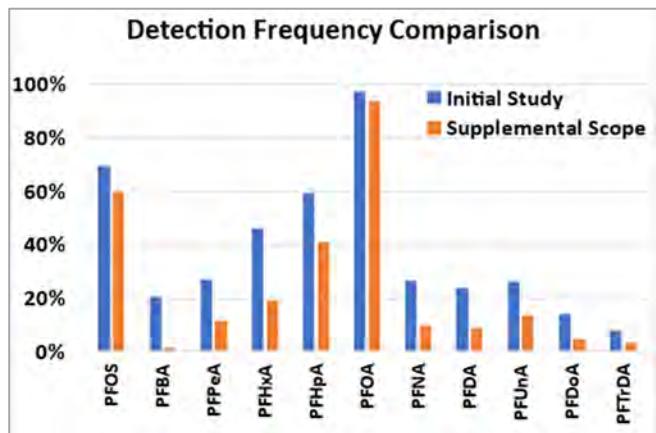
- PFOA was the predominant PFAS (i.e., highest detection frequency and highest concentrations), and PFOS was the second most prevalent in aggregate for both phases of investigation.
- PFOA, PFOS, PFHpA, and PFHxA were the four most frequently detected PFAS for both phases of investigation.
- Relative PFOA distribution with depth interval was generally consistent for both phases (i.e., lowest concentrations in surface soil samples (Graphic 3)).
- Distribution across depth interval for other PFAS was also consistent for both phases, demonstrating a pattern as would be generally predicted by their chain length (i.e., PFAS with longer chain lengths migrate more slowly and remain shallow).



Graphic 3: PFOA Distribution; median shown in black

PFAS deposited from an air emission source within the Village would demonstrate decreasing concentrations with distance in all directions. The following differences from the initial and supplemental phases of the study tend to confirm that PFAS concentrations decrease with distance from the center of the Village:

- Detection frequencies were lower for all detected PFCAs and PFSA in the supplemental results (Graphic 4).
- The maximum, median, and mean concentrations for PFOA were lower in the supplemental results (Graphic 3, Table 4 and Table B4).
- The concentrations for other PFAS were also generally lower in the supplemental results with exceptions for certain PFAS in the areas as noted below.



Graphic 4: Detection Frequencies

The following differences between the initial and supplemental results are inconsistent with decreasing concentrations with distance:

- The maximum detected PFOS concentrations from the supplemental results were approximately five times higher than the maximum from the initial results and found at sampling locations at the greatest distance from the Village.
- The maximum detected concentrations for PPpEA and PFNA in the supplemental results were also higher (approximately 3 and 1.5 times greater, respectively) than the initial results.

4 Data Evaluation

The evaluations within this section utilize the entire dataset (i.e., Initial Study plus Supplemental Scope) which includes 321 discrete soil samples from 107 unique sample locations in all directions from the Village (Figures 3A and 3B). The objective for the Initial Study was to determine whether PFAS in shallow soils were observable and consistent with an air deposition pattern. The objective for the Supplemental Scope was to provide additional data at increased distances from the Village to further evaluate the nature and extent of PFAS in shallow soils around the Village. The larger number of Supplemental Scope samples in the northwest (i.e., upwind) and southeast (i.e., downwind) was designed to provide a more robust dataset for evaluation of concentrations with distance as they would be anticipated to be the least impacted and most impacted, respectively, from air emissions sources within the Village.

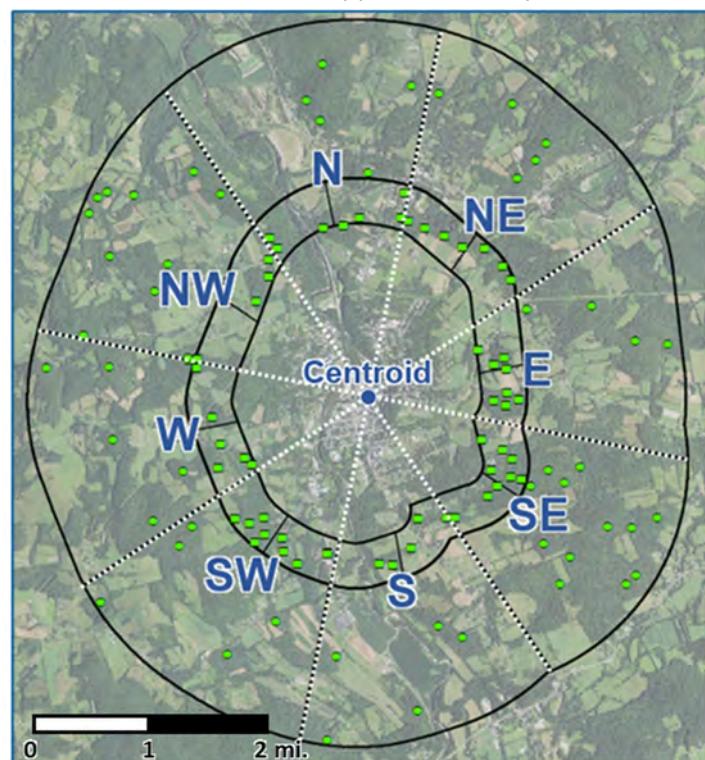
4.1 Evaluation by Distance and Direction

As described in Section 2, sampling sectors were arranged radially to provide data distributed in all directions from the Village. The Initial Study area was divided into 16 sectors and the Supplemental Scope area was divided into eight sectors. For the evaluations discussed herein, the data from both phases are combined into eight groups based on direction (Graphic 5). Additionally, the evaluations by distances are based on a distance as measured from the approximate centroid of the Village (Graphic 5).

Plots of PFAS concentration for each sampling interval versus distance are included as Appendix C for the 11 most frequently detected PFAS (in the same order as Figures 4 through 14). The direction groupings are distinguished by color, as shown in the key for each plot. Where sufficient detections allow, the plots also include a trendline for PFAS concentrations in the predominant downwind direction (i.e., southeast). Note that plots for sampling intervals without detections are not included in Appendix C.

The following observations, based on review of the plots in Appendix C and Figures 4 through 14, are consistent with the anticipated regional pattern resulting from PFAS air emissions sources within the Village (Section 1.3):

- Concentrations of PFOA in the predominant downwind direction (i.e., southeast) demonstrate a decreasing trend with distance in all three sampling intervals (page 1 of Appendix C). This trend is also demonstrated for PFHxA and PFHpA (pages 5 and 6 of Appendix C, respectively); and



Graphic 5: Direction Groupings and Centroid

- The overall detection frequencies and concentrations for several PFAS are clearly higher at closer distances. Examples include PFBA, PFPeA, PFNA, PFDA, PFUnA and PFDoA (pages 3, 4, and 7-11 of Appendix C).

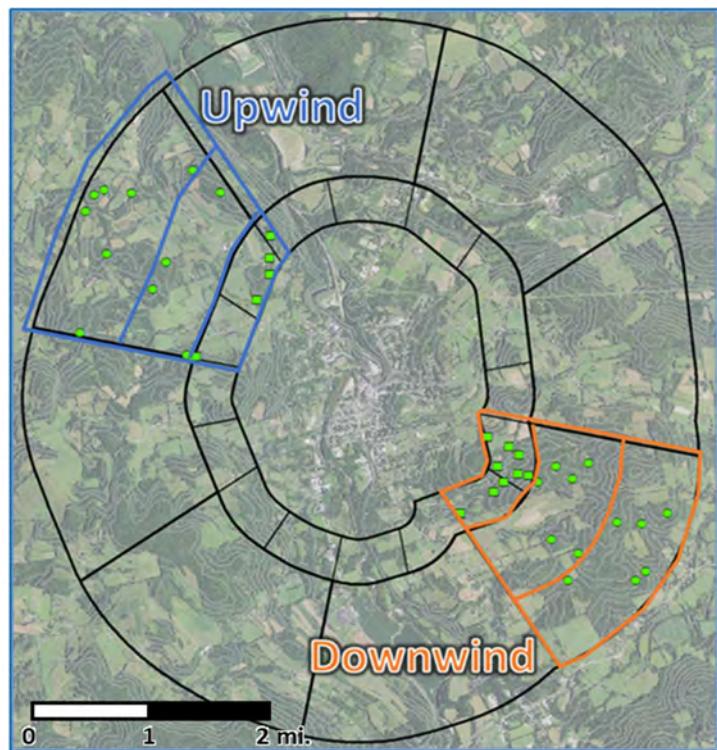
The following observations, based on review of the plots in Appendix C and Figures 4 through 14, are not consistent with the anticipated regional pattern resulting from PFAS air emissions sources within the Village (Section 1.3):

- The maximum PFOA concentrations are not in the predominant downwind direction (page 1 of Appendix C). The maximum PFOA concentrations within 3,000 meters (approximately 1.85 miles) of the approximate Village centroid for the surface, near surface, and subsurface interval samples are in the south, northeast, and east sectors, respectively. The maximum PFOA concentrations beyond 3,000 meters of the approximate Village centroid for the surface, near surface, and subsurface samples are in the northeast, and northwest sectors, respectively.
- Concentrations of PFOS in the predominant downwind direction (i.e., southeast) do not demonstrate a decreasing trend with distance (page 2 of Appendix C).
- Between 2,250 meters and 2,500 meters (approximately 1.5 miles) in the northeast sector relatively high concentrations of several PFAS are detected, including PFBA (Figures 6B and 6C); PFHxA (Figure 8B); PFHpA (Figure 9B); PFNA (Figures 10A and 10B); PFDA (Figures 11A and 11B); PFUnA (Figure 12A); and PFDoA (Figure 13A).
- PFBA is detected more frequently and at higher concentrations in the west and southwest (page 3 of Appendix C and Figures 6A-6C); and
- The highest PFOA and PFOS concentrations in the outer 1,000 meters of the sampling area are all located in the northwest (i.e., the predominant upwind direction).

In summary, the distributions of some PFAS in some directions are consistent with a regional pattern that would be expected from air emissions sources within the Village. However, the distributions of certain PFAS in other directions are not consistent with a regional pattern that would be associated with air emission sources within the Village (i.e., soil concentrations decreasing with distance).

4.2 Comparison of Upwind and Downwind PFAS Data

A comparison of upwind and downwind soil concentrations has been used in other air deposition investigations. Specifically, with PFAS, the presence of an upwind/downwind concentration gradient (i.e., higher concentration downwind) was used to evaluate potential PFAS air emissions and deposition from incineration at the Norlite facility in Cohoes, New York (NYSDEC, 2021b). The increased number of sampling locations in the predominant upwind (i.e., northwest) and predominant downwind (i.e., southeast) directions allows for this comparison for this study. As shown on Graphic 6, the upwind dataset includes 17 sampling locations, and the downwind dataset includes 21 sampling locations. Table D1 in Appendix D provides a side-by-side comparison of the summary statistics for these upwind and downwind datasets.



Graphic 6: Upwind and Downwind Datasets (shown in green)

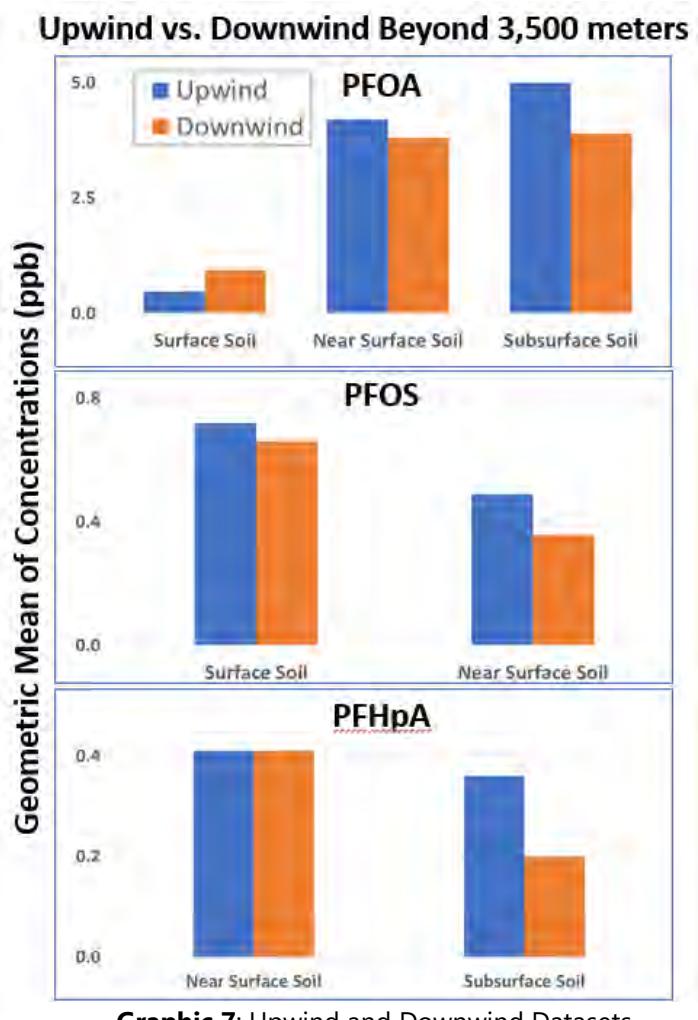
Most PFAS for most intervals have higher maximum concentrations and geometric means in the downwind direction. This is consistent with the expected regional pattern. Notable exceptions to the expected regional pattern include PFBA (which is detected in upwind samples but not in any downwind samples) and several PFAS in subsurface soils with higher detection frequencies and maximum detected concentrations in the upwind dataset (Table D1).

Given the trend in concentrations with distance (see Section 4.1), the upwind and downwind datasets have been divided into three approximately even groups based on distance from the approximate Village centroid (Graphic 6). This allows for an upwind versus downwind comparison for three different distance-based groups. Consistent with similar NYSDEC evaluations (NYSDEC, 2021b), the statistic of focus for these comparisons is the geometric mean (Table D2). As noted in Table D2, the three distance-based groups are divided as follows: the inner groups include all samples out to approximately 2,540 meters from the approximate Village centroid (correlating with the initial study area); the middle groups include samples from 2,540 to 3,500 meters; and the outer groups include samples beyond 3,500 meters. Note that each group contains at least five sampling locations, and geometric means are only presented for groups with at least a 50% detection frequency.

The comparison of geometric means for PFOA, PFOS, and PFHpA (the only three PFAS with sufficient detections for comparisons at multiple distances) are shown graphically on Figures D1 through D3 of Appendix D. As shown on these figures, the mean concentrations for PFOS, PFOA, and PFHpA in all three sampling intervals are higher in the downwind direction for both the inner (less than 2,540 meters) and middle (2,540 to 3,500 meters) distances. Therefore, relative concentrations of PFAS in the upwind and downwind directions out to 3,500 meters are generally consistent with the anticipated regional pattern from air emissions from within the Village (i.e., higher soil concentrations in the predominant downwind direction and decreasing concentration with distance).

However, for the outer distance (i.e., beyond 3,500 meters), the comparison reverses and the upwind concentrations are either higher or similar (Graphic 7). Therefore, beyond 3,500 meters, there is no observable upwind/downwind concentration gradient that is consistent with air deposition from sources within the Village.

The comparison of upwind and downwind PFOA concentrations can also be visualized by placing the trends for each direction on the same graph, as shown on Graphic 8 (note that trend lines represent a

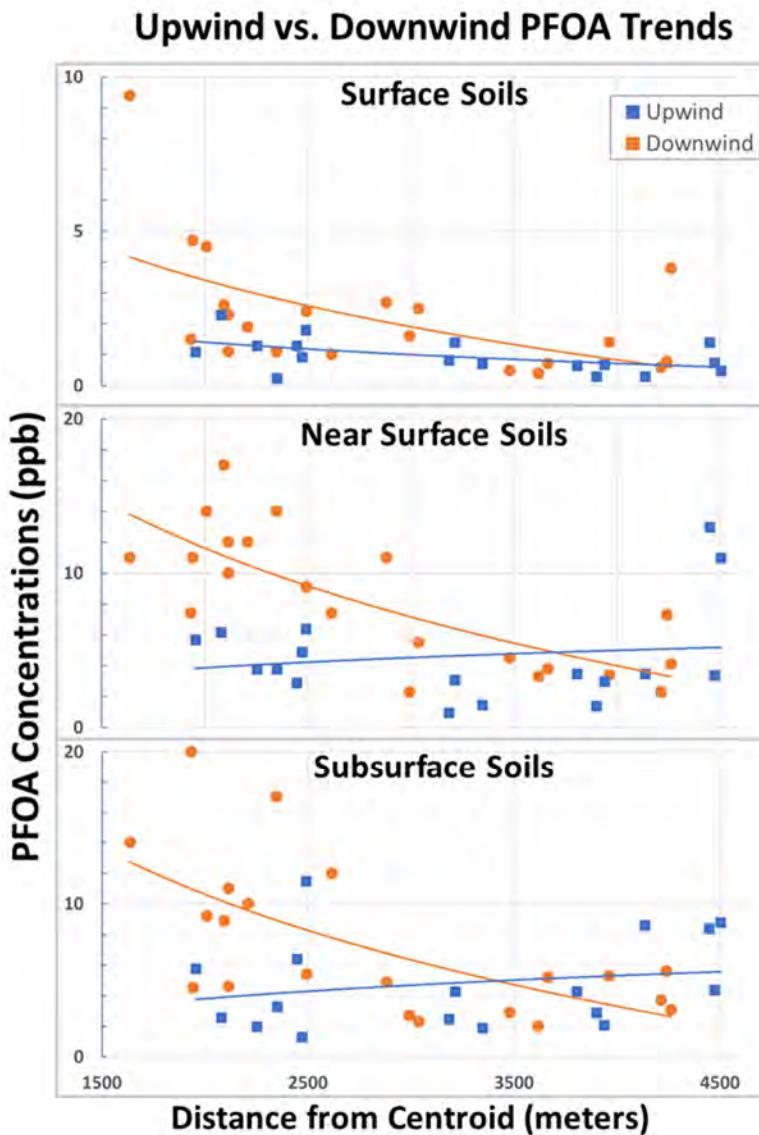


Graphic 7: Upwind and Downwind Datasets

logarithmic line of best fit for each direction and sampling interval). These trends confirm the comparison of geometric means presented above by showing the trends in PFOA concentrations intersecting (i.e., become equivalent) within the outer third of the sampling area. It is also notable that the concentration of PFOA in the upwind direction for both near-surface and subsurface soils demonstrate an increasing trend with distance from the Village.

There is evidence of an upwind and downwind gradient in PFAS concentrations within 3,500 meters from the approximate centroid of the Village but not beyond 3,500 meters (approximately 2.2 miles). The comparisons above utilize data in the predominant downwind direction, which is anticipated to be the most impacted by PFAS air emissions from sources within the Village (see Section 1.3). Therefore, associated PFAS impacts in other directions are anticipated to be lesser. Furthermore, the increasing upwind PFAS concentrations beyond 3,500 meters were found at multiple sample locations, separated by more than 500 meters (0.3 miles) and, therefore, unlikely to be the result of a source other than air emissions.

Increasing concentrations of PFAS with distance upwind from the Village are not consistent with or explainable by air emissions and deposition from a source within the Village.



Graphic 8: Upwind vs. Downwind PFOA Trends

5 Summary

The soil data set for this study includes results for 321 discrete soil samples collected from 107 locations with three depth intervals at each location. All sample locations were carefully vetted in coordination with NYSDEC to be representative of potential air deposition and to avoid other known or suspected sources/transport pathways. In addition to soil sampling, a weather station was installed at the McCaffrey Street facility in November 2018 and has generated data since that time in support of this study. Below is a summary of the results and evaluations included in this report.

- Results from this study indicate that the presence of PFAS in shallow soils within 3,500 meters (approximately 2.2 miles) of the center of the Village is generally consistent with an air deposition pattern within the predominant wind direction from sources within the Village. However, beyond this distance, the upwind concentrations of PFAS are higher than or comparable to downwind concentrations; this distribution cannot be explained by an air emissions source within the Village.
- The distribution of various PFAS and their concentrations within the study area indicate that there are multiple air emissions sources of PFAS within the Village and/or the Region. For example, the locations of maximum concentrations and higher frequencies of detections for several PFAS are not consistent with each other (e.g., locations of PFBA and PFDA concentrations do not correlate with PFOA) or the anticipated regional pattern if there were a single air emissions source in the region.
- The increasing concentrations of PFAS with upwind distance from the Village indicates an upwind source(s) as increased concentrations with distance are not explainable by transport from a source within the Village. These upwind PFAS concentrations were observed at several sampling locations, separated by more than 500 meters (0.3 miles) and, therefore, unlikely to be the result of a source other than air emissions.

Additional investigation is currently being planned in coordination with NYSDEC and will be included in the forthcoming OU-03 Remedial Investigation Work Plan.

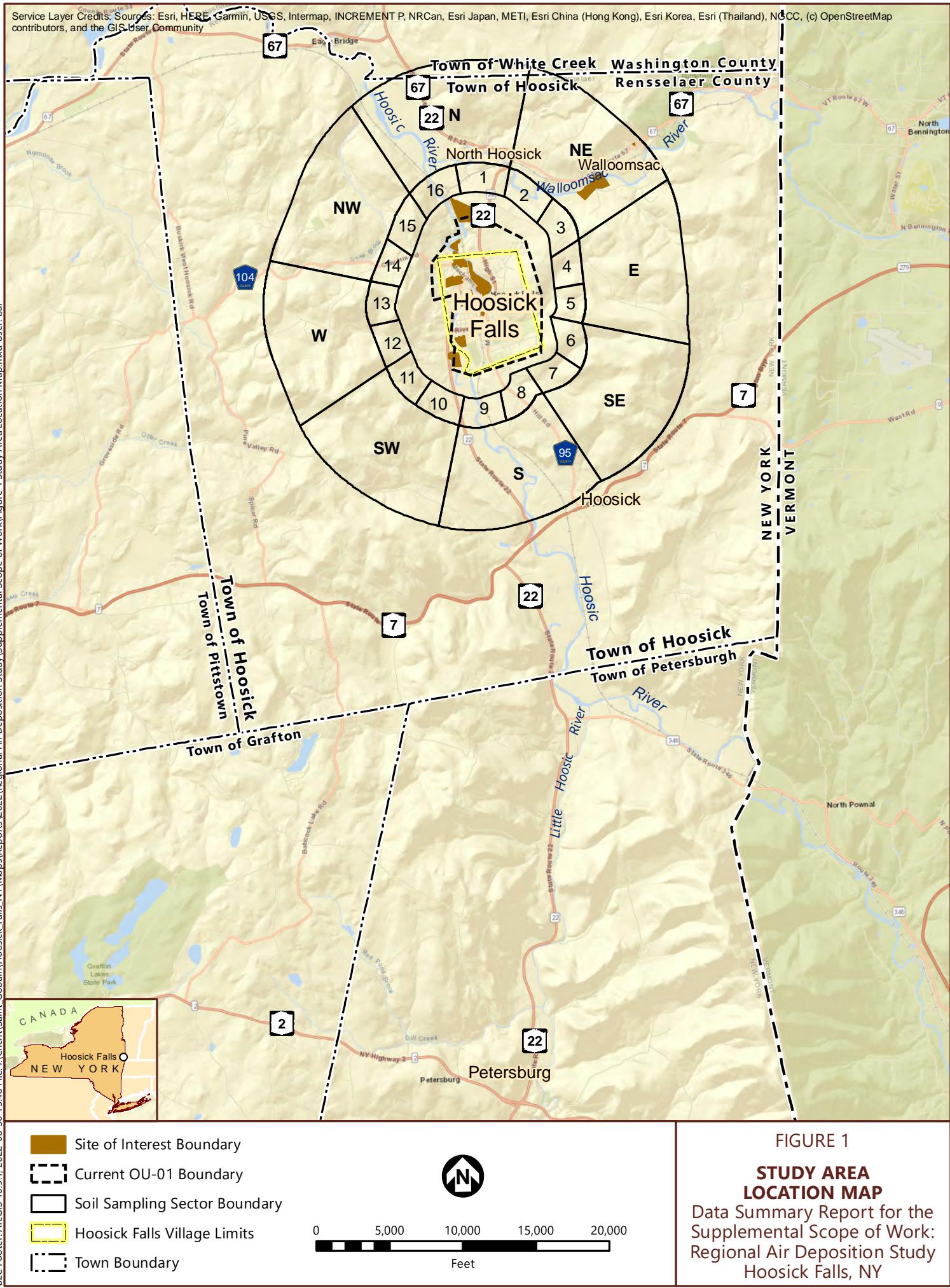
6 References

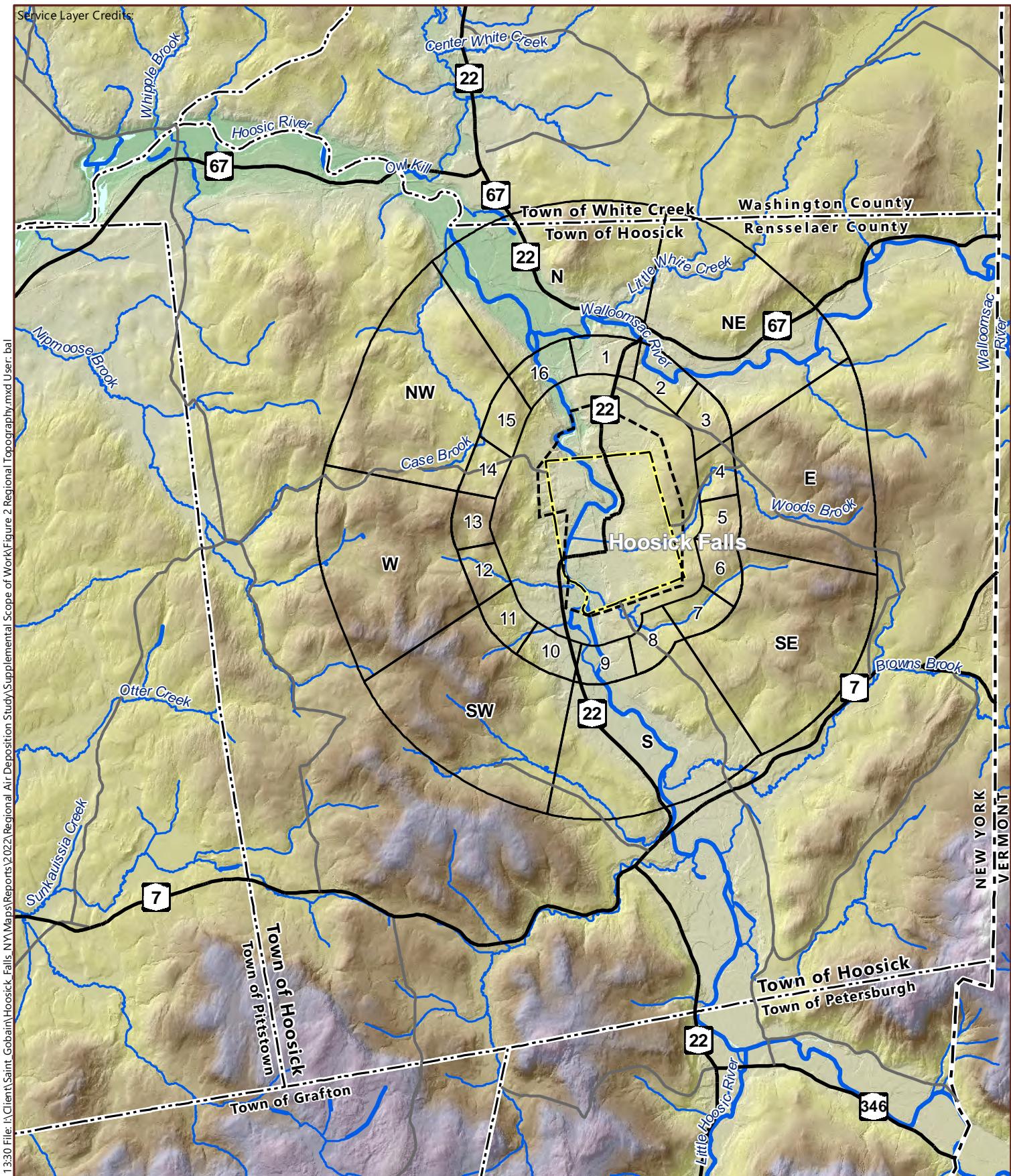
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Figures





- Soil Sampling Sector Boundary
- Current OU-01 Boundary
- Hoosick Falls Village Limits
- Town Boundary

Elevations shown are in feet above mean sea level

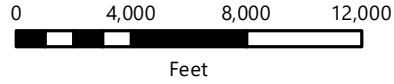
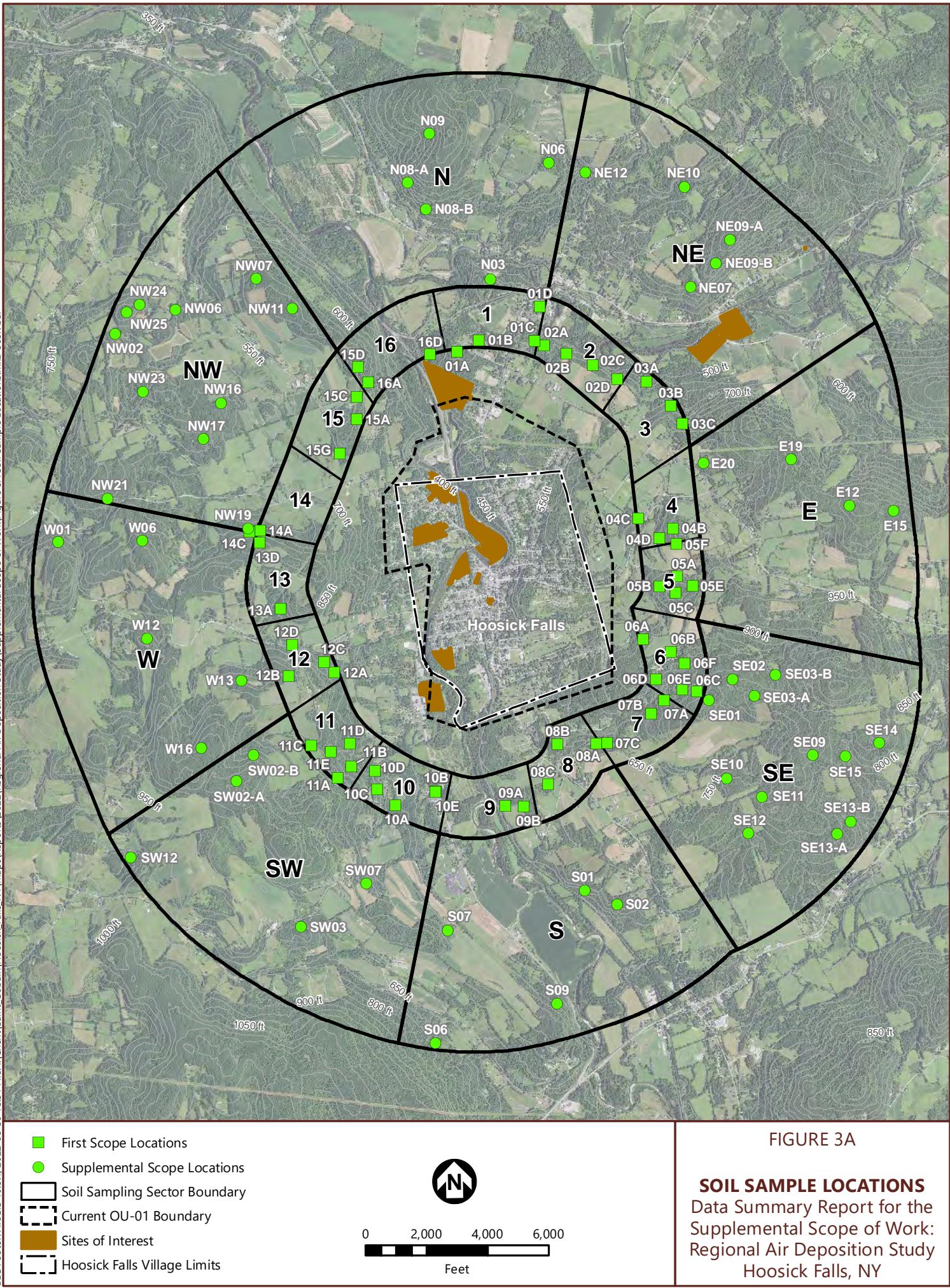
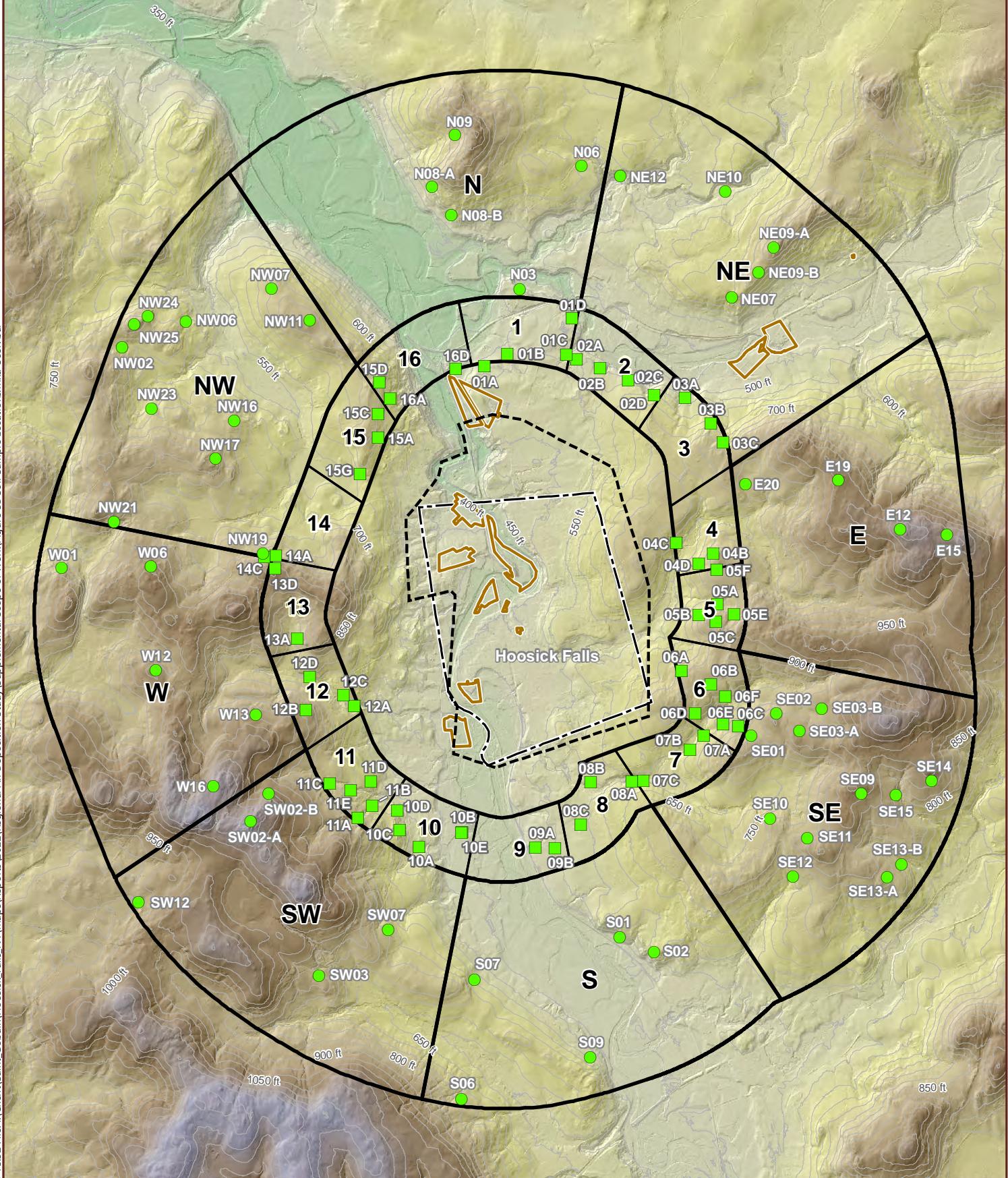


FIGURE 2

REGIONAL TOPOGRAPHY
Data Summary Report for the
Supplemental Scope of Work:
Regional Air Deposition Study
Hoosick Falls, NY





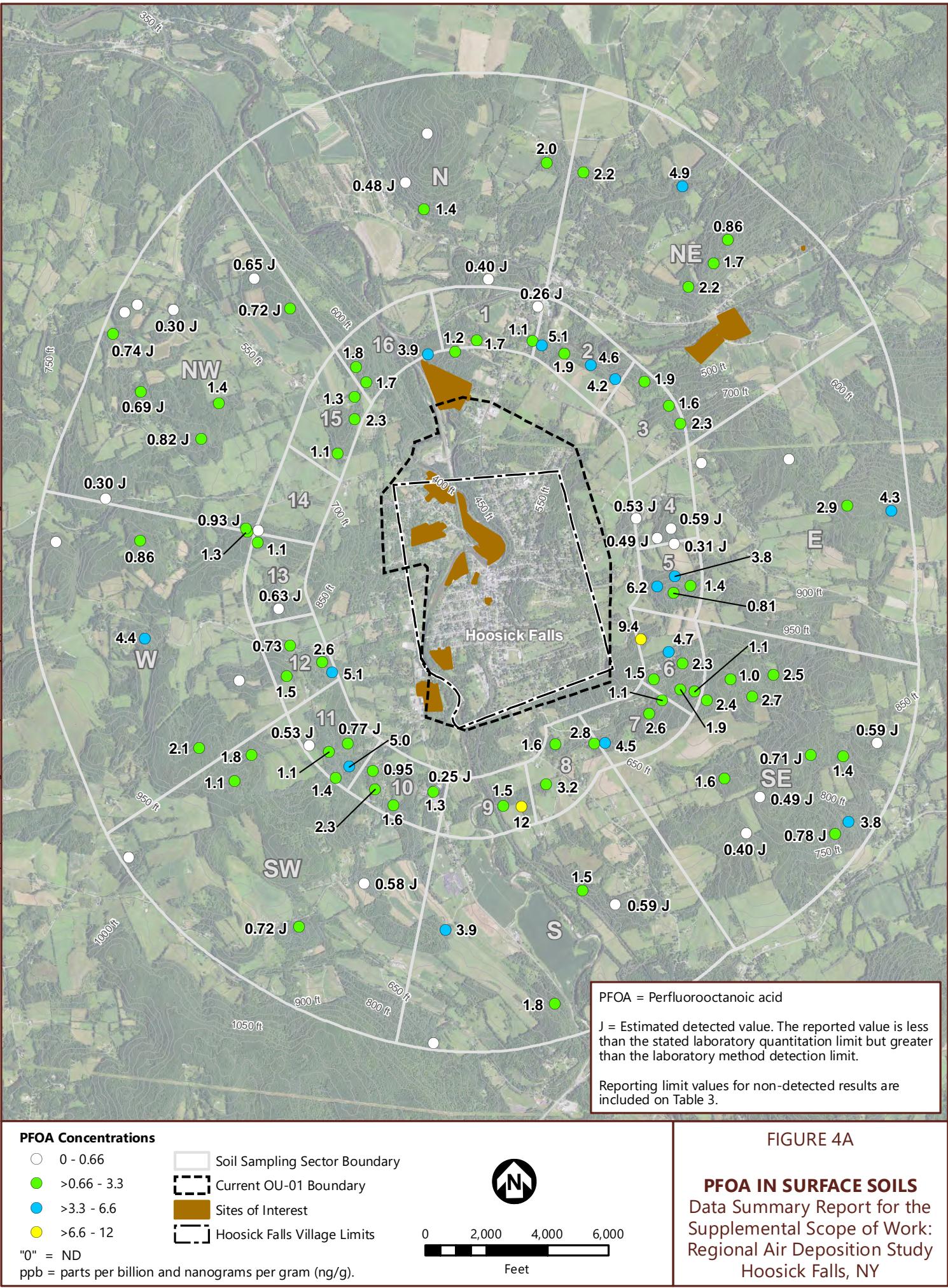
- Supplemental Scope Locations
- First Scope Locations
- Soil Sampling Sector Boundary
- Current OU-01 Boundary
- Sites of Interest
- Hoosick Falls Village Limits



0 2,000 4,000 6,000
Feet

FIGURE 3B

SOIL SAMPLE LOCATIONS
Data Summary Report for the
Supplemental Scope of Work:
Regional Air Deposition Study
Hoosick Falls, NY



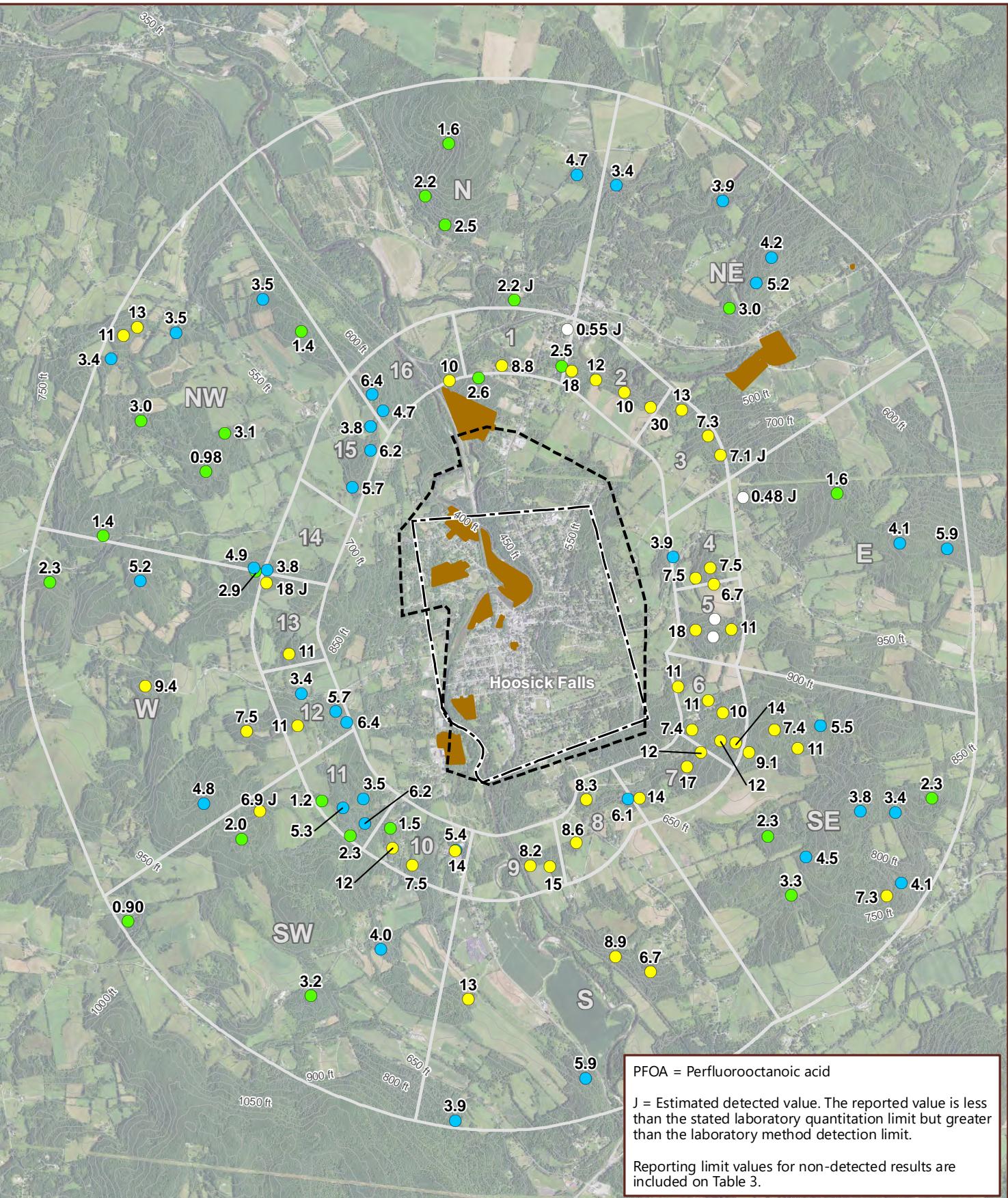
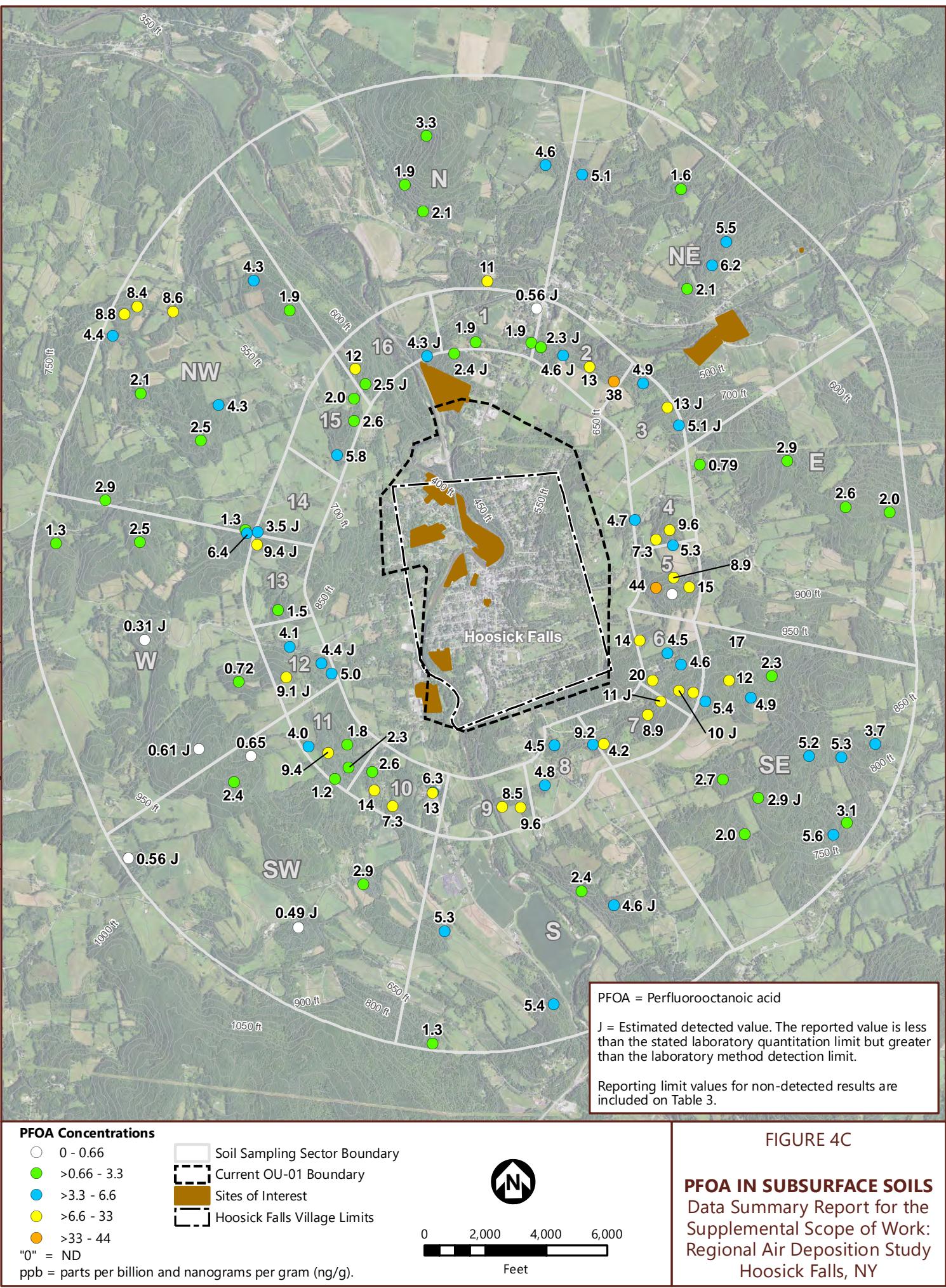
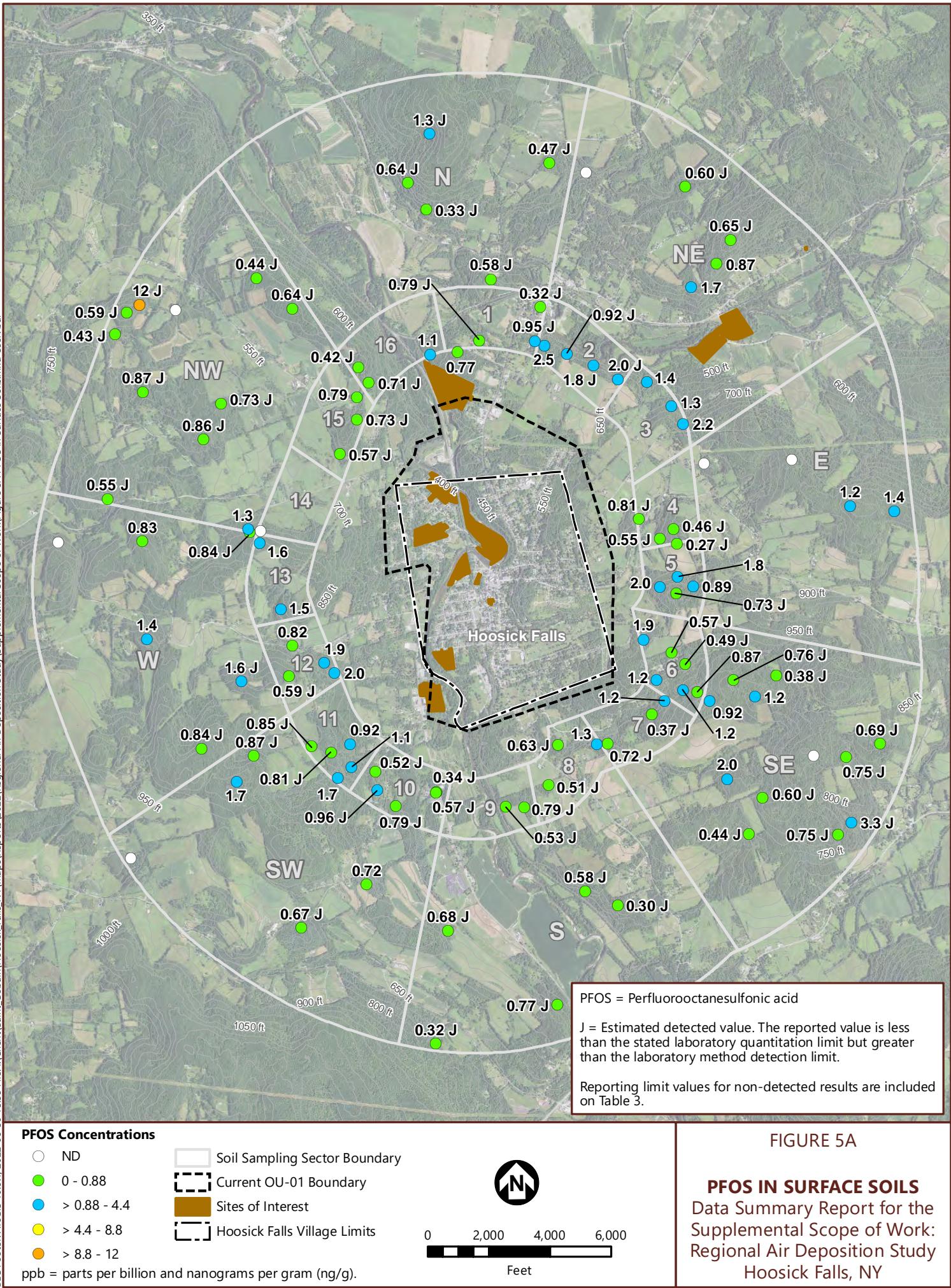
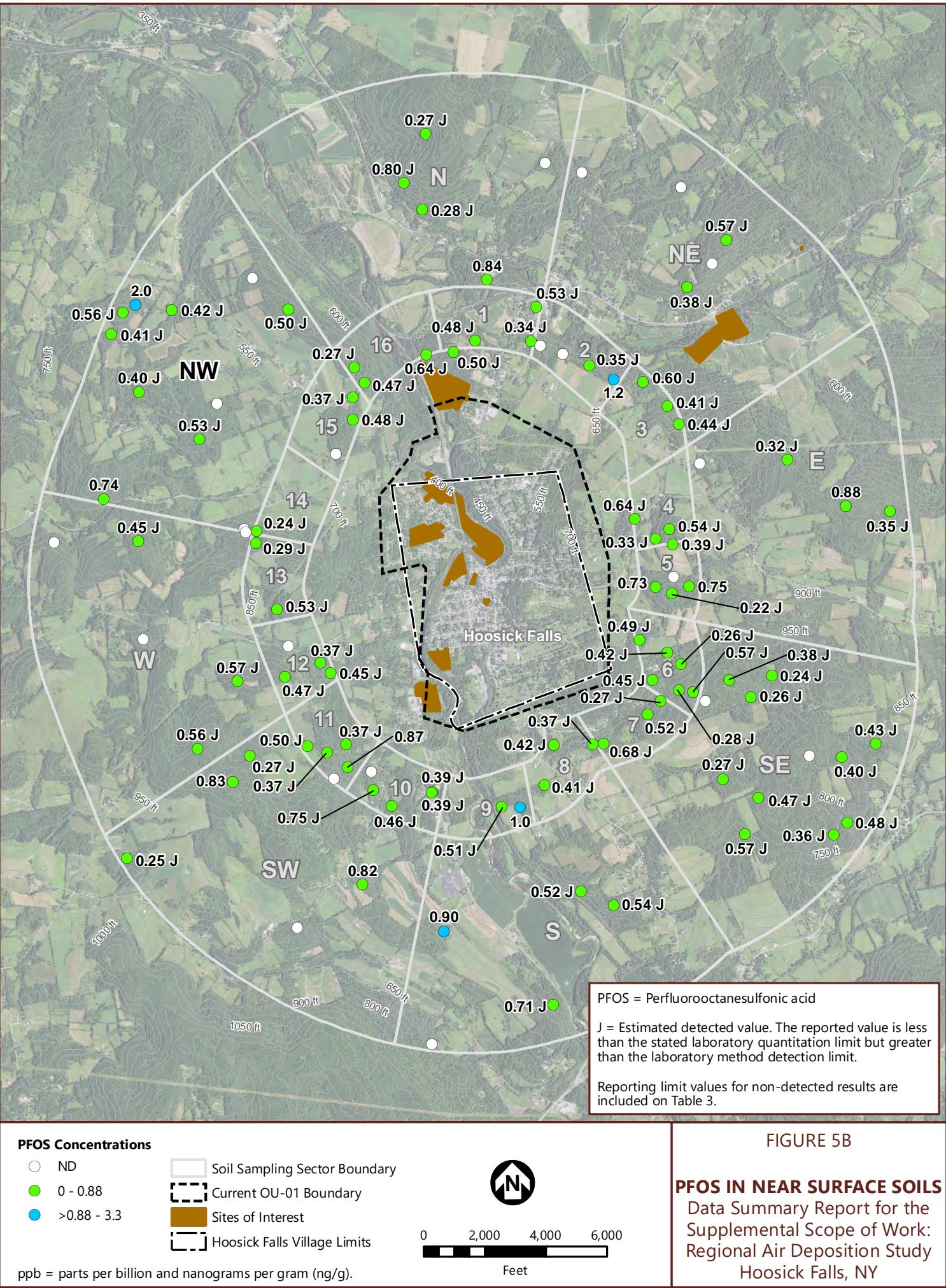


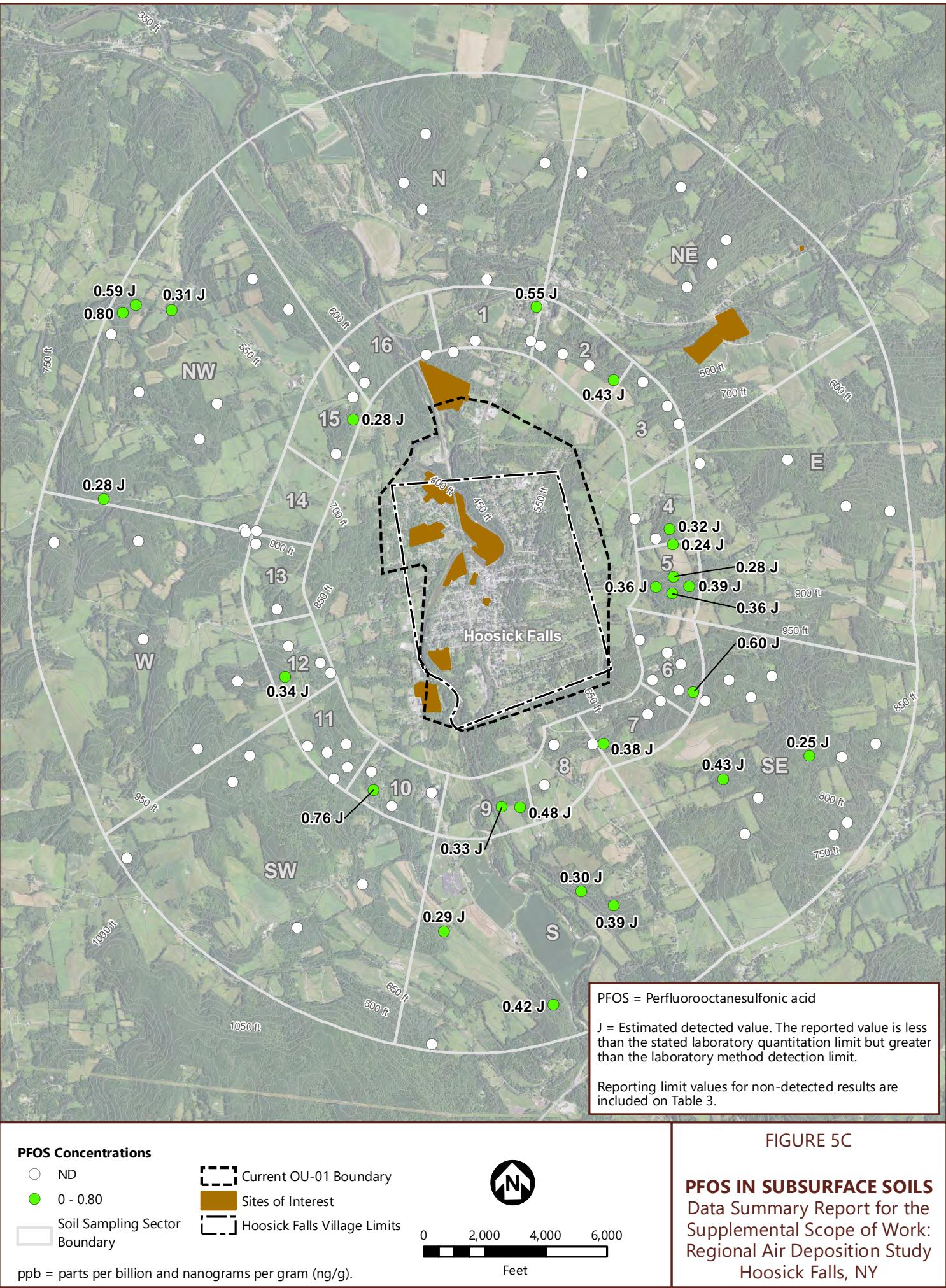
FIGURE 4B

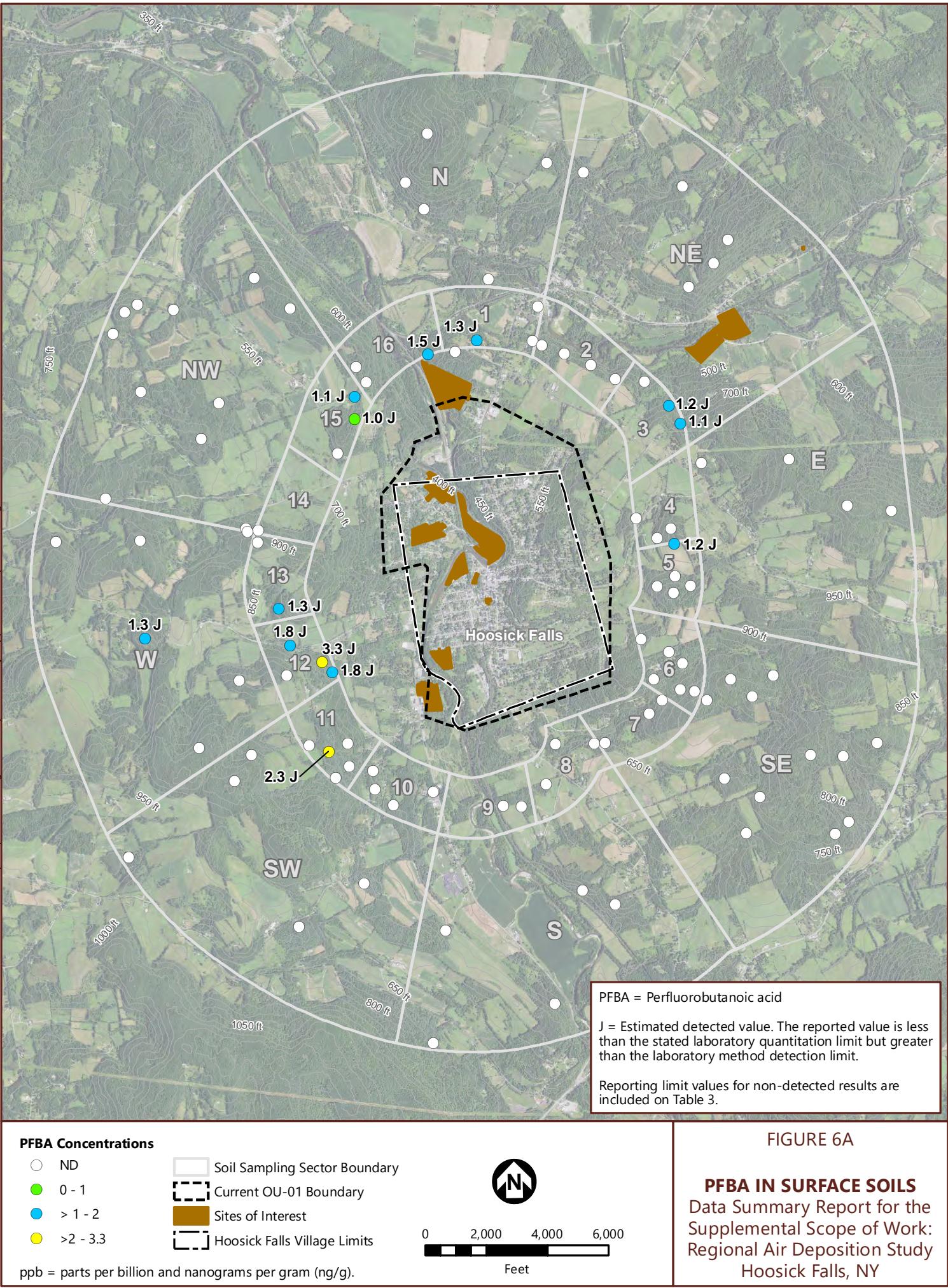
PFOA IN NEAR SURFACE SOILS
Data Summary Report for the
Supplemental Scope of Work:
Regional Air Deposition Study
Hoosick Falls, NY

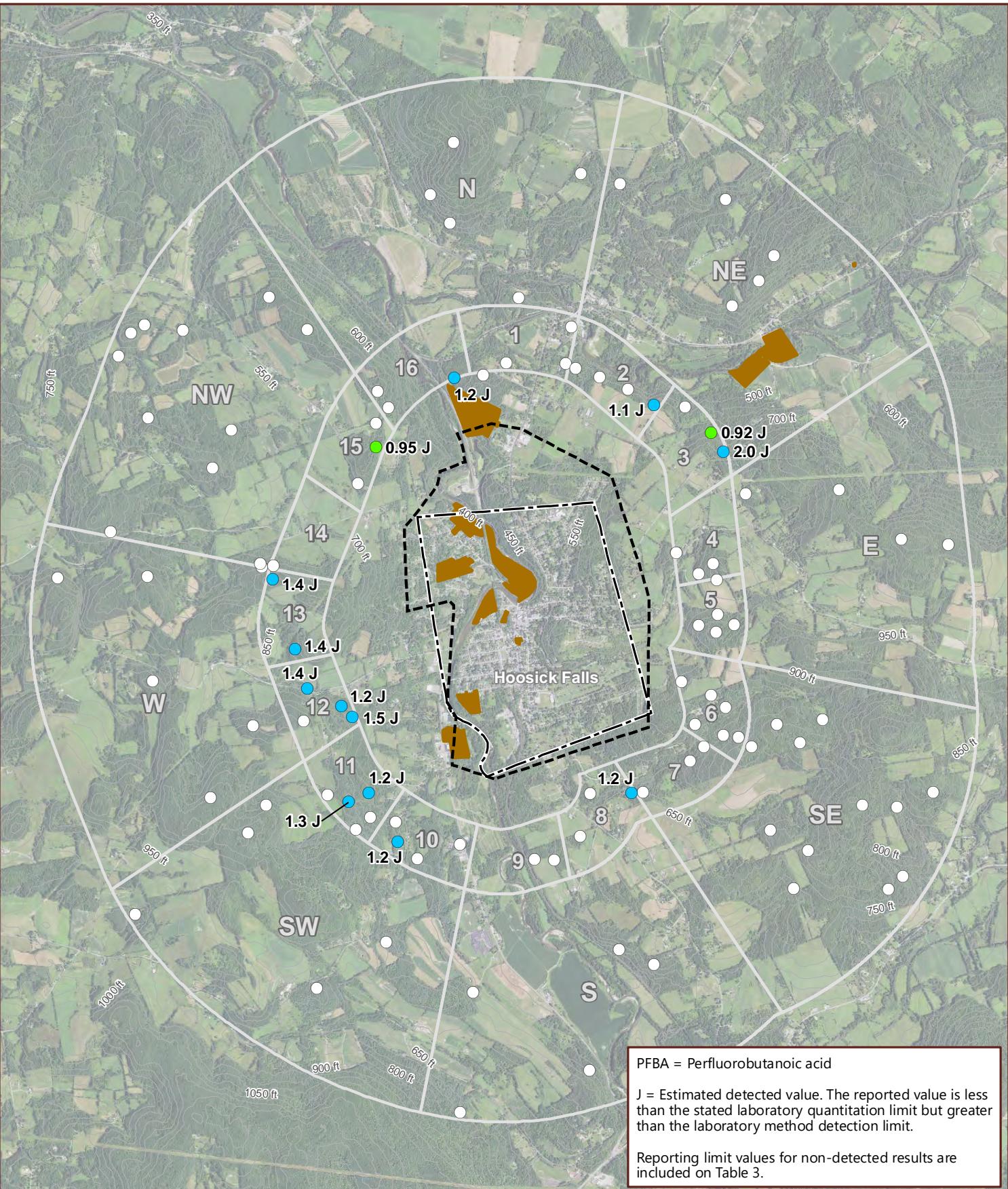












PFBA Concentrations

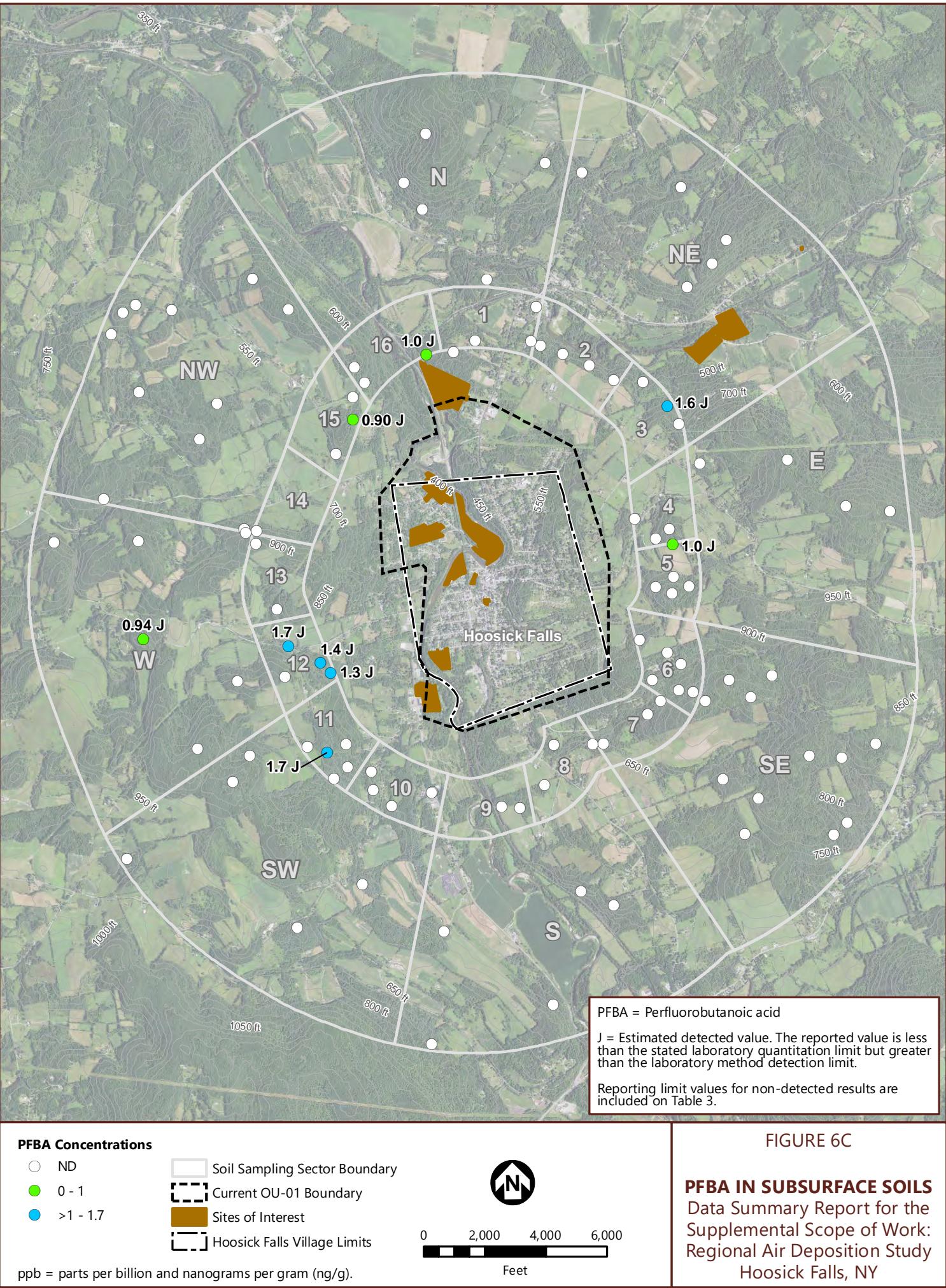
Soil Sampling Sector Boundary
Current OU-01 Boundary
Sites of Interest
Hoosick Falls Village Limits

0 2,000 4,000 6,000
Feet

ppb = parts per billion and nanograms per gram (ng/g).

FIGURE 6B

PFBA IN NEAR SURFACE SOILS
Data Summary Report for the
Supplemental Scope of Work:
Regional Air Deposition Study
Hoosick Falls, NY



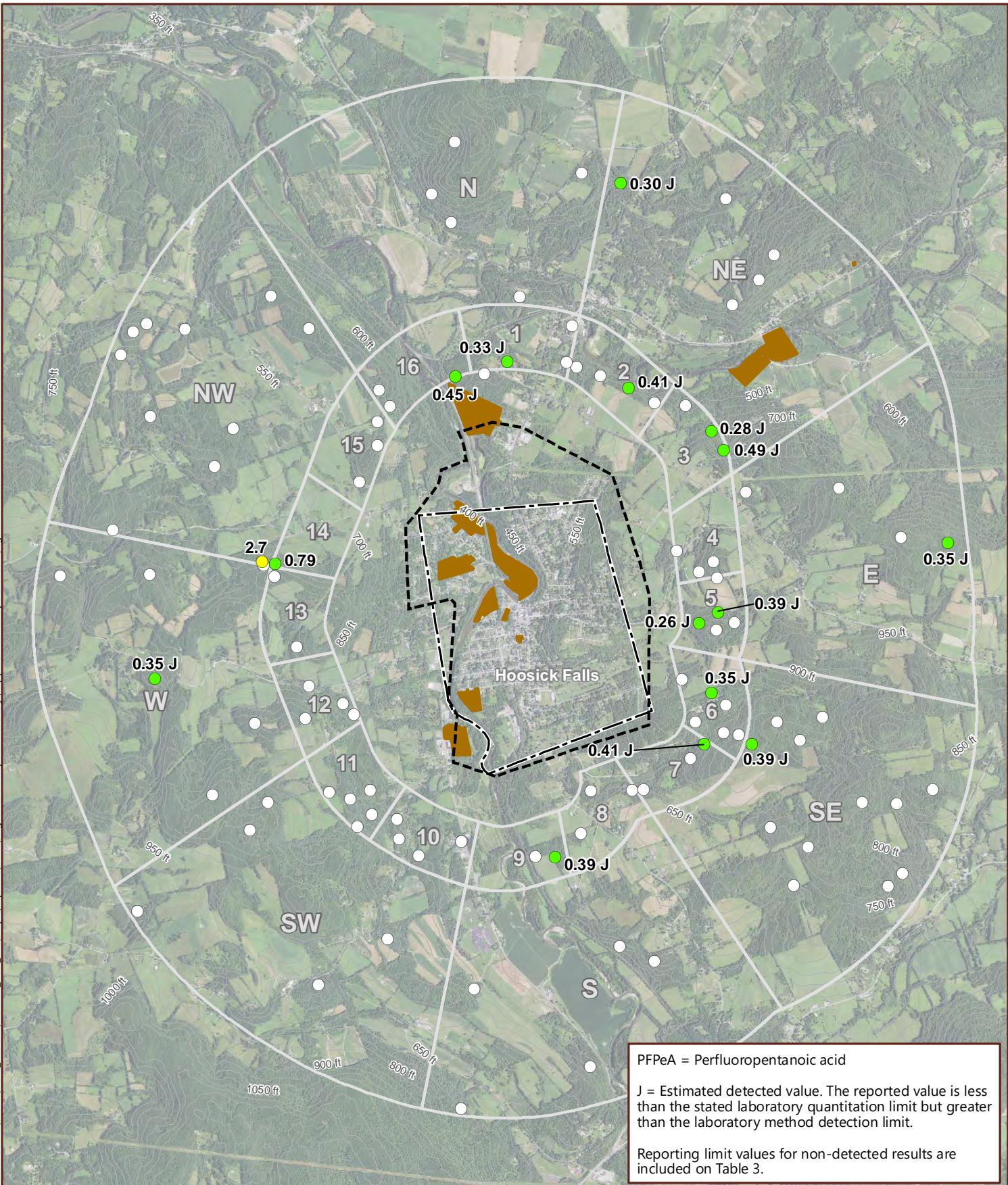
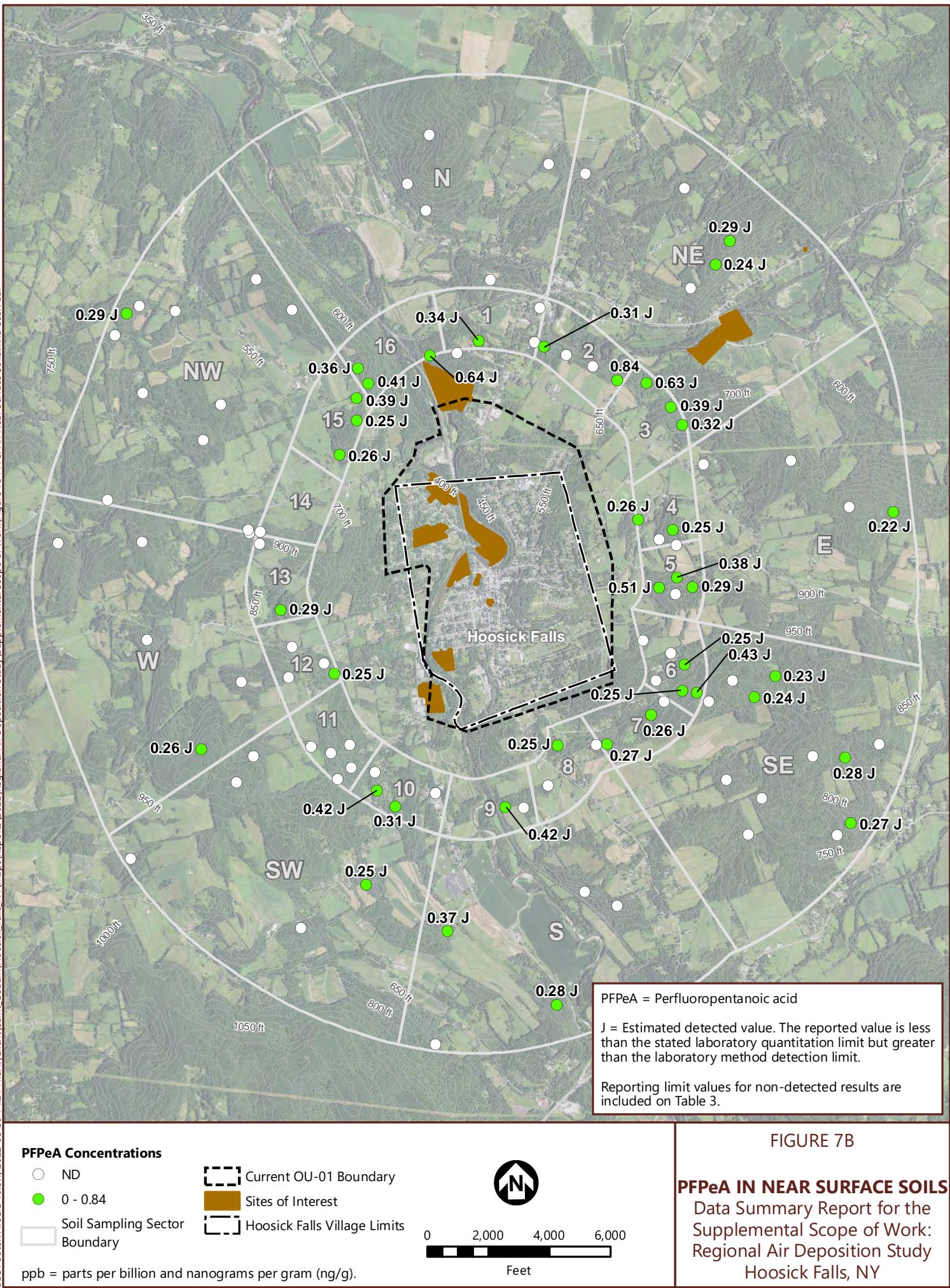


FIGURE 7A

PFPeA IN SURFACE SOILS
Data Summary Report for the
Supplemental Scope of Work:
Regional Air Deposition Study
Hoosick Falls, NY

0 2,000 4,000 6,000
Feet



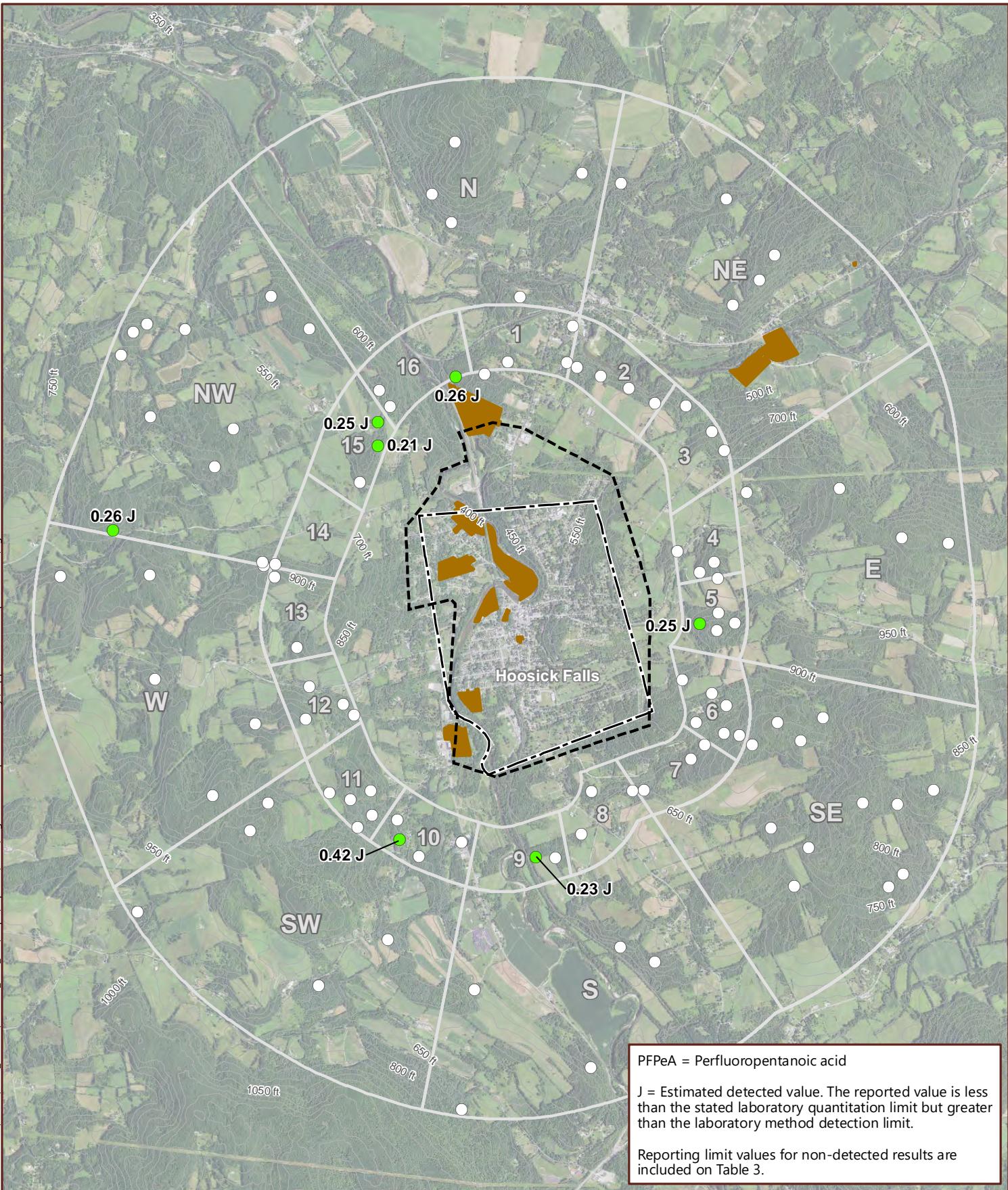
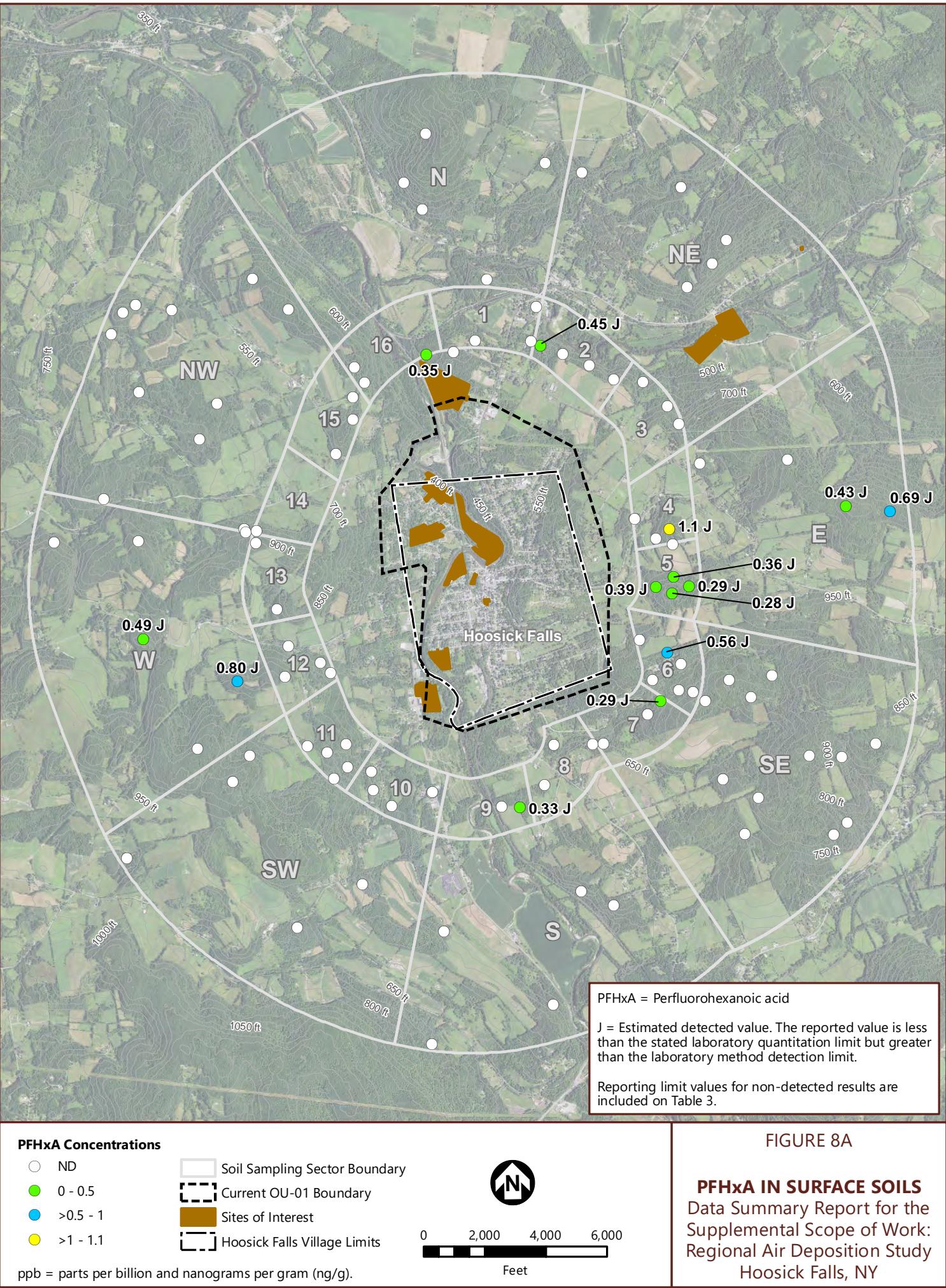


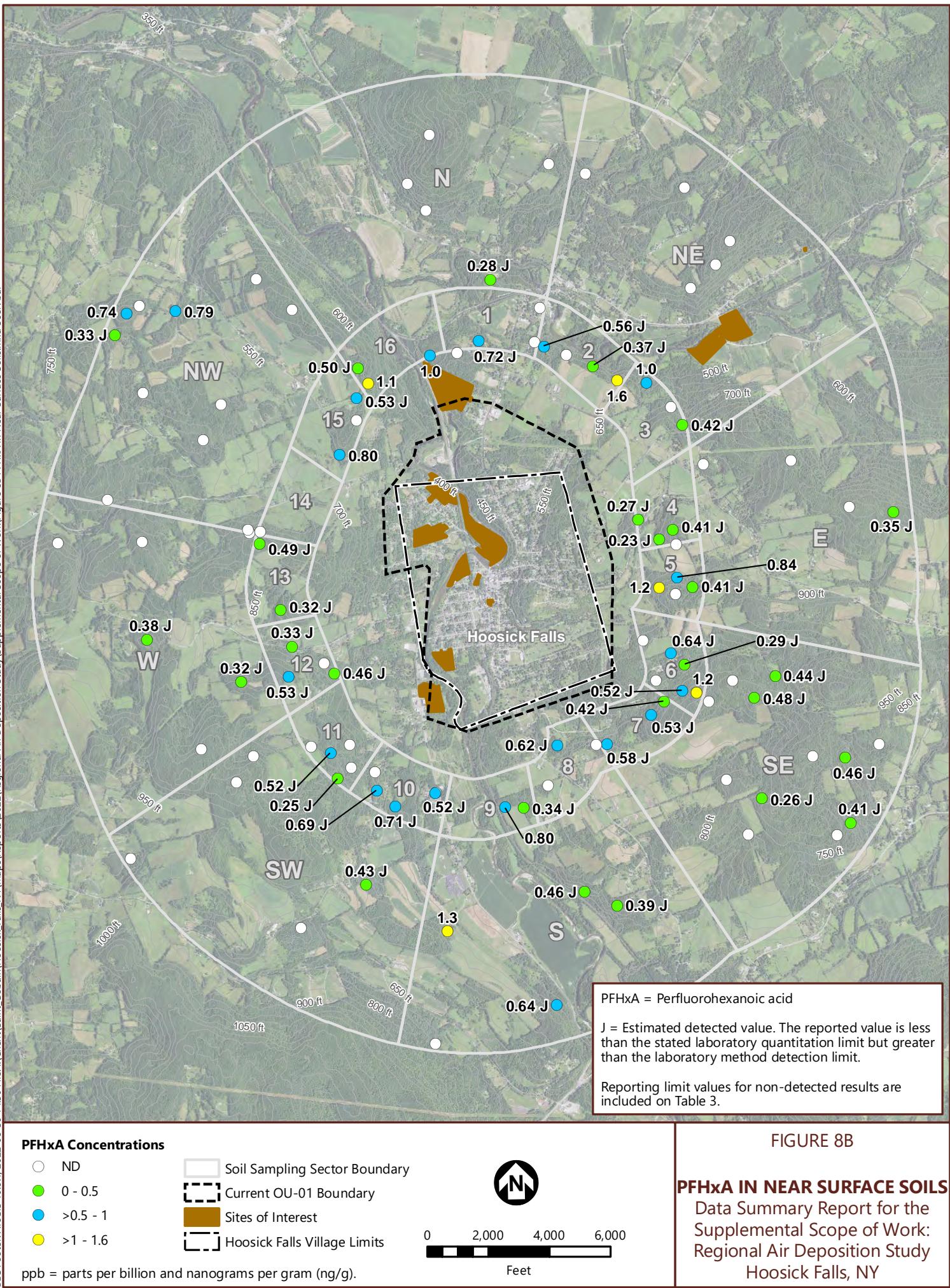
FIGURE 7C

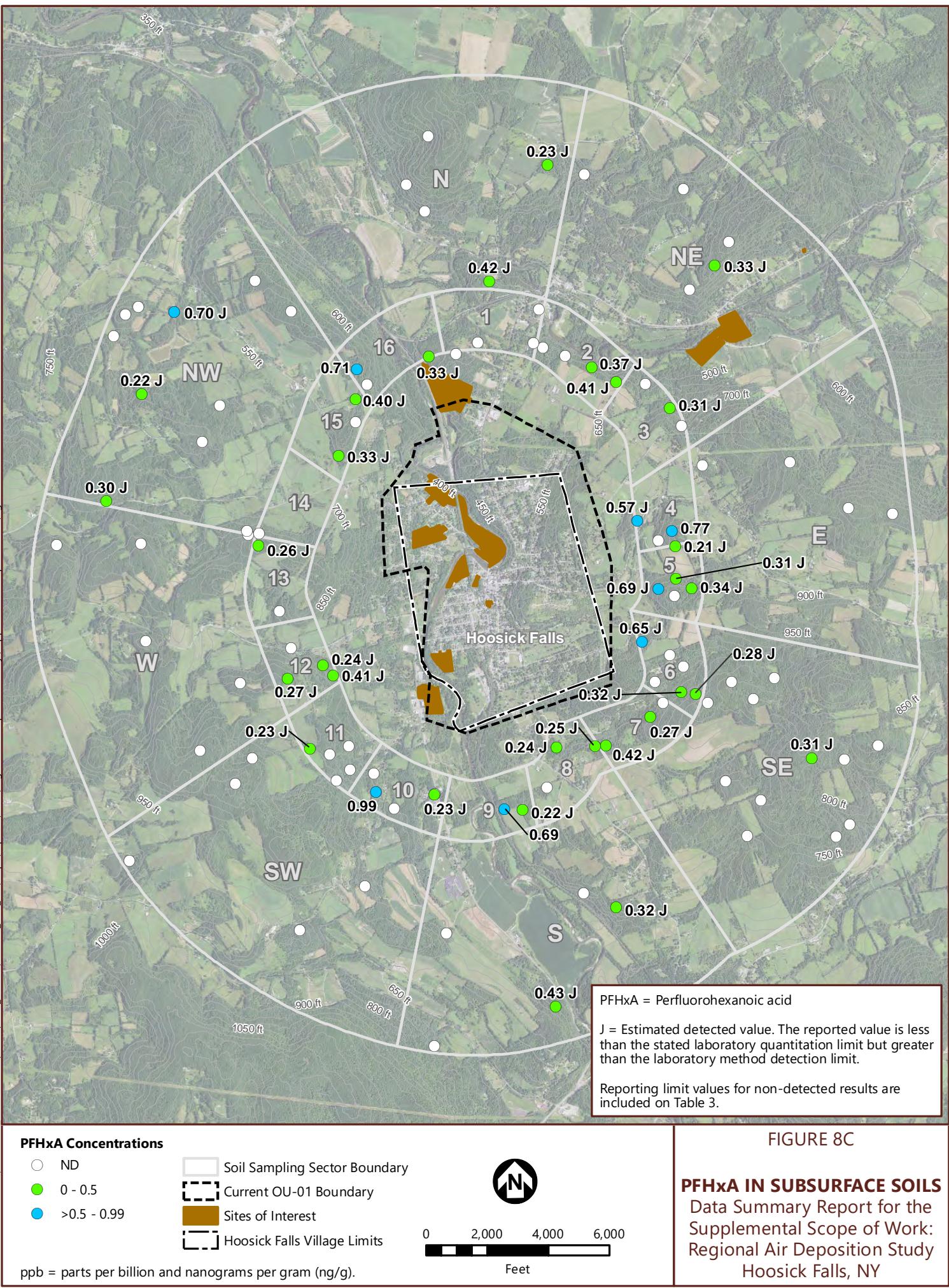
PFPeA IN SUBSURFACE SOILS
Data Summary Report for the
Supplemental Scope of Work:
Regional Air Deposition Study
Hoosick Falls, NY

ppb = parts per billion and nanograms per gram (ng/g).

0 2,000 4,000 6,000
Feet







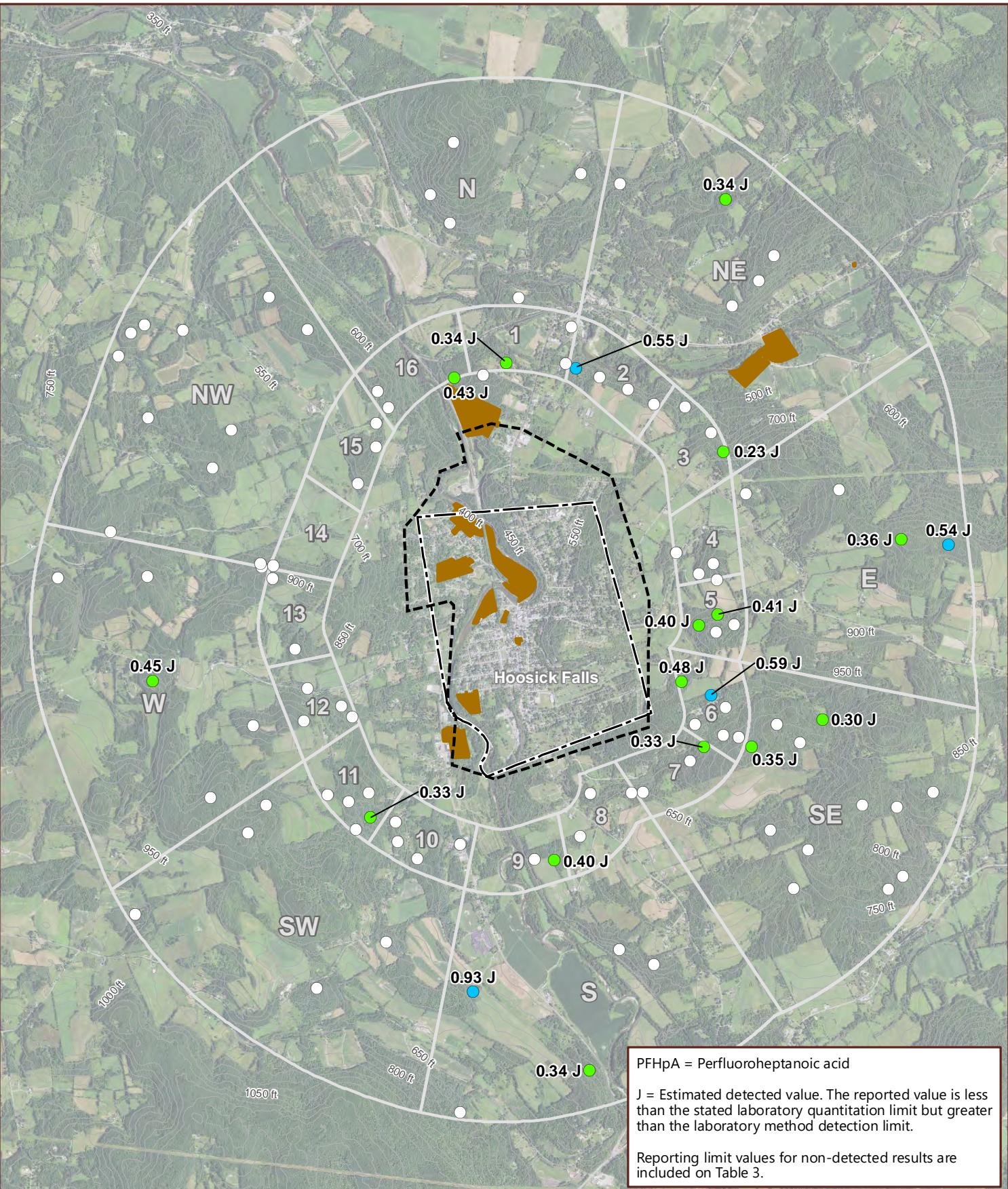
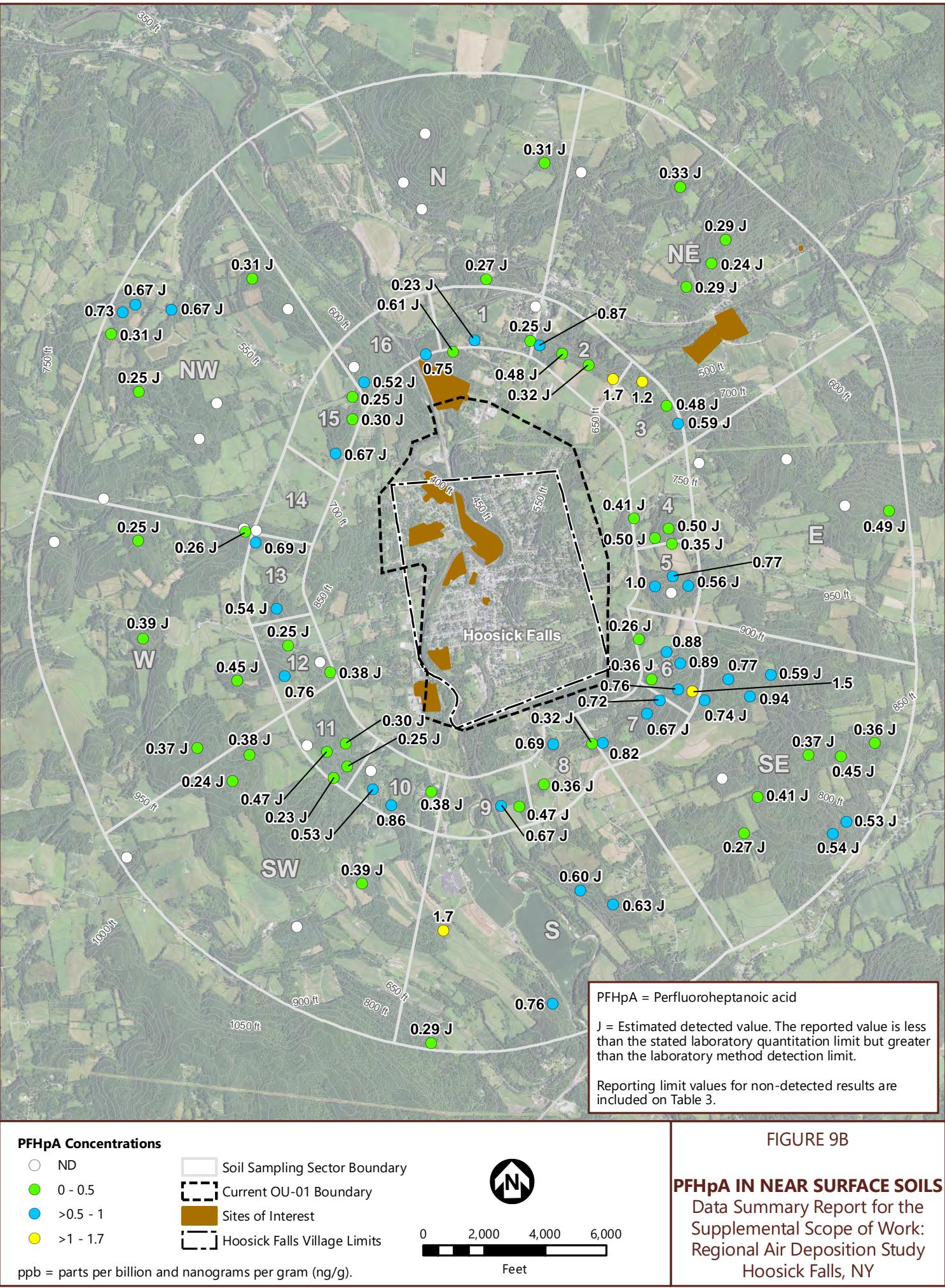
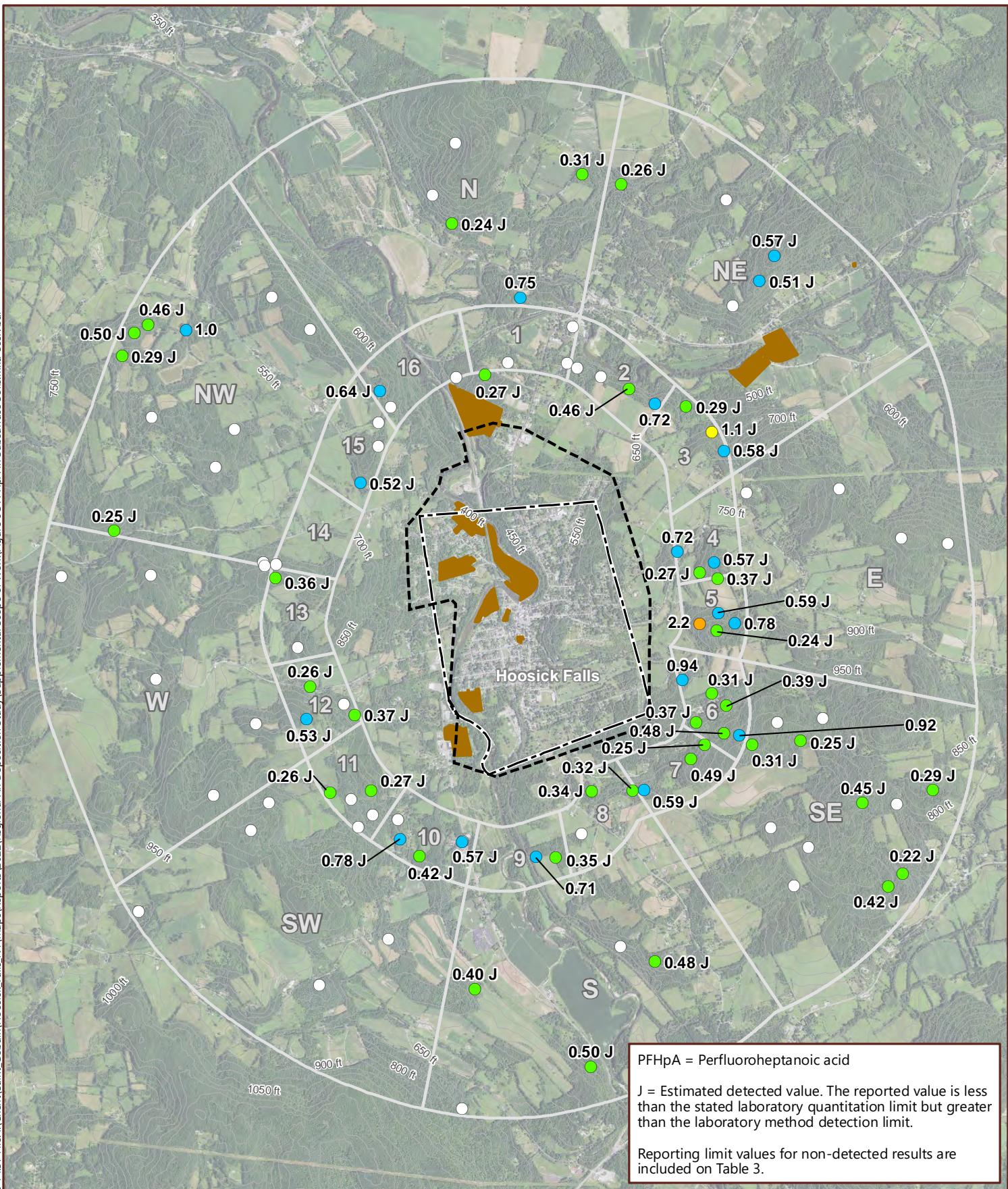


FIGURE 9A

PFHpA IN SURFACE SOILS
Data Summary Report for the
Supplemental Scope of Work:
Regional Air Deposition Study
Hoosick Falls, NY





PFHpA Concentrations

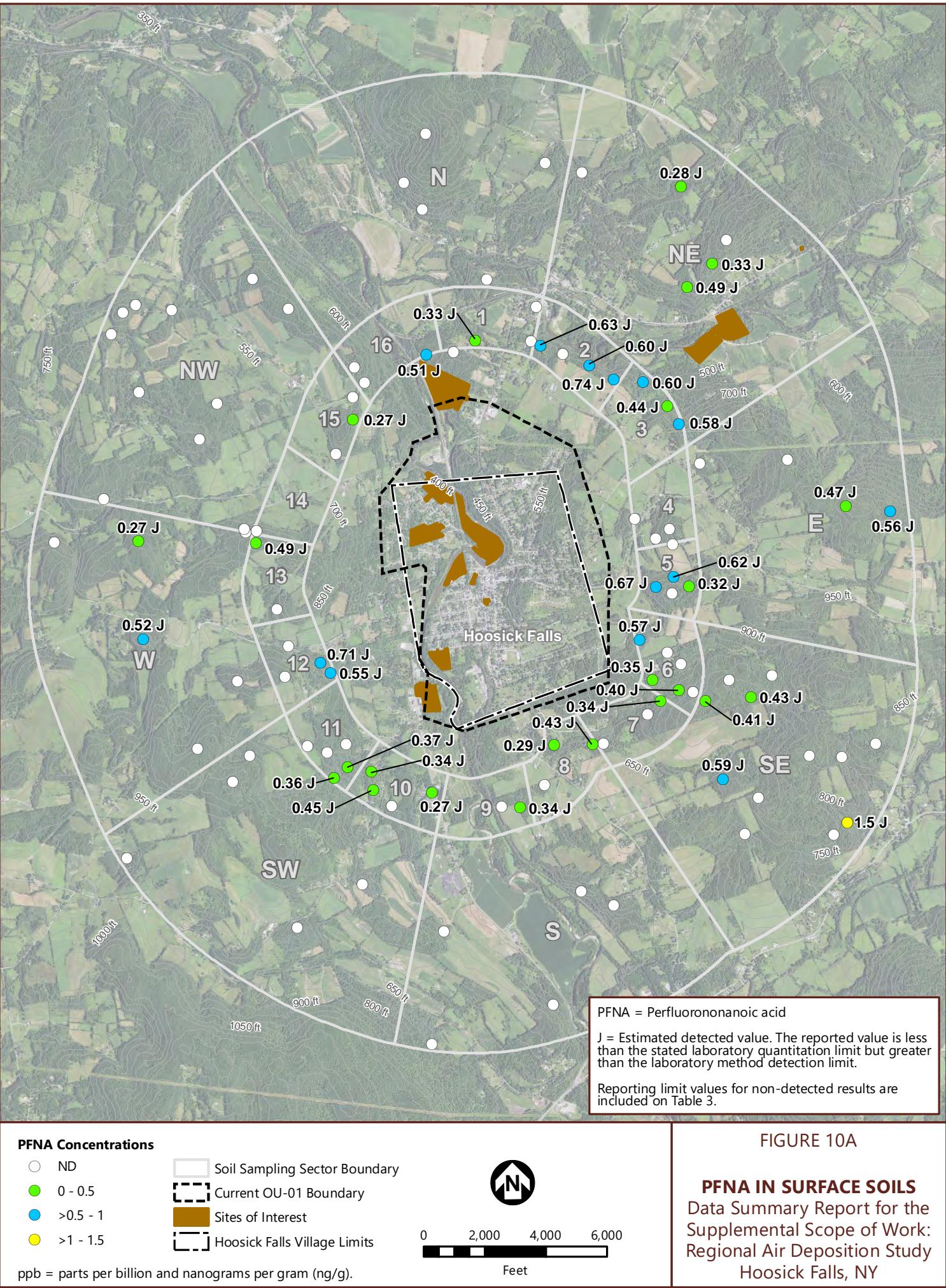
- ND
- 0 - 0.5
- >0.5 - 1
- >1 - 2
- >2 - 2.2

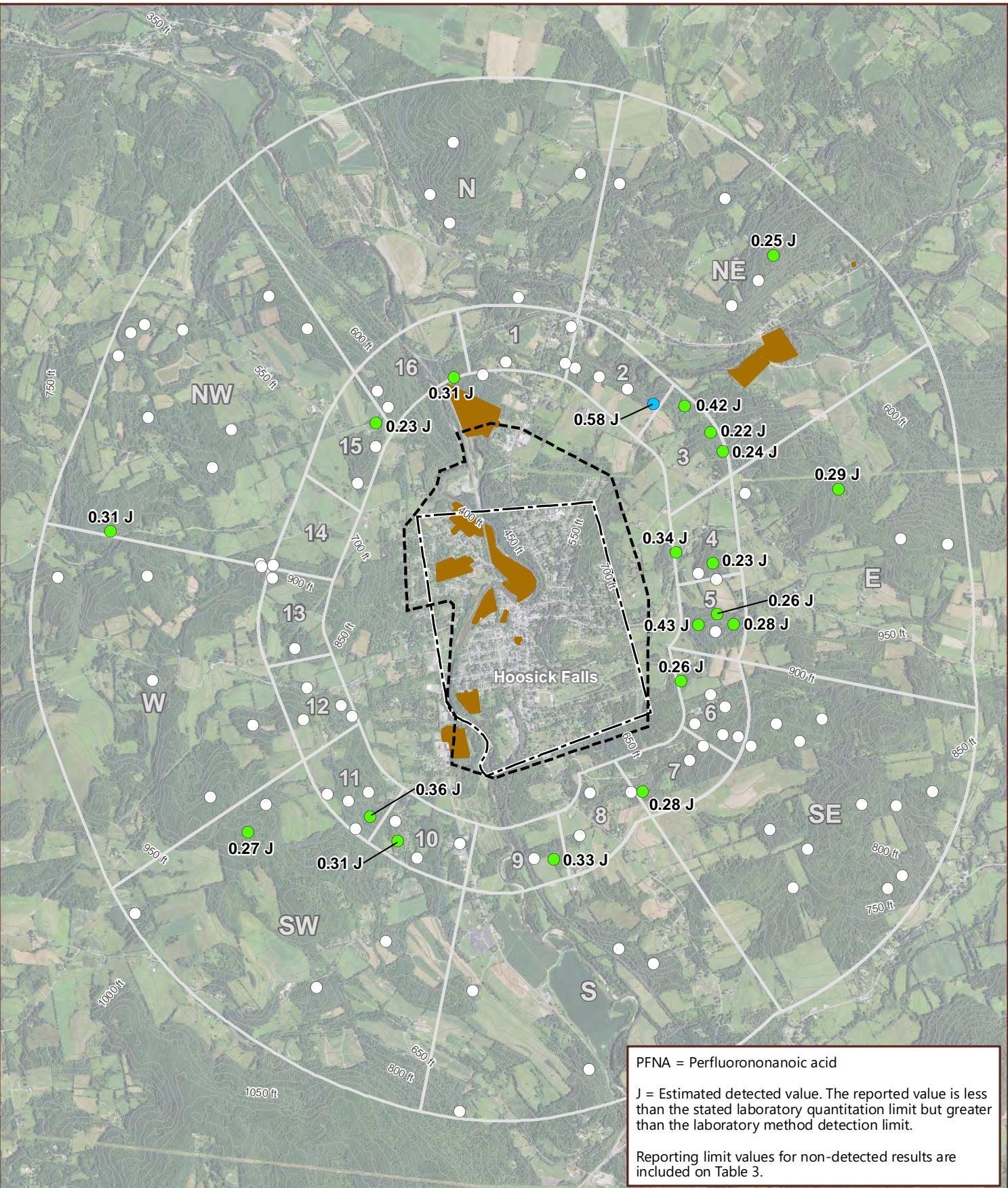
ppb = parts per billion and nanograms per gram (ng/g).

0 2,000 4,000 6,000
Feet

FIGURE 9C

PFHpA IN SUBSURFACE SOILS
Data Summary Report for the
Supplemental Scope of Work:
Regional Air Deposition Study
Hoosick Falls, NY





PFNA Concentrations

- ND
- 0 - 0.5
- >0.5 - 0.58

Soil Sampling Sector Boundary
Current OU-01 Boundary
Sites of Interest
Hoosick Falls Village Limits

ppb = parts per billion and nanograms per gram (ng/g).

0 2,000 4,000 6,000
Feet

FIGURE 10B

PFNA IN NEAR SURFACE SOILS
Data Summary Report for the
Supplemental Scope of Work:
Regional Air Deposition Study
Hoosick Falls, NY

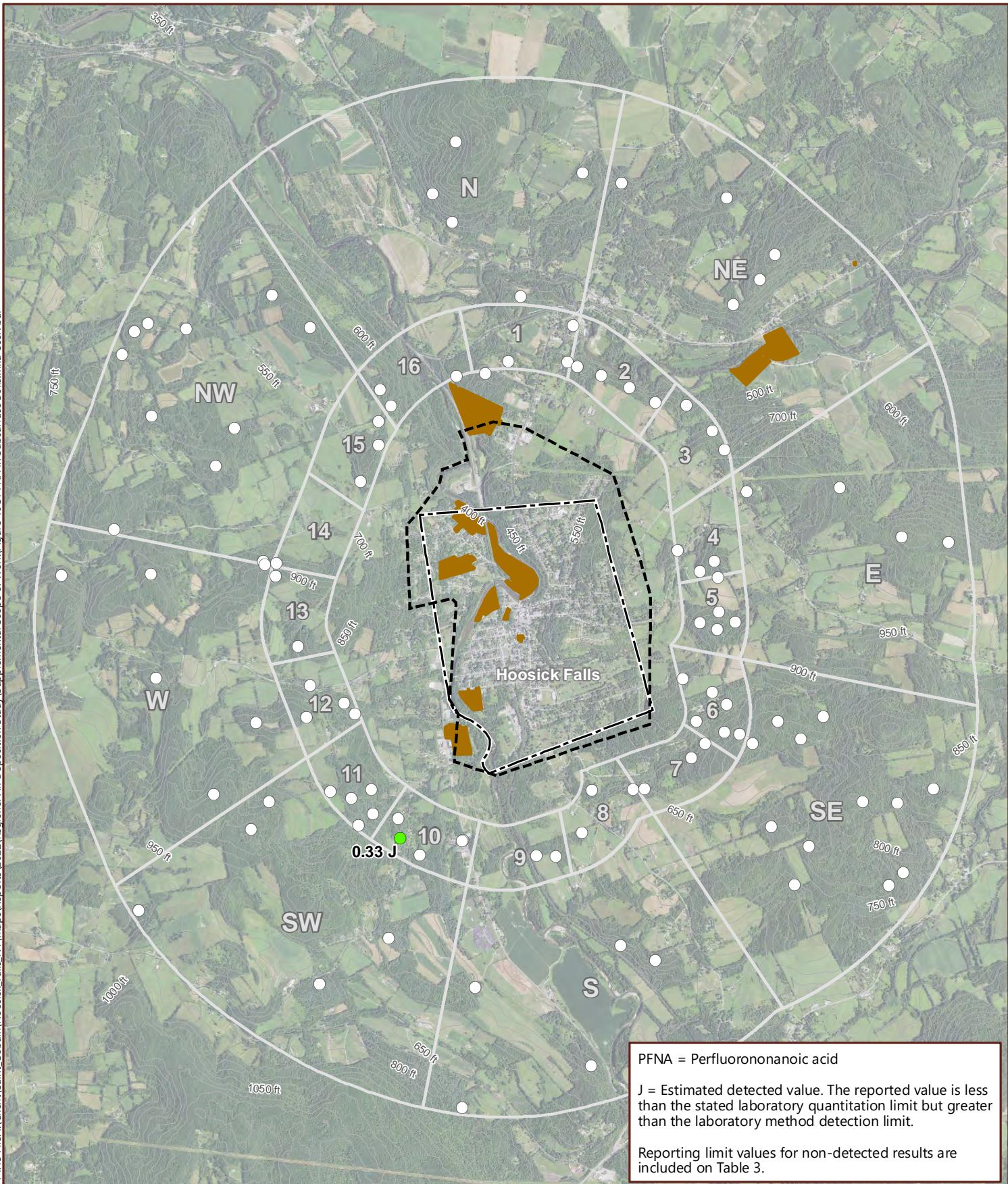
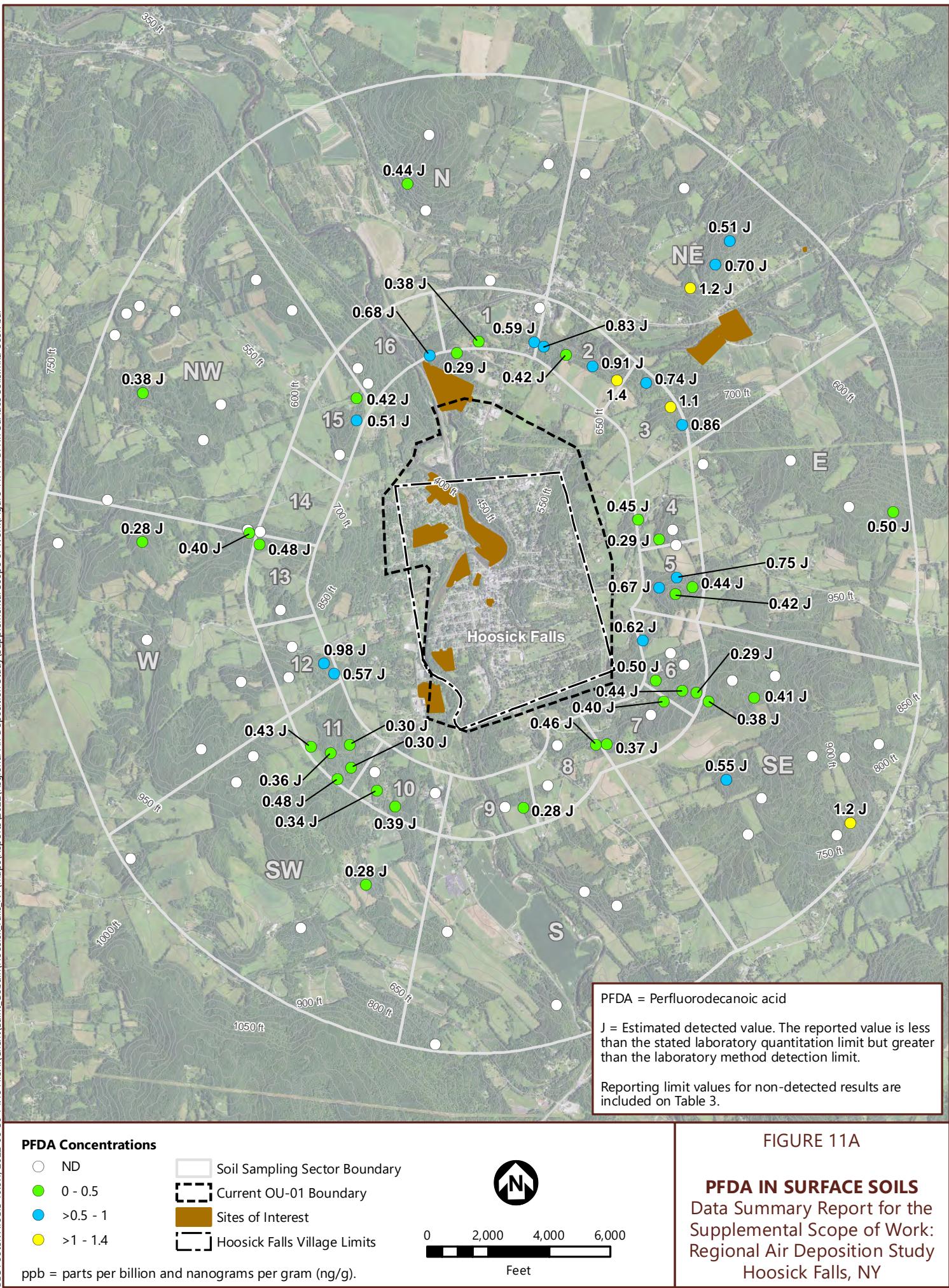
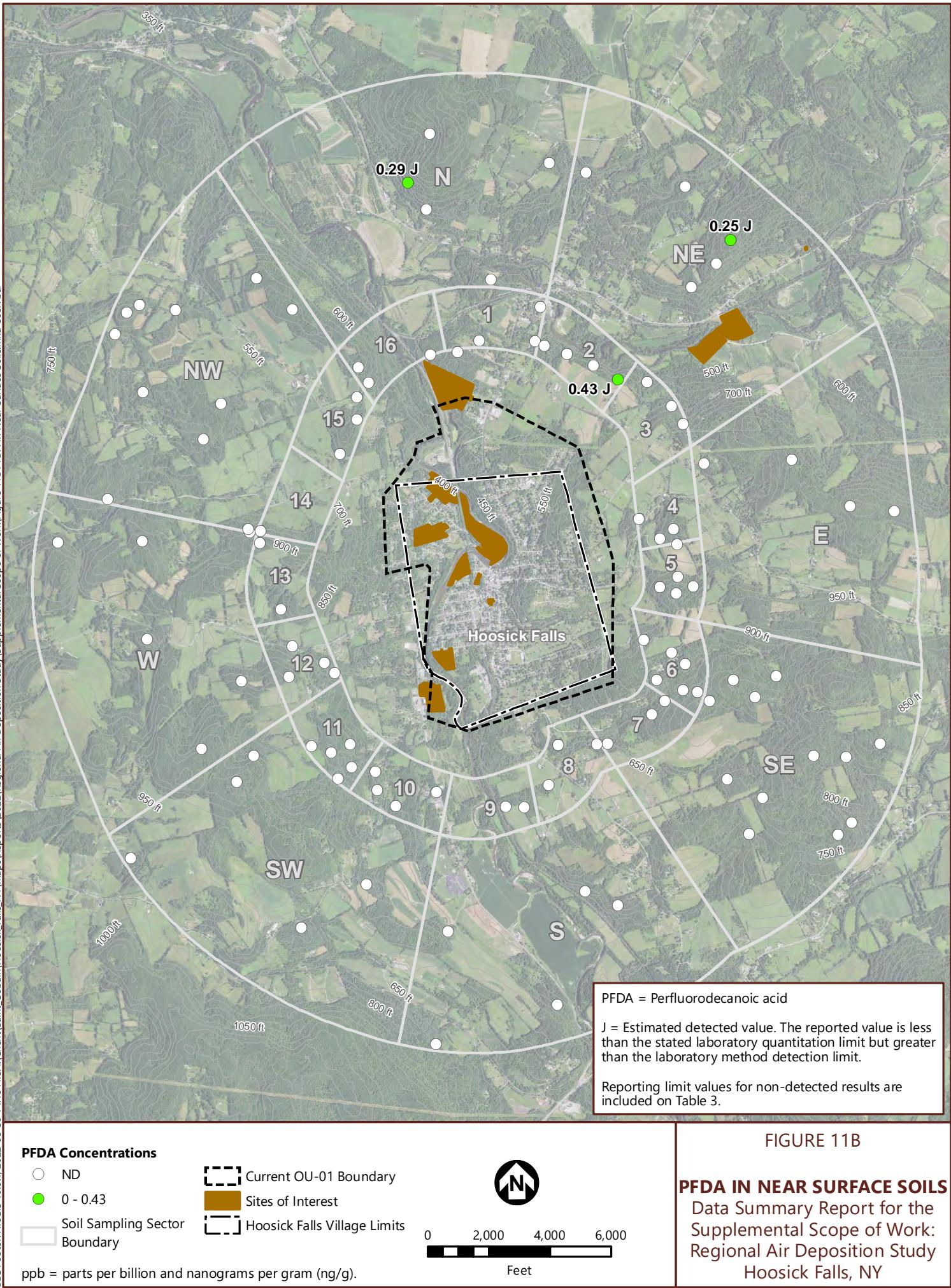
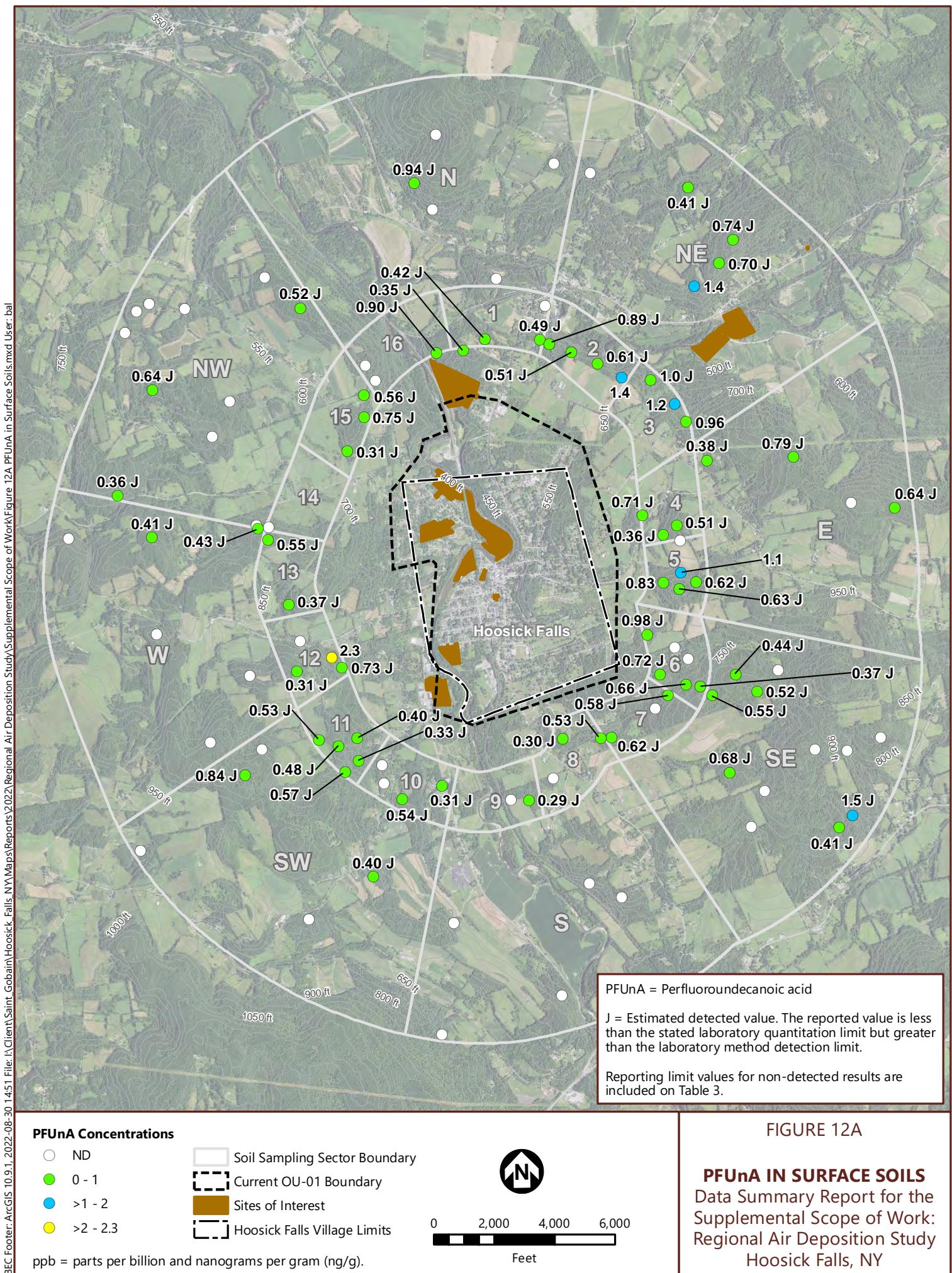


FIGURE 10C

PFNA IN SUBSURFACE SOILS
Data Summary Report for the
Supplemental Scope of Work:
Regional Air Deposition Study
Hoosick Falls, NY







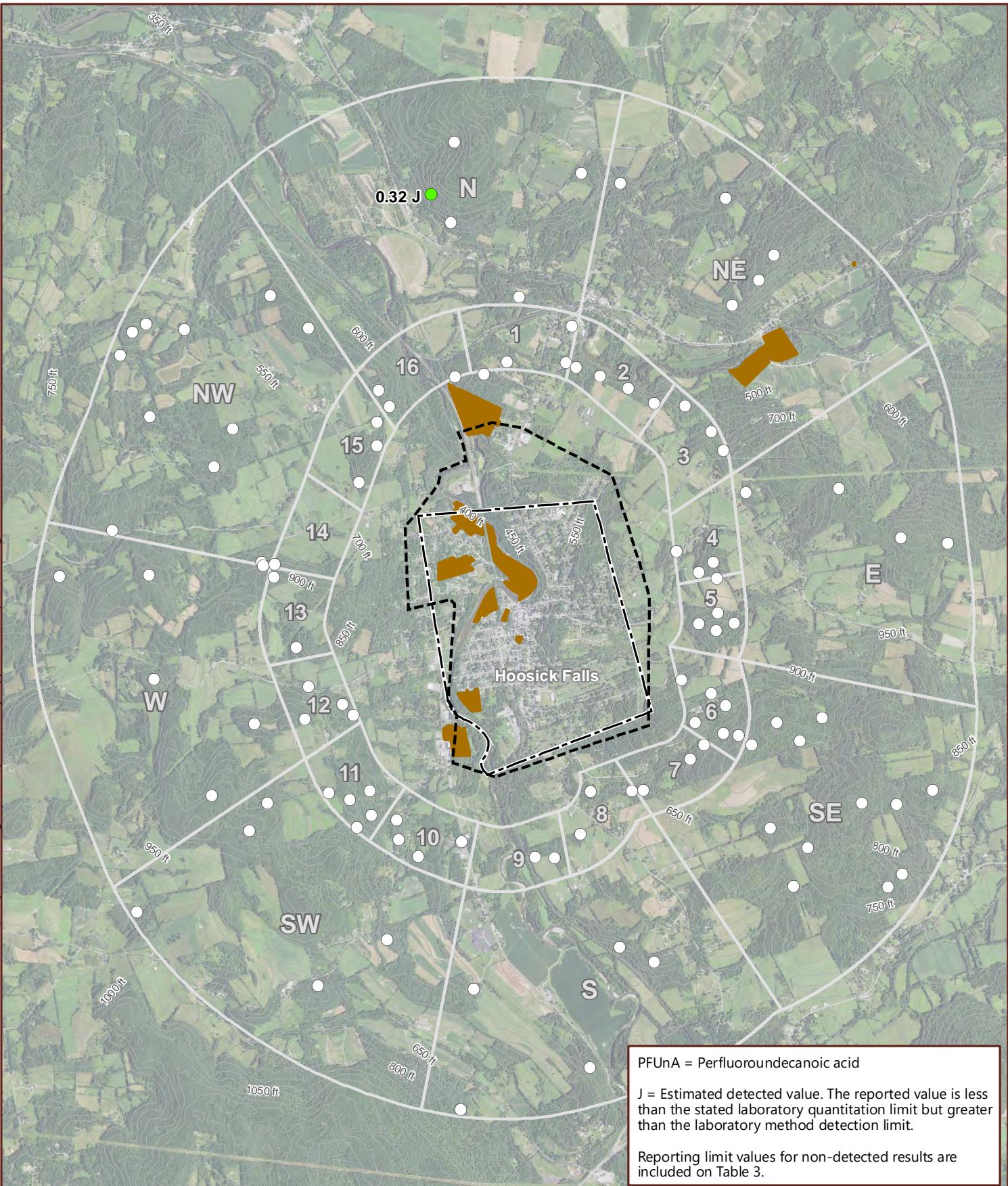
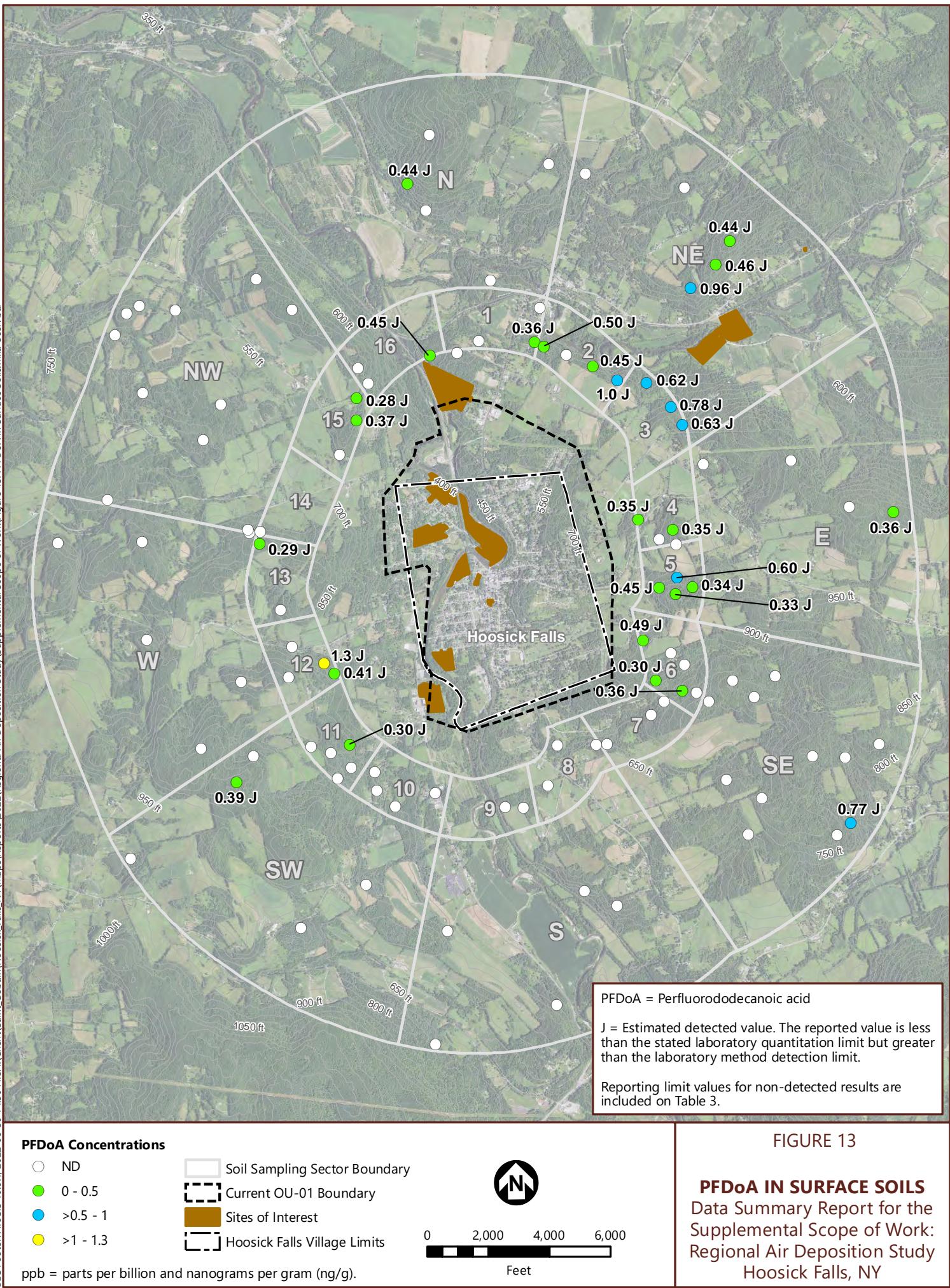
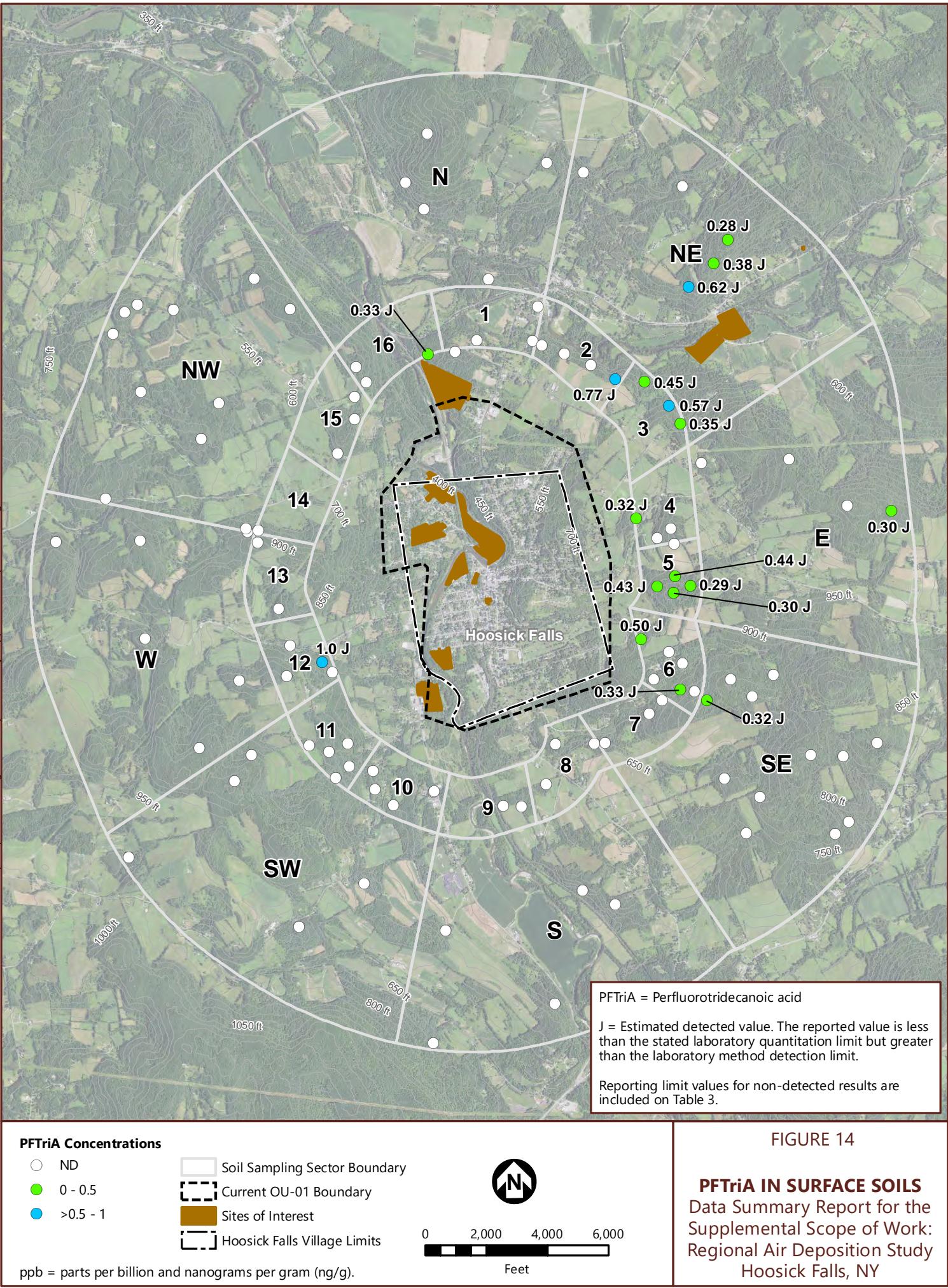


FIGURE 12B

PFUnA IN NEAR SURFACE SOILS
Data Summary Report for the
Supplemental Scope of Work:
Regional Air Deposition Study
Hoosick Falls, NY





Tables

Table 1: Supplemental Phase Sample Location Summary

Supplemental Scope Data Summary Report

Regional Air Deposition Study

Village of Hoosick Falls, New York

Sample Location	Sampling Date	Elevation (meters AMSL)	Elevation (ft AMSL)	Longitude	Latitude	Topography	Location on Slope	Village Facing?	Tree Cover	Tree Type	Field Observations / Comments
E12	11/15/21	381.76	1252.48	-73.307536	42.907037	Flat	N/A	Partial	50%	Deciduous	Refusal at 18 inches.
E15	11/9/21	359.20	1178.47	-73.302119	42.906497	Shallow slope	Top of slope	Yes	95%	Both ¹	
E19	12/20/21	312.79	1026.23	-73.314537	42.911279	Slope	Top of slope	Yes	50%	Deciduous	
E20	12/20/21	247.89	813.29	-73.325281	42.911166	Slope	Mid-slope	Yes	80%	Both ¹	Next to creek with abundant underbrush and rounded cobbles
N03	11/18/21	149.52	490.55	-73.35082	42.928064	Steep Slope	Mid-slope	No	95%	Both ¹	Steep slope with narrow path along ridge. Pine trees and many roots
N06	11/30/21	180.10	590.89	-73.343453	42.938387	Flat	N/A	No	95%	Both ¹	Down-slope of road. Several creeks nearby
N08-A	11/5/21	192.87	632.78	-73.360767	42.936828	Slope	Mid-slope	Partial	80%	Deciduous	Steep slope with many small outcrops
N08-B	11/5/21	165.50	542.97	-73.358571	42.93443	Slope	Mid-slope	Yes	75%	Deciduous	On top of large shale outcrop
N09	1/26/22	232.46	762.68	-73.358183	42.941214	Slope	Mid-slope	Yes	75%	Deciduous	Bear tracks in snow
NE07	5/16/22	211.26	693.13	-73.326262	42.926999	Slope	Top of slope	Yes	80%	Both ¹	
NE09-A	5/16/22	259.26	850.60	-73.321492	42.931242	Slope	Top of slope	Yes	85%	Both ¹	Heavily wooded, near large outcrop at top of hill
NE09-B	5/16/22	239.09	784.43	-73.323240	42.929128	Slope	Top of slope	No	90%	Both ¹	Trail along ridge from NE09-A. Sample location NW of trail
NE10	5/16/22	173.97	570.77	-73.326602	42.935975	Gradual slope	Mid-slope	Partial	70%	Both ¹	Down-slope of agricultural field
NE12	11/30/21	165.03	541.45	-73.338988	42.937462	Slope	Mid-slope	Yes	80%	Both ¹	Very steep slope. Many outcrops. Fast flowing creek down-slope of sampling location
NW02	11/15/21	236.83	777.00	-73.396844	42.923762	Slope	Mid-slope	Yes	85%	Deciduous	
NW06	1/26/22	192.80	632.53	-73.389411	42.925771	Slope	Mid-slope	Yes	75%	Deciduous	Trail from adjacent property leads to location. Stone wall on hillside nearby
NW07	1/25/22	231.82	760.56	-73.380095	42.928536	Slope	Mid-slope	Yes	90%	Both ¹	Several fallen trees in sampling area
NW11	1/25/22	248.72	816.02	-73.375022	42.925722	Slope	Top of slope	Yes	95%	Deciduous	
NW16	12/1/21	232.97	764.35	-73.3841	42.917367	Slope	Top of slope	Yes	70%	Deciduous	
NW17	12/1/21	269.77	885.09	-73.386314	42.914129	Slope	Top of slope	Yes	50%	Deciduous	
NW19	12/1/21	273.57	897.55	-73.381082	42.906018	Slope	Mid-slope	Partial	75%	Deciduous	
NW21	11/4/21	258.16	846.99	-73.398122	42.908968	Shallow slope	Mid-slope	Yes	85%	Deciduous	Refusal at 22.5 inches.
NW23	12/6/21	224.45	736.38	-73.393588	42.918499	Slope	Mid-slope	No	40%	Both ¹	Large patch of dead trees around sampling area. Stream downhill. Tree stands nearby
NW24	1/19/22	217.03	712.03	-73.393819	42.926367	Slope	Top of slope	Yes	95%	Deciduous	
NW25	1/19/22	254.00	833.35	-73.395436	42.925667	Slope	Top of slope	Yes	85%	Deciduous	
S01	11/15/21	143.18	469.75	-73.340805	42.872926	Slope	Mid-slope	Yes	75%	Deciduous	Heavily wooded, narrow trails leading toward sample location
S02	11/15/21	190.62	625.39	-73.336855	42.871603	Slope	Mid-slope	yes	60%	Deciduous	Refusal at 21.6 inches.
S06	12/6/21	235.86	773.80	-73.359422	42.859482	Shallow slope	Mid-slope	Yes	80%	Both ¹	Parked at trailer at end of long driveway, sample location up-slope of agricultural fields
S07	1/20/22	184.19	604.30	-73.357663	42.869534	Slope	Mid-slope	Partial	90%	Both ¹	Down-slope of forested area, next to drivable path
S09	6/2/22	159.39	522.93	-73.344975	42.863312	Slope	Mid-slope	Yes	75%	Deciduous	
SE01	11/8/21	255.70	838.93	-73.325176	42.889795	Flat	Top of slope	Partial	75%	Deciduous	
SE02	11/8/21	260.32	854.05	-73.322234	42.891624	Flat	Top of slope	Partial	75%	Deciduous	
SE03-A	11/8/21	275.85	905.01	-73.319596	42.890091	Flat	Top of slope	Partial	80%	Deciduous	
SE03-B	11/8/21	265.05	869.59	-73.316979	42.891925	Flat	Top of slope	Partial	65%	Deciduous	
SE09	11/23/21	295.66	970.02	-73.312647	42.884665	Slope	Top of slope	No	80%	Deciduous	Hunting camp. Thick briars at base of hill. Sample location at summit
SE10	5/18/22	249.25	817.74	-73.323106	42.882737	Slope	Mid-slope	Yes	70%	Both ¹	
SE11	11/23/21	257.66	845.35	-73.318897	42.880976	Slope	Mid-slope	Yes	90%	Deciduous	Hunting camp. Sample location uphill near shooting range
SE12	11/23/21	219.77	721.02	-73.320652	42.877752	Slope	Mid-slope	No	90%	Deciduous	Hunting camp. Sample location downhill of agricultural field next to tree stand
SE13-A	5/18/22	262.16	860.11	-73.309912	42.877561	Slope	Mid-slope	Partial	60%	Deciduous	Up-slope of animal pastures. Electric fences and cow pens extend into woods. Sample location near trail
SE13-B	5/18/22	225.39	739.46	-73.308196	42.878638	Slope	Mid-slope	Partial	70%	Deciduous	Dense forest
SE14	11/16/21	285.91	938.03	-73.304439	42.885632	Slope	Mid-slope	No	50%	Deciduous	Up-slope of animal pastures
SE15	11/23/21	266.90	875.66	-73.308604	42.884513	Slope	Bottom of Slope	Yes	85%	Deciduous	Hunting camp. Thick briars at base of hill. Sample location at summit
SW02-A	11/11/21	375.54	1232.10	-73.383066	42.883361	Flat	Top of slope	Partial	80%	Deciduous	Refusal at 16 inches. ATV/truck trail through woods. Many small outcrops and stone walls. Large swamp and creek near W-16 spring
SW02-B	11/11/21	313.67	1029.10	-73.380911	42.885639	Slope	Mid-slope	Partial	75%	Deciduous	ATV/truck trail through woods. Many small outcrops and stone walls
SW03	12/20/21	276.17	906.08	-73.375524	42.870125	Slope	Mid-slope	Yes	85%	Both ¹	Dense forest. Lots of small outcrops or boulders
SW07	1/20/22	239.65	786.24	-73.367442	42.873931	Slope	Top of slope	Yes	80%	Both ¹	
SW12	11/17/21	253.66	832.23	-73.396125	42.876766	Flat	Mid-slope	No	95%	Both ¹	Corn fields nearby. Dead turkey and 2 dead deer found near sampling area - large predator
W01	11/30/21	245.19	804.42	-73.404293	42.905151	Slope	Mid-slope	Partial	90%	Deciduous	Refusal at 21.5 inches. Many outcrops all over hillside
W06	11/9/21	296.11	971.50	-73.394049	42.905098	Flat	Top of slope	Partial	75%	Deciduous	
W12	11/4/21	299.95	984.09	-73.393653	42.896302	Flat	Top of slope	yes	80%	Deciduous	Up-slope of small agricultural field
W13	11/17/21	303.35	995.23	-73.382272	42.892379	Slope	Mid-slope	Partial	90%	Both ¹	Electric fence in woods with fallen tree limbs
W16	11/11/21	341.32	1119.81	-73.387287	42.886409	Slope	Mid-slope	No	85%	Both ¹	

Notes:

¹ Both indicates the presence of deciduous and coniferous tree types

ft AMSL = feet above mean sea level

N/A = not applicable

-- = no data

ATV = all-terrain vehicle

Table 2: Soil Sample Descriptions (Supplemental Phase)

Supplemental Scope Data Summary Report

Regional Air Deposition Study

Village of Hoosick Falls, New York

Sample Location	Sample Depth (feet)	Soil Description*	Soil Type
E12	0 - 0.17 ft	Dark Brown SILT, Some Organics, trace fine to coarse sub-angular gravel	SILT
	0.17 - 1 ft	Brown SILT and CLAY, little organics, trace fine to coarse angular gravel	SILT and CLAY
	1 - 1.5 ft	Gray fine to coarse angular GRAVEL, little brown silt, trace organics	GRAVEL
E15	0 - 0.17 ft	Dark Brown SILT, Some Organics, trace brown clay	SILT
	0.17 - 1 ft	Brown SILT, Some fine to coarse angular Gravel, trace organics, trace clay	SILT
	1 - 2 ft	Brown SILT and angular fine to coarse GRAVEL, trace organics	SILT and GRAVEL
E19	0 - 0.17 ft	Dark Brown SILT, Some Organics, trace clay	SILT
	0.17 - 1 ft	Brown coarse SAND, Some medium Sand and fine angular Gravel, occasional cobble	SAND
	1 - 2 ft	Grayish Brown coarse SAND and fine angular GRAVEL (shale), frequent cobble	SAND and GRAVEL
E20	0 - 0.17 ft	0-1" Dark Brown SILT, Some Organics, trace clay; 1-2" Brown medium and coarse SAND, Some fine Gravel	SILT and SAND
	0.17 - 1 ft	Light Brown fine SAND and SILT, Some medium and coarse Sand and Gravel, occasional cobble	SILT and SAND
	1 - 2 ft	Brown coarse SAND and fine and coarse semi-angular GRAVEL, Some fine Sand and Silt, occasional cobble	SAND and GRAVEL
NE07	0 - 0.17 ft	Dark Brown medium SAND, Some fine and coarse Sand and Organics, little silt (Topsoil)	SAND
	0.17 - 1 ft	Light Brown medium and fine SAND, Some Silt and coarse Gravel, little clay and coarse sand	SAND
	1 - 2 ft	Light Brown medium and coarse SAND, Some Gravel and fine Sand, little silt, trace clay	SAND
NE09-A	0 - 0.17 ft	Dark Brown SILT, trace organics and brown clay	SILT
	0.17 - 1 ft	Brown SILT, little fine gravel and organics, trace brown clay	SILT
	1 - 2 ft	Light Brown CLAY, little light brown silt, trace fine to coarse gravel	CLAY
NE09-B	0 - 0.17 ft	Dark Brown fine and medium SAND, Some Silt and Organics, little coarse sand (Topsoil)	SAND
	0.17 - 1 ft	Light Brown fine and medium SAND, Some Silt, trace clay and gravel	SAND
	1 - 2 ft	Light Brown fine and medium SAND, Some Silt, trace coarse sand and gravel	SAND
NE10	0 - 0.17 ft	Dark Brown SILT, little organics, trace brown clay	SILT
	0.17 - 1 ft	Dark Brown SILT, little fine angular gravel, trace light brown clay and organics	SILT
	1 - 2 ft	Brown SILT, Some fine to coarse gravel, little fine to coarse sand	SILT
NE12	0 - 0.17 ft	Dark Brown SILT, Some Organics, trace clay	SILT
	0.17 - 1 ft	Light Brown fine SAND and SILT, Some medium Sand and Clay, Some Organics	SAND and SILT
	1 - 2 ft	Light Brown fine SAND and SILT, Some medium Sand, little clay, trace organics	SAND and SILT
N03	0 - 0.17 ft	Dark Brown SILT, Some Organics, trace clay	SILT
	0.17 - 1 ft	Dark Brown Fine and Medium SAND, little silt; slight pine odor	SAND
	1 - 2 ft	Brown Fine SAND, Some medium Sand and Silt, trace clay; slight pine odor	SAND
N06	0 - 0.17 ft	Dark Brown SILT, Some Organics, trace clay; pine odor	SILT
	0.17 - 1 ft	Light Brown fine to coarse SAND, Some Silt and Organics	SAND
	1 - 2 ft	Light Brown fine and medium SAND and SILT, Some Clay, little fine gravel	SAND and SILT
N08-A	0 - 0.17 ft	Dark Brown SILT, Some Organics, trace clay	SILT
	0.17 - 1 ft	2-6" Dark Brown SILT, Some Organics, trace clay; 6-12" Light Brown fine to coarse SAND, Some Silt, little clay	SILT
	1 - 2 ft	Light Brown fine and medium SAND, Some coarse Sand and Silt, little clay	SAND
N08-B	0 - 0.17 ft	Dark Brown SILT, Some Organics, trace clay, frequent cobbles	SILT
	0.17 - 1 ft	2-5" Dark Brown SILT, Some Organics, trace clay; 5-12" Light Brown fine to coarse SAND, little silt	SILT and SAND
	1 - 2 ft	Light Brown fine to coarse SAND, Some Silt, little clay; Possible Bedrock at 24"	SAND
N09	0 - 0.17 ft	Dark Brown SILT, Some Organics, trace clay; Frozen	SILT
	0.17 - 1 ft	Light Brown medium and coarse SAND, Some fine Sand and fine Gravel, trace silt	SAND
	1 - 2 ft	Light Brown fine and medium SAND, Some Silt, little coarse Sand	SAND
NW02	0 - 0.17 ft	Brown SILT, little organics, trace fine to coarse sub-rounded gravel	SILT
	0.17 - 1 ft	Light Brown CLAY, Some brown Silt, little fine to coarse sub-rounded gravel, trace organics	CLAY
	1 - 2 ft	Light Brown CLAY, Some brown Silt, Some fine to coarse sub-angular Gravel, trace organics	CLAY
NW06	0 - 0.17 ft	Brown SILT, Some Organics, trace clay and coarse gravel; Frozen	SILT
	0.17 - 1 ft	Brown SILT, Some brown fine to coarse sand, trace brown clay and coarse angular gravel; Frozen	SILT
	1 - 2 ft	Brown SILT, little brown fine to coarse sand, trace fine to coarse angular gravel and clay	SILT
NW07	0 - 0.17 ft	Dark Brown SILT, Some Organics, trace clay; Frozen	SILT
	0.17 - 1 ft	Brown SILT, little brown fine to coarse sand, trace fine angular gravel and clay	SILT
	1 - 2 ft	Brown SILT, Some brown Clay, little fine to coarse sand, trace fine to coarse gravel	SILT
NW11	0 - 0.17 ft	Dark Brown SILT, Some Organics, trace clay; Frozen	SILT
	0.17 - 1 ft	Light Brown medium and coarse SAND, Some fine Gravel and fine Sand, little organics, occasional cobble	SAND
	1 - 2 ft	Gray Brown medium SAND, Some fine and coarse Sand, trace silt and fine gravel	SAND
NW16	0 - 0.17 ft	Dark Brown SILT, Some Organics, trace clay	SILT
	0.17 - 1 ft	Brown medium and coarse SAND, Some coarse angular Gravel, little fine sand and silt	SAND
	1 - 2 ft	Light Brown Fine SAND and SILT, Some medium and coarse Sand and coarse Gravel, unsorted	SAND and SILT
NW17	0 - 0.17 ft	Dark Brown SILT, Some Organics, trace clay	SILT
	0.17 - 1 ft	2-4" Dark Brown SILT, Some Organics, trace clay; 4-12" Light Brown fine SAND and SILT, Some coarse Gravel	SILT and SAND
	1 - 2 ft	Brown Angular Coarse GRAVEL and Coarse SAND, little medium and fine sand, Gravel (possibly weathered bedrock)	GRAVEL and SAND
NW19	0 - 0.17 ft	Dark Brown SILT, Some Organics, trace clay	SILT
	0.17 - 1 ft	Light Brown fine and medium SAND and SILT, little organics, trace gravel, occasional cobble	SAND and SILT
	1 - 2 ft	Light Brown fine to coarse SAND, Some Silt, little fine gravel, occasional cobble	SAND
NW21	0 - 0.17 ft	Dark Brown SILT, Some Organics, trace clay	SILT
	0.17 - 1 ft	Light Brown and Purplish Gray fine to coarse SAND, Some Silt, trace clay, occasional cobble	SAND
	1 - 1.88 ft	Light Brown and Purplish Gray fine and medium SAND, Some Silt, little clay, occasional cobble; Possible Bedrock at 22.5" (Purplish Gray Shale)	SAND
NW23	0 - 0.17 ft	Dark Brown SILT, Some Organics, trace clay; very faint pine odor	SILT
	0.17 - 1 ft	Brown and Light Brown (mottled) fine SAND and SILT, Some Clay, little coarse angular gravel, frequent thick roots	SAND and SILT
	1 - 2 ft	Brown coarse SAND and fine and coarse semi-angular GRAVEL, Some fine Sand and Silt, occasional cobble	SAND and GRAVEL
NW24	0 - 0.17 ft	Dark Brown SILT, Some Organics, trace clay	SILT
	0.17 - 1 ft	Brown medium and coarse SAND, Some fine Sand and Organics, little silt and coarse gravel	SAND
	1 - 2 ft	Brown fine SAND and SILT, Some Clay and medium Sand, trace organics	SAND and SILT

Table 2: Soil Sample Descriptions (Supplemental Phase)

Supplemental Scope Data Summary Report

Regional Air Deposition Study

Village of Hoosick Falls, New York

Sample Location	Sample Depth (feet)	Soil Description*	Soil Type
NW25	0 - 0.17 ft	Dark Brown SILT, Some Organics, trace clay	SILT
	0.17 - 1 ft	Brown coarse SAND, Some medium Sand and Gravel, little fine sand and silt	SAND
	1 - 2 ft	Brown fine and medium SAND, Some coarse Sand and fine to coarse Gravel, little Silt	SAND
S01	0 - 0.17 ft	Dark Brown SILT, Some Organics, trace brown clay	SILT
	0.17 - 1 ft	Dark Brown SILT and Brown CLAY, little organics, trace fine to coarse angular gravel	SILT and CLAY
	1 - 2 ft	Fine to coarse angular GRAVEL, little brown clay, trace brown silt	GRAVEL
S02	0 - 0.17 ft	Brown SILT, Some Organics, little fine to coarse angular gravel, trace clay	SILT
	0.17 - 1 ft	Brown CLAY, Some brown Silt, little fine to coarse angular gravel, trace organics	CLAY
	1 - 1.8 ft	Gray fine to coarse angular GRAVEL, Some brown Silt, trace brown clay, trace organics	GRAVEL
S06	0 - 0.17 ft	Dark Brown SILT, Some Organics, trace clay	SILT
	0.17 - 1 ft	Light Brown fine and medium SAND, Some coarse Sand and Silt, little fine gravel, occasional cobble; Pine Odor	SAND
	1 - 2 ft	Brown fine SAND and SILT, Some Clay and coarse Gravel, occasional cobble	SAND and SILT
S07	0 - 1.7 ft	Dark Brown SILT, Some Organics (rootlets and pine needles), trace clay	SILT
	0.17 - 1 ft	Brown medium SAND, Some fine and coarse Sand, little coarse gravel, little organics (roots)	SAND
	1 - 2 ft	Brown medium and fine SAND, Some Silt, little clay	SAND
S09	0 - 0.17 ft	Dark Brown fine SAND and SILT, little clay, trace medium sand and organics (Topsoil)	SAND and SILT
	0.17 - 1 ft	Brown fine and medium SAND, Some Silt, little organics, trace coarse gravel and clay	SAND
	1 - 2 ft	Brown fine and medium SAND, Some fine Gravel and coarse Sand, little coarse gravel	SAND
SE01	0 - 0.17 ft	Dark Brown SILT, Some Organics, trace semi-angular fine gravel	SILT
	0.17 - 1 ft	Light Brown SILT, Some light brown Clay, trace coarse rounded gravel, trace organics	SILT
	1 - 2 ft	Brown SILT, little fine to coarse gravel, trace clay, trace organics	SILT
SE02	0 - 0.17 ft	Dark Brown SILT, Some Organics, trace clay, trace gravel	SILT
	0.17 - 1 ft	Light Brown SILT, little clay, trace coarse angular gravel, trace organics	SILT
	1 - 2 ft	Light Brown SILT, Some brown Clay, trace fine to coarse gravel, trace organics	SILT
SE03-A	0 - 0.17 ft	Dark Brown SILT, little organics, trace brown clay	SILT
	0.17 - 1 ft	Dark Brown CLAY, Some brown Silt, trace organics, trace coarse angular gravel	CLAY
	1 - 2 ft	Light Brown SILT, Some brown Silt, trace coarse angular gravel, trace organics	SILT
SE03-B	0 - 0.17 ft	Dark Brown CLAY, Some Silt, little organics	CLAY
	0.17 - 1 ft	Light Brown CLAY, little brown silt, trace coarse brown angular gravel, trace organics	CLAY
	1 - 2 ft	Light Brown CLAY, little fine angular gravel, trace organics	CLAY
SE09	0 - 0.17 ft	Brown SILT, Some Organics, trace clay	SILT
	0.17 - 1 ft	Light Brown fine and medium SAND, Some Silt, little clay and coarse sand	SAND
	1 - 2 ft	Light Brown fine SAND and SILT, Some Clay, little coarse sand	SAND and SILT
SE10	0 - 0.17 ft	Brown SILT, Some Organics, trace brown clay, trace coarse angular gravel	SILT
	0.17 - 1 ft	Brown CLAY, Some fine to coarse angular Gravel, trace brown silt and organics	CLAY
	1 - 2 ft	Brown SILT, Some fine to coarse angular Gravel, little clay, trace organics	SILT
SE11	0 - 0.17 ft	Dark Brown SILT, Some Organics, trace clay	SILT
	0.17 - 1 ft	Light Brown fine and medium SAND, Some Silt and Organics	SAND
	1 - 2 ft	Light Brown fine SAND and SILT, Some Clay, trace gravel	SAND and SILT
SE12	0 - 0.17 ft	Dark Brown SILT, Some Organics, trace clay	SILT
	0.17 - 1 ft	Light Brown fine and medium SAND and SILT, little coarse sand and clay	SAND and SILT
	1 - 2 ft	Light Brown fine to coarse SAND, Some Silt, little gravel and clay	SAND
SE13-B	0 - 0.17 ft	ORGANICS, Some brown Silt, trace coarse to fine angular gravel	ORGANICS
	0.17 - 1 ft	Light Brown CLAY, little brown silt, trace fine gravel and organics	CLAY
	1 - 2 ft	Light Brown CLAY, little fine to coarse angular gravel, trace organics	CLAY
SE13-A	0 - 0.17 ft	Dark Brown SILT, Some Organics, trace brown clay	SILT
	0.17 - 1 ft	Brown SILT, little fine to coarse angular gravel and organics, trace clay	SILT
	1 - 2 ft	Brown SILT and coarse angular GRAVEL, trace clay and organics	SILT and GRAVEL
SE14	0 - 0.17 ft	Brown SILT, Some Organics, trace clay, trace fine to coarse angular gravel	SILT
	0.17 - 1 ft	Light Brown SILT, Some light brown Clay, trace fine to coarse angular gravel, trace organics	SILT
	1 - 2 ft	Light Brown CLAY, Some brown Silt, little fine to coarse angular gravel, trace organics	CLAY
SE15	0 - 0.17 ft	0-1" Dark Brown SILT, Some Organics, trace clay; 1-2" Light Brown fine to coarse SAND	SILT and SAND
	0.17 - 1 ft	Light Brown fine SAND and SILT, Some Clay, little medium sand	SAND and SILT
	1 - 2 ft	Light Brown fine SAND and SILT, Some Clay, little medium sand and gravel	SAND and SILT
SW02-A	0 - 0.17 ft	Dark Brown SILT, Some Organics, trace clay	SILT
	0.17 - 1 ft	Brown medium and coarse SAND, Some Organics, little fine gravel, trace silt	SAND
	1 - 1.33 ft	Light Brown fine to coarse SAND, Some fine Gravel (gray shale); Refusal at 16" on possible bedrock.	SAND
SW02-B	0 - 0.17 ft	Dark Brown SILT, Some Organics, trace clay	SILT
	0.17 - 1 ft	Light Brown fine to coarse SAND and SILT, trace clay	SAND
	1 - 2 ft	Light Brown fine to coarse SAND, Some Silt, little fine gravel	SAND
SW03	0 - 0.17 ft	Dark Brown SILT, Some Organics, trace clay	SILT
	0.17 - 1 ft	Light Brown fine and medium SAND, Some Silt, trace clay	SAND
	1 - 2 ft	Light Brown fine to coarse SAND and SILT, Some coarse Gravel, trace silt	SAND and SILT
SW07	0 - 0.17 ft	Dark Brown SILT, Some Organics, trace clay	SILT
	0.17 - 1 ft	Light Brown fine SAND and SILT, Some medium Sand and Clay, trace fine gravel	SAND and SILT
	1 - 2 ft	Light Brown coarse SAND and GRAVEL, little fine and medium sand, trace silt and clay	SAND and GRAVEL

Table 2: Soil Sample Descriptions (Supplemental Phase)

Supplemental Scope Data Summary Report

Regional Air Deposition Study

Village of Hoosick Falls, New York

Sample Location	Sample Depth (feet)	Soil Description*	Soil Type
SW12	0 - 0.17 ft	Dark Brown SILT, Some Organics, trace clay	SILT
	0.17 - 1 ft	Brown coarse SAND and fine GRAVEL, Some coarse Gravel and medium Sand	SAND and GRAVEL
	1 - 2 ft	Brown coarse SAND and fine GRAVEL (angular gray shale), Some medium Sand	SAND and GRAVEL
W01	0 - 0.17 ft	Dark Brown SILT, Some Organics, trace clay	SILT
	0.17 - 1 ft	Light Brown fine and medium SAND, Some coarse Sand, little silt, trace gravel	SAND
	1 - 1.8 ft	Light Brown fine SAND and SILT, little medium sand and clay, trace angular gravel (shale); Refusal at 21.5" on possible bedrock.	SAND and SILT
W06	0 - 0.17 ft	Dark Brown SILT, Some Organics, trace silt, trace angular gravel	SILT
	0.17 - 1 ft	Dark Brown SILT, Some brown Clay, trace coarse angular gravel, trace organics	SILT
	1 - 2 ft	Brown SILT, Some brown Clay, trace angular gravel, trace organics	SILT
W12	0 - 0.17 ft	Dark Brown medium SAND, Some Organics, little fine to coarse sand, grades to Light Brown	SAND
	0.17 - 1 ft	Light Brown fine SAND and SILT, little clay, trace coarse sand	SAND and SILT
	1 - 2 ft	Light Brown fine SAND and SILT, Some Clay, trace coarse sand	SAND and SILT
W13	0 - 0.17 ft	Dark Brown SILT, Some Organics, trace clay	SILT
	0.17 - 1 ft	Light Brown fine to coarse SAND, little silt, trace gravel	SAND
	1 - 2 ft	Light Brown fine to coarse SAND, Some Silt, little clay	SAND
W16	0 - 0.17 ft	Dark Brown SILT, Some Organics, trace clay	SILT
	0.17 - 1 ft	Brown fine to coarse SAND, little silt and clay	SAND
	1 - 2 ft	Light Brown fine and medium SAND and SILT, Some coarse Sand, trace gravel	SAND and SILT

Table 3: Supplemental Phase Analytical Results*

Supplemental Scope Data Summary Report

Regional Air Deposition Study

Village of Hoosick Falls, New York

Location											HF1-E12		HF1-E15			HF1-E19		
											Date	Depth	11/15/2021	11/15/2021	11/15/2021	11/09/2021	11/09/2021	11/09/2021
											Sample Type	Data Status	N	N	N	N	N	N
											Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated
	Parameter	Units	Guidance Values															
			Unrest.	Prot. of GW	Res.	Rest. Res.	Comm.	Ind.										
	General Parameters		Underline	Italic	Border	--	--	--										
	Carbon, total organic	mg/kg	--	--	--	--	--	--	82000	57000	11000	130000	21000	7200	360000	30000	9900	12000
	Moisture	%	--	--	--	--	--	--	46.0	34.9	18.0	37.2	15.0	9.4	69	20	11	9.3
	pH	pH units	--	--	--	--	--	--	4.7	5.2	5.3	4.4 J	5.2 J	5.7	4.6	4.1	5.3	5.3
PFAS Group	Per- and Polyfluoroalkyl Substances																	
PFSAs	Perfluorooctanesulfonic acid (PFOS)	ng/g	0.88	3.7	8.8	44	440	440	1.2	0.88	< 0.24 U	1.4	0.35 J	< 0.21 U	< 0.62 U	0.32 J	< 0.21 U	< 0.20 U
PFCAs	Perfluorobutanoic acid (PFBA)	ng/g	--	--	--	--	--	--	< 1.4 U	< 1.2 U	< 0.97 U	< 1.2 U	< 0.86 U	< 0.84 U	< 2.5 U	< 0.92 U	< 0.84 U	< 0.82 U
	Perfluoropentanoic acid (PFPeA)	ng/g	--	--	--	--	--	--	< 0.34 U	< 0.29 U	< 0.24 U	0.35 J	0.22 J	< 0.21 U	< 0.62 U	< 0.23 U	< 0.21 U	< 0.20 U
	Perfluorohexanoic acid (PFHxA)	ng/g	--	--	--	--	--	--	0.43 J	< 0.29 U	< 0.24 U	0.69 J	0.35 J	< 0.21 U	< 0.62 U	< 0.23 U	< 0.21 U	< 0.20 U
	Perfluoroheptanoic acid (PFHpA)	ng/g	--	--	--	--	--	--	0.36 J	< 0.29 U	< 0.24 U	0.54 J	0.49 J	< 0.21 U	< 0.62 U	< 0.23 U	< 0.21 U	< 0.20 U
	Perfluoroctanoic acid (PFOA)	ng/g	0.66	1.1	6.6	33	500	600	2.9	4.1	2.6	4.3	5.9	2.0	< 0.62 U	1.6	2.9	2.2
	Perfluorononanoic acid (PFNA)	ng/g	--	--	--	--	--	--	0.47 J	< 0.29 U	< 0.24 U	0.56 J	< 0.21 U	< 0.21 U	< 0.62 U	0.29 J	< 0.21 U	< 0.20 U
	Perfluorodecanoic acid (PFDA)	ng/g	--	--	--	--	--	--	< 0.34 U	< 0.29 U	< 0.24 U	0.50 J	< 0.21 U	< 0.21 U	< 0.62 U	< 0.23 U	< 0.21 U	< 0.20 U
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	ng/g	--	--	--	--	--	--	< 0.34 U	< 0.29 U	< 0.24 U	0.64 J	< 0.21 U	< 0.21 U	0.79 J	< 0.23 U	< 0.21 U	< 0.20 U
	Perfluorododecanoic acid (PFDoA / PFDoDA)	ng/g	--	--	--	--	--	--	< 0.34 U	< 0.29 U	< 0.24 U	0.36 J	< 0.21 U	< 0.21 U	< 0.62 U	< 0.23 U	< 0.21 U	< 0.20 U
	Perfluorotridecanoic acid (PFTrDA / PFTriA)	ng/g	--	--	--	--	--	--	< 0.34 U	< 0.29 U	< 0.24 U	0.30 J	< 0.21 U	< 0.21 U	< 0.62 U	< 0.23 U	< 0.21 U	< 0.20 U
FASAA	Perfluorotetradecanoic acid (PFTA / PFTeDA / PFTeA)	ng/g	--	--	--	--	--	--	< 0.34 U	< 0.29 U	< 0.24 U	< 0.30 U	< 0.21 U	< 0.21 U	< 0.62 U	< 0.23 U	< 0.21 U	< 0.20 U
	n-Ethyl perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ng/g	--	--	--	--	--	--	< 0.34 U	< 0.29 U	< 0.24 U	< 0.30 U	< 0.21 U	< 0.21 U	< 0.62 U	< 0.23 U	< 0.21 U	< 0.20 U
FASAA	n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)	ng/g	--	--	--	--	--	--	< 0.34 U	< 0.29 U	< 0.24 U	< 0.30 U	< 0.21 U	< 0.21 U	< 0.62 U	< 0.23 U	< 0.21 U	< 0.20 U

Notes:

*Results are included for analytes that were detected.

** Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan

Detections are presented in bold.

N - Sample type: Normal

FD - Sample type: Field Duplicate

mg/kg - milligram per kilogram

ng/g - nanogram per gram

J - Estimated detected value. The reported value is less than the stated laboratory quantitation

R - The data are unusable. The samples results are rejected due to serious deficiencies in

U - The analyte was analyzed for, but was not detected.

UJ - The analyte was analyzed for, but not detected. The reported value is approximate and may be inaccurate or imprecise.

FASAs - perfluoroalkane sulfonamides

FASAA - perfluoroalkane sulfonamidoacetic acids

FTSAs - fluorotelomer sulfonic acids

PFAS - per- and polyfluoroalkyl substances

PFCAs - perfluoroalkyl carboxylic acids

PFSAs - perfluoroalkane sulfonic acids

N-EtFOSAA - n-Ethyl perfluorooctanesulfonamidoacetic acid

¹ Guidance values form NYSDEC Sampling, Analysis and Assessment for PFAS (NYSDEC, 2021b)

Table 3: Supplemental Phase Analytical Results*

Supplemental Scope Data Summary Report

Regional Air Deposition Study

Village of Hoosick Falls, New York

Location										HF1-E20			HF1-NE07			HF1-NE09-A			HF1-NE09-B			
										Date	0 - 0.17 ft	12/20/2021	12/20/2021	12/20/2021	5/16/2022	5/16/2022	5/16/2022	5/16/2022	5/16/2022	5/16/2022	5/16/2022	5/16/2022
										Depth	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	N	N	N	N	N	N	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft
										Sample Type	N	N	N	Validated	Validated	Validated	Validated	Validated	Validated	N	N	N
										Data Status	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated
	Parameter	Units	Guidance Values																			
			Unrest.	Prot. of GW	Res.	Rest. Res.	Comm.	Ind.														
	General Parameters	Underline	<i>Italic</i>	Border	--	--	--															
	Carbon, total organic	mg/kg	--	--	--	--	--	--	51000	10000	3400	190000	20000	5700	53000	18000	4700	60000	8600	7700		
	Moisture	%	--	--	--	--	--	--	30	18	14	56 J	15 J	9.0 J	31 J	21 J	15 J	31 J	13 J	15 J		
	pH	pH units	--	--	--	--	--	--	5.7	5.9	5.7	4.4	4.6	4.5	4.6	4.6	4.5	5.1	5.0	4.9		
PFAS Group	Per- and Polyfluoroalkyl Substances																					
PFSAs	Perfluorooctanesulfonic acid (PFOS)	ng/g	<u>0.88</u>	3.7	8.8	44	440	440	< 0.28 U	< 0.22 U	< 0.23 U	1.7	0.38 J	< 0.21 U	0.65 J	0.57 J	< 0.22 U	0.87	< 0.21 U	< 0.22 U		
PFCAs	Perfluorobutanoic acid (PFBA)	ng/g	--	--	--	--	--	--	< 1.1 U	< 0.88 U	< 0.91 U	< 1.7 U	< 0.91 U	< 0.84 U	< 1.1 U	< 0.99 U	< 0.90 U	< 1.1 U	< 0.83 U	< 0.88 U		
	Perfluoropentanoic acid (PFPeA)	ng/g	--	--	--	--	--	--	< 0.28 U	< 0.22 U	< 0.23 U	< 0.42 U	< 0.23 U	< 0.21 U	< 0.27 U	0.29 J	< 0.22 U	< 0.27 U	0.24 J	< 0.22 U		
	Perfluorohexanoic acid (PFHxA)	ng/g	--	--	--	--	--	--	< 0.28 U	< 0.22 U	< 0.23 U	< 0.42 U	< 0.23 U	< 0.21 U	< 0.27 U	< 0.25 U	< 0.22 U	< 0.27 U	< 0.21 U	0.33 J		
	Perfluoroheptanoic acid (PFHpA)	ng/g	--	--	--	--	--	--	< 0.28 U	< 0.22 U	< 0.23 U	< 0.42 U	0.29 J	< 0.21 U	< 0.27 U	0.29 J	0.57 J	< 0.27 U	0.24 J	0.51 J		
	Perfluoroctanoic acid (PFOA)	ng/g	<u>0.66</u>	1.1	6.6	33	500	600	< 0.28 U	0.48 J	0.79	2.2	3.0	2.1	0.86	4.2	5.5	1.7	5.2	6.2		
	Perfluorononanoic acid (PFNA)	ng/g	--	--	--	--	--	--	< 0.28 U	< 0.22 U	< 0.23 U	0.49 J	< 0.23 U	< 0.21 U	< 0.27 U	0.25 J	< 0.22 U	0.33 J	< 0.21 U	< 0.22 U		
	Perfluorodecanoic acid (PFDA)	ng/g	--	--	--	--	--	--	< 0.28 U	< 0.22 U	< 0.23 U	1.2 J	< 0.23 U	< 0.21 U	0.51 J	0.25 J	< 0.22 U	0.70 J	< 0.21 U	< 0.22 U		
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	ng/g	--	--	--	--	--	--	0.38 J	< 0.22 U	< 0.23 U	1.4	< 0.23 U	< 0.21 U	0.74 J	< 0.25 U	< 0.22 U	0.70 J	< 0.21 U	< 0.22 U		
	Perfluorododecanoic acid (PFDaO / PFDaDA)	ng/g	--	--	--	--	--	--	< 0.28 U	< 0.22 U	< 0.23 U	0.96 J	< 0.23 U	< 0.21 U	0.44 J	< 0.25 U	< 0.22 U	0.46 J	< 0.21 U	< 0.22 U		
	Perfluorotridecanoic acid (PFTriDA / PFTriA)	ng/g	--	--	--	--	--	--	< 0.28 U	< 0.22 U	< 0.23 U	0.62 J	< 0.23 U	< 0.21 U	0.28 J	< 0.25 U	< 0.22 U	0.38 J	< 0.21 U	< 0.22 U		
	Perfluorotetradecanoic acid (PFTA / PFTeDA / PFTeA)	ng/g	--	--	--	--	--	--	< 0.28 U	< 0.22 U	< 0.23 U	0.48 J	< 0.23 U	< 0.21 U	< 0.27 U	< 0.25 U	< 0.22 U	0.33 J	< 0.21 U	< 0.22 U		
FASAAAs	n-Ethyl perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ng/g	--	--	--	--	--	--	< 0.28 U	< 0.22 U	< 0.23 U	< 0.42 U	< 0.23 U	< 0.21 U	< 0.27 U	< 0.25 U	< 0.22 U	< 0.27 U	< 0.21 U	< 0.22 U		
	n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)	ng/g	--	--	--	--	--	--	< 0.28 U	< 0.22 U	< 0.23 U	< 0.42 U	< 0.23 U	< 0.21 U	< 0.27 U	< 0.25 U	< 0.22 U	< 0.27 U	< 0.21 U	< 0.22 U		

Notes:

*Results are included for analytes that were detected.

** Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan

Detections are presented in bold.

N - Sample type: Normal

FD - Sample type: Field Duplicate

mg/kg - milligram per kilogram

ng/g - nanogram per gram

J - Estimated detected value. The reported value is less than the stated laboratory quantitation

R - The data are unusable. The samples results are rejected due to serious deficiencies in

U - The analyte was analyzed for, but was not detected.

UU - The analyte was analyzed for, but not detected. The reported value is approximate and may be inaccurate or imprecise.

FASAs - perfluoroalkane sulfonamides

FASAAAs - perfluoroalkane sulfonamido acetic acids

FTSAs - fluorotelomer sulfonic acids

PFAS - per- and polyfluoroalkyl substances

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PFSAs - perfluoroalkane sulfonic acids

N-EtFOSAA - n-Ethyl perfluorooctanesulfonamidoacetic acid

¹ Guidance values form NYSDEC Sampling, Analysis and Assessment for PFAS (NYSDEC, 2021b)

Table 3: Supplemental Phase Analytical Results*

Supplemental Scope Data Summary Report

Regional Air Deposition Study

Village of Hoosick Falls, New York

Location			Date	HF1-NE10				HFI-NE12				HF1-N03				HFI-N06								
				5/16/2022		Depth	5/16/2022		1 - 2 ft	11/30/2021		11/30/2021		11/30/2021		11/18/2021		11/18/2021						
				N	N		0.17 - 1 ft	0.17 - 1 ft		N	N	N	N	N	N	0.17 - 1 ft	0.17 - 1 ft	N						
				Data Status	Validated		Validated	Validated		Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated					
				Parameter	Units	Guidance Values																		
				General Parameters	Underline	Unrest.	Prot. of GW	Res.	Rest. Res.	Comm.	Ind.													
				Carbon, total organic	mg/kg	--	--	--	--	--	52000	22000	18000	2100	31000	10000	6800	36000	31000	20000	13000	75000	16000	5700
				Moisture	%	--	--	--	--	--	33 J	20 J	22 J	8.9 J	32.0	17.8	18.2	29.4	25.4	22.2	23.5	36.9	21.5	15.9
				pH	pH units	--	--	--	--	--	6.4	6.5	6.6	6.5	6.7	7.1	6.0	6.0	6.0	5.4	5.7	6.1	6.8	
				PFAS Group	Per- and Polyfluoroalkyl Substances																			
PFCAs	PFSAs	Perfluorooctanesulfonic acid (PFOS)	ng/g	<u>0.88</u>	3.7	8.8	44	440	440	0.60 J	< 0.24 U	< 0.24 U	< 0.20 U	< 0.27 U	< 0.23 U	< 0.24 U	0.58 J	0.84	0.29 J	< 0.24 U	0.47 J	< 0.24 U	< 0.23 U	
	Perfluorobutanoic acid (PFBA)	ng/g	--	--	--	--	--	--	--	< 1.1 U	< 0.95 U	< 0.96 U	< 0.81 U	< 1.1 U	< 0.92 U	< 0.95 U	< 1.1 U	< 1.0 U	< 0.98 U	< 0.97 U	< 1.2 U	< 0.94 U	< 0.91 U	
	Perfluoropentanoic acid (PFPeA)	ng/g	--	--	--	--	--	--	--	< 0.28 U	< 0.24 U	< 0.24 U	< 0.20 U	0.30 J	< 0.23 U	< 0.24 U	< 0.27 U	< 0.26 U	< 0.24 U	< 0.24 U	< 0.30 U	< 0.24 U	< 0.23 U	
	Perfluorohexanoic acid (PFHxA)	ng/g	--	--	--	--	--	--	--	< 0.28 U	< 0.24 U	< 0.24 U	< 0.20 U	< 0.27 U	< 0.23 U	< 0.24 U	< 0.27 U	0.28 J	0.46 J	0.42 J	< 0.30 U	< 0.24 U	0.23 J	
	Perfluoroheptanoic acid (PFHpA)	ng/g	--	--	--	--	--	--	--	0.34 J	0.33 J	0.36 J	< 0.20 U	< 0.27 U	< 0.23 U	0.26 J	< 0.27 U	0.27 J	0.82	0.75	< 0.30 U	0.31 J	0.31 J	
	Perfluoroctanoic acid (PFOA)	ng/g	<u>0.66</u>	1.1	6.6	33	500	600	4.9	3.9	4.1	1.6	2.2	3.4	5.1	0.40 J	2.2	11	11	2.0	4.7	4.6		
	Perfluorononanoic acid (PFNA)	ng/g	--	--	--	--	--	--	0.28 J	< 0.24 U	< 0.24 U	< 0.20 U	< 0.27 U	< 0.23 U	< 0.24 U	< 0.27 U	< 0.26 U	< 0.24 U	< 0.24 U	< 0.30 U	< 0.24 U	< 0.23 U		
	Perfluorodecanoic acid (PFDA)	ng/g	--	--	--	--	--	--	< 0.28 U	< 0.24 U	< 0.24 U	< 0.20 U	< 0.27 U	< 0.23 U	< 0.24 U	< 0.27 U	< 0.26 U	< 0.24 U	< 0.24 U	< 0.30 U	< 0.24 U	< 0.23 U		
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	ng/g	--	--	--	--	--	--	0.41 J	< 0.24 U	< 0.24 U	< 0.20 U	< 0.27 U	< 0.23 U	< 0.24 U	< 0.27 U	< 0.26 U	< 0.24 U	< 0.24 U	< 0.30 U	< 0.24 U	< 0.23 U		
	Perfluorododecanoic acid (PFDoA / PFDoDA)	ng/g	--	--	--	--	--	--	< 0.28 U	< 0.24 U	< 0.24 U	< 0.20 U	< 0.27 U	< 0.23 U	< 0.24 U	< 0.27 U	< 0.26 U	< 0.24 U	< 0.24 U	< 0.30 U	< 0.24 U	< 0.23 U		
FASAAAs	Perfluorotridecanoic acid (PFTriDA / PFTriA)	ng/g	--	--	--	--	--	--	< 0.28 U	< 0.24 U	< 0.24 U	< 0.20 U	< 0.27 U	< 0.23 U	< 0.24 U	< 0.27 U	< 0.26 U	< 0.24 U	< 0.24 U	< 0.30 U	< 0.24 U	< 0.23 U		
	Perfluorotetradecanoic acid (PFTA / PFTeDA / PFTeA)	ng/g	--	--	--	--	--	--	< 0.28 U	< 0.24 U	< 0.24 U	< 0.20 U	< 0.27 U	< 0.23 U	< 0.24 U	< 0.27 U	< 0.26 U	< 0.24 U	< 0.24 U	< 0.30 U	< 0.24 U	< 0.23 U		
FASAAAs	n-Ethyl perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ng/g	--	--	--	--	--	--	< 0.28 U	< 0.24 U	< 0.24 U	< 0.20 U	< 0.27 U	< 0.23 U	< 0.24 U	< 0.27 U	< 0.26 U	< 0.24 U	< 0.24 U	< 0.30 U	< 0.24 U	< 0.23 U		
	n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)	ng/g	--	--	--	--	--	--	< 0.28 U	< 0.24 U	< 0.24 U	< 0.20 U	< 0.27 U	< 0.23 U	< 0.24 U	< 0.27 U	< 0.26 U	< 0.24 U	< 0.24 U	< 0.30 U	< 0.24 U	< 0.23 U		

Notes:

*Results are included for analytes that were detected.

** Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan

Detections are presented in bold.

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FASAAAs - perfluoroalkane sulfonamidoacetic acids

FTSAs - fluorotelomer sulfonic acids

PFAS - per- and polyfluoroalkyl substances

PFCAs - perfluoroalkyl carboxylic acids

PFSAs - perfluoroalkane sulfonic acids

N-EtFOSAA - n-Ethyl perfluorooctanesulfonamidoacetic acid

1 Guidance values form NYSDEC Sampling, Analysis and Assessment for PFAS (NYSDEC, 2021b)

Table 3: Supplemental Phase Analytical Results*

Supplemental Scope Data Summary Report

Regional Air Deposition Study

Village of Hoosick Falls, New York

Location										HF1-N08-A			HF1-N08-B			HF1-N09			HF1-NW02			HF1-NW06			
										Date	11/05/2021	11/05/2021	11/05/2021	Depth	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	Depth	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	Depth	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft
										Sample Type	N	N	N	Sample Type	N	N	N	Sample Type	N	N	N	Sample Type	N	N	N
										Data Status	Validated	Validated	Validated	Data Status	Validated	Validated	Validated	Data Status	Validated	Validated	Validated	Data Status	Validated	Validated	Validated
Parameter										Guidance Values															
										Units	Underline	Italic	Border	Unrest.	Prot. of GW	Res.	Rest. Res.	Comm.	Ind.						
										General Parameters	--	--	--	--	--	--	--	--	--						
Carbon, total organic	mg/kg	--	--	--	--	--	92000	27000	1800	61000	23000	3800	350000	12000	2400	38000	25000	12000	79000	20000	14000				
Moisture	%	--	--	--	--	--	42.8	29.3	14.8	37.8	23.7	15.5	79	22	12	30.7	29.7	19.4	36	18	18				
pH	pH units	--	--	--	--	--	5.6	4.5	4.5	5.5	5.6	6.1	6.3	6.9	6.7	5.5	5.8	7.3	6.1	6.2					
PFAS Group	Per- and Polyfluoroalkyl Substances																								
PFASAs	Perfluorooctanesulfonic acid (PFOS)	ng/g	0.88	3.7	8.8	44	440	440	0.64 J	0.80 J	< 0.23 U	0.33 J	0.28 J	< 0.23 U	1.3 J	0.27 J	< 0.23 U	0.43 J	0.41 J	< 0.23 U	< 0.30 U	0.42 J	0.31 J		
PFCAs	Perfluorobutanoic acid (PFBA)	ng/g	--	--	--	--	--	--	< 1.4 U	< 1.1 U	< 0.94 U	< 1.2 U	< 1.0 U	< 0.90 U	< 3.7 U	< 1.0 U	< 0.90 U	< 1.1 U	< 1.1 U	< 0.92 U	< 1.2 U	< 0.94 U	< 0.98 U		
	Perfluoropentanoic acid (PFPeA)	ng/g	--	--	--	--	--	--	< 0.35 U	< 0.28 U	< 0.23 U	< 0.30 U	< 0.26 U	< 0.23 U	< 0.92 U	< 0.25 U	< 0.23 U	< 0.28 U	< 0.28 U	< 0.23 U	< 0.30 U	< 0.24 U	< 0.24 U		
	Perfluorohexanoic acid (PFHxA)	ng/g	--	--	--	--	--	--	< 0.35 U	< 0.28 U	< 0.23 U	< 0.30 U	< 0.26 U	< 0.23 U	< 0.92 U	< 0.25 U	< 0.23 U	< 0.28 U	0.33 J	< 0.23 U	< 0.30 U	0.79	0.70 J		
	Perfluoroheptanoic acid (PFHpA)	ng/g	--	--	--	--	--	--	< 0.35 U	< 0.28 U	< 0.23 U	< 0.30 U	< 0.26 U	0.24 J	< 0.92 U	< 0.25 U	< 0.23 U	< 0.28 U	0.31 J	< 0.30 U	< 0.67 J	1.0			
	Perfluoroctanoic acid (PFOA)	ng/g	0.66	1.1	6.6	33	500	600	0.48 J	2.2	1.9	1.4	2.5	2.1	< 0.92 U	1.6	3.3	0.74 J	3.4	4.4	0.30 J	3.5	8.6		
	Perfluorononanoic acid (PFNA)	ng/g	--	--	--	--	--	--	< 0.35 U	< 0.28 U	< 0.23 U	< 0.30 U	< 0.26 U	< 0.23 U	< 0.92 U	< 0.25 U	< 0.23 U	< 0.28 U	< 0.28 U	< 0.23 U	< 0.30 U	< 0.24 U	< 0.24 U		
	Perfluorodecanoic acid (PFDA)	ng/g	--	--	--	--	--	--	0.44 J	0.29 J	< 0.23 U	< 0.30 U	< 0.26 U	< 0.23 U	< 0.92 U	< 0.25 U	< 0.23 U	< 0.28 U	< 0.28 U	< 0.23 U	< 0.30 U	< 0.24 U	< 0.24 U		
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	ng/g	--	--	--	--	--	--	0.94 J	0.32 J	< 0.23 U	< 0.30 U	< 0.26 U	< 0.23 U	< 0.92 U	< 0.25 U	< 0.23 U	< 0.28 U	< 0.28 U	< 0.23 U	< 0.30 U	< 0.24 U	< 0.24 U		
	Perfluorododecanoic acid (PFDoA / PFDoDA)	ng/g	--	--	--	--	--	--	0.44 J	< 0.28 U	< 0.23 U	< 0.30 U	< 0.26 U	< 0.23 U	< 0.92 U	< 0.25 U	< 0.23 U	< 0.28 U	< 0.28 U	< 0.23 U	< 0.30 U	< 0.24 U	< 0.24 U		
	Perfluorotridecanoic acid (PFTrDA / PFTriA)	ng/g	--	--	--	--	--	--	< 0.35 U	< 0.28 U	< 0.23 U	< 0.30 U	< 0.26 U	< 0.23 U	< 0.92 U	< 0.25 U	< 0.23 U	< 0.28 U	< 0.28 U	< 0.23 U	< 0.30 U	< 0.24 U	< 0.24 U		
	Perfluorotetradecanoic acid (PFTA / PFTeDA / PFTeA)	ng/g	--	--	--	--	--	--	< 0.35 U	< 0.28 U	< 0.23 U	< 0.30 U	< 0.26 U	< 0.23 U	< 0.92 U	< 0.25 U	< 0.23 U	< 0.28 U	< 0.28 U	< 0.23 U	< 0.30 U	< 0.24 U	< 0.24 U		
FASAAAs	n-Ethyl perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ng/g	--	--	--	--	--	--	< 0.35 U	< 0.28 U	< 0.23 U	< 0.30 U	< 0.26 U	< 0.23 U	< 0.92 U	< 0.25 U	< 0.23 U	< 0.28 U	< 0.28 U	< 0.23 U	< 0.30 U	< 0.24 U	< 0.24 U		
	n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)	ng/g	--	--	--	--	--	--	< 0.35 U	< 0.28 U	< 0.23 U	< 0.30 U	< 0.26 U	< 0.23 U	< 0.92 U	< 0.25 U	< 0.23 U	< 0.28 U	< 0.28 U	< 0.23 U	< 0.30 U	< 0.24 U	< 0.24 U		

Notes:

*Results are included for analytes that were detected.

** Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan

Detections are presented in bold.

N - Sample type: Normal

FD - Sample type: Field Duplicate

mg/kg - milligram per kilogram

ng/g - nanogram per gram

J - Estimated detected value. The reported value is less than the stated laboratory quantitation

R - The data are unusable. The samples results are rejected due to serious deficiencies in

U - The analyte was analyzed for, but was not detected.

UU - The analyte was analyzed for, but not detected. The reported value is approximate and may be inaccurate or imprecise.

FASAs - perfluoroalkane sulfonamides

FASAAAs - perfluoroalkane sulfonamido acetic acids

FTSAs - fluorotelomer sulfonic acids

PFAS - per- and polyfluoroalkyl substances

PFCAs - perfluoroalkyl carboxylic acids

PFSAs - perfluoroalkane sulfonic acids

N-EtFOSAA - n-Ethyl perfluorooctanesulfonamidoacetic acid

Table 3: Supplemental Phase Analytical Results*

Supplemental Scope Data Summary Report

Regional Air Deposition Study

Village of Hoosick Falls, New York

Location										HF1-NW07			HF1-NW11			HFI-NW16			HFI-NW17			HFI-NW19			
										Date	1/25/2022	1/25/2022	1/25/2022	1/25/2022	1/25/2022		1/25/2022	12/01/2021	12/01/2021	12/01/2021	12/01/2021	12/01/2021	12/01/2021	12/01/2021	12/01/2021
										Depth	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	FD	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft		
										Sample Type	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	
										Data Status	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	
	Parameter	Units	Guidance Values																						
			Unrest.	Prot. of GW	Res.	Rest. Res.	Comm.	Ind.																	
	General Parameters		Underline	Italic	Border	--	--	--																	
	Carbon, total organic	mg/kg	--	--	--	--	--	--	45000	17000	3400	110000	16000	16000	4300	61000	16000	6600	110000	38000	4800	120000	15000	16000	
	Moisture	%	--	--	--	--	--	--	52	20	13	57	15	17	7.8	31.2	19.1	12.8	42.0	20.6	11.3	44.5	20.4	14.2	
	pH	pH units	--	--	--	--	--	--	5.8	5.3	6.2	6.0	8.6	5.0	5.6	5.1	4.7	4.7	5.7	5.9	5.1	4.2	4.7	4.4	
	PFAS Group		Per- and Polyfluoroalkyl Substances																						
	PFSAs	Perfluorooctanesulfonic acid (PFOS)	ng/g	0.88	3.7	8.8	44	440	440	0.44 J	< 0.24 U	< 0.23 U	0.64 J	0.50 J	0.51 J	< 0.21 U	0.73 J	< 0.22 U	< 0.21 U	0.86 J	0.53 J	< 0.22 U	1.3	< 0.25 U	< 0.22 U
	PFCAs	Perfluorobutanoic acid (PFBA)	ng/g	--	--	--	--	--	--	< 1.6 U	< 0.96 U	< 0.92 U	< 1.8 U	< 0.92 U	< 0.96 U	< 0.85 U	< 1.1 U	< 0.90 U	< 0.84 U	< 1.3 U	< 0.92 U	< 0.89 U	< 1.3 U	< 1.0 U	< 0.90 U
		Perfluoropentanoic acid (PPPeA)	ng/g	--	--	--	--	--	--	< 0.39 U	< 0.24 U	< 0.23 U	< 0.45 U	< 0.23 U	< 0.24 U	< 0.21 U	< 0.28 U	< 0.22 U	< 0.21 U	< 0.31 U	< 0.23 U	< 0.22 U	2.7	< 0.25 U	< 0.22 U
		Perfluorohexanoic acid (PFHxA)	ng/g	--	--	--	--	--	--	< 0.39 U	< 0.24 U	< 0.23 U	< 0.45 U	< 0.23 U	< 0.24 U	< 0.21 U	< 0.28 U	< 0.22 U	< 0.21 U	< 0.31 U	< 0.23 U	< 0.22 U	< 0.33 U	< 0.25 U	< 0.22 U
		Perfluoroheptanoic acid (PFHpA)	ng/g	--	--	--	--	--	--	< 0.39 U	0.31 J	< 0.23 U	< 0.45 U	< 0.23 U	< 0.24 U	< 0.21 U	< 0.28 U	< 0.22 U	< 0.21 U	< 0.31 U	< 0.23 U	< 0.22 U	< 0.33 U	< 0.25 U	< 0.22 U
		Perfluoroctanoic acid (PFOA)	ng/g	0.66	1.1	6.6	33	500	600	0.65 J	3.5	4.3	0.72 J	1.4	1.5	1.9	1.4	3.1	4.3	0.82 J	0.98	2.5	0.93 J	4.9	1.3
		Perfluorononanoic acid (PFNA)	ng/g	--	--	--	--	--	--	< 0.39 U	< 0.24 U	< 0.23 U	< 0.45 U	< 0.23 U	< 0.24 U	< 0.21 U	< 0.28 U	< 0.22 U	< 0.21 U	< 0.31 U	< 0.23 U	< 0.22 U	< 0.33 U	< 0.25 U	< 0.22 U
		Perfluorodecanoic acid (PFDA)	ng/g	--	--	--	--	--	--	< 0.39 U	< 0.24 U	< 0.23 U	< 0.45 U	< 0.23 U	< 0.24 U	< 0.21 U	< 0.28 U	< 0.22 U	< 0.21 U	< 0.31 U	< 0.23 U	< 0.22 U	< 0.33 U	< 0.25 U	< 0.22 U
		Perfluoroundecanoic acid (PFUnA / PFUnDA)	ng/g	--	--	--	--	--	--	< 0.39 U	< 0.24 U	< 0.23 U	< 0.45 U	< 0.23 U	< 0.24 U	< 0.21 U	< 0.28 U	< 0.22 U	< 0.21 U	< 0.31 U	< 0.23 U	< 0.22 U	< 0.33 U	< 0.25 U	< 0.22 U
		Perfluorododecanoic acid (PFDoA / PFDoDA)	ng/g	--	--	--	--	--	--	< 0.39 U	< 0.24 U	< 0.23 U	< 0.45 U	< 0.23 U	< 0.24 U	< 0.21 U	< 0.28 U	< 0.22 U	< 0.21 U	< 0.31 U	< 0.23 U	< 0.22 U	< 0.33 U	< 0.25 U	< 0.22 U
		Perfluorotridecanoic acid (PFTrDA / PFTriA)	ng/g	--	--	--	--	--	--	< 0.39 U	< 0.24 U	< 0.23 U	< 0.45 U	< 0.23 U	< 0.24 U	< 0.21 U	< 0.28 U	< 0.22 U	< 0.21 U	< 0.31 U	< 0.23 U	< 0.22 U	< 0.33 U	< 0.25 U	< 0.22 U
	FASAA	Perfluorotetradecanoic acid (PFTA / PFTeDA / PFTeA)	ng/g	--	--	--	--	--	--	< 0.39 U	< 0.24 U	< 0.23 U	< 0.45 U	< 0.23 U	< 0.24 U	< 0.21 U	< 0.28 U	< 0.22 U	< 0.21 U	< 0.31 U	< 0.23 U	< 0.22 U	< 0.33 U	< 0.25 U	< 0.22 U
		n-Ethyl perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ng/g	--	--	--	--	--	--	< 0.39 U	< 0.24 U	< 0.23 U	< 0.45 U	< 0.23 U	< 0.24 U	< 0.21 U	< 0.28 U	< 0.22 U	< 0.21 U	< 0.31 U	< 0.23 U	< 0.22 U	< 0.33 U	< 0.25 U	< 0.22 U
		n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)	ng/g	--	--	--	--	--	--	< 0.39 U	< 0.24 U	< 0.23 U	< 0.45 U	< 0.23 U	< 0.24 U	< 0.21 U	< 0.28 U	< 0.22 U	< 0.21 U	< 0.31 U	< 0.23 U	< 0.22 U	< 0.33 U	< 0.25 U	< 0.22 U

Notes:

*Results are included for analytes that were detected.

** Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan

Detections are presented in bold.

N - Sample type: Normal

FD - Sample type: Field Duplicate

mg/kg - milligram per kilogram

ng/g - nanogram per gram

J - Estimated detected value. The reported value is less than the stated laboratory quantitation

R - The data are unusable. The samples results are rejected due to serious deficiencies in

U - The analyte was analyzed for, but was not detected.

UJ - The analyte was analyzed for, but not detected. The reported value is approximate and may be inaccurate or imprecise.

FASAs - perfluoroalkane sulfonamides

FASAA - perfluoroalkane sulfonamido acetic acids

FTSAs - fluorotelomer sulfonic acids

PFAS - per- and polyfluoroalkyl substances

Table 3: Supplemental Phase Analytical Results*

Supplemental Scope Data Summary Report

Regional Air Deposition Study

Village of Hoosick Falls, New York

Location										Date	HF1-NW21			HF1-NW23			HF1-NW24			HF1-NW25			HF1-S01		
										Depth	0 - 0.17 ft	0.17 - 1 ft	1 - 1.88 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft
										Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
										Data Status	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	
Guidance Values																									
	Parameter	Units	Unrest.	Prot. of GW	Res.	Rest. Res.	Comm.	Ind.																	
			Underline	Italic	Border	--	--	--																	
	General Parameters																								
	Carbon, total organic	mg/kg	--	--	--	--	--	--	59000	22000	9200	100000	15000	1500	520000	11000	5600	100000	20000	12000	61000	26000	7400		
	Moisture	%	--	--	--	--	--	--	23.5	24.4	20.2	43.9	20.7	16.3	86	21	16	62	22	12	33.9	32.5	14.7		
	pH	pH units	--	--	--	--	--	--	4.4	4.5	4.8	5.9	5.5	5.3	4.9	4.5	4.7	4.6	4.8	5.2	5.1	5.5			
	PFAS Group																								
	Per- and Polyfluoroalkyl Substances																								
	PFASAs	Perfluorooctanesulfonic acid (PFOS)	ng/g	<u>0.88</u>	3.7	8.8	44	440	440	0.55 J	0.74	0.28 J	0.87 J	0.40 J	< 0.22 U	12	2.0	0.59 J	0.59 J	0.56 J	0.80	0.58 J	0.52 J	0.30 J	
PFCAs	Perfluorobutanoic acid (PFBA)	ng/g	--	--	--	--	--	--	< 0.95 U	< 0.98 U	< 0.91 U	< 1.4 U	< 1.0 U	< 0.89 U	< 5.5 U	< 0.94 U	< 0.88 U	< 1.9 U	< 0.97 U	< 0.89 U	< 1.2 U	< 1.1 U	< 0.93 U		
	Perfluoropentanoic acid (PFPeA)	ng/g	--	--	--	--	--	--	< 0.24 U	< 0.25 U	0.26 J	< 0.34 U	< 0.25 U	< 0.22 U	< 1.4 U	< 0.24 U	< 0.22 U	< 0.48 U	0.29 J	< 0.22 U	< 0.29 U	< 0.29 U	< 0.23 U		
	Perfluorohexanoic acid (PFHxA)	ng/g	--	--	--	--	--	--	< 0.24 U	< 0.25 U	0.30 J	< 0.34 U	< 0.25 U	0.22 J	< 1.4 U	< 0.24 U	< 0.22 U	< 0.48 U	0.74	< 0.22 U	< 0.29 U	0.46 J	< 0.23 U		
	Perfluoroheptanoic acid (PFHpA)	ng/g	--	--	--	--	--	--	< 0.24 U	< 0.25 U	0.25 J	< 0.34 U	0.25 J	< 0.22 U	< 1.4 U	0.67 J	0.46 J	< 0.48 U	0.73	0.50 J	< 0.29 U	0.60 J	< 0.23 U		
	Perfluoroctanoic acid (PFOA)	ng/g	<u>0.66</u>	1.1	6.6	33	500	600	0.30 J	1.4	2.9	0.69 J	3.0	2.1	< 1.4 U	13	8.4	< 0.48 U	11	8.8	1.5	8.9	2.4		
	Perfluorononanoic acid (PFNA)	ng/g	--	--	--	--	--	--	< 0.24 U	0.31 J	< 0.23 U	< 0.34 U	< 0.25 U	< 0.22 U	< 1.4 U	< 0.24 U	< 0.22 U	< 0.48 U	< 0.24 U	< 0.22 U	< 0.29 U	< 0.29 U	< 0.23 U		
	Perfluorodecanoic acid (PFDA)	ng/g	--	--	--	--	--	--	< 0.24 U	< 0.25 U	< 0.23 U	0.38 J	< 0.25 U	< 0.22 U	< 1.4 U	< 0.24 U	< 0.22 U	< 0.48 U	< 0.24 U	< 0.22 U	< 0.29 U	< 0.29 U	< 0.23 U		
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	ng/g	--	--	--	--	--	--	0.36 J	< 0.25 U	< 0.23 U	0.64 J	< 0.25 U	< 0.22 U	< 1.4 U	< 0.24 U	< 0.22 U	< 0.48 U	< 0.24 U	< 0.22 U	< 0.29 U	< 0.29 U	< 0.23 U		
	Perfluorododecanoic acid (PFDoA / PFDoDA)	ng/g	--	--	--	--	--	--	< 0.24 U	< 0.25 U	< 0.23 U	< 0.34 U	< 0.25 U	< 0.22 U	< 1.4 U	< 0.24 U	< 0.22 U	< 0.48 U	< 0.24 U	< 0.22 U	< 0.29 U	< 0.29 U	< 0.23 U		
	Perfluorotridecanoic acid (PFTrDA / PFTriA)	ng/g	--	--	--	--	--	--	< 0.24 U	< 0.25 U	< 0.23 U	< 0.34 U	< 0.25 U	< 0.22 U	< 1.4 U	< 0.24 U	< 0.22 U	< 0.48 U	< 0.24 U	< 0.22 U	< 0.29 U	< 0.29 U	< 0.23 U		
	Perfluorotetradecanoic acid (PFTA / PFTeDA / PFTeA)	ng/g	--	--	--	--	--	--	< 0.24 U	< 0.25 U	< 0.23 U	< 0.34 U	< 0.25 U	< 0.22 U	< 1.4 U	< 0.24 U	< 0.22 U	< 0.48 U	< 0.24 U	< 0.22 U	< 0.29 U	< 0.29 U	< 0.23 U		
FASAAAs	n-Ethyl perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ng/g	--	--	--	--	--	--	< 0.24 U	< 0.25 U	< 0.23 U	< 0.34 U	< 0.25 U	< 0.22 U	< 1.4 U	< 0.24 U	< 0.22 U	< 0.48 U	< 0.24 U	< 0.22 U	< 0.29 U	< 0.29 U	< 0.23 U		
	n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)	ng/g	--	--	--	--	--	--	< 0.24 U	< 0.25 U	< 0.23 U	< 0.34 U	< 0.25 U	< 0.22 U	< 1.4 U	< 0.24 U	< 0.22 U	< 0.48 U	< 0.24 U	< 0.22 U	< 0.29 U	< 0.29 U	< 0.23 U		

Notes:

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FASAAAs - perfluoroalkane sulfonamido acetic acids

FTSAs - fluorotelomer sulfonic acids

PFAS - per- and polyfluoroalkyl substances

PFCAs - perfluoroalkyl carboxylic acids

PFSAs - perfluoroalkane sulfonic acids

N-EtFOSAA - n-Ethyl perfluorooctanesulfonamidoacetic acid

¹ Guidance values form NYSDEC Sampling, Analysis and Assessment for PFAS (NYSDEC, 2021b)

Table 3: Supplemental Phase Analytical Results*

Supplemental Scope Data Summary Report

Regional Air Deposition Study

Village of Hoosick Falls, New York

Location										HF1-S02			HF1-S06			HF1-S07			HF1-S09								
										Date	11/15/2021	11/15/2021	11/15/2021		12/06/2021	12/06/2021	12/06/2021	1/20/2022	1/20/2022	1/20/2022	6/02/2022	6/02/2022	6/02/2022	11/08/2021	11/08/2021	11/08/2021	
											Depth	0 - 0.17 ft	0.17 - 1 ft	1 - 1.8 ft	1 - 1.8 ft	N	N	FD	N	N	N	N	N	N	N	N	
										Sample Type	N	N	N	FD	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated
										Data Status	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	
	Parameter	Units	Guidance Values																								
			Unrest.	Prot. of GW	Res.	Rest. Res.	Comm.	Ind.																			
	General Parameters		<u>Underline</u>	<i>Italic</i>	Border	--	--	--																			
	Carbon, total organic	mg/kg	--	--	--	--	--	--	51000	34000	31000	5900	55000	4800	2200	84000	18000	6400	28000	15000	6600	57000	17000	< 750 U			
	Moisture	%	--	--	--	--	--	--	25.5	30.6	29.4	12.7	32.3	17.6	12.4	66	20	16	25	21	16	29.7	26.1	14.3			
	pH	pH units	--	--	--	--	--	--	5.3	5.4	5.6	5.6	6.7	6.1	6.9	5.4	4.9	5.3	4.6	5.2	4.7 J	4.9 J	4.7 J				
PFAS Group	Per- and Polyfluoroalkyl Substances																										
PFSAs	Perfluorooctanesulfonic acid (PFOS)	ng/g	0.88	3.7	8.8	44	440	440	0.30 J	0.54 J	0.39 J	0.23 J	0.32 J	< 0.23 U	< 0.23 U	0.68 J	0.90	0.29 J	0.77 J	0.71 J	0.42 J	0.92	< 0.26 U	< 0.22 U			
PFCAs	Perfluorobutanoic acid (PFBA)	ng/g	--	--	--	--	--	--	< 1.1 U	< 1.1 U	< 1.1 U	< 0.89 U	< 1.1 U	< 0.93 U	< 0.90 U	< 2.2 U	< 0.97 U	< 0.95 U	< 1.1 U	< 1.0 U	< 0.90 U	< 1.1 U	< 1.0 U	< 0.90 U			
	Perfluoropentanoic acid (PFPeA)	ng/g	--	--	--	--	--	--	< 0.26 U	< 0.29 U	< 0.28 U	< 0.22 U	< 0.23 U	< 0.23 U	< 0.55 U	0.37 J	< 0.24 U	< 0.26 U	0.28 J	< 0.23 U	0.39 J	< 0.26 U	< 0.22 U				
	Perfluorohexanoic acid (PFHxA)	ng/g	--	--	--	--	--	--	< 0.26 U	0.39 J	0.32 J	< 0.22 U	< 0.28 U	< 0.23 U	< 0.55 U	1.3	< 0.24 U	< 0.26 U	0.64 J	0.43 J	< 0.28 U	< 0.26 U	< 0.22 U				
	Perfluoroheptanoic acid (PFHpA)	ng/g	--	--	--	--	--	--	< 0.26 U	0.63 J	0.48 J	0.22 J	< 0.28 U	0.29 J	< 0.23 U	0.93 J	1.7	0.40 J	0.34 J	0.76	0.50 J	0.35 J	0.74 J	0.31 J			
	Perfluoroctanoic acid (PFOA)	ng/g	0.66	1.1	6.6	33	500	600	0.59 J	6.7	4.6	2.5	< 0.28 U	3.9	1.3	3.9	13	5.3	1.8	5.9	5.4	2.4	9.1	5.4			
	Perfluorononanoic acid (PFNA)	ng/g	--	--	--	--	--	--	< 0.26 U	< 0.29 U	< 0.28 U	< 0.22 U	< 0.28 U	< 0.23 U	< 0.55 U	< 0.24 U	< 0.24 U	< 0.26 U	< 0.25 U	< 0.23 U	0.41 J	< 0.26 U	< 0.22 U				
	Perfluorodecanoic acid (PFDA)	ng/g	--	--	--	--	--	--	< 0.26 U	< 0.29 U	< 0.28 U	< 0.22 U	< 0.28 U	< 0.23 U	< 0.55 U	< 0.24 U	< 0.24 U	< 0.26 U	< 0.25 U	< 0.23 U	0.38 J	< 0.26 U	< 0.22 U				
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	ng/g	--	--	--	--	--	--	< 0.26 U	< 0.29 U	< 0.28 U	< 0.22 U	< 0.28 U	< 0.23 U	< 0.55 U	< 0.24 U	< 0.24 U	< 0.26 U	< 0.25 U	< 0.23 U	0.55 J	< 0.26 U	< 0.22 U				
	Perfluorododecanoic acid (PFDoA / PFDoDA)	ng/g	--	--	--	--	--	--	< 0.26 U	< 0.29 U	< 0.28 U	< 0.22 U	< 0.28 U	< 0.23 U	< 0.55 U	< 0.24 U	< 0.24 U	< 0.26 U	< 0.25 U	< 0.23 U	< 0.28 U	< 0.26 U	< 0.22 U				
	Perfluorotridecanoic acid (PFTrDA / PFTriA)	ng/g	--	--	--	--	--	--	< 0.26 U	< 0.29 U	< 0.28 U	< 0.22 U	< 0.28 U	< 0.23 U	< 0.55 U	< 0.24 U	< 0.24 U	< 0.26 U	< 0.25 U	< 0.23 U	0.32 J	< 0.26 U	< 0.22 U				
	Perfluorotetradecanoic acid (PFTA / PFTeDA / PFTeA)	ng/g	--	--	--	--	--	--	< 0.26 U	< 0.29 U	< 0.28 U	< 0.22 U	< 0.28 U	< 0.23 U	< 0.55 U	< 0.24 U	< 0.24 U	< 0.26 U	< 0.25 U	< 0.23 U	< 0.28 U	< 0.26 U	< 0.22 U				
FASAA	n-Ethyl perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ng/g	--	--	--	--	--	--	< 0.26 U	< 0.29 U	< 0.28 U	< 0.22 U	< 0.28 U	< 0.23 U	< 0.55 U	< 0.24 U	< 0.24 U	< 0.26 U	< 0.25 U	< 0.23 U	< 0.28 U	< 0.26 U	< 0.22 U				
	n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)	ng/g	--	--	--	--	--	--	< 0.26 U	< 0.29 U	< 0.28 U	< 0.22 U	< 0.28 U	< 0.23 U	< 0.55 U	< 0.24 U	< 0.24 U	< 0.26 U	< 0.25 U	< 0.23 U	< 0.28 U	< 0.26 U	< 0.22 U				

Notes:

*Results are included for analytes that were detected.

** Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan

Detections are presented in bold.

N - Sample type: Normal

FD - Sample type: Field Duplicate

mg/kg - milligram per kilogram

ng/g - nanogram per gram

J - Estimated detected value. The reported value is less than the stated laboratory quantitation

R - The data are unusable. The samples results are rejected due to serious deficiencies in

U - The analyte was analyzed for, but was not detected.

UU - The analyte was analyzed for, but not detected. The reported value is approximate and may be inaccurate or imprecise.

FASAs - perfluoroalkane sulfonamides

FASAA - perfluoroalkane sulfonamido acetic acids

FTSAs - fluorotelomer sulfonic acids

PFAS - per- and polyfluoroalkyl substances

PFCAs - perfluoroalkyl carboxylic acids

PFSAs - perfluoroalkane sulfonic acids

N-EtFOSAA - n-Ethyl perfluorooctanesulfonamidoacetic acid

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Table 3: Supplemental Phase Analytical Results*

Supplemental Scope Data Summary Report

Regional Air Deposition Study

Village of Hoosick Falls, New York

Location												HF1-SE02		HF1-SE03-A			HF1-SE03-B			HF1-SE09			HF1-SE10		
												Date	11/08/2021	11/08/2021	11/08/2021	11/08/2021	11/08/2021	11/08/2021	11/08/2021	11/23/2021	11/23/2021	11/23/2021	5/18/2022	5/18/2022	5/18/2022
												Depth	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	
												Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	
												Data Status	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	
	Parameter	Units	Guidance Values																						
			Unrest.	Prot. of GW	Res.	Rest. Res.	Comm.	Ind.																	
	General Parameters		Underline	Italic	Border	--	--	--																	
	Carbon, total organic	mg/kg	--	--	--	--	--	--	49000	17000	12000	68000	10000	3300	26000	4900	2700	78000	23000	6300	73000	20000	9900		
	Moisture	%	--	--	--	--	--	--	36.8	25.2	24.4	38.5	25.0	15.9	33.8	18.8	16.1	39.0	22.7	17.1	41 J	19 J	5.4 J		
	pH	pH units	--	--	--	--	--	--	5.0 J	4.9 J	4.9 J	4.4 J	4.8 J	5.0 J	5.9 J	6.2 J	6.3 J	5.7	5.3	5.1	4.0	4.6	4.7		
PFAS Group	Per- and Polyfluoroalkyl Substances																								
PFSAs	Perfluorooctanesulfonic acid (PFOS)	ng/g	0.88	3.7	8.8	44	440	440	0.76 J	0.38 J	< 0.26 U	1.2	0.26 J	< 0.22 U	0.38 J	0.24 J	< 0.24 U	< 0.31 U	< 0.26 U	0.25 J	2.0	0.27 J	0.43 J		
PFCAs	Perfluorobutanoic acid (PFBA)	ng/g	--	--	--	--	--	--	< 1.2 U	< 1.0 U	< 1.0 U	< 1.2 U	< 0.98 U	< 0.88 U	< 1.2 U	< 0.92 U	< 0.94 U	< 1.2 U	< 1.0 U	< 0.90 U	< 1.3 U	< 0.91 U	< 0.78 U		
	Perfluoropentanoic acid (PPPeA)	ng/g	--	--	--	--	--	--	< 0.31 U	< 0.26 U	< 0.26 U	< 0.30 U	0.24 J	< 0.22 U	< 0.29 U	0.23 J	< 0.24 U	< 0.31 U	< 0.26 U	< 0.23 U	< 0.32 U	< 0.23 U	< 0.20 U		
	Perfluorohexanoic acid (PFHxA)	ng/g	--	--	--	--	--	--	< 0.31 U	< 0.26 U	< 0.26 U	< 0.30 U	0.48 J	< 0.22 U	< 0.29 U	0.44 J	< 0.24 U	< 0.31 U	< 0.26 U	0.31 J	< 0.32 U	< 0.23 U	< 0.20 U		
	Perfluorohexanoic acid (PFHpA)	ng/g	--	--	--	--	--	--	< 0.31 U	0.77	< 0.26 U	< 0.30 U	0.94	0.25 J	0.30 J	0.59 J	< 0.24 U	< 0.31 U	0.37 J	0.45 J	< 0.32 U	< 0.23 U	< 0.20 U		
	Perfluorooctanoic acid (PFOA)	ng/g	0.66	1.1	6.6	33	500	600	1.0	7.4	12	2.7	11	4.9	2.5	5.5	2.3	0.71 J	3.8	5.2	1.6	2.3	2.7		
	Perfluorononanoic acid (PFNA)	ng/g	--	--	--	--	--	--	< 0.31 U	< 0.26 U	< 0.26 U	0.43 J	< 0.24 U	< 0.22 U	< 0.29 U	< 0.23 U	< 0.24 U	< 0.31 U	< 0.26 U	< 0.23 U	0.59 J	< 0.23 U	< 0.20 U		
	Perfluorodecanoic acid (PFDA)	ng/g	--	--	--	--	--	--	< 0.31 U	< 0.26 U	< 0.26 U	0.41 J	< 0.24 U	< 0.22 U	< 0.29 U	< 0.23 U	< 0.24 U	< 0.31 U	< 0.26 U	< 0.23 U	0.55 J	< 0.23 U	< 0.20 U		
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	ng/g	--	--	--	--	--	--	0.44 J	< 0.26 U	< 0.26 U	0.52 J	< 0.24 U	< 0.22 U	< 0.29 U	< 0.23 U	< 0.24 U	< 0.31 U	< 0.26 U	< 0.23 U	0.68 J	< 0.23 U	< 0.20 U		
	Perfluorododecanoic acid (PFDoA / PFDoDA)	ng/g	--	--	--	--	--	--	< 0.31 U	< 0.26 U	< 0.26 U	< 0.30 U	< 0.24 U	< 0.22 U	< 0.29 U	< 0.23 U	< 0.24 U	< 0.31 U	< 0.26 U	< 0.23 U	< 0.32 U	< 0.23 U	< 0.20 U		
	Perfluorotridecanoic acid (PFTrDA / PFTriA)	ng/g	--	--	--	--	--	--	< 0.31 U	< 0.26 U	< 0.26 U	< 0.30 U	< 0.24 U	< 0.22 U	< 0.29 U	< 0.23 U	< 0.24 U	< 0.31 U	< 0.26 U	< 0.23 U	< 0.32 U	< 0.23 U	< 0.20 U		
	Perfluorotetradecanoic acid (PFTA / PFTeDA / PFTeA)	ng/g	--	--	--	--	--	--	< 0.31 U	< 0.26 U	< 0.26 U	< 0.30 U	< 0.24 U	< 0.22 U	< 0.29 U	< 0.23 U	< 0.24 U	< 0.31 U	< 0.26 U	< 0.23 U	< 0.32 U	< 0.23 U	< 0.20 U		
FASAAAs	n-Ethyl perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ng/g	--	--	--	--	--	--	< 0.31 U	< 0.26 U	< 0.26 U	< 0.30 U	< 0.24 U	< 0.22 U	< 0.29 U	< 0.23 U	< 0.24 U	< 0.31 U	< 0.26 U	< 0.23 U	< 0.32 U	< 0.23 U	< 0.20 U		
	n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)	ng/g	--	--	--	--	--	--	< 0.31 U	< 0.26 U	< 0.26 U	< 0.30 U	< 0.24 U	< 0.22 U	< 0.29 U	< 0.23 U	< 0.24 U	< 0.31 U	< 0.26 U	< 0.23 U	< 0.32 U	< 0.23 U	< 0.20 U		

Notes:

*Results are included for analytes that were detected.

** Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan

Detections are presented in bold.

N - Sample type: Normal

FD - Sample type: Field Duplicate

mg/kg - milligram per kilogram

ng/g - nanogram per gram

J - Estimated detected value. The reported value is less than the stated laboratory quantitation

R - The data are unusable. The samples results are rejected due to serious deficiencies in

U - The analyte was analyzed for, but was not detected.

UJ - The analyte was analyzed for, but not detected. The reported value is approximate and may be inaccurate or imprecise.

FASAs - perfluoroalkane sulfonamides

FASAAAs - perfluoroalkane sulfonamido acetic acids

FTSAs - fluorotelomer sulfonic acids

PFAS - per- and polyfluoroalkyl substances

PFCAs - perfluoroalkyl carboxylic acids

PFSAs - perfluoroalkane sulfonic acids

N-EtFOSAA - n-E

Table 3: Supplemental Phase Analytical Results*

Supplemental Scope Data Summary Report

Regional Air Deposition Study

Village of Hoosick Falls, New York

	Parameter	Units	Location	HF1-SE11			HF1-SE12			HF1-SE13-A			HF1-SE13-B			HF1-SE14			
				Date	11/23/2021	11/23/2021	11/23/2021	11/23/2021	11/23/2021	5/18/2022	5/18/2022	5/18/2022	5/18/2022	5/18/2022	11/16/2021	11/16/2021	11/16/2021		
				Depth	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 1.6 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft			
				Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N		
				Data Status	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated		
				Guidance Values															
				Unrest.	Underline	Prot. of GW	Res.	Rest. Res.	Comm.	Ind.									
	General Parameters																		
	Carbon, total organic	mg/kg	--	--	--	--	--	--	110000	21000	5900	65000	19000	4400	70000	12000	10000	410000 J	
	Moisture	%	--	--	--	--	--	--	44.2	24.8	18.3	42.6	24.0	13.4	34 J	24 J	15 J	75 J	
	pH	pH units	--	--	--	--	--	--	4.9	5.0	5.1	5.5	5.1	6.2	5.2	4.6	4.5	4.4	
	PFAS Group	Per- and Polyfluoroalkyl Substances																	
	PFSAs	Perfluorooctanesulfonic acid (PFOS)	ng/g	<u>0.88</u>	3.7	8.8	44	440	440	0.60 J	0.47 J	< 0.23 U	0.44 J	0.57 J	< 0.22 U	0.75 J	0.36 J	< 0.22 U	3.3 J
	PFCAs	Perfluorobutanoic acid (PFBA)	ng/g	--	--	--	--	--	--	< 1.4 U	< 0.97 U	< 0.93 U	< 1.3 U	< 1.0 U	< 0.89 U	< 1.1 U	< 0.96 U	< 0.89 U	< 3.0 UJ
	PFCAs	Perfluoropentanoic acid (PFPeA)	ng/g	--	--	--	--	--	--	< 0.34 U	< 0.24 U	< 0.23 U	< 0.33 U	< 0.25 U	< 0.22 U	< 0.28 U	< 0.24 U	< 0.22 U	< 0.76 UJ
	PFCAs	Perfluorohexanoic acid (PFHxA)	ng/g	--	--	--	--	--	--	< 0.34 U	0.26 J	< 0.23 U	< 0.33 U	< 0.25 U	< 0.22 U	< 0.28 U	< 0.24 U	< 0.22 U	< 0.76 UJ
	PFCAs	Perfluoroheptanoic acid (PFHpA)	ng/g	--	--	--	--	--	--	< 0.34 U	0.41 J	< 0.23 U	< 0.33 U	0.27 J	< 0.22 U	< 0.28 U	0.54 J	0.42 J	< 0.76 UJ
	PFCAs	Perfluoroctanoic acid (PFOA)	ng/g	<u>0.66</u>	1.1	6.6	33	500	600	0.49 J	4.5	2.9	0.40 J	3.3	2.0	0.78 J	7.3	5.6	3.8 J
	FASAs	Perfluorononanoic acid (PFNA)	ng/g	--	--	--	--	--	--	< 0.34 U	< 0.24 U	< 0.23 U	< 0.33 U	< 0.25 U	< 0.22 U	< 0.28 U	< 0.24 U	< 0.22 U	1.5 J
	FASAs	Perfluorodecanoic acid (PFDA)	ng/g	--	--	--	--	--	--	< 0.34 U	< 0.24 U	< 0.23 U	< 0.33 U	< 0.25 U	< 0.22 U	< 0.28 U	< 0.24 U	< 0.22 U	1.2 J
	FASAs	Perfluoroundecanoic acid (PFUnA / PFUnDA)	ng/g	--	--	--	--	--	--	< 0.34 U	< 0.24 U	< 0.23 U	< 0.33 U	< 0.25 U	< 0.22 U	0.41 J	< 0.24 U	< 0.22 U	1.5 J
	FASAs	Perfluorododecanoic acid (PFDoA / PFDoDA)	ng/g	--	--	--	--	--	--	< 0.34 U	< 0.24 U	< 0.23 U	< 0.33 U	< 0.25 U	< 0.22 U	< 0.28 U	< 0.24 U	< 0.22 U	0.77 J
	FASAs	Perfluorotridecanoic acid (PFTrDA / PFTriA)	ng/g	--	--	--	--	--	--	< 0.34 U	< 0.24 U	< 0.23 U	< 0.33 U	< 0.25 U	< 0.22 U	< 0.28 U	< 0.24 U	< 0.22 U	< 0.76 UJ
	FASAs	Perfluorotetradecanoic acid (PFTA / PFTeDA / PFTeA)	ng/g	--	--	--	--	--	--	< 0.34 U	< 0.24 U	< 0.23 U	< 0.33 U	< 0.25 U	< 0.22 U	< 0.28 U	< 0.24 U	< 0.22 U	< 0.76 UJ
	FASAs	n-Ethyl perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ng/g	--	--	--	--	--	--	< 0.34 U	< 0.24 U	< 0.23 U	< 0.33 U	< 0.25 U	< 0.22 U	< 0.28 U	< 0.24 U	< 0.22 U	< 0.25 U
	FASAs	n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)	ng/g	--	--	--	--	--	--	< 0.34 U	< 0.24 U	< 0.23 U	< 0.33 U	< 0.25 U	< 0.22 U	< 0.28 U	< 0.24 U	< 0.22 U	< 0.25 U

Notes:

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Detections are presented in bold.

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FD - Sample type: Field Duplicate

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FASAs - perfluoroalkane sulfonamido acetic acids

FTSAs - fluorotelomer sulfonic acids

PFAS - per- and polyfluoroalkyl substances

PFCAs - perfluoroalkyl carboxylic acids

PFSAs - perfluoroalkane sulfonic acids

N-EtFOSAA - n-Ethyl perfluorooctanesulfonamidoacetic acid

¹ Guidance values form NYSDEC Sampling, Analysis and Assessment for PFAS (NYSDEC, 2021b)

Table 3: Supplemental Phase Analytical Results*

Supplemental Scope Data Summary Report

Regional Air Deposition Study

Village of Hoosick Falls, New York

Location										HF1-SE15		HF1-SW02-A				HF1-SW02-B				HFI-SW03				HF1-SW07										
										Depth	N	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 1.33 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	N	FD	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft				
Parameter										Guidance Values																								
										Units	Unrest.	Prot. of GW	Res.	Rest-Res.	Comm.	Ind.																		
General Parameters										Units	Underline	Italic	Border	--	--	--																		
Carbon, total organic	mg/kg	--	--	--	--	--	--	--	--	mg/kg	210000	11000	4200	140000	39000	14000	76000	19000	16000	1800	67000	13000	2500	3400	42000	12000	2900							
Moisture	%	--	--	--	--	--	--	--	--	%	52.1	24.6	19.7	49.7	18.9	15.5	39.5	17.5	21.0	15.9	36.7	19.6	13.6	14.8	17	19	13							
pH	pH units	--	--	--	--	--	--	--	--	pH units	4.8	5.3	5.2	4.2	4.4	4.8	4.7	4.7	4.8	5.3	4.8	4.9	4.8	5.0	5.1	5.9								
PFAS Group	Per- and Polyfluoroalkyl Substances																																	
PFSAs	Perfluorooctanesulfonic acid (PFOS)	ng/g	0.88	3.7	8.8	44	440	440	0.75 J	0.40 J	< 0.23 U	1.7	0.83	< 0.22 U	0.87 J	0.27 J	0.28 J	< 0.22 U	0.67 J	< 0.25 U	< 0.22 U	< 0.22 U	0.72	0.82	< 0.22 U									
PFCAs	Perfluorobutanoic acid (PFBA)	ng/g	--	--	--	--	--	--	< 1.5 U	< 0.98 U	< 0.93 U	< 1.5 U	< 0.94 U	< 0.87 U	< 1.2 U	< 0.91 U	< 0.96 U	< 0.86 U	< 1.3 U	< 0.99 U	< 0.90 U	< 0.88 U	< 0.91 U	< 0.93 U	< 0.89 U									
	Perfluoropentanoic acid (PFPeA)	ng/g	--	--	--	--	--	--	< 0.38 U	0.28 J	< 0.23 U	< 0.37 U	< 0.23 U	< 0.22 U	< 0.30 U	< 0.23 U	< 0.24 U	< 0.22 U	< 0.32 U	< 0.25 U	< 0.22 U	< 0.22 U	< 0.23 U	0.25 J	< 0.22 U									
	Perfluorohexanoic acid (PFHxA)	ng/g	--	--	--	--	--	--	< 0.38 U	0.46 J	< 0.23 U	< 0.37 U	< 0.23 U	< 0.22 U	< 0.30 U	< 0.23 U	< 0.24 U	< 0.22 U	< 0.32 U	< 0.25 U	< 0.22 U	< 0.22 U	< 0.23 U	0.43 J	< 0.22 U									
	Perfluoroheptanoic acid (PFHpA)	ng/g	--	--	--	--	--	--	< 0.38 U	0.45 J	< 0.23 U	< 0.37 U	0.24 J	< 0.22 U	< 0.30 U	0.38 J	0.24 J	< 0.22 U	< 0.32 U	< 0.25 U	< 0.22 U	< 0.23 U	0.39 J	< 0.22 U										
	Perfluoroctanoic acid (PFOA)	ng/g	0.66	1.1	6.6	33	500	600	1.4	3.4	5.3	1.1	2.0	2.4	1.8	6.9	4.2	0.65	0.72 J	3.2	0.49 J	0.93	0.58 J	4.0	2.9									
	Perfluorononanoic acid (PFNA)	ng/g	--	--	--	--	--	--	< 0.38 U	< 0.25 U	< 0.23 U	< 0.37 U	0.27 J	< 0.22 U	< 0.30 U	< 0.23 U	< 0.24 U	< 0.22 U	< 0.32 U	< 0.25 U	< 0.22 U	< 0.22 U	< 0.23 U	< 0.23 U	< 0.22 U									
	Perfluorodecanoic acid (PFDA)	ng/g	--	--	--	--	--	--	< 0.38 U	< 0.25 U	< 0.23 U	< 0.37 U	< 0.23 U	< 0.22 U	< 0.30 U	< 0.23 U	< 0.24 U	< 0.22 U	< 0.32 U	< 0.25 U	< 0.22 U	< 0.22 U	0.28 J	< 0.23 U	< 0.22 U									
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	ng/g	--	--	--	--	--	--	< 0.38 U	< 0.25 U	< 0.23 U	< 0.38 U	0.84 J	< 0.23 U	< 0.22 U	< 0.30 U	< 0.23 U	< 0.24 U	< 0.22 U	< 0.32 U	< 0.25 U	< 0.22 U	< 0.22 U	0.40 J	< 0.23 U	< 0.22 U								
	Perfluorododecanoic acid (PFDoA / PFDoDA)	ng/g	--	--	--	--	--	--	< 0.38 U	< 0.25 U	< 0.23 U	< 0.38 U	0.39 J	< 0.23 U	< 0.22 U	< 0.30 U	< 0.23 U	< 0.24 U	< 0.22 U	< 0.32 U	< 0.25 U	< 0.22 U	< 0.22 U	< 0.23 U	< 0.22 U	< 0.23 U	< 0.22 U							
	Perfluorotridecanoic acid (PFTrDA / PFTriA)	ng/g	--	--	--	--	--	--	< 0.38 U	< 0.25 U	< 0.23 U	< 0.37 U	< 0.23 U	< 0.22 U	< 0.30 U	< 0.23 U	< 0.24 U	< 0.22 U	< 0.32 U	< 0.25 U	< 0.22 U	< 0.22 U	< 0.23 U	< 0.22 U	< 0.23 U	< 0.22 U	< 0.23 U	< 0.22 U						
	Perfluorotetradecanoic acid (PFTA / PFTeDA / PFTeA)	ng/g	--	--	--	--	--	--	< 0.38 U	< 0.25 U	< 0.23 U	< 0.37 U	< 0.23 U	< 0.22 U	< 0.30 U	< 0.23 U	< 0.24 U	< 0.22 U	< 0.32 U	< 0.25 U	< 0.22 U	< 0.23 U	< 0.23 U	< 0.22 U	< 0.23 U	< 0.22 U	< 0.23 U	< 0.22 U						
FASAA _s	n-Ethyl perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ng/g	--	--	--	--	--	--	< 0.38 U	< 0.25 U	< 0.23 U	< 0.37 U	< 0.23 U	< 0.22 U	< 0.30 U	< 0.23 U	< 0.24 U	< 0.22 U	< 0.32 U	< 0.25 U	< 0.22 U	< 0.23 U	< 0.23 U	< 0.22 U	< 0.23 U	< 0.22 U	< 0.23 U	< 0.22 U						
	n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)	ng/g	--	--	--	--	--	--	< 0.38 U	< 0.25 U	< 0.23 U	< 0.37 U	< 0.23 U	< 0.22 U	< 0.30 U	< 0.23 U	< 0.24 U	< 0.22 U	< 0.32 U	< 0.25 U	< 0.22 U	< 0.23 U	< 0.22 U	< 0.23 U	< 0.22 U	< 0.23 U</td								

Table 3: Supplemental Phase Analytical Results*

Supplemental Scope Data Summary Report

Regional Air Deposition Study

Village of Hoosick Falls, New York

Location										HF1-SW12		HF1-W01			HF1-W06			HF1-W12			HF1-W13											
										Date	1/20/2022	1/20/2022	1/20/2022	Depth	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	Sample Type	N	N	N	11/09/2021	11/09/2021	11/09/2021	11/04/2021	11/04/2021	11/04/2021	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	
										Data Status	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	N	N	N	11/09/2021	11/09/2021	11/09/2021	11/04/2021	N	N	N	11/04/2021	11/04/2021	11/04/2021	
										Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated	N	N	N	Validated	Validated	Validated	Validated	N	N	N	Validated	Validated	Validated	
	Parameter	Units	Guidance Values																													
			Unrest.	Prot. of GW	Res.	Rest. Res.	Comm.	Ind.																								
	General Parameters		Underline	<i>Italic</i>	Border	--	--	--																								
	Carbon, total organic	mg/kg	--	--	--	--	--	--	310000	11000	6400	300000	18000	17000	10000	12000	66000	61000	16000	15000	7600	190000	26000	4700								
	Moisture	%	--	--	--	--	--	--	82	20	12	67.5	28.1	27.8	18.0	18.9	30.0	33.2	22.3	24.7	18.7	71.4	36.4	17.3								
	pH	pH units	--	--	--	--	--	--	6.2	5.1	5.1	4.4	5.0	5.0	5.3 J	5.5 J	5.1 J	3.9	4.3	4.3	5.3	5.4	5.0									
	PFAS Group	Per- and Polyfluoroalkyl Substances																														
PFSAs	Perfluorooctanesulfonic acid (PFOS)	ng/g	<u>0.88</u>	3.7	8.8	44	440	440	< 1.0 U	0.25 J	< 0.21 U	< 0.60 U	< 0.26 U	< 0.28 U	<u>0.83</u>	<u>0.45 J</u>	< 0.28 U	1.4	< 0.25 U	<u>0.28 J</u>	< 0.23 U	<u>1.6 J</u>	<u>0.57 J</u>	< 0.24 U								
PFCAs	Perfluorobutanoic acid (PFBA)	ng/g	--	--	--	--	--	--	< 4.2 U	< 1.0 U	< 0.83 U	< 2.4 U	< 1.0 U	< 1.1 U	< 0.92 U	< 0.90 U	< 1.1 U	1.3 J	< 0.98 U	< 1.1 U	<u>0.94 J</u>	< 2.9 U	< 1.2 U	< 0.95 U								
	Perfluoropentanoic acid (PFPeA)	ng/g	--	--	--	--	--	--	< 1.0 U	< 0.25 U	< 0.21 U	< 0.60 U	< 0.26 U	< 0.28 U	< 0.23 U	< 0.23 U	< 0.28 U	<u>0.35 J</u>	< 0.25 U	< 0.27 U	< 0.23 U	< 0.71 U	< 0.31 U	< 0.24 U								
	Perfluorohexanoic acid (PFHxA)	ng/g	--	--	--	--	--	--	< 1.0 U	< 0.25 U	< 0.21 U	< 0.60 U	< 0.26 U	< 0.28 U	< 0.23 U	< 0.23 U	< 0.28 U	<u>0.49 J</u>	<u>0.38 J</u>	<u>0.51 J</u>	< 0.23 U	<u>0.80 J</u>	<u>0.32 J</u>	< 0.24 U								
	Perfluoroheptanoic acid (PFHpA)	ng/g	--	--	--	--	--	--	< 1.0 U	< 0.25 U	< 0.21 U	< 0.60 U	< 0.26 U	< 0.28 U	< 0.23 U	<u>0.25 J</u>	< 0.28 U	<u>0.45 J</u>	<u>0.39 J</u>	<u>0.64 J</u>	< 0.23 U	< 0.71 U	<u>0.45 J</u>	< 0.24 U								
	Perfluoroctanoic acid (PFOA)	ng/g	<u>0.66</u>	1.1	6.6	33	500	600	< 1.0 U	<u>0.90</u>	<u>0.56 J</u>	< 0.60 U	<u>2.3</u>	<u>1.3</u>	<u>0.86</u>	<u>5.2</u>	<u>2.5</u>	<u>4.4</u>	<u>9.4</u>	<u>12</u>	<u>0.31 J</u>	< 0.71 U	<u>7.5</u>	<u>0.72</u>								
	Perfluorononanoic acid (PFNA)	ng/g	--	--	--	--	--	--	< 1.0 U	< 0.25 U	< 0.21 U	< 0.60 U	< 0.26 U	< 0.28 U	<u>0.27 J</u>	< 0.23 U	< 0.28 U	<u>0.52 J</u>	< 0.25 U	< 0.27 U	< 0.23 U	< 0.71 U	< 0.31 U	< 0.24 U								
	Perfluorodecanoic acid (PFDA)	ng/g	--	--	--	--	--	--	< 1.0 U	< 0.25 U	< 0.21 U	< 0.60 U	< 0.26 U	< 0.28 U	<u>0.28 J</u>	< 0.23 U	< 0.28 U	< 0.28 U	< 0.25 U	< 0.27 U	< 0.23 U	< 0.71 U	< 0.31 U	< 0.24 U								
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	ng/g	--	--	--	--	--	--	< 1.0 U	< 0.25 U	< 0.21 U	< 0.60 U	< 0.26 U	< 0.28 U	<u>0.41 J</u>	< 0.23 U	< 0.28 U	< 0.28 U	< 0.25 U	< 0.27 U	< 0.23 U	< 0.71 U	< 0.31 U	< 0.24 U								
	Perfluorododecanoic acid (PFDoA / PFDoDA)	ng/g	--	--	--	--	--	--	< 1.0 U	< 0.25 U	< 0.21 U	< 0.60 U	< 0.26 U	< 0.28 U	< 0.23 U	< 0.23 U	< 0.28 U	< 0.28 U	< 0.25 U	< 0.27 U	< 0.23 U	< 0.71 U	< 0.31 U	< 0.24 U								
	Perfluorotridecanoic acid (PFTrDA / PFTriA)	ng/g	--	--	--	--	--	--	< 1.0 U	< 0.25 U	< 0.21 U	< 0.60 U	< 0.26 U	< 0.28 U	< 0.23 U	< 0.23 U	< 0.28 U	< 0.28 U	< 0.25 U	< 0.27 U	< 0.23 U	< 0.71 U	< 0.31 U	< 0.24 U								
FASAs	Perfluorotetradecanoic acid (PFTA / PFTeDA / PFTeA)	ng/g	--	--	--	--	--	--	< 1.0 U	< 0.25 U	< 0.21 U	< 0.60 U	< 0.26 U	< 0.28 U	< 0.23 U	< 0.23 U	< 0.28 U	< 0.28 U	< 0.25 U	< 0.27 U	< 0.23 U	< 0.71 U	< 0.31 U	< 0.24 U								
	n-Ethyl perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ng/g	--	--	--	--	--	--	< 1.0 U	< 0.25 U	<u>1.2 J</u>	< 0.60 U	< 0.26 U	< 0.28 U	< 0.23 U	< 0.23 U	< 0.28 U	< 0.28 U	< 0.25 U	< 0.27 U	< 0.23 U	< 0.71 U	< 0.31 U	< 0.24 U								
FASAs	n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)	ng/g	--	--	--	--	--	--	< 1.0 U	< 0.25 U	<u>1.0 J</u>	< 0.60 U	< 0.26 U	< 0.28 U	< 0.23 U	< 0.23 U	< 0.28 U	< 0.28 U	< 0.25 U	< 0.27 U	< 0.23 U	< 0.71 U	< 0.31 U	< 0.24 U								

Notes:

*Results are included for analytes that were detected.

** Sample locations 01D and 10B

Table 3: Supplemental Phase Analytical Results*

Supplemental Scope Data Summary Report

Regional Air Deposition Study

Village of Hoosick Falls, New York

	Parameter	Units	Location						HF1-W16			
			Date	11/11/2021	Depth	0 - 0.17 ft	Sample Type	N	Date	11/11/2021	Depth	N
			Rest. Res.	--	Border	--	Comm.	--	Rest. Res.	--	Border	--
			Ind.	--	--	--	Ind.	--	Ind.	--	Ind.	--
	General Parameters		Underline	<i>Italic</i>	Border	--	--	--				
	Carbon, total organic	mg/kg	--	--	--	--	--	--	140000	22000	7300	
	Moisture	%	--	--	--	--	--	--	62.3	26.8	17.1	
	pH	pH units	--	--	--	--	--	--	4.6	4.4	4.6	
PFAS Group	Per- and Polyfluoroalkyl Substances											
PFSAs	Perfluorooctanesulfonic acid (PFOS)	ng/g	0.88	3.7	8.8	44	440	440	0.84 J	0.56 J	< 0.22 U	
PFCAs	Perfluorobutanoic acid (PFBA)	ng/g	--	--	--	--	--	--	< 1.9 U	< 1.1 U	< 0.89 U	
	Perfluoropentanoic acid (PPPeA)	ng/g	--	--	--	--	--	--	< 0.48 U	0.26 J	< 0.22 U	
	Perfluorohexanoic acid (PFHxA)	ng/g	--	--	--	--	--	--	< 0.48 U	< 0.26 U	< 0.22 U	
	Perfluoroheptanoic acid (PFHpA)	ng/g	--	--	--	--	--	--	< 0.48 U	0.37 J	< 0.22 U	
	Perfluorooctanoic acid (PFOA)	ng/g	0.66	1.1	6.6	33	500	600	2.1	4.8	0.61 J	
	Perfluorononanoic acid (PFNA)	ng/g	--	--	--	--	--	--	< 0.48 U	< 0.26 U	< 0.22 U	
	Perfluorodecanoic acid (PFDA)	ng/g	--	--	--	--	--	--	< 0.48 U	< 0.26 U	< 0.22 U	
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	ng/g	--	--	--	--	--	--	< 0.48 U	< 0.26 U	< 0.22 U	
	Perfluorododecanoic acid (PFDoA / PFDoDA)	ng/g	--	--	--	--	--	--	< 0.48 U	< 0.26 U	< 0.22 U	
FASAA	Perfluorotridecanoic acid (PFTrDA / PFTriA)	ng/g	--	--	--	--	--	--	< 0.48 U	< 0.26 U	< 0.22 U	
	Perfluorotetradecanoic acid (PFTA / PFTeDA / PFTeA)	ng/g	--	--	--	--	--	--	< 0.48 U	< 0.26 U	< 0.22 U	
FASAA	n-Ethyl perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ng/g	--	--	--	--	--	--	< 0.48 U	< 0.26 U	< 0.22 U	
	n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)	ng/g	--	--	--	--	--	--	< 0.48 U	< 0.26 U	< 0.22 U	

Notes:

*Results are included for analytes that were detected.

** Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan

Detections are presented in bold.

N - Sample type: Normal

FD - Sample type: Field Duplicate

mg/kg - milligram per kilogram

ng/g - nanogram per gram

J - Estimated detected value. The reported value is less than the stated laboratory quantitation

R - The data are unusable. The samples results are rejected due to serious deficiencies in

U - The analyte was analyzed for, but was not detected.

UU - The analyte was analyzed for, but not detected. The reported value is approximate and may be inaccurate or imprecise.

FASAs - perfluoroalkane sulfonamides

FASAA - perfluoroalkane sulfonamido acetic acids

FTSAs - fluorotelomer sulfonic acids

PFAS - per- and polyfluoroalkyl substances

PFCAs - perfluoroalkyl carboxylic acids

PFSAs - perfluoroalkane sulfonic acids

N-EtFOSAA - n-Ethyl perfluorooctanesulfonamidoacetic acid

¹ Guidance values form NYSDEC Sampling, Analysis and Assessment for PFAS (NYSDEC, 2021b)

Table 4: Supplemental Phase Summary Statistics
Supplemental Scope Data Summary Report
Village of Hoosick Falls, New York

All Soil Samples (0-2 feet)*											
	Parameter	# of Samples	# of Detections	Detection Frequency	Max	Min	Median	Arithmetic Mean	Geometric Mean	75 th Percentile	25 th Percentile
	Carbon, total organic (mg/kg)	156	156	100%	520,000	--	17,500	45,513	20,216	57,000	7,925
	Moisture (% by weight)	156	156	100%	86.0	5.4	21.3	27.0	23.6	33.2	16.5
	pH (pH units)	156	156	100%	8.60	3.90	5.10	5.28	5.23	5.70	4.70
PFAS Group	PFAS Compound** (ng/g)										
PFSAs	Perfluorooctanesulfonate (PFOS)	156	93	60%	12	--	0.325	0.59	0.42	0.67	--
PFCAs	Perfluorobutanoic acid (PFBA)	156	2	1%	1.3	--	--	--	--	--	--
	Perfluoropentanoic acid (PFPeA)	156	18	12%	2.7	--	--	--	--	--	--
	Perfluorohexanoic acid (PFHxA)	156	30	19%	1.3	--	--	--	--	--	--
	Perfluoroheptanoic acid (PFHpA)	156	64	41%	1.7	--	--	--	--	--	--
	Perfluorooctanoic acid (PFOA)	156	146	94%	13	--	2.5	3.4	1.4	4.5	1.0
	Perfluorononanoic acid (PFNA)	156	15	10%	1.5	--	--	--	--	--	--
	Perfluorodecanoic acid (PFDA)	156	14	9%	1.2	--	--	--	--	--	--
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	156	21	13%	1.5	--	--	--	--	--	--
	Perfluorododecanoic acid (PFDoA / PFDoDA)	156	7	4%	0.96	--	--	--	--	--	--
	Perfluorotridecanoic acid (PFTrDA / PFTriA)	156	5	3%	0.62	--	--	--	--	--	--
FASAA	Perfluorotetradecanoic acid (PFTA / PFTeDA / PFTeA)	156	2	1%	0.48	--	--	--	--	--	--
FASAA	N-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)	156	1	1%	1	--	--	--	--	--	--
	N-Ethyl perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	156	1	1%	1.2	--	--	--	--	--	--

Surface Soil Samples (0-0.17 feet)*											
	Parameter	# of Samples	# of Detections	Detection Frequency	Maximum	Minimum	Median	Arithmetic Mean	Geometric Mean	75 th Percentile	25 th Percentile
	Carbon, total organic (mg/kg)	52	52	100%	520,000	10,000	74,000	109,517	81,914	110,000	55,500
	Moisture (% by weight)	52	52	100%	86.0	17.0	38.2	43.0	40.5	49.0	32.1
	pH (pH units)	52	52	100%	7.30	3.90	5.25	5.24	5.19	5.70	4.63
PFAS Group	PFAS Compound** (ng/g)										
PFSAs	Perfluorooctanesulfonate (PFOS)	52	45	87%	12.0	--	0.71	1.0	0.74	0.9075	0.5575
PFCAs	Perfluorobutanoic acid (PFBA)	52	1	2%	1.3	--	--	--	--	--	--
	Perfluoropentanoic acid (PFPeA)	52	5	10%	2.7	--	--	--	--	--	--
	Perfluorohexanoic acid (PFHxA)	52	4	8%	0.8	--	--	--	--	--	--
	Perfluoroheptanoic acid (PFHpA)	52	7	13%	0.54	--	--	--	--	--	--
	Perfluorooctanoic acid (PFOA)	52	43	83%	4.9	--	0.93	1.4	1.1	1.95	0.66
	Perfluorononanoic acid (PFNA)	52	11	21%	1.5	--	--	--	--	--	--
	Perfluorodecanoic acid (PFDA)	52	12	23%	1.2	--	--	--	--	--	--
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	52	20	38%	1.5	--	--	--	--	--	--
	Perfluorododecanoic acid (PFDoA / PFDoDA)	52	7	13%	0.96	--	--	--	--	--	--
	Perfluorotridecanoic acid (PFTrDA / PFTriA)	52	5	10%	0.62	--	--	--	--	--	--
	Perfluorotetradecanoic acid (PFTA / PFTeDA / PFTeA)	52	2	4%	0.48	--	--	--	--	--	--

Table 4: Supplemental Phase Summary Statistics
Supplemental Scope Data Summary Report
Village of Hoosick Falls, New York

Near Surface Soil Samples (0.17-1 feet)*											
	Parameter	# of Samples	# of Detections	Detection Frequency	Maximum	Minimum	Median	Arithmetic Mean	Geometric Mean	75 th Percentile	25 th Percentile
	Carbon, total organic (mg/kg)	52	52	100%	57,000	4,800	17,000	18,953	17,103	22,000	12,250
	Moisture (% by weight)	52	52	100%	36.4	13.0	20.9	22.2	21.7	24.6	19.0
	pH (pH units)	52	52	100%	8.60	4.10	5.10	5.27	5.21	5.58	4.70
PFAS Group	PFAS Compound** (ng/g)										
PFSAs	Perfluorooctanesulfonate (PFOS)	52	38	73%	2.0	--	0.39	0.46	0.40	0.56	--
PFCAs	Perfluoropentanoic acid (PFPeA)	52	12	23%	0.37	--	--	--	--	--	--
	Perfluorohexanoic acid (PFHxA)	52	17	33%	1.3	--	--	--	--	--	--
	Perfluoroheptanoic acid (PFHpA)	52	36	69%	1.7	--	0.30	0.41	0.37	0.52	--
	Perfluorooctanoic acid (PFOA)	52	52	100%	13	0.48	3.9	4.7	3.8	5.9	3.0
	Perfluorononanoic acid (PFNA)	52	4	8%	0.31	--	--	--	--	--	--
	Perfluorodecanoic acid (PFDA)	52	2	4%	0.29	--	--	--	--	--	--
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	52	1	2%	0.32	--	--	--	--	--	--

Sub-Surface Soil Samples (1-7 feet)*											
	Parameter	# of Samples	# of Detections	Detection Frequency	Maximum	Minimum	Median	Arithmetic Mean	Geometric Mean	75 th Percentile	25 th Percentile
	Carbon, total organic (mg/kg)	52	52	100%	66,000	--	6,100	8,067	5,898	9,725	3,500
	Moisture (% by weight)	52	52	100%	30.0	5.4	15.5	15.7	15.0	17.8	13.0
	pH (pH units)	52	52	100%	7.10	4.30	5.10	5.33	5.28	5.70	4.80
PFAS Group	PFAS Compound** (ng/g)										
PFSAs	Perfluorooctanesulfonate (PFOS)	52	10	19%	0.8	--	--	--	--	--	--
PFCAs	Perfluorobutanoic acid (PFBA)	52	1	2%	0.94	--	--	--	--	--	--
	Perfluoropentanoic acid (PFPeA)	52	1	2%	0.28	--	--	--	--	--	--
	Perfluorohexanoic acid (PFHxA)	52	9	17%	0.7	--	--	--	--	--	--
	Perfluoroheptanoic acid (PFHpA)	52	20	38%	1	--	--	--	--	--	--
	Perfluorooctanoic acid (PFOA)	52	52	100%	12	0.31	2.9	3.6	2.7	5.2	1.9
FASAAAs	N-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)	52	1	2%	1	--	--	--	--	--	--
	N-Ethyl perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	52	1	2%	1.2	--	--	--	--	--	--

Notes:

mg/kg - milligram per kilogram.

ng/g - nanogram per gram.

PFAS (perfluoroalkane sulfonic acids) values are given in parts per billion (ppb) (ng/g).

Maximum: Highest detected concentration.

Mean, median, and 75th percentile calculated if detection frequency was ≥ 50% and at least 5 detections.

Summary statistics with non-detects were calculated using Kaplan-Meier estimation method (See Appendix B for further discussion of statistical methods)

25th percentile calculated if at least 75% of samples were measured above detection limits.

Minimum calculated only if all samples were measured above detection limits.

* Results from locations 01D and 10B were deemed not representative and have been excluded.

**PFAS with zero detections for the given sample interval are excluded.

FASAAAs - perfluoroalkane sulfonamide acetic acids

PFAS - per- and polyfluoroalkyl substances

PFCAs - perfluoroalkyl carboxylic acids

PFSAs - perfluoroalkane sulfonic acids

Appendix A

Wind Roses: McCaffrey Street Weather Station

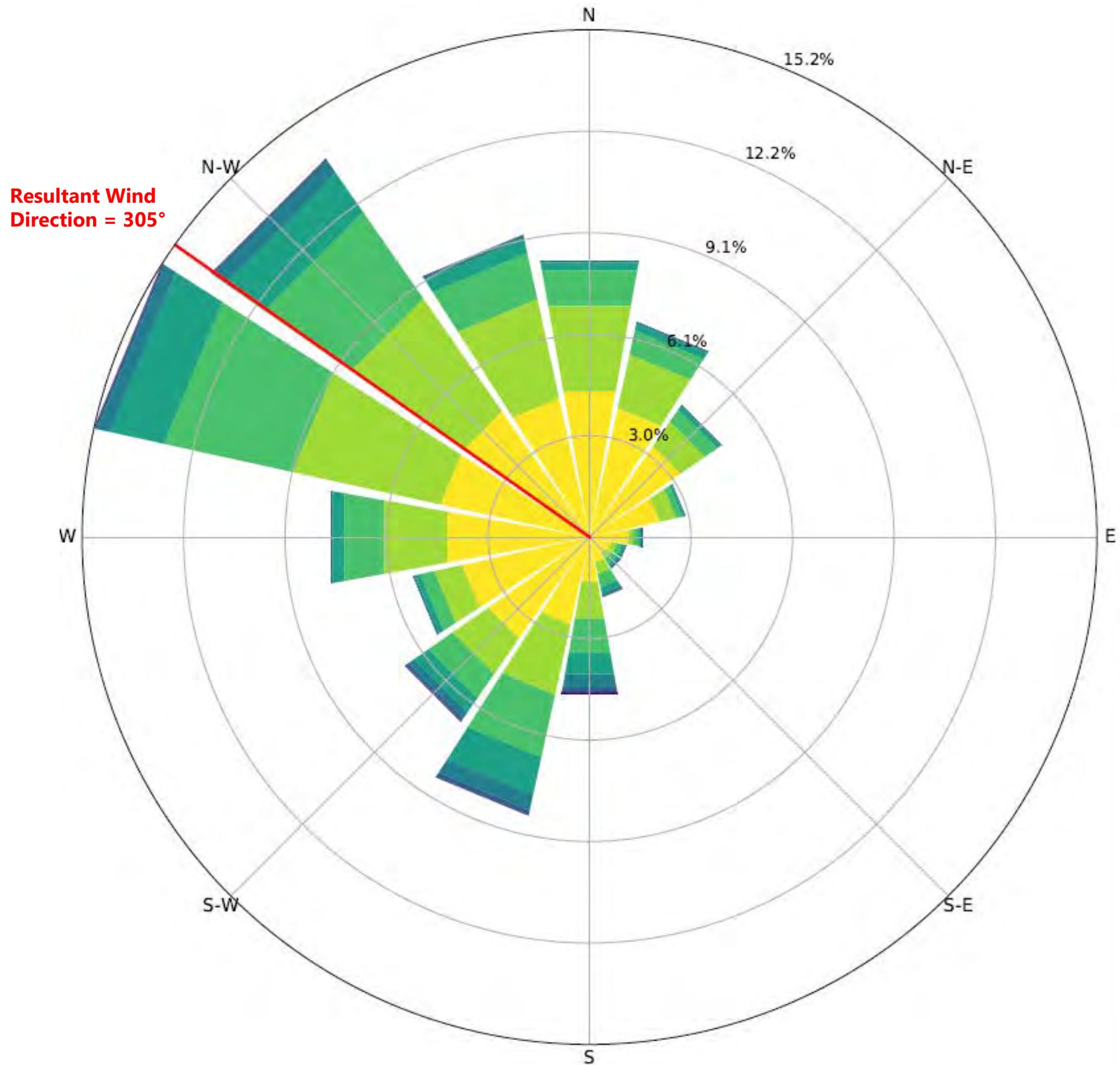


Figure A1
McCaffrey Street Station
Wind Rose (12/24/18 - 05/31/22)
Supplemental Scope
Data Summary Report
Hoosick Falls, NY

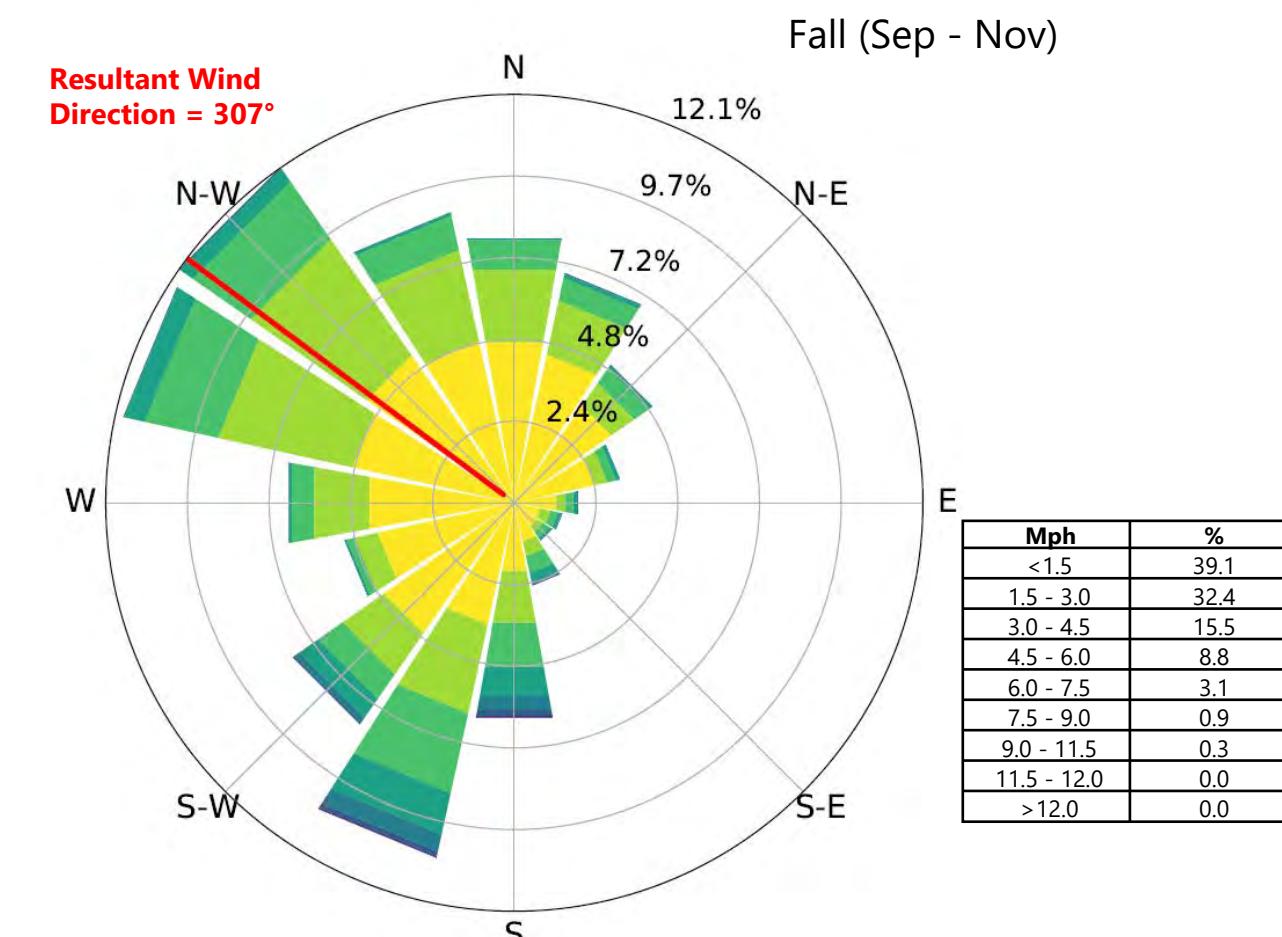
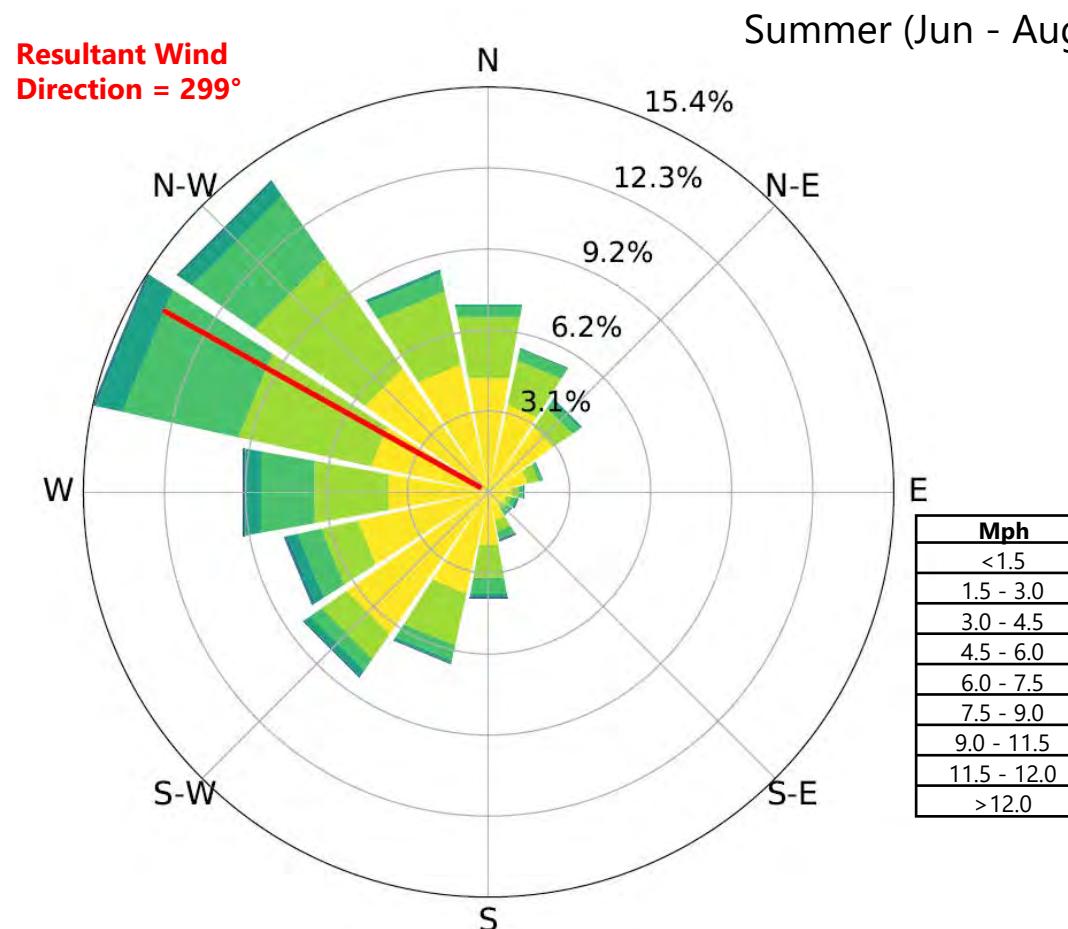
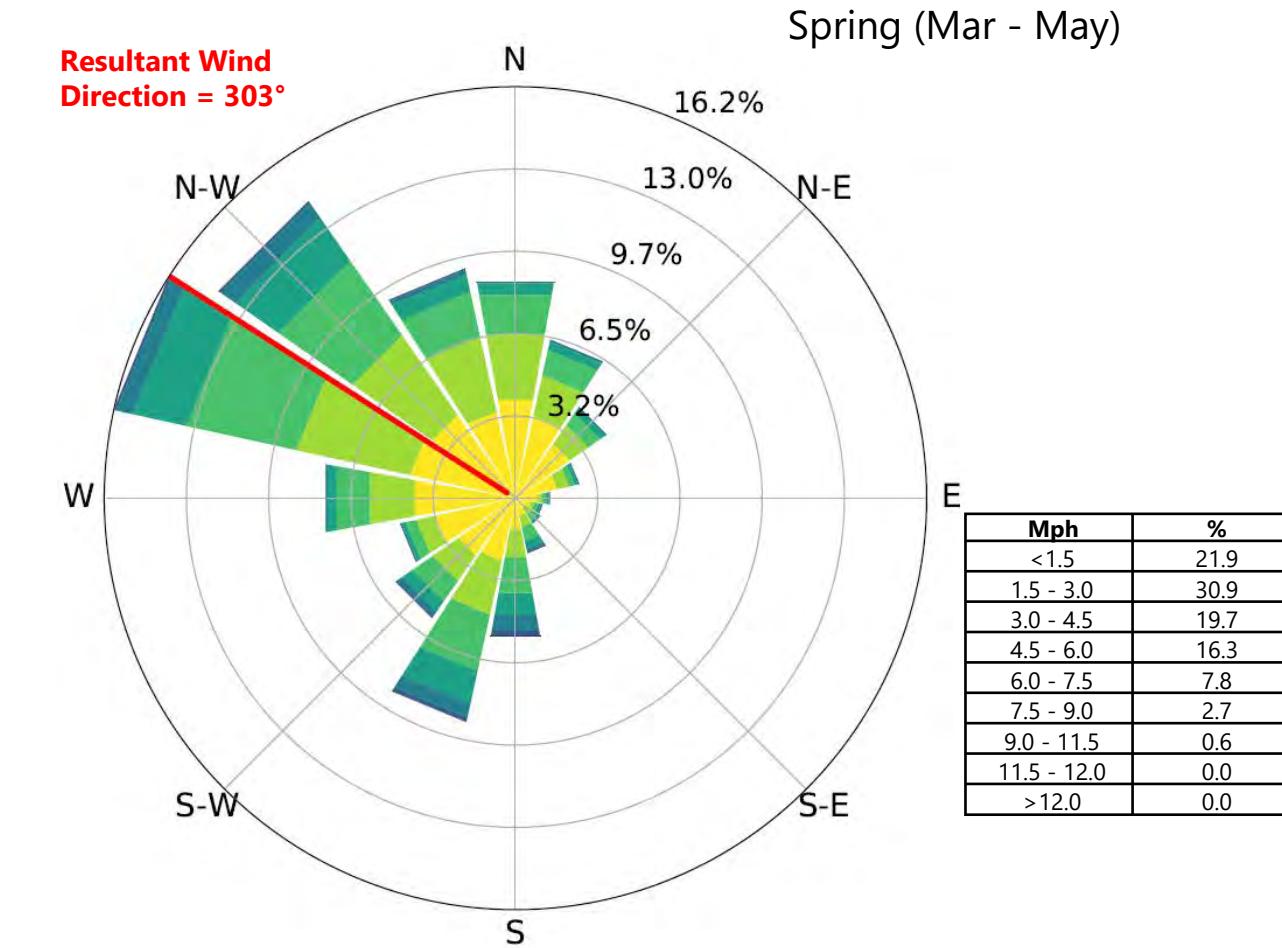
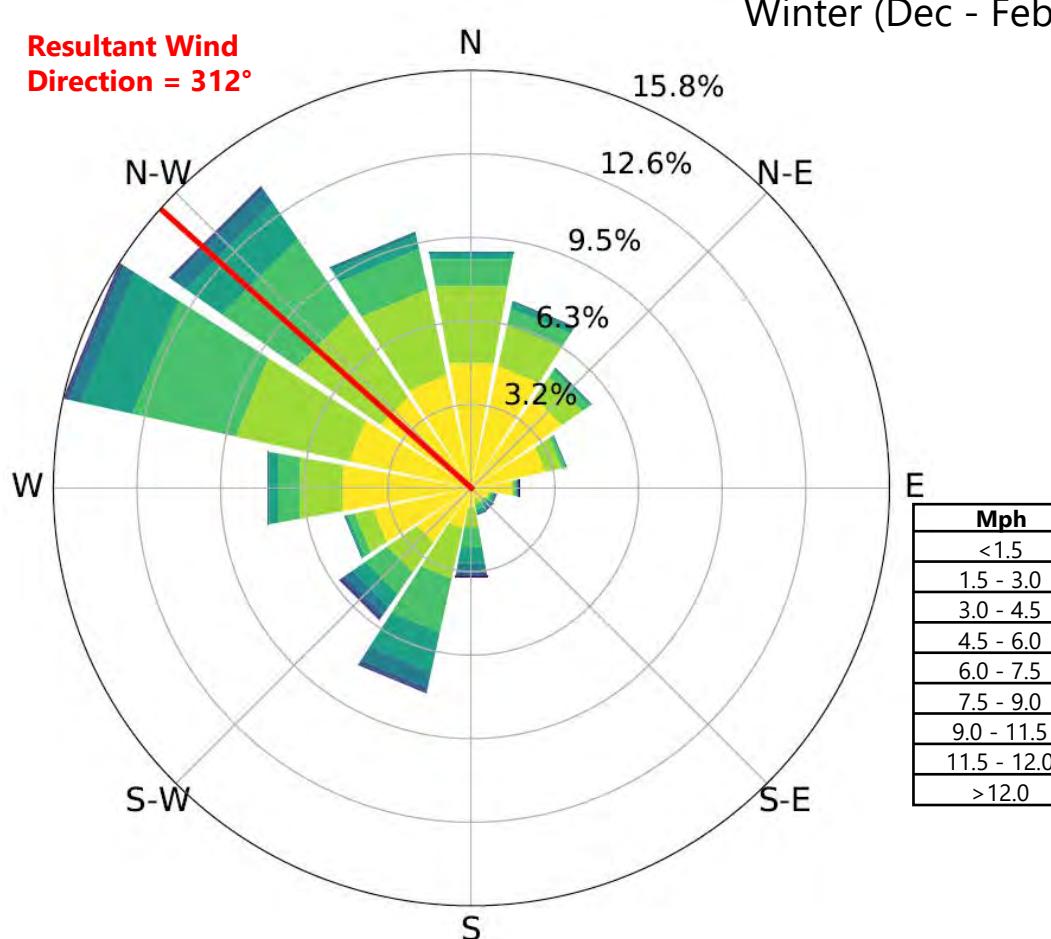


Figure A2
McCaffery Street Station
Seasonal Wind Roses
(12/24/18 - 05/31/22)
Supplemental Scope
Data Study Report
Hoosick Falls, NY

Appendix B

Initial Phase Sampling Information

Table B1: Initial Phase Sample Location Summary

Supplemental Scope Data Summary Report

Village of Hoosick Falls, New York

Sample Location	Sampling Date	Elevation (ft AMSL)	Longitude	Latitude	Topography	Location on Slope	Village Facing?	Tree Cover	Tree Type	Field Observations / Comments
01A	10/30/19	470.09	-73.355226	42.923266	Flat	Top of Slope	No	50%	Both ¹	Large quantity of small brush vegetation (ferns).
01B	10/30/19	479.54	-73.352449	42.922609	Flat	Top of Slope	No	75%	Deciduous	No notable features.
01C	10/18/19	485.03	-73.34564138	42.9224507	Flat	N/A	N/A	75%	Both ¹	Old, rotting, fallen trees nearby. Small, open field adjacent to sample area.
01D	10/18/19	477.51	-73.34490038	42.9254597	Flat	Top of Slope	No	90%	Deciduous	Side of Frazier Lane. Top of Slope, with debris present down the slope. Wrapper found at depth of 6 inches.
02A	10/18/19	487.67	-73.34444938	42.9220037	Flat	N/A	N/A	100%	Deciduous	Sample area inside of a small clearing, surrounded by 20-30 young trees.
02B	1/23/20	512.78	-73.34175263	42.9211843	Flat	N/A	No	75%	Deciduous	Easily accessible, flat terrain.
02C	1/23/20	524.95	-73.33856284	42.92014474	Slope	Mid-slope	No	95%	Both ¹	Agricultural fields at top of slope; heavily sloped areas, very steep.
02D	1/23/20	592.98	-73.33575763	42.9188283	Slope	Mid-slope	No	75%	Coniferous	Agricultural fields at top of slope; heavily sloped areas, very steep.
03A	1/22/20	462.87	-73.33198063	42.9185533	Slope	Mid-slope	No	75%	Both ¹	Refusal at 1.2 feet on tree root at marked sampling location; offset to reach desired depth of 2 feet.
03B	6/19/20	674.08	-73.32910275	42.91633047	Slope	Mid-slope	No	60%	Deciduous	Snowmobile/ATV trail approximately 1000 feet away.
03C	6/19/20	746.82	-73.32771063	42.9147393	Slope	Mid-slope	No	65%	Both ¹	Snowmobile/ATV trail approximately 100 feet away.
04B	6/18/20	805.24	-73.32914063	42.9052593	Slope	Mid-slope	Yes	40%	Deciduous	Loose root mat in top 0.5 inch of soil. Frequent bedrock outcrops in vicinity. Refusal at 17 inches on bedrock after multiple (± 5) attempts.
04C	10/30/19	658.97	-73.333306	42.906251	Slope	Mid-slope	No	50%	Deciduous	Downslope from grazing area (cows).
4D	4/23/20	709.05	-73.33086	42.90443	Slope	Mid-slope	Yes	65%	Deciduous	Agricultural fields at bottom of slope.
05A	8/6/20	761.31	-73.32875663	42.9010003	Slope	Mid-slope	No	60%	Deciduous	Up slope from a logging road; rock outcrops in area.
05B	8/6/20	783.53	-73.33090063	42.9001223	Slope	Mid-slope	Yes	50%	Deciduous	Numerous blown-down trees in area; rock outcrops in area.
05C	8/6/20	854.00	-73.32899763	42.8995093	Slope	Top of Slope	Partially	60%	Deciduous	Rock outcrops in area.
05E	8/6/20	803.02	-73.32689463	42.9001523	Slope	Mid-slope	Yes	70%	Deciduous	Numerous rock outcrops in area, opening in tree canopy nearby.
05F	6/18/20	827.71	-73.32876963	42.9039483	Slope	Top of Slope	Yes	50%	Deciduous	Top of moderate slope. Light tree cover. Approximately 75 feet from a field.
06A	10/23/19	784.17	-73.33030516	42.89541701	Slope	Mid-slope	Yes	30%	Both ¹	Village facing, very little tree cover. Frequent fractured boulders. Inside "S" of dirt road winding up the hill.
06B	1/22/20	793.76	-73.32969063	42.8942103	Flat	N/A	No	90%	Both ¹	Very moist soil, location on elevated berm in marsh area. Groundwater not observed in hand auger bore hole.
06C	10/23/19	792.3	-73.32661816	42.89058201	Slope	Top of Slope	Partially	50%	Deciduous	Tree cover opens up to the east. Near stone wall as property line marker.
06D	10/23/19	724.68	-73.33158315	42.89176002	Slope	Top of Slope	Partially	80%	Both ¹	Leaf litter had strange rotting odor.
06E	10/9/19	718.53	-73.32839437	42.8908347	Slope	Mid-slope	Partially	50%	Both ¹	Sample area was next to a large fallen tree with uprooted soil.
06F	11/26/19	730.01	-73.32805963	42.8930973	Slope	Mid-slope	No	75%	Both ¹	Immobile and partially demolished car located approximately 200-300 feet away. Terminated at 22 inches due to presence of saturated soils, possible perched groundwater.
07A	10/9/19	665.26	-73.33064237	42.8898567	Flat	Top of Slope	Yes	60%	Deciduous	Approximately 20 feet off of an ATV path, some fallen pines nearby.
07B	10/9/19	633.34	-73.33223837	42.8886897	Slope	Mid-slope	Yes	80%	Deciduous	About halfway down a slope from an ATV trail, stream at bottom of the slope.
07C	10/10/19	581.61	-73.33769937	42.88614969	Flat	Top of Slope	Yes	90%	Coniferous	Heavy tree cover. Thin vetted area with no noticeable difference in environment outside area.
08A	10/23/19	573.35	-73.33906816	42.88609201	Slope	Top of Slope	Yes	40%	Both ¹	Old 1950s car in the stream bed downgradient of the sample location. Thin vetted area with no noticeable difference in environment outside area.
08B	10/10/19	544.21	-73.34379437	42.8860917	Flat	N/A	N/A	70%	Deciduous	Approximately 20 feet off of a walking path that bisects vetted area (lengthwise). Large quantity of hunting tree stands nearby. Steep slope approximately 25 feet to the south.
08C	8/6/20	530.42	-73.34498263	42.88249331	Flat	N/A	No	95%	Deciduous	Heavy tree cover; narrow vetted area; equestrian area nearby.
09A	8/6/20	472.74	-73.35025163	42.88066731	Flat	Top of Slope	Yes	85%	Deciduous	Narrow vetted area; equestrian area nearby.
09B	8/6/20	502.62	-73.34806563	42.88052431	Flat	N/A	Yes	90%	Deciduous	Heavy tree cover; narrow vetted area; equestrian area nearby.
10A	10/18/19	514.99	-73.36372838	42.88088369	Flat	N/A	N/A	100%	Deciduous	Small vetted area. Moved upgradient from depressed area. Small runoff stream occasionally flows nearby. Large quantity of fallen leaves on ground. Property owner mentioned surrounding land used to be an orchard.
10B	10/30/19	445.76	-73.35875162	42.88213431	Slope	Mid-slope	No	50%	Deciduous	Possible fill placed during development of housing complex. Added location 10E.
10C	1/22/20	616.87	-73.36590262	42.88239231	Slope	Top of Slope	Partially	80%	Deciduous	Frequent bedrock outcrops in vicinity. Refusal at 18 inches on bedrock after multiple (± 5) attempts.
10D	10/24/19	561.73	-73.36615516	42.88402801	Slope	Mid-slope	Yes	30%	Deciduous	Located halfway up a steep hill. Large quantity of boulders and bedrock outcrops, rocky terrain.
10E	10/30/19	441.08	-73.35880962	42.88205931	Slope	Toe of Slope	No	50%	Deciduous	Possible flood plain of small stream. Mottling in soil at 1 to 2 feet.
11A	10/24/19	765.53	-73.37073415	42.88350301	Slope	Top of Slope	Partially	100%	Coniferous	Overhead was completely covered by dense pine tree canopy cover. Location was next to a steep ridge into a stream. ATV trails approximately 200-300 feet away.
11B	10/24/19	619.02	-73.36898515	42.88447901	Slope	Mid-slope	Yes	80%	Both ¹	Located at top of steep bank next to a stream and small waterfall.
11C	11/12/19	759.67	-73.37387162	42.88640031	Slope	Mid-slope	Yes	50%	Deciduous	Located halfway up steep hill, upgradient of a small stream that bisects vetted area. Grass fields (cow pasture to the north) on either side of the wooded area.
11D	11/12/19	649.53	-73.36911462	42.88654131	Slope	Mid-slope	No	50%	Deciduous	Approximately 200-300 feet down slope from ATV trail.
11E	11/12/19	719.17	-73.37149862	42.88583531	Slope	Mid-slope	Partially	40%	Deciduous	Approximately 200-300 feet down slope from ATV trail.
12A	11/13/19	595.98	-73.37084062	42.8929663	Slope	Toe of Slope	No	40%	Both ¹	Located on semi-flat area near the bottom of a slope. Stream is at the bottom of the slope.
12B	10/10/19	881.87	-73.37645238	42.8927087	Flat	Top of Slope	Partially	25%	Deciduous	Located in small opening in wood area, some waist high flowers and vegetation.
12C	11/13/19	666.32	-73.37207462	42.8938823	Slope	Mid-slope	No	60%	Both ¹	Steep slope. Gravel trail in vicinity.
12D	11/13/19	694.31	-73.37592958	42.8954543	Slope	Mid-slope	No	75%	Deciduous	Halfway up a steep slope. Agricultural field at the top of the slope. Stream is at the bottom of the slope.
13A	11/13/19	774.72	-73.37728971	42.89875199	Slope	Mid-slope	No	60%	Both ¹	Approximately 200-300 feet from an ATV trail; mostly larger, older trees.
13D	10/9/19	990.30	-73.37972339	42.9047567	Slope	Mid-slope	No	85%	Deciduous	Located at the top of a ridge, frequent boulders and bedrock outcrops. Refusal at 20 inches on bedrock after multiple (5) attempts.
14A	10/9/19	845.03	-73.37960739	42.9058537	Slope	Mid-slope	No	85%	Deciduous	Down slope/gradient from 13D. Occasional boulders and bedrock outcrops. Located on mound with depressions in area.
14C	4/23/20	893.38	-73.38087	42.90574	Slope	Mid-slope	No	80%	Deciduous	Tightly woven root mat in top 1 inch of soil. Bedrock outcrops at surface in area of sample.
15A	6/18/20	721.08	-73.36752562	42.9156843	Slope	Mid-slope	Yes	75%	Deciduous	Very dry and loose soil. Possible overgrown path/logging road up the slope. Logged clearing with aged stumps to the north.
15C	6/18/20	745.45	-73.36749462	42.9176463	Slope	Mid-slope	No	80%	Deciduous	Very dry and loose soil. Dense undergrowth in portions of vetted area.
15D	11/26/19	759.44	-73.36720162	42.9203263	Slope	Top of Slope	Yes	50%	Deciduous	Located at the top of a ridge, frequent boulders and bedrock outcrops. Large quantity of cut down trees and stumps (still in the ground) nearby. Sample location moved in the field, actual location is within the Sector 16 boundary.
15G	4/23/20	639.29	-73.36967	42.91262	Slope	Mid-slope	No	50%	Deciduous	Approximately 200 feet up slope from road. Approximately 100 yards from property residence.
16A	11/26/19	679.39	-73.36600562	42.9189943	Slope	Mid-slope	Yes	50%	Deciduous	Diagonally down slope/gradient from 15D. Trace tree stumps nearby (still in the ground).
16D	10/30/19	424.32	-73.358404	42.921363	Flat	N/A	N/A	75%	Deciduous	Located on a flat area with gentle slope starting approximately 20 feet to the northwest and wetland downgradient. Reached

Table B2: Description of Soil Samples (Initial Phase)
 Regional Air Deposition Study
 Village of Hoosick Falls, New York

Sample Location	Sample Depth (feet)	Soil Description*	Soil Type
01A	0.0-0.17	Dark Brown SILT, little organics, trace fine to coarse angular gravel. No odor, no staining.	Silt
	0.17-1.0	Brown SILT, little brown clay, trace fine to coarse angular gravel, trace organics. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT, trace light brown clay, trace fine to coarse angular gravel. No odor, no staining.	Silt
01B	0.0-0.17	Dark Brown SILT, little clay, little organics. No odor, no staining.	Silt
	0.17-1.0	Brown SILT and CLAY, trace organics. No odor, no staining.	Silt Clay
	1.0-2.0	Brown CLAY, some light brown Silt. No odor, no staining.	Clay
01C	0.0-0.17	Brown SILT and ORGANICS, trace clay.	Silt Organics
	0.17-1.0	Light Brown SILT and CLAY, trace fine to coarse gravel, trace organics.	Silt Clay
	1.0-2.0	Light Brown SILT and CLAY, trace fine to coarse gravel.	Silt Clay
01D	0.0-0.17	Dark Brown SILT and CLAY, little organics, trace semi-angular gravel.	Silt Clay
	0.17-1.0	Dark Brown SILT, some angular fine to coarse Gravel, little organics and clay, trace trash (food wrapper).	Silt
	1.0-1.6	Dark Brown SILT, some angular fine to coarse Gravel, little clay, trace organics. Refusal at 20" on possible cobbles.	Silt
02A	0.0-0.17	Dark SILT, some Organics, trace clay.	Silt
	0.17-1.0	Light Brown CLAY, little brown silt, trace organics.	Clay
	1.0-2.0	Light Brown CLAY, little brown silt.	Clay
02B	0.0-0.17	Dark Brown SILT, trace fine to coarse sub-angular gravel, trace organics. No odor, no staining.	Silt
	0.17-1.0	Light Brown SILT, some light brown Clay, trace organics, trace fine to coarse sub-angular gravel. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT, some light brown Clay, little fine to coarse subangular gravel, trace organics. No odor, no staining.	Silt
02C	0.0-0.17	Dark Brown SILT, trace fine to coarse sub-angular gravel, trace organics. No odor, no staining.	Silt
	0.17-1.0	Light Brown SILT, some light brown Clay, little fine to coarse subangular gravel, trace organics. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT, some light brown Clay, trace fine to coarse subangular gravel, trace organics. No odor, no staining.	Silt
02D	0.0-0.17	Brown SILT, little organics. No odor, no staining.	Silt
	0.17-1.0	Light Brown SILT, trace organics. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT, trace brown clay, trace fine to coarse angular gravel. No odor, no staining.	Silt
03A	0.0-0.17	Dark Brown SILT, little brown clay, little organics. No odor, no staining.	Silt
	0.17-1.0	Light Brown SILT, some brown Clay, trace fine to coarse angular gravel, trace organics. No odor, no staining.	Silt
	1.0-2.0	Light Brown CLAY, some light brown Silt, trace fine to coarse angular gravel, trace organics. No odor, no staining.	Clay
03B	0.0-0.17	Dark Brown SILT and ORGANICS, trace dark brown clay. No odor, no staining.	Silt
	0.17-1.0	Light Brown SILT, little fine sub-angular gravel, trace organics. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT, little fine to coarse angular gravel, trace light brown fine to coarse sand, trace organics. No odor, no staining.	Silt
03C	0.0-0.17	Dark Brown SILT and ORGANICS, trace fine to coarse sub-angular gravel. No odor, no staining.	Silt
	0.17-1.0	Light Brown SILT, little fine to coarse sub-angular gravel, trace light brown fine to coarse sand. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT, little fine to coarse sub-angular gravel, trace light brown fine to coarse sand. Pine sap odor, no staining.	Silt
04B	0.0-0.5: 0.5-2.0: 0.5-2.0: 0.5-2.0:	ORGANICS (root mat), trace silt; Dark Brown SILT and ORGANICS. No odor, no staining.	Organics
	0.17-1.0	Brown SILT, little fine sub-angular gravel, trace organics. No odor, no staining.	Silt
	1.0-1.42	Light Brown SILT, little fine to coarse angular gravel, trace organics, trace light brown clay. No odor, no staining.	Silt
04C	0.0-0.17	Dark Brown SILT, little organics, trace dark brown clay, trace fine to coarse angular gravel. No odor, no staining.	Silt
	0.17-1.0	Brown SILT, little brown clay, trace fine to coarse angular gravel, trace organics. No odor, no staining.	Silt
	1.0-2.0	Light Brown CLAY and SILT, some fine to coarse angular Gravel. No odor, no staining.	Silt Clay
04D	0.0-0.17	Dark Brown SILT, little organics, trace coarse angular gravel. No odor, no staining.	Silt
	0.17-1.0	Brown SILT, trace organics, trace clay, trace fine to coarse angular gravel. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT, some light brown Clay, trace organics, trace fine to coarse sub-angular gravel. Moist. No odor, no staining.	Silt
05A	0.0-0.17	Dark Brown SILT and ORGANICS, trace coarse sub-angular gravel. No odor, no staining.	Silt - Organics
	0.17-1.0	Brown SILT, little fine to coarse sub-angular gravel, little organics, trace brown clay. No odor, no staining.	Silt
	1.0-1.83	Light Brown SILT, some fine to coarse angular Gravel, trace organics, trace brown clay, trace brown coarse sand. No odor, no staining.	Silt
05B	0.0-0.17	Dark Brown SILT and ORGANICS, trace coarse angular gravel, trace brown clay. No odor, no staining.	Silt
	0.17-1.0	Brown SILT, some Organics, little fine to coarse sub-angular gravel, trace clay. No odor, no staining.	Silt
	1.0-1.2	Light Brown SILT, little fine to coarse sub-angular gravel, trace organics, trace clay. No odor, no staining.	Silt
05C	0.0-0.17	Dark Brown SILT and ORGANICS, trace fine angular gravel. No odor, no staining.	Silt
	0.17-1.0	Brown SILT, some fine to coarse angular Gravel, trace organics, trace clay. No odor, no staining.	Silt
	1.0-1.6	Brown and Gray SILT and coarse angular GRAVEL, trace organics. No odor, no staining.	Silt
05E	0.0-0.17	Dark Brown SILT, some Organics, trace fine angular gravel. No odor, no staining.	Silt
	0.17-1.0	Brown SILT, little fine to coarse angular gravel, little organics, trace clay. No odor, no staining.	Silt
	1.0-1.33	Light Brown SILT, trace brown clay, trace fine to coarse angular gravel, trace brown coarse sand. No odor, no staining.	Silt
05F	0.0-0.17	Dark Brown SILT, little organics, trace brown clay, loose. No odor, no staining.	Silt
	0.17-1.0	Light Brown SILT, trace coarse sub-angular gravel, trace organics, trace brown clay. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT, trace coarse sub-rounded gravel, trace organics, trace brown clay. No odor, no staining.	Silt
06A	0.0-0.17	Dark Brown ORGANICS and SILT, trace clay, trace fine to coarse angular gravel. No odor, no staining.	Silt Organics
	0.17-1.0	Brown SILT and CLAY, some fine to coarse angular Gravel, trace organics. No odor, no staining.	Silt Clay
	1.0-2.0	Light Brown CLAY, little light brown silt, little fine to coarse angular gravel, trace organics. No odor, no staining.	Clay

Table B2: Description of Soil Samples (Initial Phase)
 Regional Air Deposition Study
 Village of Hoosick Falls, New York

Sample Location	Sample Depth (feet)	Soil Description*	Soil Type
06B	0.0-0.17	Brown CLAY, little brown silt, trace organics. No odor, no staining.	Clay
	0.17-1.0	Light Brown CLAY, little fine angular gravel, trace organics. No odor, no staining.	Clay
	1.0-2.0	Mottled Brown and Orange CLAY, trace silt, trace angular fine gravel. Moist. No odor, no staining.	Clay
06C	0.0-0.17	Dark Brown SILT, some Organics, trace coarse to fine angular gravel, trace dark brown clay.	Silt
	0.17-1.0	Brown SILT and CLAY, trace organics, trace fine to coarse angular gravel. No odor, no staining.	Silt Clay
	1.0-2.0	Light Brown CLAY, some light brown Silt, trace fine to coarse angular gravel. No odor, no staining.	Clay
06D	0.0-0.17	Dark Brown SILT, some Organics, trace coarse to fine angular gravel, trace clay. No odor, no staining.	Silt
	0.17-1.0	Light Brown SILT and CLAY, trace fine to coarse angular gravel, trace organics. No odor, no staining.	Silt Clay
	1.0-2.0	Light Brown SILT, some light brown Clay, little fine to coarse angular gravel, trace organics. No odor, no staining.	Silt
06E	0.0-0.17	Dark Brown SILT, some Organics, little brown clay.	Silt
	0.17-1.0	Light Brown SILT, some brown Clay, trace angular fine gravel.	Silt
	1.0-2.0	Light Brown SILT, some brown Clay, little angular fine to coarse gravel.	Silt
06F	0.0-0.17	Dark Brown SILT, little organics, trace clay. No odor, no staining.	Silt
	0.17-1.0	Light Brown CLAY, little fine to coarse angular gravel, trace light brown silt. No odor, no staining.	Clay
	1.0-1.83	Light Brown CLAY, little fine to coarse angular gravel, trace light brown silt. No odor, no staining. No mottling present.	Clay
07A	0.0-0.17	ORGANICS, some brown Silt, trace brown clay, occasional cobbles.	Organics
	0.17-1.0	Brown SILT, some brown Clay, trace subrounded coarse gravel, trace organics.	Silt
	1.0-2.0	Light Brown SILT, little light brown clay, little angular coarse gravel, trace fine gravel, trace organics.	Silt
07B	0.0-0.17	Brown SILT, little brown clay, trace fine sand, trace organics in the top inch of soil.	Silt
	0.17-1.0	Brown SILT, little brown clay, trace brown fine sand, trace organics, trace angular coarse gravel.	Silt
	1.0-2.0	Brown SILT, some angular fine to coarse Gravel, trace organics, trace fine brown sand.	Silt
07C	0.0-0.17	Dark Brown SILT, some brown Clay, some Organics.	Silt
	0.17-1.0	Brown SILT, some brown Clay, trace organics.	Silt
	1.0-2.0	Light Brown SILT, little brown clay, little angular fine to coarse gravel.	Silt
08A	0.0-0.17	Dark Brown SILT and ORGANICS, trace clay. No odor, no staining.	Silt Organics
	0.17-1.0	Brown SILT and CLAY, trace fine to coarse angular gravel, trace organics. No odor, no staining.	Silt Clay
	1.0-2.0	Light Brown SILT, some Clay, little fine to coarse angular gravel. No odor, no staining.	Silt
08B	0.0-0.17	Dark Brown SILT, little clay, little organics, trace angular coarse gravel.	Silt
	0.17-1.0	Light Brown SILT, some angular fine to coarse Gravel, little brown clay, trace organics.	Silt
	1.0-2.0	Light Brown SILT, some brown Clay, little angular coarse grave, trace organics.	Silt
08C	0.0-0.17	Dark Brown SILT, some Organics, trace dark brown clay. No odor, no staining.	Silt
	0.17-1.0	Brown SILT, little brown clay, little coarse sub-angular gravel, trace organics. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT, little coarse sub-angular gravel, trace brown clay, trace organics. No odor, no staining.	Silt
09A	0.0-0.17	Dark Brown SILT, some Organics, trace fine sub-angular gravel. No odor, no staining.	Silt
	0.17-1.0	Brown SILT, little organics, trace fine sub-angular gravel, trace brown clay. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT, little fine to coarse sub-angular gravel, trace organics, trace brown clay. No odor, no staining.	Silt
09B	0.0-0.17	Dark Brown SILT, some Organics, trace brown clay. No odor, no staining.	Silt
	0.17-1.0	Dark Brown SILT, some Organics, trace brown clay, trace fine angular gravel. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT, little fine to coarse sub-angular gravel, trace clay, trace organics. No odor, no staining.	Silt
10A	0.0-0.17	Dark Brown SILT and CLAY, little organics.	Silt Clay
	0.17-1.0	Brown SILT and CLAY, little angular fine to coarse gravel, trace organics.	Silt Clay
	1.0-2.0	Brown SILT and CLAY, little angular fine to coarse gravel, little organics.	Silt Clay
10B	0.0-0.17	Fill: Dark Brown SILT and fine to coarse SAND, some fine to coarse sub-angular Gravel, trace organics. No odor, no staining.	Silt Sand
	0.17-1.0	Fill: Dark Brown SILT, little organics, little fine to coarse sub-angular gravel, trace fine sand. No odor, no staining.	Silt
	1.0-2.0	Fill: Dark Brown SILT, little fine to coarse sub-angular gravel, trace fine sand. No odor, no staining.	Silt
10C	0.0-0.17	Dark Brown SILT, trace dark brown clay, trace fine to coarse subrounded gravel, trace organics. No odor, no staining.	Silt
	0.17-1.0	Dark Brown SILT, little organics, trace fine to coarse angular-gravel, trace brown clay. No odor, no staining.	Silt
	1.0-1.5	Brown SILT, little fine to coarse angular gravel, trace organics, trace brown clay. No odor, no staining. Refusal on possible bedrock. Multiple offset attempts.	Silt
10D	0.0-0.17	Dark Brown SILT, little organics, trace fine to coarse angular gravel. No odor, no staining.	Silt
	0.17-1.0	Light Brown SILT, some light brown Clay, trace organics, trace fine to coarse angular gravel. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT, some light brown Clay, trace fine to coarse angular gravel, trace organics. No odor, no staining.	Silt
10E	0.0-0.17	Dark Brown SILT, little organics, trace fine to coarse angular gravel, trace clay. No odor, no staining.	Silt
	0.17-1.0	Dark Brown SILT, little fine to coarse angular gravel, trace organics, trace clay. No odor, no staining.	Silt
	1.0-2.0	Grey and Light Brown mottle CLAY, some light grey Silt, trace fine to coarse angular gravel, trace organics. No odor, no staining.	Clay

Table B2: Description of Soil Samples (Initial Phase)
 Regional Air Deposition Study
 Village of Hoosick Falls, New York

Sample Location	Sample Depth (feet)	Soil Description*	Soil Type
11A	0.0-0.17	Dark Brown SILT, some Organics, trace fine to coarse angular gravel. No odor, no staining.	Silt
	0.17-1.0	Brown SILT and CLAY, little fine to coarse angular gravel, trace organics. No odor, no staining.	Silt Clay
	1.0-2.0	Light Brown SILT, some brown Clay, little fine to coarse angular gravel, trace organics. No odor, no staining.	Silt
11B	0.0-0.17	Dark Brown SILT, some Organics, trace fine to coarse angular gravel. No odor, no staining.	Silt
	0.17-1.0	Brown SILT, little brown clay, little organics, little fine to coarse angular gravel. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT, little brown clay, little fine to coarse angular gravel. No odor, no staining.	Silt
11C	0.0-0.17	Dark Brown SILT, little dark brown clay, little organics. No odor, no staining.	Silt
	0.17-1.0	Brown SILT, little brown clay, trace fine to coarse angular gravel, trace organics. No odor, no staining.	Silt
	1.0-2.0	Brown SILT, some brown Clay, little fine to coarse angular gravel, trace organics. No odor, no staining.	Silt
11D	0.0-0.17	Dark Brown SILT, some Organics, little brown clay, trace coarse angular gravel. No odor, no staining.	Silt
	0.17-1.0	Light Brown SILT, some light brown Clay, trace fine to coarse angular gravel, trace organics. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT and CLAY, some fine to coarse angular Gravel. No odor, no staining.	Silt Clay
11E	0.0-0.17	Dark Brown SILT, some Organics, trace clay. No odor, no staining.	Silt
	0.17-1.0	Light Brown SILT and CLAY, little fine to coarse angular gravel, trace organics. No odor, no staining.	Silt Clay
	1.0-2.0	Light Brown CLAY, some light brown Silt, trace fine to coarse angular gravel, trace organics. No odor, no staining.	Clay
12A	0.0-0.17	Dark Brown SILT, some Organics, trace dark brown clay, trace fine to coarse angular gravel. No odor, no staining.	Silt
	0.17-1.0	Light Brown SILT and CLAY, little fine to coarse angular gravel, trace organics. No odor, no staining.	Silt Clay
	1.0-2.0	Light brown SILT and CLAY, little fine to coarse angular gravel, trace organics. No odor, no staining.	Silt Clay
12B	0.0-0.17	Dark Brown SILT, little brown clay, little organics, trace angular coarse gravel.	Silt
	0.17-1.0	Little Brown SILT, little brown clay, little angular coarse gravel, trace organics.	Silt
	1.0-2.0	Light Brown SILT, little angular coarse gravel, trace light brown clay.	Silt
12C	0.0-0.17	Dark Brown SILT and ORGANICS, trace dark brown clay. No odor, no staining.	Silt Organics
	0.17-1.0	Light Brown SILT, some light brown Clay, trace fine to coarse angular gravel, trace organics. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT, little fine to coarse angular gravel, little light brown clay. No odor, no staining.	Silt
12D	0.0-0.17	Dark Brown SILT, little fine to coarse angular gravel, little organics, trace clay. No odor, no staining.	Silt
	0.17-1.0	Light Brown SILT and CLAY, little fine to coarse angular gravel, trace organics. No odor, no staining.	Silt Clay
	1.0-2.0	Light Brown SILT, some light brown Clay, little fine to coarse angular gravel. No odor, no staining.	Silt
13A	0.0-0.17	Dark Brown SILT, some Organics, trace brown clay, trace fine to coarse angular gravel. No odor, no staining.	Silt
	0.17-1.0	Light Brown CLAY, little fine to coarse angular gravel, trace brown silt. No odor, no staining.	Clay
	1.0-2.0	Light Brown CLAY, some fine to coarse angular Gravel, trace brown silt. No odor, no staining.	Clay
13D	0.0-0.17	Dark Brown SILT, some Organics, little dark brown clay, trace angular fine gravel.	Silt
	0.17-1.0	Light Brown SILT, little light brown clay, trace angular fine to coarse gravel.	Silt
	1.0-1.6	Light Brown SILT, little light brown clay, trace angular fine to coarse gravel.	Silt
14A	0.0-0.17	Dark Brown SILT, some Organics, little brown clay.	Silt
	0.17-1.0	Brown SILT, little brown clay, trace brown fine sand, trace angular fine gravel.	Silt
	1.0-2.0	Light Brown SILT, little brown clay, trace brown fine sand, trace angular fine to coarse gravel.	Silt
14C	0.0-0.17	0-1": ORGANICS, little dark brown silt, trace brown fine sand (root mat); 1-2": Dark Brown SILT, little organics, trace brown fine to coarse sand, trace fine angular gravel. No odor, no staining.	Organics
	0.17-1.0	Light Brown CLAY, some light brown Silt, little organics, trace coarse sub-angular gravel. No odor, no staining.	Clay
	1.0-2.0	Light Brown CLAY, some light brown Silt, little fine to coarse sub-angular gravel, trace organics. No odor, no staining.	Clay
15A	0.0-0.17	Dark Brown SILT, some Organics, trace fine to coarse angular to sub-angular gravel, loose. No odor, no staining.	Silt
	0.17-1.0	Light Brown SILT, little light brown fine sand, trace organics, trace fine to coarse angular gravel, loose. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT, some light brown fine Sand, little fine to coarse sub-angular gravel, trace organics. No odor, no staining.	Silt
15C	0.0-0.17	Dark Brown SILT, trace dark brown clay, trace coarse angular gravel, trace organics, loose. No odor, no staining.	Silt
	0.17-1.0	Light Brown SILT, little light brown clay, little fine to coarse sub-angular gravel, trace organics. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT, little light brown clay, little fine to coarse sub-angular gravel, trace organics. No odor, no staining.	Silt
15D	0.0-0.17	Dark Brown SILT, little organics, trace fine to coarse angular gravel, trace coarse brown sand. No odor, no staining.	Silt
	0.17-1.0	Light Brown SILT, some light brown Clay, little fine to coarse angular gravel, trace organics. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT and CLAY, little fine to coarse angular gravel. No odor, no staining.	Silt Clay
15G	0.0-0.17	Brown SILT, some brown Clay, little organics, trace fine sub-angular gravel. No odor, no staining.	Silt
	0.17-1.0	Light Brown SILT, some light brown Clay, trace organics, trace coarse sub-rounded gravel. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT and CLAY, trace fine to coarse sub-angular gravel, trace organics. No odor, no staining.	Silt
16A	0.0-0.17	Dark Brown SILT, little organics, trace fine to coarse angular gravel, trace coarse sand. No odor, no staining.	Silt
	0.17-1.0	Light Brown SILT, some light brown Clay, trace fine to coarse angular gravel, trace coarse sand, trace organics. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT and CLAY, some fine to coarse Gravel. No odor, no staining.	Silt Clay
16D	0.0-0.17	Dark Brown SILT and ORGANICS, trace fine to coarse angular gravel. No odor, no staining.	Silt Organics
	0.17-1.0	Dark Brown SILT, little fine to coarse angular gravel, trace light brown clay, trace organics. No odor, no staining.	Silt
	1.0-2.0	Light Brown SILT and fine to coarse angular GRAVEL, trace clay, very moist. No odor, no staining.	Silt Gravel

Notes:

*= Modified Burmister Soil Descriptions

Table B3: Initial Phase Analytical Results*

Regional Air Deposition Study Report
Village of Hoosick Falls, New York

												01A			01B			01C			01D**			02A				
												Date	Depth	Sample Type	Silt	Silt	Silt	Silt	Silt Clay	Clay	Silt Organics	Silt Clay	Silt Clay	Silt Clay	Silt	Clay		
	Parameter	Units	Guidance Values ¹																									
			Unrestricted	Protection of Groundwater ²	Residential	Restricted Residential	Commercial	Industrial																				
	Exceedance Key		<u>Underline</u>	<i>Italic</i>	Border	Shade	--	--																				
	General Parameters																											
	Carbon, total organic	mg/kg	--		--	--	--	--	33800	7970	3020	65700	12400	1580	79800	13800	14700	37000	27000	13100	171000	15800						
	Moisture	%	--		--	--	--	--	25.1	17.3 J	16.1 J	37.1	23.1	19.6	42.4	23.2	24.0	24.2	12.7	14.4	57.4	32.4						
	pH	pH units	--		--	--	--	--	4.88	4.87	4.94	5.28	4.45	4.56	5.10	5.65	5.76	7.52	7.76	7.52	4.57	4.57						
	Temperature	deg C	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
	PFAS Group	Per- and Polyfluoroalkyl Substances																										
	PFSAs	Perfluorooctanesulfonic acid (PFOS)	ng/g	0.88	3.7	8.8	44	440	440	0.77	0.50 J	< 0.23 U	0.79 J	0.48 J	< 0.23 U	0.95 J	0.34 J	< 0.26 U	0.32 J	0.53 J	0.55 J	2.5	< 0.27 U					
	PFCAs	Perfluorobutanoic acid (PFBA)	ng/g	--		--	--	--	< 1.0 U	< 0.89 U	< 0.92 UJ	1.3 J	< 0.97 U	< 0.92 U	< 1.4 U	< 1.0 U	< 1.1 U	< 1.0 U	< 0.89 U	< 0.93 U	< 1.7 U	< 1.1 U						
		Perfluoropentanoic acid (PFPeA)	ng/g	--		--	--	--	< 0.25 U	< 0.22 U	< 0.23 UJ	0.33 J	0.34 J	< 0.23 U	< 0.35 U	< 0.25 U	< 0.26 U	< 0.25 U	< 0.22 U	< 0.23 U	< 0.43 U	0.31 J						
		Perfluorohexanoic acid (PFHxA)	ng/g	--		--	--	--	< 0.25 U	< 0.22 U	< 0.23 U	< 0.31 U	0.72 J	< 0.23 U	< 0.35 U	< 0.25 UU	< 0.26 U	< 0.25 U	< 0.22 U	< 0.23 U	0.45 J	0.56 J						
		Perfluoroheptanoic acid (PFHpA)	ng/g	--		--	--	--	< 0.25 U	0.23 J	0.27 J	0.34 J	0.61 J	< 0.23 U	< 0.35 U	0.25 J	< 0.26 U	< 0.25 U	< 0.22 U	< 0.23 U	0.55 J	0.87						
		Perfluorooctanoic acid (PFOA)	ng/g	0.66	1.1	6.6	33	500	600	1.2	2.6	2.4 J	1.7	8.8	1.9	1.1	2.5	1.9	0.26 J	0.55 J	0.56 J	5.1	18					
		Perfluorononanoic acid (PFNA)	ng/g	--		--	--	--	< 0.25 U	< 0.22 U	< 0.23 U	0.33 J	< 0.24 U	< 0.23 U	< 0.35 U	< 0.25 U	< 0.26 U	< 0.25 U	< 0.22 U	< 0.23 U	0.63 J	< 0.27 U						
		Perfluorodecanoic acid (PFDA)	ng/g	--		--	--	--	0.29 J	< 0.22 U	< 0.23 UJ	0.38 J	< 0.24 U	< 0.23 U	0.59 J	< 0.25 U	< 0.26 U	< 0.25 U	< 0.22 U	< 0.23 U	0.83 J	< 0.27 U						
		Perfluoroundecanoic acid (PFUnDA)	ng/g	--		--	--	--	0.35 J	< 0.22 U	< 0.23 U	0.42 J	< 0.24 U	< 0.23 U	0.49 J	< 0.25 U	< 0.26 U	< 0.25 U	< 0.22 U	< 0.23 U	0.89 J	< 0.27 U						
		Perfluorododecanoic acid (PFDoA / PFDoDA)	ng/g	--		--	--	--	< 0.25 U	< 0.22 U	< 0.23 U	< 0.31 U	< 0.24 U	< 0.23 U	0.36 J	< 0.25 U	< 0.26 U	< 0.25 U	< 0.22 U	< 0.23 U	0.50 J	< 0.27 U						
		Perfluorotridecanoic acid (PFTrDA / PFTriA)	ng/g	--		--	--	--	< 0.25 U	< 0.22 U	< 0.23 U	< 0.31 U	< 0.24 U	< 0.23 U	< 0.35 U	< 0.25 U	< 0.26 U	< 0.25 U	< 0.22 U	< 0.23 U	< 0.43 U	< 0.27 U						
		Perfluorotetradecanoic acid (PFTA / PFTeA)	ng/g	--		--	--	--	< 0.25 U	< 0.22 U	< 0.23 U	< 0.31 U	< 0.24 U	< 0.23 U	< 0.35 U	< 0.25 U	< 0.26 U	< 0.25 U	< 0.22 U	< 0.23 U	< 0.43 U	< 0.27 U						
	FASAs	N-EtFOSAA	ng/g	--		--	--	--	< 0.25 U	< 0.22 U	< 0.23 U	< 0.31 U	< 0.24 U	< 0.23 U	< 0.35 U	< 0.25 U	< 0.26 U	< 0.25 U	< 0.22 U	< 0.23 U	< 0.43 U	< 0.27 U						

Notes:

*Results are included for analytes that were detected. The following PFAS were included in analysis but not detected: perfluoroheptanesulfonic acid (PFHpS); perfluorodecanesulfonic acid (PFDS); 8:2 fluorotelomer sulfonic acid (8:2 FTS); and n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)

** Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan

Detections are presented in bold.

N - Sample type: Normal

FD - Sample type: Field Duplicate

mg/kg - milligram per kilogram

ng/g - nanogram per gram

J - Estimated detected value. The reported value is less than the stated laboratory quantitation limit but greater than the laboratory method detection limit.

R - The data are unusable. The samples results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.

U - The analyte was analyzed for, but was not detected.

UU - The analyte was analyzed for, but was not detected. The reported value is approximate and may be inaccurate or imprecise.

FASAs - perfluoroalkane sulfonamides

FASAA - perfluoroalkane sulfonamido acetic acids

FTSAs - fluorotelomer sulfonic acids

PFAS - per- and polyfluoroalkyl substances

PFCAs - perfluoroalkyl carboxylic acids

PFSAs - perfluoroalkane sulfonic acids

N-EtFOSAA - n-Ethyl perfluorooctanesulfonamidoacetic acid

¹ Guidance values form NYSDEC Sampling, Analysis and Assessment for PFAS (NYSDEC, 2021b)

Table B3: Initial Phase Analytical Results*

Regional Air Deposition Study Report
Village of Hoosick Falls, New York

							Location	
							Soil Type	Clay
							Date	10/18/2019
							Depth	1 - 2 ft
							Sample Type	N
Parameter		Units		Guidance Values ¹				
Exceedance Key				Underline	<i>Italic</i>	Border	Shade	--
General Parameters								
Carbon, total organic		mg/kg		--	--	--	--	3510
Moisture		%		--	--	--	--	19.0
pH		pH units		--	--	--	--	4.41
Temperature		deg C		--	--	--	--	--
PFAS Group		Per- and Polyfluoroalkyl Substances						
PFSAs		Perfluorooctanesulfonic acid (PFOS)		ng/g	0.88	3.7	8.8	44
PFCAs	Perfluorobutanoic acid (PFBA)		ng/g		--	--	--	--
	Perfluoropentanoic acid (PFPeA)		ng/g		--	--	--	--
	Perfluorohexanoic acid (PFHxA)		ng/g		--	--	--	--
	Perfluoroheptanoic acid (PFHpA)		ng/g		--	--	--	--
	Perfluoroctanoic acid (PFOA)		ng/g		0.66	1.1	6.6	33
	Perfluorononanoic acid (PFNA)		ng/g		--	--	--	--
	Perfluorodecanoic acid (PFDA)		ng/g		--	--	--	--
	Perfluoroundecanoic acid (PFUnA / PFUnDA)		ng/g		--	--	--	--
	Perfluorododecanoic acid (PFDoA / PFDoDA)		ng/g		--	--	--	--
	Perfluorotridecanoic acid (PFTrDA / PFTriA)		ng/g		--	--	--	--
FASAs		N-EtFOSAA		ng/g		--	--	--

Notes:

*Results are included for analytes that were detected. The following PFAS were included in analysis but not detected: perfluoroheptanesulfonic acid (PFHpS); perfluorodecanesulfonic acid (PFDS); 8:2 fluorotelomer sulfonic acid (8:2 FTS); and n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)

** Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan

Detections are presented in bold.

N - Sample type: Normal

FD - Sample type: Field Duplicate

mg/kg - milligram per kilogram

ng/g - nanogram per gram

J - Estimated detected value. The reported value is less than the stated laboratory quantitation limit but greater than the laboratory method detection limit.

R - The data are unusable. The samples results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.

U - The analyte was analyzed for, but was not detected.

UJ - The analyte was analyzed for, but was not detected. The reported value is approximate and may be inaccurate or imprecise.

FASAs - perfluoroalkane sulfonamides

FASAs - perfluoroalkane sulfonamido acetic acids

FTSAs - fluorotelomer sulfonic acids

PFAS - per- and polyfluoroalkyl substances

PFCAs - perfluoroalkyl carboxylic acids

PFSAs - perfluoroalkane sulfonic acids

N-EtFOSAA - n-Ethyl perfluorooctanesulfonamidoacetic acid

¹ Guidance values form NYSDEC Sampling, Analysis and Assessment for PFAS (NYSDEC, 2021b)

Table B3: Initial Phase Analytical Results*

Regional Air Deposition Study Report

Village of Hoosick Falls, New York

Location Soil Type Date Depth Sample Type								02B				02C				02D				03A			03B			
								Silt	Silt	Silt		Silt														
								1/23/2020	1/23/2020	1/23/2020		1/23/2020	1/23/2020	1/23/2020	1/23/2020	1/23/2020	1/23/2020	1/23/2020	1/23/2020	1/22/2020	1/22/2020	1/22/2020	1/22/2020	1/22/2020		
								0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	1 - 2 ft	N	N	N	N	N	N	N	N	N	N	N	N	N		
	Parameter	Units	Unrestricted	Protection of Groundwater ²	Residential	Restricted Residential	Commercial	Industrial																		
	Exceedance Key		<u>Underline</u>	<i>Italic</i>	Border	Shade	--	--																		
	General Parameters																									
	Carbon, total organic	mg/kg	--		--	--	--	--	136000 J	17400 J	5450 J	4490 J	65200 J	9980 J	4240 J	112000 J	30500 J	10600 J	97400 J	25100 J	5950 J	140000 J	18000 J	10000 J		
	Moisture	%	--		--	--	--	--	45.3 J	22.4 J	15.3 J	16.0 J	49.8 J	15.5 J	15.8 J	44.5 J	24.7 J	16.9 J	53.5 J	28.4 J	16.0 J	28.0	10.4	8.1		
	pH	pH units	--		--	--	--	--	5.02	4.71	4.61	4.59	4.85	4.54	4.61	4.44	4.36	5.68	4.57	4.55	5.16	4.9	4.8	4.7		
	Temperature	deg C	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	19.8	19.8	19.7
	PFAS Group	Per- and Polyfluoroalkyl Substances																								
PFSAs	Perfluorooctanesulfonic acid (PFOS)	ng/g	0.88	3.7	8.8	44	440	440	0.92 J	< 0.24 U	< 0.23 U	< 0.23 U	1.8 J	0.35 J	< 0.24 U	2.0 J	1.2	0.43 J	1.4	0.60 J	< 0.23 U	1.3	0.41 J	< 0.20 U		
PFCAs	Perfluorobutanoic acid (PFBA)	ng/g	--		--	--	--	--	< 1.5 U	< 0.95 U	< 0.93 U	< 0.92 U	< 1.4 U	< 0.95 U	< 0.94 U	< 1.4 U	1.1 J	< 0.88 UJ	< 1.7 U	< 1.1 U	< 0.92 U	1.2 J	0.92 J	1.6 J		
	Perfluoropentanoic acid (PFPeA)	ng/g	--		--	--	--	--	< 0.37 U	< 0.24 U	< 0.23 U	< 0.23 U	0.41 J	< 0.24 U	< 0.24 U	< 0.34 U	0.84	< 0.22 U	< 0.42 U	0.63 J	< 0.23 U	0.49 J	0.39 J	< 0.20 UJ		
	Perfluorohexanoic acid (PFHxA)	ng/g	--		--	--	--	--	< 0.37 U	< 0.24 U	< 0.23 U	< 0.23 U	< 0.36 U	0.37 J	0.37 J	< 0.34 U	1.6	0.41 J	< 0.42 U	1.0	< 0.23 U	< 0.27 U	< 0.22 U	0.31 J		
	Perfluoroheptanoic acid (PFHpA)	ng/g	--		--	--	--	--	< 0.37 U	0.48 J	< 0.23 U	< 0.23 U	< 0.36 U	0.32 J	0.46 J	< 0.34 U	1.7	0.72	< 0.42 U	1.2	0.29 J	< 0.27 U	0.48 J	1.1 J		
	Perfluoroctanoic acid (PFOA)	ng/g	0.66	1.1	6.6	33	500	600	1.9	12	4.6 J	4.0	4.6	10	13	4.2	30	38	1.9	13	4.9	1.6	7.3	13 J		
	Perfluorononanoic acid (PFNA)	ng/g	--		--	--	--	--	< 0.37 U	< 0.24 U	< 0.23 U	< 0.23 U	0.60 J	< 0.24 U	< 0.24 U	0.74 J	0.58 J	< 0.22 U	0.60 J	0.42 J	< 0.23 U	0.44 J	0.22 J	< 0.20 UJ		
	Perfluorodecanoic acid (PFDA)	ng/g	--		--	--	--	--	0.42 J	< 0.24 U	< 0.23 U	< 0.23 U	0.91 J	< 0.24 U	< 0.24 U	1.4	0.43 J	< 0.22 U	0.74 J	< 0.26 U	< 0.23 U	1.1	< 0.22 U	< 0.20 UJ		
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	ng/g	--		--	--	--	--	0.51 J	< 0.24 U	< 0.23 U	< 0.23 U	0.61 J	< 0.24 U	< 0.24 U	1.4	< 0.25 U	< 0.22 U	1.0 J	< 0.26 U	< 0.23 U	1.2	< 0.22 U	< 0.20 UJ		
	Perfluorododecanoic acid (PFDoA / PFDoDA)	ng/g	--		--	--	--	--	< 0.37 U	< 0.24 U	< 0.23 U	< 0.23 U	0.45 J	< 0.24 U	< 0.24 U	1.0 J	< 0.25 U	< 0.22 U	0.62 J	< 0.26 U	< 0.23 U	0.78 J	< 0.22 U	< 0.20 UJ		
	Perfluorotridecanoic acid (PFTrDA / PFTriA)	ng/g	--		--	--	--	--	< 0.37 U	< 0.24 U	< 0.23 U	< 0.23 U	< 0.36 U	< 0.24 U	< 0.24 U	0.77 J	< 0.25 U	< 0.22 U	0.45 J	< 0.26 U	< 0.23 U	0.57 J	< 0.22 U	< 0.20 UJ		
	Perfluorotetradecanoic acid (PFTA / PFTeA)	ng/g	--		--	--	--	--	< 0.37 U	< 0.24 U	< 0.23 U	< 0.23 U	< 0.36 U	< 0.24 U	< 0.24 U	0.68 J	< 0.25 U	< 0.22 U	< 0.42 U	< 0.26 U	< 0.23 U	0.44 J	< 0.22 U	< 0.20 UJ		
	FASAs	N-EtFOSAA	ng/g	--		--	--	--	< 0.37 U	< 0.24 U	0.44 J	0.40 J	< 0.36 U	< 0.24 U	< 0.24 U	< 0.34 U	< 0.25 U	< 0.22 U	< 0.42 U	< 0.26 U	< 0.23 U	< 0.27 U	< 0.22 U	R		

Notes:

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PFAS - per- and polyfluoroalkyl substances

PFCAs - perfluoroalkyl carboxylic acids

PFSAs - perfluoroalkane sulfonic acids

N-EtFOSAA - n-Ethyl perfluoroctanesulfonamidoacetic acid

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Table B3: Initial Phase Analytical Results*

Regional Air Deposition Study Report

Village of Hoosick Falls, New York

	Parameter	Units	Location						03C		
			Soil Type	Date	Depth		Sample Type	Silt	Silt	Silt	Silt
				6/19/2020	0 - 0.17 ft	0.17 - 1 ft		6/19/2020	6/19/2020	6/19/2020	6/19/2020
					N	N		N	N	1 - 2 ft	N
				Guidance Values ¹							
	Parameter	Units	Unrestricted	Protection of Groundwater ²	Residential	Restricted Residential	Commercial	Industrial			
	Exceedance Key		<u>Underline</u>	<i>Italic</i>	Border	Shade	--	--			
	General Parameters										
	Carbon, total organic	mg/kg	--	--	--	--	--	--	63000 J	16000 J	9300 J
	Moisture	%	--	--	--	--	--	--	13.8	10.3	8.8
	pH	pH units	--	--	--	--	--	--	4.6	4.7	4.8
	Temperature	deg C	--	--	--	--	--	--	19.8	19.7	19.9
PFAS Group	Per- and Polyfluoroalkyl Substances										
PFSAs	Perfluorooctanesulfonic acid (PFOS)	ng/g	<u>0.88</u>	3.7	8.8	44	440	440	2.2	0.44 J	< 0.22 U
PFCAs	Perfluorobutanoic acid (PFBA)	ng/g	--	--	--	--	--	--	1.1 J	2.0 J	< 0.87 UJ
	Perfluoropentanoic acid (PFPeA)	ng/g	--	--	--	--	--	--	0.28 J	0.32 J	< 0.22 UJ
	Perfluorohexanoic acid (PFHxA)	ng/g	--	--	--	--	--	--	< 0.23 U	0.42 J	< 0.22 UJ
	Perfluoroheptanoic acid (PFHpA)	ng/g	--	--	--	--	--	--	0.23 J	0.59 J	0.58 J
	Perfluorooctanoic acid (PFOA)	ng/g	<u>0.66</u>	1.1	<u>6.6</u>	33	500	600	2.3	7.1 J	5.1 J
	Perfluorononanoic acid (PFNA)	ng/g	--	--	--	--	--	--	0.58 J	0.24 J	< 0.22 UJ
	Perfluorodecanoic acid (PFDA)	ng/g	--	--	--	--	--	--	0.86	< 0.21 UJ	< 0.22 UJ
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	ng/g	--	--	--	--	--	--	0.96	< 0.21 U	< 0.22 UJ
	Perfluorododecanoic acid (PFDoA / PFDoDA)	ng/g	--	--	--	--	--	--	0.63 J	< 0.21 U	< 0.22 U
	Perfluorotridecanoic acid (PFTrDA / PFTriA)	ng/g	--	--	--	--	--	--	0.35 J	< 0.21 U	< 0.22 U
FASAs	N-EtFOSAA	ng/g	--	--	--	--	--	--	0.40 J	< 0.21 U	< 0.22 U

Notes:

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FASAs - perfluoroalkane sulfonamido acetic acids

FTSAs - fluorotelomer sulfonic acids

PFAS - per- and polyfluoroalkyl substances

PFCAs - perfluoroalkyl carboxylic acids

PFSAs - perfluoroalkane sulfonic acids

N-EtFOSAA - n-Ethyl perfluorooctanesulfonamidoacetic acid

¹ Guidance values form NYSDEC Sampling, Analysis and Assessment for PFAS (NYSDEC, 2021b)

Table B3: Initial Phase Analytical Results*

Regional Air Deposition Study Report

Village of Hoosick Falls, New York

										Location Soil Type	04B			04C			04D			05A				
											Organics 6/18/2020	Silt 6/18/2020	Silt 6/18/2020	Silt 10/30/2019	Silt 10/30/2019	Silt Clay 10/30/2019	Silt 4/23/2020	Silt 4/23/2020	Silt 4/23/2020	Silt - Organics 8/06/2020	Silt 8/06/2020	Silt 8/06/2020	Silt 8/06/2020	
											Date 0 - 0.17 ft	Depth N	Date 0.17 - 1 ft	Depth N	Date 0 - 0.17 ft	Depth N	Date 0.17 - 1 ft	Depth N	Date 0 - 0.17 ft	Depth N				
											Sample Type	Unrestricted	Protection of Groundwater ²	Residential	Restricted Residential	Commercial	Industrial							
											Guidance Values ¹													
	Parameter	Units	Underline	Italic	Border	Shade	--	--																
	Exceedance Key																							
	General Parameters																							
	Carbon, total organic	mg/kg	--		--	--	--	--	330000	55000	23000	111000	20600	8130	88400	19000	4540	180000	28000	9700	130000	38000	38000 J	
	Moisture	%	--		--	--	--	--	43.0	14.6	11.2	37.6	23.5	18.8	30.7	16.5	15.1	36.0	18.2	11.4	28.0	19.3	19.1	
	pH	pH units	--		--	--	--	--	5.0	4.4	4.5	4.78	4.75	5.02	4.75 J	4.66 J	4.75 J	4.2	4.5	4.5	3.9	4.3	4.5	
	Temperature	deg C	--		--	--	--	--	19.1	19.7	19.7	--	--	--	--	--	--	--	--	--	--	--	--	
	PFAS Group	Per- and Polyfluoroalkyl Substances																						
	PFSAs	Perfluorooctanesulfonic acid (PFOS)	ng/g	0.88	3.7	8.8	44	440	440	0.46 J	0.54 J	0.32 J	0.81 J	0.64 J	< 0.24 U	0.55 J	0.33 J	< 0.23 U	1.8	< 0.23 U	0.28 J	2.0	0.73	0.36 J
	PFCAs	Perfluorobutanoic acid (PFBA)	ng/g	--		--	--	--	< 1.3 U	< 0.88 U	< 0.87 U	< 1.2 U	< 1.0 U	< 0.95 U	< 1.1 U	< 0.92 U	< 0.91 U	< 1.2 U	< 0.92 U	< 0.85 U	< 1.0 U	< 0.96 U	< 0.96 U	
		Perfluoropentanoic acid (PFPeA)	ng/g	--		--	--	--	< 0.33 U	0.25 J	< 0.22 U	< 0.30 U	0.26 J	< 0.24 U	< 0.28 U	< 0.23 U	< 0.23 U	0.39 J	0.38 J	< 0.21 U	0.26 J	0.51 J	0.25 J	
		Perfluorohexanoic acid (PFHxA)	ng/g	--		--	--	--	1.1 J	0.41 J	0.77	< 0.30 U	0.27 J	0.57 J	< 0.28 U	0.23 J	< 0.23 U	0.36 J	0.84	0.31 J	0.39 J	1.2	0.69 J	
		Perfluoroheptanoic acid (PFHpA)	ng/g	--		--	--	--	< 0.33 U	0.50 J	0.57 J	< 0.30 U	0.41 J	0.72	< 0.28 U	0.50 J	0.27 J	0.41 J	0.77	0.59 J	0.40 J	1.0	2.2	
		Perfluoroctanoic acid (PFOA)	ng/g	0.66	1.1	6.6	33	500	600	0.59 J	7.5	9.6	0.53 J	3.9	4.7	0.49 J	7.5	7.3	3.8	< 0.23 U	8.9	6.2	18	44
		Perfluorononanoic acid (PFNA)	ng/g	--		--	--	--	< 0.33 U	0.23 J	< 0.22 U	< 0.30 U	0.34 J	< 0.24 U	< 0.28 U	< 0.23 U	< 0.23 U	0.62 J	0.26 J	< 0.21 U	0.67 J	0.43 J	< 0.24 U	
		Perfluorodecanoic acid (PFDA)	ng/g	--		--	--	--	< 0.33 U	< 0.22 U	< 0.22 U	0.45 J	< 0.25 U	< 0.24 U	0.29 J	< 0.23 U	< 0.23 U	0.75 J	< 0.23 U	< 0.21 U	0.67 J	< 0.24 U	< 0.24 U	
		Perfluoroundecanoic acid (PFUnA / PFUnDA)	ng/g	--		--	--	--	0.51 J	< 0.22 U	< 0.22 U	0.71 J	< 0.25 U	< 0.24 U	0.36 J	< 0.23 U	< 0.23 U	1.1	< 0.23 U	< 0.21 U	0.83	< 0.24 U	< 0.24 U	
		Perfluorododecanoic acid (PFDoA / PFDoDA)	ng/g	--		--	--	--	0.35 J	< 0.22 U	< 0.22 U	0.35 J	< 0.25 U	< 0.24 U	< 0.28 U	< 0.23 U	< 0.23 U	0.60 J	< 0.23 U	< 0.21 U	0.45 J	< 0.24 U	< 0.24 U	
		Perfluorotridecanoic acid (PFTrDA / PFTriA)	ng/g	--		--	--	--	< 0.33 U	< 0.22 U	< 0.22 U	0.32 J	< 0.25 U	< 0.24 U	< 0.28 U	< 0.23 U	< 0.23 U	0.44 J	< 0.23 U	< 0.21 U	0.43 J	< 0.24 U	< 0.24 U	
		Perfluorotetradecanoic acid (PFTA / PFTeA)	ng/g	--		--	--	--	< 0.33 U	< 0.22 U	< 0.22 U	< 0.30 U	< 0.25 U	< 0.24 U	< 0.28 U	< 0.23 U	< 0.23 U	0.33 J	< 0.23 U	< 0.21 U	0.29 J	< 0.24 U	< 0.24 U	
	FASAAAs	N-EtFOSAA	ng/g	--		--	--	--	< 0.33 U	< 0.22 U	< 0.22 U	< 0.30 U	< 0.25 U	< 0.24 U	< 0.28 U	< 0.23 U	< 0.23 U	< 0.30 U	< 0.23 U	< 0.21 U	< 0.25 U	< 0.24 U	< 0.24 U	

Notes:

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Table B3: Initial Phase Analytical Results*

Regional Air Deposition Study Report
Village of Hoosick Falls, New York

								Location	05C			
								Soil Type	Silt	Silt	Silt	
								Date	8/06/2020	8/06/2020	8/06/2020	
								Depth	0 - 0.17 ft	0.17 - 1 ft	1 - 1.6 ft	
								Sample Type	N	N	N	
								Guidance Values ¹				
Parameter		Units	Unrestricted	Protection of Groundwater ²	Residential	Restricted Residential	Commercial	Industrial				
Exceedance Key			<u>Underline</u>	<i>Italic</i>	Border	Shade	--	--				
General Parameters												
Carbon, total organic		mg/kg	--	--	--	--	--	--	160000	18000	20000	
Moisture		%	--	--	--	--	--	--	23.8	14.8	11.0	
pH		pH units	--	--	--	--	--	--	4.1	4.9	5.1	
Temperature		deg C	--	--	--	--	--	--	--	--	--	
PFAS Group		Per- and Polyfluoroalkyl Substances										
PFSAs		Perfluorooctanesulfonic acid (PFOS)	ng/g	<u>0.88</u>	3.7	8.8	44	440	440	0.73 J	0.22 J	0.36 J
PFCAs	Perfluorobutanoic acid (PFBA)		ng/g	--	--	--	--	--	< 1.1 U	< 0.88 U	< 0.89 U	
	Perfluoropentanoic acid (PPPeA)		ng/g	--	--	--	--	--	< 0.26 U	< 0.22 U	< 0.22 U	
	Perfluorohexanoic acid (PFHxA)		ng/g	--	--	--	--	--	0.28 J	< 0.22 U	< 0.22 U	
	Perfluoroheptanoic acid (PFHpA)		ng/g	--	--	--	--	--	< 0.26 U	< 0.22 U	0.24 J	
	Perfluorooctanoic acid (PFOA)		ng/g	<u>0.66</u>	1.1	6.6	33	500	600	0.81	< 0.22 U	< 0.22 U
	Perfluorononanoic acid (PFNA)		ng/g	--	--	--	--	--	< 0.26 U	< 0.22 U	< 0.22 U	
	Perfluorodecanoic acid (PFDA)		ng/g	--	--	--	--	--	0.42 J	< 0.22 U	< 0.22 U	
	Perfluoroundecanoic acid (PFUnA / PFUnDA)		ng/g	--	--	--	--	--	0.63 J	< 0.22 U	< 0.22 U	
	Perfluorododecanoic acid (PFDoA / PFDoDA)		ng/g	--	--	--	--	--	0.33 J	< 0.22 U	< 0.22 U	
	Perfluorotridecanoic acid (PFTrDA / PFTriA)		ng/g	--	--	--	--	--	0.30 J	< 0.22 U	< 0.22 U	
FASAs		N-EtFOSAA	ng/g	--	--	--	--	--	< 0.26 U	< 0.22 U	< 0.22 U	

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Regional Air Deposition Study Report
Village of Hoosick Falls, New York

										Location	05E			05F			06A			06B			06C									
											Soil Type	Date	Depth	Silt	Silt	Silt	Silt	Silt	Silt Organics	Silt Clay	Clay	Clay	Clay	Silt	Silt Clay	Clay						
														8/06/2020	8/06/2020	8/06/2020	6/18/2020	6/18/2020	6/18/2020	10/23/2019	10/23/2019	10/23/2019	1/22/2020	1/22/2020	1/22/2020	1/22/2020	10/23/2019	10/23/2019	10/23/2019			
											Sample Type	N	N	N	N	N	N	N	N	10/23/2019	10/23/2019	10/23/2019	1/22/2020	1/22/2020	1/22/2020	1/22/2020	10/23/2019	10/23/2019	10/23/2019			
											Guidance Values ¹																					
	Parameter	Units	Unrestricted	Protection of Groundwater ²	Residential	Restricted Residential	Commercial	Industrial																								
	Exceedance Key		<u>Underline</u>	<i>Italic</i>	Border	Shade	--	--																								
	General Parameters																															
	Carbon, total organic	mg/kg	--		--	--	--	--	110000	29000	16000	43000 J	13000 J	13000 J	183000	38400	10700	46400 J	23400 J	10900 J	89900	35500	18400									
	Moisture	%	--		--	--	--	--	33.3	17.4	14.2	15.7	12.8	11.3	52.3 J	22.9	18.5	36.4 J	29.8 J	18.4 J	34.8 J	31.1 J	27.0 J									
	pH	pH units	--		--	--	--	--	4.5	4.7	4.9	5.4	5.2	5.3	3.96 J	4.71	4.67	6.19	6.16	5.95	5.27	5.21	5.02									
	Temperature	deg C	--		--	--	--	--	--	--	--	19.8	19.7	19.8	--	--	--	--	--	--	--	--	--	--	--	--						
	PFAS Group	Per- and Polyfluoroalkyl Substances																														
	PFSAs	Perfluorooctanesulfonic acid (PFOS)	ng/g	0.88	3.7	8.8	44	440	440	0.89	0.75	0.39 J	0.27 J	0.39 J	0.24 J	1.9	0.49 J	< 0.23 U	0.57 J	0.42 J	< 0.24 UJ	0.87	0.57 J	0.60 J								
	PFCAs	Perfluorobutanoic acid (PFBA)	ng/g	--		--	--	--	< 1.2 U	< 0.92 U	< 0.91 U	1.2 J	< 0.90 U	1.0 J	< 1.6 U	< 1.0 U	< 0.92 U	< 1.2 U	< 1.1 U	< 0.97 U	< 1.1 U	< 1.1 U	< 1.0 U									
		Perfluoropentanoic acid (PPPeA)	ng/g	--		--	--	--	< 0.29 U	0.29 J	< 0.23 U	< 0.23 U	< 0.22 U	< 0.21 U	< 0.39 U	< 0.26 U	< 0.23 U	0.35 J	< 0.27 U	< 0.24 U	< 0.29 U	0.43 J	< 0.26 U									
		Perfluorohexanoic acid (PFHxA)	ng/g	--		--	--	--	0.29 J	0.41 J	0.34 J	< 0.23 U	< 0.22 U	0.21 J	< 0.39 U	< 0.26 U	0.65 J	0.56 J	0.64 J	< 0.24 U	< 0.29 U	1.2	0.28 J									
		Perfluoroheptanoic acid (PFHpA)	ng/g	--		--	--	--	< 0.29 U	0.56 J	0.78	< 0.23 U	0.35 J	0.37 J	0.48 J	0.26 J	0.94	0.59 J	0.88	0.31 J	< 0.29 U	1.5	0.92									
		Perfluorooctanoic acid (PFOA)	ng/g	0.66	1.1	6.6	33	500	600	1.4	11	15	0.31 J	6.7	5.3	9.4	11	14	4.7	11	4.5	1.1	14	17								
		Perfluorononanoic acid (PFNA)	ng/g	--		--	--	--	0.32 J	0.28 J	< 0.23 U	< 0.23 U	< 0.22 U	< 0.21 U	0.57 J	0.26 J	< 0.23 U	< 0.31 U	< 0.27 U	< 0.24 U	< 0.29 U	< 0.27 U	< 0.26 U									
		Perfluorodecanoic acid (PFDA)	ng/g	--		--	--	--	0.44 J	< 0.23 U	< 0.23 U	< 0.23 U	< 0.22 U	< 0.21 U	0.62 J	< 0.26 U	< 0.23 U	< 0.31 U	< 0.27 U	< 0.24 U	0.29 J	< 0.27 U	< 0.26 U									
		Perfluoroundecanoic acid (PFUnA / PFUnDA)	ng/g	--		--	--	--	0.62 J	< 0.23 U	< 0.23 U	< 0.23 U	< 0.22 U	< 0.21 U	0.98 J	< 0.26 U	< 0.23 U	< 0.31 U	< 0.27 U	< 0.24 U	0.37 J	< 0.27 U	< 0.26 U									
		Perfluorododecanoic acid (PFDoA / PFDoDA)	ng/g	--		--	--	--	0.34 J	< 0.23 U	< 0.23 U	< 0.23 U	< 0.22 U	< 0.21 U	0.49 J	< 0.26 U	< 0.23 U	< 0.31 U	< 0.27 U	< 0.24 U	< 0.27 U	< 0.26 U										
		Perfluorotridecanoic acid (PFTrDA / PFTriA)	ng/g	--		--	--	--	0.29 J	< 0.23 U	< 0.23 U	< 0.23 U	< 0.22 U	< 0.21 U	0.50 J	< 0.26 U	< 0.23 U	< 0.31 U	< 0.27 U	< 0.24 U	< 0.29 U	< 0.27 U	< 0.26 U									
		Perfluorotetradecanoic acid (PFTA / PFTeA)	ng/g	--		--	--	--	< 0.29 U	< 0.23 U	< 0.23 U	< 0.23 U	< 0.22 U	< 0.21 U	< 0.39 U	< 0.26 U	< 0.23 U	< 0.31 U	< 0.27 U	< 0.24 U	< 0.29 U	< 0.27 U	< 0.26 U									
	FASAs	N-EtFOSAA	ng/g	--		--	--	--	--	< 0.29 U	< 0.23 U	< 0.23 U	< 0.23 U	< 0.22 U	< 0.21 U	< 0.39 U	< 0.26 U	< 0.23 U	< 0.31 U	< 0.27 U	< 0.24 U	< 0.29 U	< 0.27 U	< 0.26 U								

Notes:

*Results are included for analytes that were detected. The following PFAS were included in analysis but not detected: perfluoroheptanesulfonic acid (PFHpS); perfluorodecanesulfonic acid (PFDS); 8:2 fluorotelomer sulfonic acid (8:2 FTS); and n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)

** Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan

Detections are presented in bold.

N - Sample type: Normal

FD - Sample type: Field Duplicate

mg/kg - milligram per kilogram

ng/g - nanogram per gram

J - Estimated detected value. The reported value is less than the stated laboratory quantitation limit but greater than the laboratory method detection limit.

R - The data are unusable. The samples results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.

U - The analyte was analyzed for, but was not detected.

UU - The analyte was analyzed for, but was not detected. The reported value is approximate and may be inaccurate or imprecise.

FASAs - perfluoroalkane sulfonamides

FASAAAs - perfluoroalkane sulfonamido acetic acids

FTSAs - fluorotelomer sulfonic acids

PFAS - per- and polyfluoroalkyl substances

Table B3: Initial Phase Analytical Results*

Regional Air Deposition Study Report
Village of Hoosick Falls, New York

							Location Soil Type Date Depth Sample Type	07C				08A				08B				08C				
								Silt 10/09/2019 1 - 2 ft N	Silt 10/10/2019 0 - 0.17 ft N	Silt 10/10/2019 0.17 - 1 ft N	Silt 10/10/2019 1 - 2 ft N	Silt Organics 10/23/2019 0 - 0.17 ft N	Silt Clay 10/23/2019 0.17 - 1 ft N	Silt 10/23/2019 1 - 2 ft N	Silt 10/10/2019 0 - 0.17 ft N	Silt 10/10/2019 0.17 - 1 ft N	Silt 10/10/2019 1 - 2 ft N	Silt 8/06/2020 0 - 0.17 ft N	Silt 8/06/2020 0.17 - 1 ft N	Silt 8/06/2020 1 - 2 ft FD	Silt 8/06/2020 0 - 0.17 ft N	Silt 8/06/2020 0 - 0.17 ft N		
								Silt 8/06/2020 0.17 - 1 ft N		Silt 8/06/2020 1 - 2 ft N														
			Guidance Values ¹																					
	Parameter	Units	Unrestricted	Protection of Groundwater ²	Residential	Restricted Residential	Commercial	Industrial																
	Exceedance Key		Underline	<i>Italic</i>	Border	Shade	--	--																
	General Parameters																							
	Carbon, total organic	mg/kg	--		--	--	--	--	8580	174000	33100	18900	92200	19200	3690	46200	14200	4720	49000	21000	26000	9400	50000	
	Moisture	%	--		--	--	--	--	10.1	43.7 J	21.1 J	16.2 J	41.8 J	23.2 J	13.9 J	23.0 J	12.4	5.6	30.2	20.4	22.7	10.4	20.1	
	pH	pH units	--		--	--	--	--	5.93	5.51	5.96	5.89	4.91	4.93	5.27	6.53	5.26	5.47	5.6	5.8	6.5	5.9	5.3	
	Temperature	deg C	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	PFAS Group	Per- and Polyfluoroalkyl Substances																						
	PFSAs	Perfluorooctanesulfonic acid (PFOS)	ng/g	0.88	3.7	8.8	44	440	440	< 0.20 U	0.72 J	0.68 J	0.38 J	1.3	0.37 J	< 0.23 U	0.63 J	0.42 J	< 0.20 U	0.51 J	0.41 J	0.42 J	< 0.21 U	0.53 J
	PFCAs	Perfluorobutanoic acid (PFBA)	ng/g	--		--	--	--	< 0.81 U	< 1.4 U	< 0.95 U	< 0.88 U	< 1.3 U	1.2 J	< 0.91 U	< 0.96 U	< 0.85 U	< 0.81 U	< 1.1 U	< 0.93 U	< 0.98 U	< 0.84 U	< 0.94 U	
		Perfluoropentanoic acid (PFPeA)	ng/g	--		--	--	--	< 0.20 U	< 0.35 U	0.27 J	< 0.22 U	< 0.33 U	< 0.25 U	< 0.23 U	< 0.24 U	0.25 J	< 0.20 U	< 0.28 U	< 0.23 U	< 0.24 U	< 0.21 U	< 0.24 U	
		Perfluorohexanoic acid (PFHxA)	ng/g	--		--	--	--	0.27 J	< 0.35 U	0.58 J	0.42 J	< 0.33 U	< 0.25 U	0.25 J	< 0.24 U	0.62 J	0.24 J	< 0.28 U	< 0.23 U	0.25 J	< 0.21 U	< 0.24 U	
		Perfluoroheptanoic acid (PFHpA)	ng/g	--		--	--	--	0.49 J	< 0.35 U	0.82	0.59 J	< 0.33 U	0.32 J	< 0.24 U	0.69	0.34 J	< 0.28 U	0.36 J	0.38 J	< 0.21 U	< 0.24 U		
		Perfluoroctanoic acid (PFOA)	ng/g	0.66	1.1	6.6	33	500	600	8.9	4.5	14	9.2	2.8	6.1	4.2	1.6	8.3	4.5	3.2	8.6	9.0	4.8	1.5
		Perfluorononanoic acid (PFNA)	ng/g	--		--	--	--	< 0.20 U	< 0.35 U	0.28 J	< 0.22 U	0.43 J	< 0.25 U	< 0.23 U	0.29 J	< 0.21 U	< 0.20 U	< 0.28 U	< 0.23 U	< 0.24 U	< 0.21 U	< 0.24 U	
		Perfluorodecanoic acid (PFDA)	ng/g	--		--	--	--	< 0.20 U	0.37 J	< 0.24 U	< 0.22 U	0.46 J	< 0.25 U	< 0.23 U	< 0.24 U	< 0.21 U	< 0.20 U	< 0.28 U	< 0.23 U	< 0.24 U	< 0.21 U	< 0.24 U	
		Perfluroundecanoic acid (PFUnA / PFUnDA)	ng/g	--		--	--	--	< 0.20 U	0.62 J	< 0.24 U	< 0.22 U	0.53 J	< 0.25 U	< 0.23 U	0.30 J	< 0.21 U	< 0.20 U	< 0.28 U	< 0.23 U	< 0.24 U	< 0.21 U	< 0.24 U	
		Perfluorododecanoic acid (PFDoA / PFDoDA)	ng/g	--		--	--	--	< 0.20 U	< 0.35 U	< 0.24 U	< 0.22 U	< 0.33 U	< 0.25 U	< 0.23 U	< 0.24 U	< 0.21 U	< 0.20 U	< 0.28 U	< 0.23 U	< 0.24 U	< 0.21 U	< 0.24 U	
		Perfluorotridecanoic acid (PFTrDA / PFTriA)	ng/g	--		--	--	--	< 0.20 U	< 0.35 U	< 0.24 U	< 0.22 U	< 0.33 U	< 0.25 U	< 0.23 U	< 0.24 U	< 0.21 U	< 0.20 U	< 0.28 U	< 0.23 U	< 0.24 U	< 0.21 U	< 0.24 U	
		Perfluorotetradecanoic acid (PFTA / PFTeA)	ng/g	--		--	--	--	< 0.20 U	< 0.35 U	< 0.24 U	< 0.22 U	< 0.33 U	< 0.25 U	< 0.23 U	< 0.24 U	< 0.21 U	< 0.20 U	< 0.28 U	< 0.23 U	< 0.24 U	< 0.21 U	< 0.24 U	
	FASAs	N-EtFOSAA	ng/g	--		--	--	--	< 0.20 U	< 0.35 U	< 0.24 U	< 0.22 U	< 0.33 U	< 0.25 U	< 0.23 U	< 0.24 U	< 0.21 U	< 0.20 U	< 0.28 U	< 0.23 U	< 0.24 U	< 0.21 U	< 0.24 U	

Notes:

*Results are included for analytes that were detected. The following PFAS were included in analysis but not detected: perfluoroheptanesulfonic acid (PFHpS); perfluorodecanesulfonic acid (PFDS); 8:2 fluorotelomer sulfonic acid (8:2 FTS); and n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)

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Detections are presented in bold.

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FASAs - perfluoroalkane sulfonamido acetic acids

FTSAs - fluorotelomer sulfonic acids

PFAS - per- and polyfluoroalkyl substances

PCFAs - perfluoroalkyl carboxylic acids

PFSAs - perfluoroalkane sulfonic acids

N-EtFOSAA - n-Ethyl perfluorooctanesulfonamidoacetic acid

¹ Guidance values form NYSDEC Sampling, Analysis and Assessment for PFAS (NYSDEC, 2021b)

Table B3: Initial Phase Analytical Results*
 Regional Air Deposition Study Report
 Village of Hoosick Falls, New York

										Location Soil Type Date Depth Sample Type	09A		09B		10A		Silt Clay 10/18/2019 0 - 0.17 ft N	Silt Clay 10/18/2019 0.17 - 1 ft N	Silt Clay 10/18/2019 1 - 2 ft FD
											Silt 8/06/2020 0.17 - 1 ft N	Silt 8/06/2020 1 - 2 ft N	Silt 8/06/2020 0 - 0.17 ft N	Silt 8/06/2020 0.17 - 1 ft N	Silt 8/06/2020 1 - 2 ft N				
											10/18/2019 0 - 0.17 ft N	10/18/2019 0.17 - 1 ft N	10/18/2019 1 - 2 ft FD	10/18/2019 0 - 0.17 ft N	10/18/2019 0.17 - 1 ft N				
	Parameter	Units	Unrestricted	Protection of Groundwater ²	Residential	Restricted Residential	Commercial	Industrial											
	Exceedance Key		<u>Underline</u>	<i>Italic</i>	Border	Shade	--	--											
	General Parameters																		
	Carbon, total organic	mg/kg	--		--	--	--	--	23000	14000	83000	56000	30000	81100	27200	30000	12700		
	Moisture	%	--		--	--	--	--	19.5	14.2	33.4	27.6	13.9	41.2	25.0	24.1	17.5		
	pH	pH units	--		--	--	--	--	4.7	4.9	6.3	5.7	6.1	6.50	5.32	5.18	5.26		
	Temperature	deg C	--		--	--	--	--	--	--	--	--	--	--	--	--	--		
	PFAS Group	Per- and Polyfluoroalkyl Substances																	
PFSAs	Perfluorooctanesulfonic acid (PFOS)	ng/g	<u>0.88</u>	3.7	8.8	44	440	440	0.51 J	0.33 J	0.79 J	1.0	0.48 J	0.79 J	0.46 J	0.58 J	< 0.24 U		
PFCAs	Perfluorobutanoic acid (PFBA)	ng/g	--		--	--	--	--	< 0.99 U	< 0.91 U	< 1.1 U	< 1.1 U	< 0.89 U	< 1.3 U	< 1.0 U	< 1.0 U	< 0.95 U		
	Perfluoropentanoic acid (PFPeA)	ng/g	--		--	--	--	--	0.42 J	0.23 J	0.39 J	< 0.28 U	< 0.22 U	< 0.32 U	0.31 J	0.31 J	< 0.24 U		
	Perfluorohexanoic acid (PFHxA)	ng/g	--		--	--	--	--	0.80	0.69	0.33 J	0.34 J	0.22 J	< 0.32 U	0.71 J	0.56 J	< 0.24 U		
	Perfluoroheptanoic acid (PFHpA)	ng/g	--		--	--	--	--	0.67 J	0.71	0.40 J	0.47 J	0.35 J	< 0.32 U	0.86	0.67 J	0.42 J		
	Perfluorooctanoic acid (PFOA)	ng/g	<u>0.66</u>	1.1	<u>6.6</u>	33	500	600	8.2	8.5	12	15	9.6	1.6	7.5	6.2	7.3		
	Perfluorononanoic acid (PFNA)	ng/g	--		--	--	--	--	< 0.25 U	< 0.23 U	0.34 J	0.33 J	< 0.22 U	< 0.32 U	< 0.25 U	< 0.25 U	< 0.24 U		
	Perfluorodecanoic acid (PFDA)	ng/g	--		--	--	--	--	< 0.25 U	< 0.23 U	0.28 J	< 0.28 U	< 0.22 U	0.39 J	< 0.25 U	< 0.25 U	< 0.24 U		
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	ng/g	--		--	--	--	--	< 0.25 U	< 0.23 U	0.29 J	< 0.28 U	< 0.22 U	0.54 J	< 0.25 U	< 0.25 U	< 0.24 U		
	Perfluorododecanoic acid (PFDoA / PFDoDA)	ng/g	--		--	--	--	--	< 0.25 U	< 0.23 U	< 0.27 U	< 0.28 U	< 0.22 U	< 0.32 U	< 0.25 U	< 0.25 U	< 0.24 U		
	Perfluorotridecanoic acid (PFTrDA / PFTriA)	ng/g	--		--	--	--	--	< 0.25 U	< 0.23 U	< 0.27 U	< 0.28 U	< 0.22 U	< 0.32 U	< 0.25 U	< 0.25 U	< 0.24 U		
FASAAAs	N-EtFOSAA	ng/g	--		--	--	--	--	< 0.25 U	< 0.23 U	< 0.27 U	< 0.28 U	< 0.22 U	< 0.32 U	< 0.25 U	< 0.25 U	< 0.24 U		

Notes:

*Results are included for analytes that were detected. The following PFAS were included in analysis but not detected: perfluoroheptanesulfonic acid (PFHpS); perfluorodecanesulfonic acid (PFDS); 8:2 fluorotelomer sulfonic acid (8:2 FTS); and n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)

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FASAAAs - perfluoroalkane sulfonamido acetic acids

FTSAs - fluorotelomer sulfonic acids

PFAS - per- and polyfluoroalkyl substances

PFCAs - perfluoroalkyl carboxylic acids

PFSAs - perfluoroalkane sulfonic acids

N-EtFOSAA - n-Ethyl perfluorooctanesulfonamidoacetic acid

¹ Guidance values form NYSDEC Sampling, Analysis and Assessment for PFAS (NYSDEC, 2021b)

Table B3: Initial Phase Analytical Results*

Regional Air Deposition Study Report
Village of Hoosick Falls, New York

										Location	Soil Type			11B			11C			11D			11E			12A						
											Date	10/24/2019	Silt	10/24/2019	Silt	10/24/2019	Silt	11/12/2019	Silt	11/12/2019	Silt	11/12/2019	Silt Clay	11/12/2019	Silt	11/12/2019	Silt Clay	Clay	11/12/2019	Silt	11/13/2019	Silt Clay
	Parameter	Units	Guidance Values ¹						Sample Type	Depth	N	0 - 0.17 ft	N	0.17 - 1 ft	N	1 - 2 ft	N	0 - 0.17 ft	N	0.17 - 1 ft	N	1 - 2 ft	N	0 - 0.17 ft	N	0.17 - 1 ft	N	1 - 2 ft	N			
			Unrestricted	Protection of Groundwater ²	Residential	Restricted Residential	Commercial	Industrial																								
	Exceedance Key		<u>Underline</u>	<i>Italic</i>	Border	Shade	--	--																								
	General Parameters																															
	Carbon, total organic	mg/kg	--		--	--	--	--	61500	23700	4500	122000	29000	9940	68800	14100	8820	108000	9510	6230	91700	14200	4590									
	Moisture	%	--		--	--	--	--	26.4	18.8	13.1	46.8 J	22.8 J	16.2 J	30.2 J	17.3 J	15.5 J	39.5 J	22.6 J	18.7 J	40.6 J	23.8 J	16.5 J									
	pH	pH units	--		--	--	--	--	4.69	4.88	5.04	6.34	5.82	5.90	5.08	4.85	5.74	5.25	5.10	4.99	4.83	4.87	4.77									
	Temperature	deg C	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	PFAS Group	Per- and Polyfluoroalkyl Substances																														
PFSAs	Perfluorooctanesulfonic acid (PFOS)	ng/g	0.88	3.7	8.8	44	440	440	1.1	0.87	< 0.22 U	0.85 J	0.50 J	< 0.23 U	0.92	0.37 J	< 0.23 U	0.81 J	0.37 J	< 0.24 U	2.0	0.45 J	< 0.22 U									
PFCAs	Perfluorobutanoic acid (PFBA)	ng/g	--		--	--	--	--	< 1.0 U	< 0.94 U	< 0.86 U	< 1.5 U	< 0.98 U	< 0.92 U	< 1.1 U	1.2 J	< 0.92 U	2.3 J	1.3 J	1.7 J	1.8 J	1.5 J	1.3 J									
	Perfluoropentanoic acid (PFPeA)	ng/g	--		--	--	--	--	< 0.26 U	< 0.23 U	< 0.22 U	< 0.38 U	< 0.24 U	< 0.23 U	< 0.28 U	< 0.23 U	< 0.23 U	< 0.32 U	< 0.26 U	< 0.24 U	< 0.34 U	0.25 J	< 0.22 U									
	Perfluorohexanoic acid (PFHxA)	ng/g	--		--	--	--	--	< 0.26 U	< 0.23 U	< 0.22 U	< 0.38 U	< 0.24 U	0.23 J	< 0.28 U	< 0.23 U	< 0.32 U	0.52 J	< 0.24 U	< 0.34 U	0.46 J	0.41 J										
	Perfluoroheptanoic acid (PFHpA)	ng/g	--		--	--	--	--	0.33 J	0.25 J	< 0.22 U	< 0.38 U	< 0.24 U	0.26 J	< 0.28 U	0.30 J	0.27 J	< 0.32 U	0.47 J	< 0.24 U	< 0.34 U	0.38 J	0.37 J									
	Perfluoroctanoic acid (PFOA)	ng/g	0.66	1.1	6.6	33	500	600	5.0	6.2	2.3	0.53 J	1.2	4.0	0.77 J	3.5	1.8	1.1	5.3	9.4	5.1	6.4	5.0									
	Perfluorononanoic acid (PFNA)	ng/g	--		--	--	--	--	0.37 J	0.36 J	< 0.22 U	< 0.38 U	< 0.24 U	< 0.23 U	< 0.28 U	< 0.23 U	< 0.32 U	< 0.26 U	< 0.24 U	0.55 J	< 0.24 U	< 0.22 U										
	Perfluorodecanoic acid (PFDA)	ng/g	--		--	--	--	--	0.30 J	< 0.23 U	< 0.22 U	0.43 J	< 0.24 U	< 0.23 U	0.30 J	< 0.23 U	< 0.23 U	0.36 J	< 0.26 U	< 0.24 U	0.57 J	< 0.24 U	< 0.22 U									
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	ng/g	--		--	--	--	--	0.33 J	< 0.23 U	< 0.22 U	0.53 J	< 0.24 U	< 0.23 U	0.40 J	< 0.23 U	< 0.23 U	0.48 J	< 0.26 U	< 0.24 U	0.73 J	< 0.24 U	< 0.22 U									
	Perfluorododecanoic acid (PFDoA / PFDoDA)	ng/g	--		--	--	--	--	< 0.26 U	< 0.23 U	< 0.22 U	< 0.38 U	< 0.24 U	< 0.23 U	0.30 J	< 0.23 U	< 0.23 U	< 0.32 U	< 0.26 U	< 0.24 U	0.41 J	< 0.24 U	< 0.22 U									
	Perfluorotridecanoic acid (PFTrDA / PFTriA)	ng/g	--		--	--	--	--	< 0.26 U	< 0.23 U	< 0.22 U	< 0.38 U	< 0.24 U	< 0.23 U	< 0.28 U	< 0.23 U	< 0.32 U	< 0.26 U	< 0.24 U	< 0.34 U	< 0.24 U	< 0.22 U										
	Perfluorotetradecanoic acid (PFTA / PFTeA)	ng/g	--		--	--	--	--	< 0.26 U	< 0.23 U	< 0.22 U	< 0.38 U	< 0.24 U	< 0.23 U	< 0.28 U	< 0.23 U	< 0.32 U	< 0.26 U	< 0.24 U	< 0.34 U	< 0.24 U	< 0.22 U										
FASAs	N-EtFOSAA	ng/g	--		--	--	--	--	< 0.26 U	< 0.23 U	< 0.22 U	< 0.38 U	< 0.24 U	< 0.23 U	< 0.28 U	< 0.23 U	< 0.32 U	< 0.26 U	< 0.24 UU	< 0.34 U	< 0.24 U	< 0.22 U										

Notes:

*Results are included for analytes that were detected. The following PFAS were included in analysis but not detected: perfluoroheptanesulfonic acid (PFHpS); perfluorodecanesulfonic acid (PFDS); 8:2 fluorotelomer sulfonic acid (8:2 FTS); and n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)

** Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan

Detections are presented in bold.

N - Sample type: Normal

FD - Sample type: Field Duplicate

mg/kg - milligram per kilogram

ng/g - nanogram per gram

J - Estimated detected value. The reported value is less than the stated laboratory quantitation limit but greater than the laboratory method detection limit.

R - The data are unusable. The samples results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria

Table B3: Initial Phase Analytical Results*

Regional Air Deposition Study Report

Village of Hoosick Falls, New York

								Location			
								Soil Type	Silt		
								Date	10/09/2019		
								Depth	1 - 2 ft	1 - 2 ft	
								Sample Type	N	FD	
Parameter		Units		Guidance Values ¹							
				Unrestricted	Protection of Groundwater ²	Residential	Restricted Residential	Commercial	Industrial		
Exceedance Key				<u>Underline</u>	<i>Italic</i>	Border	Shade	--	--		
General Parameters											
Carbon, total organic		mg/kg		--		--	--	--	3520	3460	
Moisture		%		--		--	--	--	12.8 J	13.5 J	
pH		pH units		--		--	--	--	5.24	5.24	
Temperature		deg C		--		--	--	--	--	--	
PFAS Group		Per- and Polyfluoroalkyl Substances									
PFSAs		Perfluorooctanesulfonic acid (PFOS)		ng/g	0.88	3.7	8.8	44	440	440	
PFCAs	Perfluorobutanoic acid (PFBA)		ng/g	--		--	--	--	< 0.90 UJ	< 0.90 UJ	
	Perfluoropentanoic acid (PFPeA)		ng/g	--		--	--	--	< 0.22 UJ	< 0.22 UJ	
	Perfluorohexanoic acid (PFHxA)		ng/g	--		--	--	--	< 0.22 UJ	< 0.22 UJ	
	Perfluoroheptanoic acid (PFHpA)		ng/g	--		--	--	--	< 0.22 UJ	< 0.22 UJ	
	Perfluorooctanoic acid (PFOA)		ng/g	0.66	1.1	6.6	33	500	600	3.5 J	3.1 J
	Perfluorononanoic acid (PFNA)		ng/g	--		--	--	--	< 0.22 U	< 0.22 U	
	Perfluorodecanoic acid (PFDA)		ng/g	--		--	--	--	< 0.22 UJ	< 0.22 U	
	Perfluoroundecanoic acid (PFUnA / PFUnDA)		ng/g	--		--	--	--	< 0.22 U	< 0.22 U	
	Perfluorododecanoic acid (PFDoA / PFDoDA)		ng/g	--		--	--	--	< 0.22 U	< 0.22 U	
	Perfluorotridecanoic acid (PFTrDA / PFTriA)		ng/g	--		--	--	--	< 0.22 U	< 0.22 U	
FASAA		Perfluorotetradecanoic acid (PFTA / PFTeA)		ng/g	--		--	--	< 0.22 U	< 0.22 U	
FASAA		N-EtFOSAA		ng/g	--		--	--	--	< 0.22 UJ	< 0.22 UJ

Notes:

*Results are included for analytes that were detected. The following PFAS were included in analysis but not detected: perfluoroheptanesulfonic acid (PFHpS); perfluorodecanesulfonic acid (PFDS); 8:2 fluorotelomer sulfonic acid (8:2 FTS); and n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)

** Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan

Detections are presented in bold.

N - Sample type: Normal

FD - Sample type: Field Duplicate

mg/kg - milligram per kilogram

ng/g - nanogram per gram

J - Estimated detected value. The reported value is less than the stated laboratory quantitation limit but greater than the laboratory method detection limit.

R - The data are unusable. The samples results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.

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UU - The analyte was analyzed for, but was not detected. The reported value is approximate and may be inaccurate or imprecise.

FASAs - perfluoroalkane sulfonamides

FASAA - perfluoroalkane sulfonamido acetic acids

FTSAs - fluorotelomer sulfonic acids

PFAS - per- and polyfluoroalkyl substances

PFCAs - perfluoroalkyl carboxylic acids

PFSAs - perfluoroalkane sulfonic acids

N-EtFOSAA - n-Ethyl perfluorooctanesulfonamidoacetic acid

¹ Guidance values form NYSDEC Sampling, Analysis and Assessment for PFAS (NYSDEC, 2021b)

Table B3: Initial Phase Analytical Results*
Regional Air Deposition Study Report
Village of Hoosick Falls, New York

Location		Soil Type	14C			15A			15C			15D			15G									
			Organics	Clay	Clay	Silt	Silt	Silt	Silt	Silt	Silt	Silt	Silt	Silt Clay										
			Date	4/23/2020	4/23/2020	4/23/2020	6/18/2020	6/18/2020	6/18/2020	6/18/2020	6/18/2020	6/18/2020	6/18/2020	11/26/2019	11/26/2019	11/26/2019								
			Depth	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft	FD	0 - 0.17 ft	0.17 - 1 ft	1 - 2 ft								
			Sample Type	N	N	N	N	N	N	N	N	N	FD	N	N	N								
			Guidance Values ¹																					
	Parameter	Units	Unrestricted	Protection of Groundwater ²	Residential	Restricted Residential	Commercial	Industrial																
	Exceedance Key		Underline	<i>Italic</i>	Border	Shade	--	--																
	General Parameters																							
	Carbon, total organic	mg/kg	--		--	--	--	--	148000	11800	7230	120000	15000 J	6500 J	63000	7000								
	Moisture	%	--		--	--	--	--	42.6	19.0	15.7	26.7	10.8	10.2	27.3	13.6								
	pH	pH units	--		--	--	--	--	4.22 J	5.12 J	4.95 J	5.8	5.1	5.2	6.5	5.1								
	Temperature	deg C	--		--	--	--	--	--	--	19.8	19.7	19.9	19.6	19.8	19.8								
PFAS Group	Per- and Polyfluoroalkyl Substances																							
PFSAs	Perfluorooctanesulfonic acid (PFOS)	ng/g	<u>0.88</u>	3.7	8.8	44	440	440	0.84 J	< 0.23 U	< 0.23 U	0.73 J	0.48 J	0.28 J	0.79	0.37 J	< 0.21 U	< 0.22 U	0.42 J	0.27 J	< 0.22 U	< 0.23 U	0.57 J	< 0.24 U
PFCAs	Perfluorobutanoic acid (PFBA)	ng/g	--		--	--	--	--	< 1.4 U	< 0.91 U	< 0.92 U	1.0 J	0.95 J	0.90 J	1.1 J	< 0.87 U	< 0.84 U	< 0.87 U	< 1.0 U	< 0.95 U	< 0.89 U	< 0.92 U	< 1.1 U	< 0.97 U
	Perfluoropentanoic acid (PFPeA)	ng/g	--		--	--	--	--	< 0.34 U	< 0.23 U	< 0.23 U	< 0.26 U	0.25 J	0.21 J	< 0.25 U	0.39 J	0.25 J	< 0.22 U	< 0.26 U	0.36 J	< 0.22 U	< 0.23 U	< 0.27 U	0.26 J
	Perfluorohexanoic acid (PFHxA)	ng/g	--		--	--	--	--	< 0.34 U	< 0.23 U	< 0.23 U	< 0.26 U	< 0.22 U	< 0.21 U	< 0.25 U	0.53 J	0.40 J	0.40 J	< 0.26 U	0.50 J	0.71	0.87	< 0.27 U	0.80
	Perfluorooctanoic acid (PFOA)	ng/g	--		--	--	--	--	< 0.34 U	0.26 J	< 0.23 U	< 0.26 U	0.30 J	< 0.21 U	< 0.25 U	0.25 J	< 0.21 U	< 0.22 U	< 0.26 U	< 0.24 U	0.64 J	0.59 J	< 0.27 U	0.67 J
	Perfluorononanoic acid (PFNA)	ng/g	<u>0.66</u>	1.1	6.6	33	500	600	1.3	2.9	6.4	2.3	6.2	2.6	1.3	3.8	2.0	2.0	1.8	6.4	12	11	1.1	5.7
	Perfluorodecanoic acid (PFDA)	ng/g	--		--	--	--	--	< 0.34 U	< 0.23 U	< 0.23 U	0.27 J	< 0.22 U	< 0.21 U	< 0.25 U	0.23 J	< 0.21 U	< 0.22 U	< 0.26 U	< 0.24 U	< 0.22 U	< 0.23 U	< 0.27 U	< 0.24 U
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	ng/g	--		--	--	--	--	0.43 J	< 0.23 U	< 0.23 U	0.75 J	< 0.22 U	< 0.21 U	0.56 J	< 0.22 U	< 0.21 U	< 0.22 U	< 0.26 U	< 0.24 U	< 0.22 U	< 0.23 U	0.31 J	< 0.24 U
	Perfluorododecanoic acid (PFDoA / PFDoDA)	ng/g	--		--	--	--	--	< 0.34 U	< 0.23 U	< 0.23 U	0.37 J	< 0.22 U	< 0.21 U	0.28 J	< 0.22 U	< 0.21 U	< 0.22 U	< 0.26 U	< 0.24 U	< 0.22 U	< 0.23 U	< 0.27 U	< 0.24 U
	Perfluorotridecanoic acid (PFTriDA / PFTriA)	ng/g	--		--	--	--	--	< 0.34 U	< 0.23 U	< 0.23 U	< 0.26 U	< 0.22 U	< 0.21 U	< 0.25 U	< 0.22 U	< 0.21 U	< 0.22 U	< 0.26 U	< 0.24 U	< 0.22 U	< 0.23 U	< 0.27 U	< 0.24 U
	Perfluorotetradecanoic acid (PFTA / PFTeA)	ng/g	--		--	--	--	--	< 0.34 U	< 0.23 U	< 0.23 U	< 0.26 U	< 0.22 U	< 0.21 U	< 0.25 U	< 0.22 U	< 0.21 U	< 0.22 U	< 0.26 U	< 0.24 U	< 0.22 U	< 0.23 U	< 0.27 U	< 0.24 U
FASAAs	N-EtFOSAA	ng/g	--		--	--	--	--	< 0.34 U	< 0.23 U	< 0.23 U	< 0.26 U	< 0.22 U	< 0.21 U	< 0.25 U	< 0.22 U	< 0.21 U	< 0.22 U	< 0.26 U	< 0.24 U	< 0.22 U	< 0.23 U	< 0.27 U	< 0.24 U

Notes:-

*Results are included for analytes that were detected. The following PFAS were included in analysis but not detected: perfluoroheptanesulfonic acid (PFHpS); perfluorodecanesulfonic acid (PFDS); 8:2 fluorotelomer sulfonic acid (8:2 FTS); and n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)

** Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan

Detections are presented in bold.

N - Sample type: Normal

FD - Sample type: Field Duplicate

mg/kg - milligram per kilogram

ng/q - nanogram per gram

J - Estimated detected value. The reported value is less than the stated laboratory quantitation limit but greater than the laboratory method detection limit.

R - The data are unusable. The samples results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.

II - The analyte was analyzed for, but was not detected.

U-I - The analyte was analyzed for, but was not found.

EASAs - perfluoroalkane sulfonamides

FASAs - perfluoroalkane sulfonamides

TASAAs - perfluoralkane sulfonamides
ETSAs - fluorotelomer sulfonic acids

PFASs - per- and polyfluoroalkyl substances

PFAS - per- and polyfluoroalkyl substances
PFCAs - perfluoroalkyl carboxylic acids

PFCAs - perfluorooalkyl carboxylic acids
PFESAs - perfluoroalkane sulfonic acids

N-EtFOSAA - n-Ethyl perfluorooctanesulfonic acid

¹ Guidance values from NYSDEC Sampling, Analysis and /

Guidelines for NYSDEC Sampling, Analysis and

Table B3: Initial Phase Analytical Results*

Regional Air Deposition Study Report
Village of Hoosick Falls, New York

								Location		
								Soil Type	Silt	
								Date	4/23/2020	
								Depth	1 - 2 ft	
								Sample Type	N	
Parameter		Units		Guidance Values ¹						
Exceedance Key				Underline	<i>Italic</i>	Border	Shade	--	--	
General Parameters										
Carbon, total organic		mg/kg		--		--	--	--	3440	
Moisture		%		--		--	--	--	15.5	
pH		pH units		--		--	--	--	4.76 J	
Temperature		deg C		--		--	--	--	--	
PFAS Group		Per- and Polyfluoroalkyl Substances								
PFSAs	Perfluorooctanesulfonic acid (PFOS)		ng/g	0.88	3.7	8.8	44	440	440	< 0.22 U
	Perfluorobutanoic acid (PFBA)		ng/g	--					< 0.86 U	
	Perfluoropentanoic acid (PFPeA)		ng/g	--					< 0.22 U	
	Perfluorohexanoic acid (PFHxA)		ng/g	--					0.33 J	
	Perfluoroheptanoic acid (PFHpA)		ng/g	--					0.52 J	
	Perfluorooctanoic acid (PFOA)		ng/g	0.66	1.1	6.6	33	500	600	5.8
	Perfluoronanoic acid (PFNA)		ng/g	--					< 0.22 U	
	Perfluorodecanoic acid (PFDA)		ng/g	--					< 0.22 U	
	Perfluoroundecanoic acid (PFUnA / PFUnDA)		ng/g	--					< 0.22 U	
	Perfluorododecanoic acid (PFDoA / PFDoDA)		ng/g	--					< 0.22 U	
PFCAs	Perfluorotridecanoic acid (PFTrDA / PFTriA)		ng/g	--					< 0.22 U	
	Perfluorotetradecanoic acid (PFTA / PFTeA)		ng/g	--					< 0.22 U	
FASAs		N-EtFOSAA		ng/g	--				< 0.22 U	

Notes:

*Results are included for analytes that were detected. The following PFAS were included in analysis but not detected: perfluoroheptanesulfonic acid (PFHpS); perfluorodecanesulfonic acid (PFDS); 8:2 fluorotelomer sulfonic acid (8:2 FTS); and n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)

** Sample locations 01D and 10B did not meet the vetting criteria established in the Work Plan

Detections are presented in bold.

N - Sample type: Normal

FD - Sample type: Field Duplicate

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U - The analyte was analyzed for, but was not detected.

UJ - The analyte was analyzed for, but was not detected. The reported value is approximate and may be inaccurate or imprecise.

FASAs - perfluoroalkane sulfonamides

FASAAs - perfluoroalkane sulfonamido acetic acids

FTSAs - fluorotelomer sulfonic acids

PFAS - per- and polyfluoroalkyl substances

PFCAs - perfluoroalkyl carboxylic acids

PFSAs - perfluoroalkane sulfonic acids

N-EtFOSAA - n-Ethyl perfluorooctanesulfonamidoacetic acid

¹ Guidance values form NYSDEC Sampling, Analysis and Assessment for PFAS (NYSDEC, 2021b)

Table B3: Initial Phase Analytical Results*

Regional Air Deposition Study Report
Village of Hoosick Falls, New York

								Location Soil Type Date Depth Sample Type	16A			16D			
									Silt 11/26/2019 0 - 0.17 ft N	Silt 11/26/2019 0.17 - 1 ft N	Silt Clay 11/26/2019 1 - 2 ft N	Silt Organics 10/30/2019 0 - 0.17 ft N	Silt 10/30/2019 0.17 - 1 ft N	Silt Gravel 10/30/2019 1 - 2 ft N	
									Guidance Values ¹						
									--	--	--	--	--	--	
	Parameter	Units	Unrestricted	Protection of Groundwater ²	Residential	Restricted Residential	Commercial	Industrial							
	Exceedance Key		<u>Underline</u>	<i>Italic</i>	Border	Shade	--	--							
	General Parameters														
	Carbon, total organic	mg/kg	--		--	--	--	--	83400	19200	6800 J	11800 J	98700	19600	3550
	Moisture	%	--		--	--	--	--	37.9	24.1	17.9	18.9	38.1	18.8	18.3
	pH	pH units	--		--	--	--	--	5.22	5.07	5.67	5.42	4.57	4.76	4.48
	Temperature	deg C	--		--	--	--	--	--	--	--	--	--	--	--
	PFAS Group	Per- and Polyfluoroalkyl Substances													
PFSAs	Perfluorooctanesulfonic acid (PFOS)	ng/g	<u>0.88</u>	3.7	8.8	44	440	440	0.71 J	0.47 J	< 0.23 U	0.40 J	1.1	0.64 J	< 0.24 U
PFCAs	Perfluorobutanoic acid (PFBA)	ng/g	--		--	--	--	--	< 1.3 U	< 1.0 U	< 0.90 U	< 0.94 U	1.5 J	1.2 J	1.0 J
	Perfluoropentanoic acid (PPPeA)	ng/g	--		--	--	--	--	< 0.32 U	0.41 J	< 0.23 U	< 0.23 U	0.45 J	0.64 J	0.26 J
	Perfluorohexanoic acid (PFHxA)	ng/g	--		--	--	--	--	< 0.32 U	1.1	< 0.23 U	0.35 J	0.35 J	1.0	0.33 J
	Perfluoroheptanoic acid (PFHpA)	ng/g	--		--	--	--	--	< 0.32 U	0.52 J	< 0.23 U	0.25 J	0.43 J	0.75	< 0.24 U
	Perfluoroctanoic acid (PFOA)	ng/g	<u>0.66</u>	1.1	<u>6.6</u>	33	500	600	1.7	4.7	2.5 J	3.7 J	3.9	10	4.3 J
	Perfluorononanoic acid (PFNA)	ng/g	--		--	--	--	--	< 0.32 U	< 0.25 U	< 0.23 U	< 0.23 U	0.51 J	0.31 J	< 0.24 U
	Perfluorodecanoic acid (PFDA)	ng/g	--		--	--	--	--	< 0.32 U	< 0.25 U	< 0.23 U	< 0.23 U	0.68 J	< 0.24 U	< 0.24 U
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	ng/g	--		--	--	--	--	< 0.32 U	< 0.25 U	< 0.23 U	< 0.23 U	0.90 J	< 0.24 U	< 0.24 U
	Perfluorododecanoic acid (PFDoA / PFDoDA)	ng/g	--		--	--	--	--	< 0.32 U	< 0.25 U	< 0.23 U	< 0.23 U	0.45 J	< 0.24 U	< 0.24 U
	Perfluorotridecanoic acid (PFTriDA / PFTriA)	ng/g	--		--	--	--	--	< 0.32 U	< 0.25 U	< 0.23 U	< 0.23 U	0.33 J	< 0.24 U	< 0.24 U
FASAAAs	N-EtFOSAA	ng/g	--		--	--	--	--	< 0.32 U	< 0.25 U	< 0.23 U	< 0.23 U	< 0.30 U	< 0.24 U	< 0.24 U

Notes:

*Results are included for analytes that were detected. The following PFAS were included in analysis but not detected: perfluoroheptanesulfonic acid (PFHpS); perfluorodecanesulfonic acid (PFDS); 8:2 fluorotelomer sulfonic acid (8:2 FTS); and n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)

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FASAs - perfluoroalkane sulfonamides

FASAAAs - perfluoroalkane sulfonamido acetic acids

FTSAs - fluorotelomer sulfonic acids

PFAS - per- and polyfluoroalkyl substances

PFCAAs - perfluoroalkyl carboxylic acids

PFSAs - perfluoroalkane sulfonic acids

N-EtFOSAA - n-Ethyl perfluorooctanesulfonamidoacetic acid

¹ Guidance values from NYSDEC Sampling, Analysis and Assessment for PFAS (NYSDEC, 2021b)

Table B4: Initial Study Summary Statistics
Supplemental Scope Data Summary Report
Village of Hoosick Falls, New York

All Soil Samples (0-2 feet)*											
	Parameter	# of Samples	# of Detections	Detection Frequency	Max	Min	Median	Arithmetic Mean	Geometric Mean	75 th Percentile	25 th Percentile
	Carbon, total organic (mg/kg)	165	165	100%	432,000	1,580	20,000	43,922	4,504	56,000	10,000
	Moisture (% by weight)	165	165	100%	65.8	5.6	19.8	23.4	0.8	29.8	15.5
	pH (pH units)	165	165	100%	7.52	3.90	4.98	5.10	0.05	5.32	4.70
PFAS Group	PFAS Compound** (ng/g)										
PFSAs	Perfluorooctanesulfonate (PFOS)	165	115	70%	2.5	--	0.42	0.58	0.04	0.75	--
PFCAs	Perfluorobutanoic acid (PFBA)	165	34	21%	3.3	--	--	--	--	--	--
	Perfluoropentanoic acid (PPPeA)	165	45	27%	0.84	--	--	--	--	--	--
	Perfluorohexanoic acid (PFHxA)	165	76	46%	1.6	--	--	--	--	--	--
	Perfluoroheptanoic acid (PFHpA)	165	98	59%	2.2	--	0.34	0.42	0.02	0.53	--
	Perfluorooctanoic acid (PFOA)	165	161	98%	44	--	4.6	6.3	0.5	9.2	1.9
	Perfluorononanoic acid (PFNA)	165	44	27%	0.74	--	--	--	--	--	--
	Perfluorodecanoic acid (PFDA)	165	39	24%	1.4	--	--	--	--	--	--
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	165	43	26%	2.3	--	--	--	--	--	--
	Perfluorododecanoic acid (PFDoA / PFDoDA)	165	23	14%	1.3	--	--	--	--	--	--
	Perfluorotridecanoic acid (PFTrDA / PFTriA)	165	13	8%	1	--	--	--	--	--	--
	Perfluorotetradecanoic acid (PFTA / PFTeDA / PFTeA)	165	6	4%	0.68	--	--	--	--	--	--
FASAs	N-Ethyl perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	163	3	2%	0.66	--	--	--	--	--	--
Surface Soil Samples (0-0.17 feet)*											
	Parameter	# of Samples	# of Detections	Detection Frequency	Maximum	Minimum	Median	Arithmetic Mean	Geometric Mean	75 th Percentile	25 th Percentile
	Carbon, total organic (mg/kg)	55	55	100%	432,000	25,200	83,500	101,249	9,453	126,000	56,050
	Moisture (% by weight)	55	55	100%	65.8	13.8	33.4	34.9	1.4	41.5	28.0
	pH (pH units)	55	55	100%	7.12	3.90	5.02	5.11	0.10	5.37	4.66
PFAS Group	PFAS Compound** (ng/g)										
PFSAs	Perfluorooctanesulfonate (PFOS)	55	54	98%	2.5	--	0.84	1.0	0.1	1.3	0.61
PFCAs	Perfluorobutanoic acid (PFBA)	55	12	22%	3.3	--	--	--	--	--	--
	Perfluoropentanoic acid (PPPeA)	55	11	20%	0.79	--	--	--	--	--	--
	Perfluorohexanoic acid (PFHxA)	55	10	18%	1.1	--	--	--	--	--	--
	Perfluoroheptanoic acid (PFHpA)	55	11	20%	0.59	--	--	--	--	--	--
	Perfluorooctanoic acid (PFOA)	55	54	98%	12	--	1.6	2.4	0.3	2.7	1.1
	Perfluorononanoic acid (PFNA)	55	27	49%	0.74	--	--	--	--	--	--
	Perfluorodecanoic acid (PFDA)	55	38	69%	1.4	--	0.39	0.46	0.03	0.51	--
	Perfluoroundecanoic acid (PFUnA / PFUnDA)	55	43	78%	2.3	--	0.51	0.57	0.05	0.69	0.31
	Perfluorododecanoic acid (PFDoA / PFDoDA)	55	23	42%	1.3	--	--	--	--	--	--
	Perfluorotridecanoic acid (PFTrDA / PFTriA)	55	13	24%	1	--	--	--	--	--	--
	Perfluorotetradecanoic acid (PFTA / PFTeDA / PFTeA)	55	6	11%	0.68	--	--	--	--	--	--
FASAs	N-Ethyl perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	55	1	2%	0.66	--	--	--	--	--	--

Table B4: Initial Study Summary Statistics
Supplemental Scope Data Summary Report
Village of Hoosick Falls, New York

Near Surface Soil Samples (0.17-1 feet)*											
	Parameter	# of Samples	# of Detections	Detection Frequency	Maximum	Minimum	Median	Arithmetic Mean	Geometric Mean	75 th Percentile	25 th Percentile
	Carbon, total organic (mg/kg)	55	55	100%	56,000	7,000	18,900	20,523	1,396	23,700	13,850
	Moisture (% by weight)	55	55	100%	32.4	10.3	19.5	20.2	0.7	23.4	17.3
	pH (pH units)	55	55	100%	7.39	4.24	4.88	5.03	0.07	5.21	4.71
PFAS Group	PFAS Compound** (ng/g)										
PFSAs	Perfluorooctanesulfonate (PFOS)	55	47	85%	1.2	--	0.42	0.45	0.03	0.52	0.29
PFCAs	Perfluorobutanoic acid (PFBA)	55	14	25%	2.0	--	--	--	--	--	--
	Perfluoropentanoic acid (PFPeA)	55	28	51%	0.84	--	--	--	--	--	--
	Perfluorohexanoic acid (PFHxA)	55	37	67%	1.6	--	0.41	0.49	0.04	0.60	--
	Perfluoroheptanoic acid (PFHpA)	55	49	89%	1.7	--	0.48	0.54	0.04	0.71	0.28
	Perfluorooctanoic acid (PFOA)	55	53	96%	30	--	7.5	8.6	0.7	11.5	5.0
	Perfluorononanoic acid (PFNA)	55	16	29%	0.58	--	--	--	--	--	--
	Perfluorodecanoic acid (PFDA)	55	1	2%	0.43	--	--	--	--	--	--
	N-Ethyl perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	55	1	2%	0.28	--	--	--	--	--	--
Sub-Surface Soil Samples (1-2 feet)*											
	Parameter	# of Samples	# of Detections	Detection Frequency	Maximum	Minimum	Median	Arithmetic Mean	Geometric Mean	75 th Percentile	25 th Percentile
	Carbon, total organic (mg/kg)	55	55	100%	38,000	1,580	8,130	9,995	1,108	11,450	4,245
	Moisture (% by weight)	55	55	100%	29.9	5.6	14.8	15.1	0.6	17.2	12.8
	pH (pH units)	55	55	100%	7.52	4.41	5.02	5.16	0.08	5.49	4.72
PFAS Group	PFAS Compound** (ng/g)										
PFSAs	Perfluorooctanesulfonate (PFOS)	55	14	25%	0.76	--	--	--	--	--	--
PFCAs	Perfluorobutanoic acid (PFBA)	55	8	15%	1.7	--	--	--	--	--	--
	Perfluoropentanoic acid (PFPeA)	55	6	11%	0.42	--	--	--	--	--	--
	Perfluorohexanoic acid (PFHxA)	55	29	53%	0.99	--	--	--	--	--	--
	Perfluoroheptanoic acid (PFHpA)	55	38	69%	2.2	--	0.34	0.45	0.04	0.57	--
	Perfluorooctanoic acid (PFOA)	55	54	98%	44	--	5.1	8.0	1.1	9.6	3.8
	Perfluorononanoic acid (PFNA)	55	1	2%	0.33	--	--	--	--	--	--
	N-Ethyl perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	53	1	2%	0.44	--	--	--	--	--	--

Notes:

mg/kg - milligram per kilogram.

ng/g - nanogram per gram.

PFAS (perfluoroalkane sulfonic acids) values are given in parts per billion (ppb) (ng/g).

Maximum: Highest detected concentration.

Mean, median, and 75th percentile calculated if detection frequency was ≥ 50% and at least 5 detections.

Summary statistics with non-detects were calculated using Kaplan-Meier estimation method (See Appendix B for further discussion of statistical methods)

25th percentile calculated if at least 75% of samples were measured above detection limits.

Minimum calculated only if all samples were measured above detection limits.

* Results from locations 01D and 10B were deemed not representative and have been excluded.

**PFAS with zero detections for the given sample interval are excluded.

FASAs - perfluoroalkane sulfonamide acetic acids

PFAS - per- and polyfluoroalkyl substances

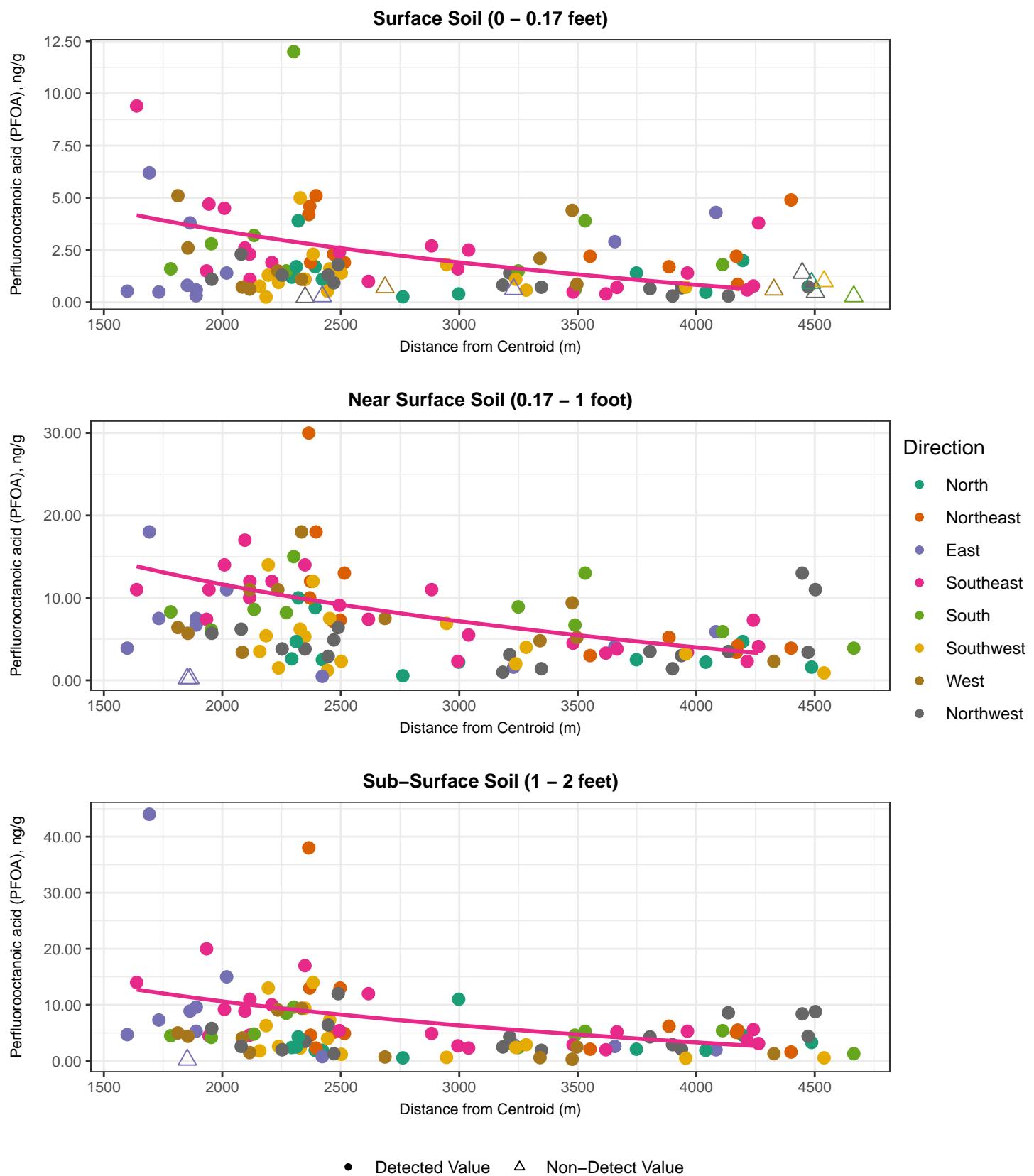
PFCAs - perfluoroalkyl carboxylic acids

PFSAs - perfluoroalkane sulfonic acids

Appendix C

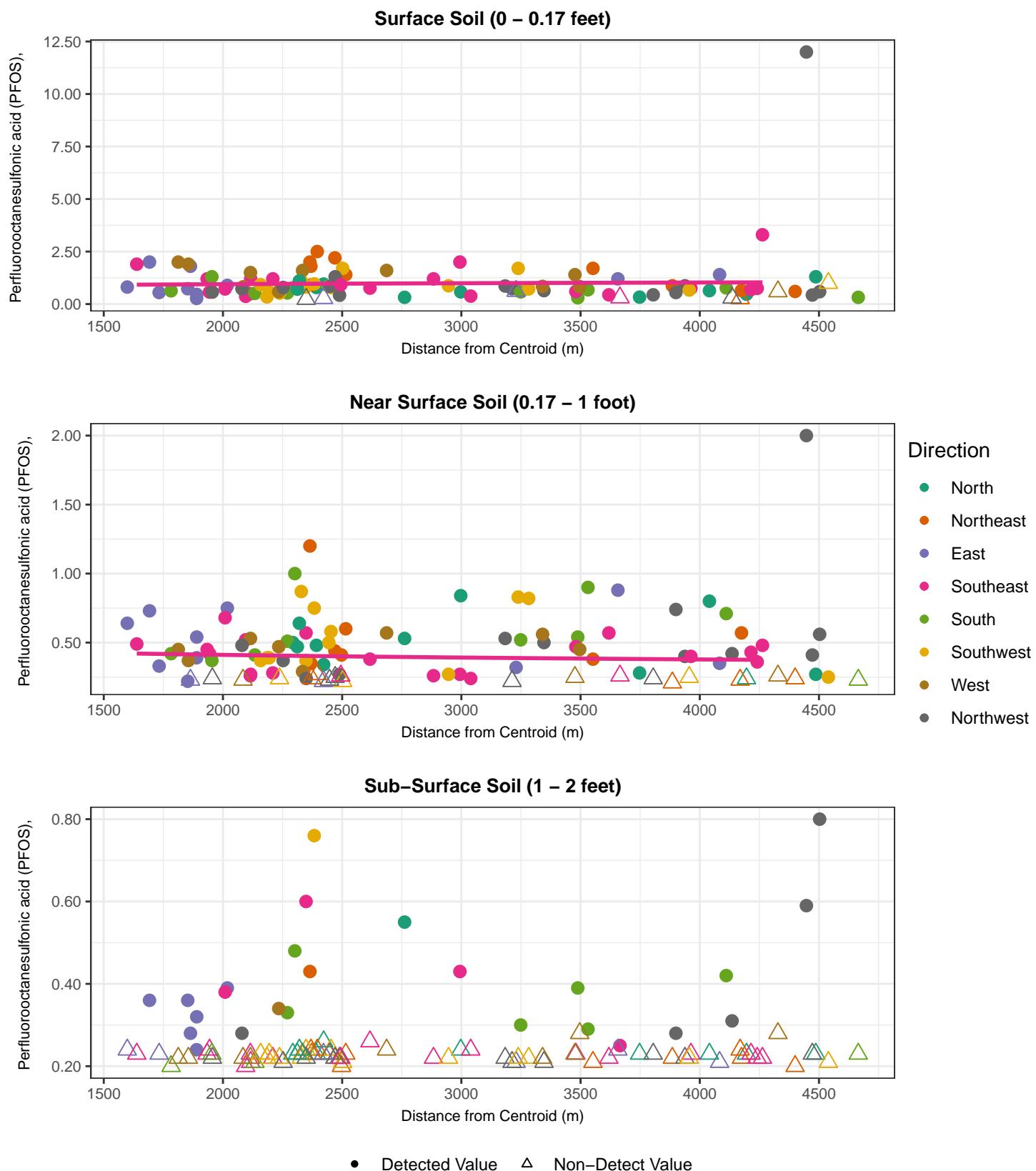
Plots- Study Results by Distance and Direction

Perfluorooctanoic acid (PFOA)



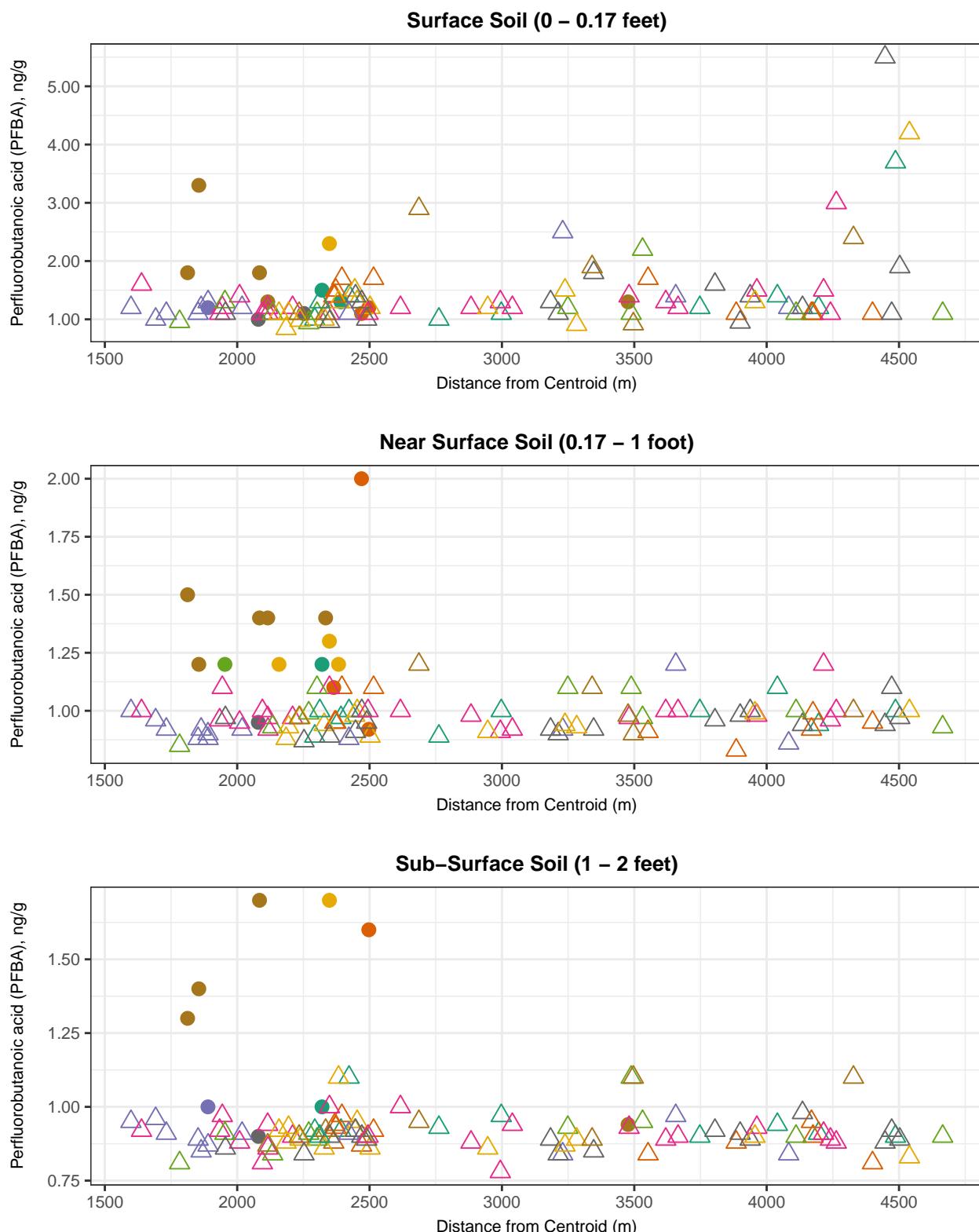
*Southeast trendlines are logarithmic lines of best fit with the lm smoothing method, and were generated using the stat_smooth function from the ggplot2 package in R Studio. Southeast trend lines are only included for sample intervals with at least 50% detections frequency .

Perfluorooctanesulfonic acid (PFOS)



Southeast trendlines are logarithmic lines of best fit with the lm smoothing method, and were generated using the stat_smooth function from the ggplot2 package in R Studio. Southeast trend lines are only included for sample intervals with at least 50% detections frequency .

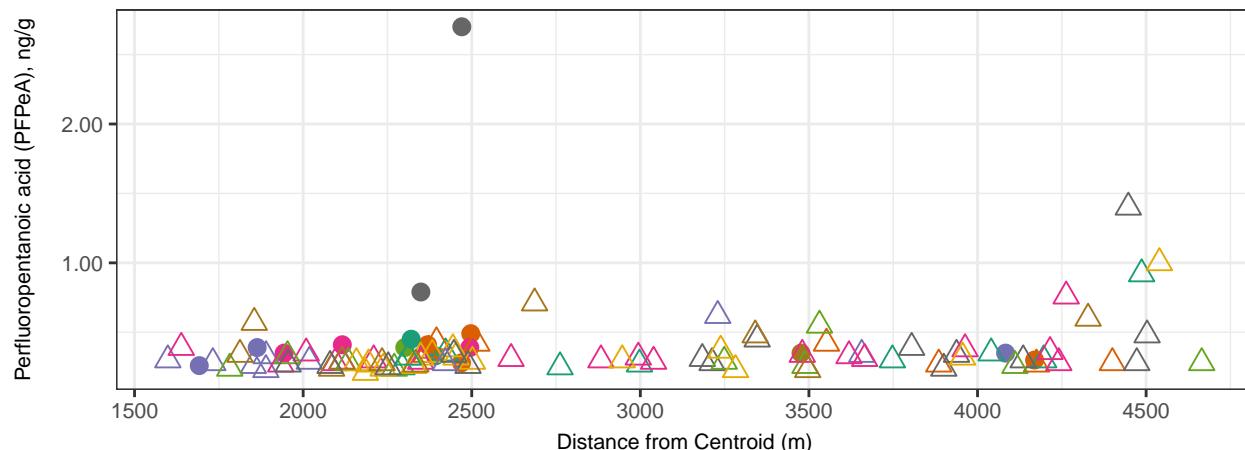
Perfluorobutanoic acid (PFBA)



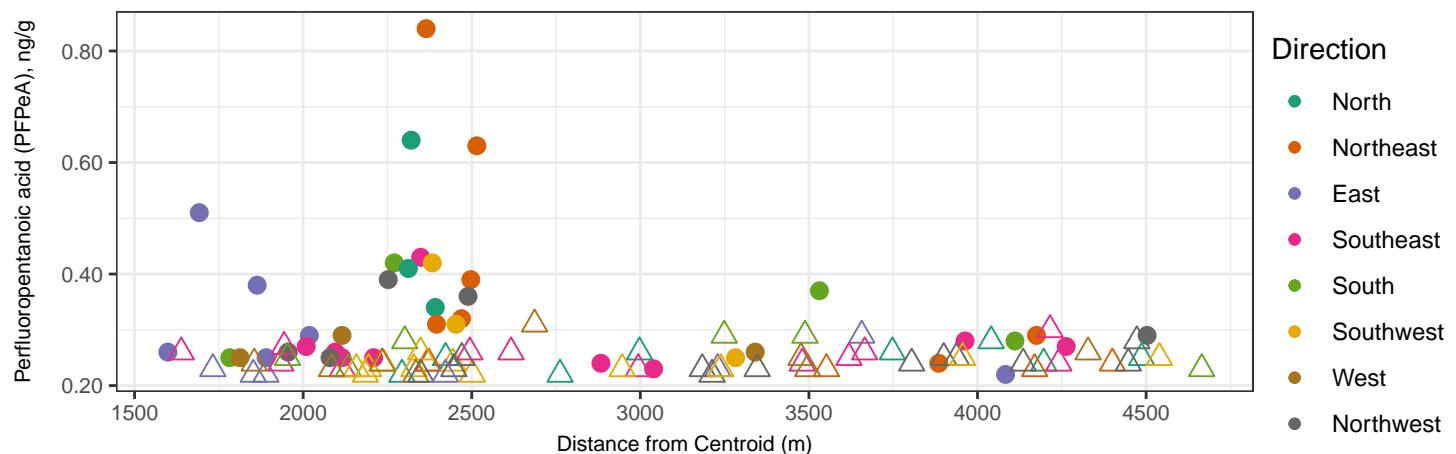
● Detected Value △ Non-Detect Value

Perfluoropentanoic acid (PFPeA)

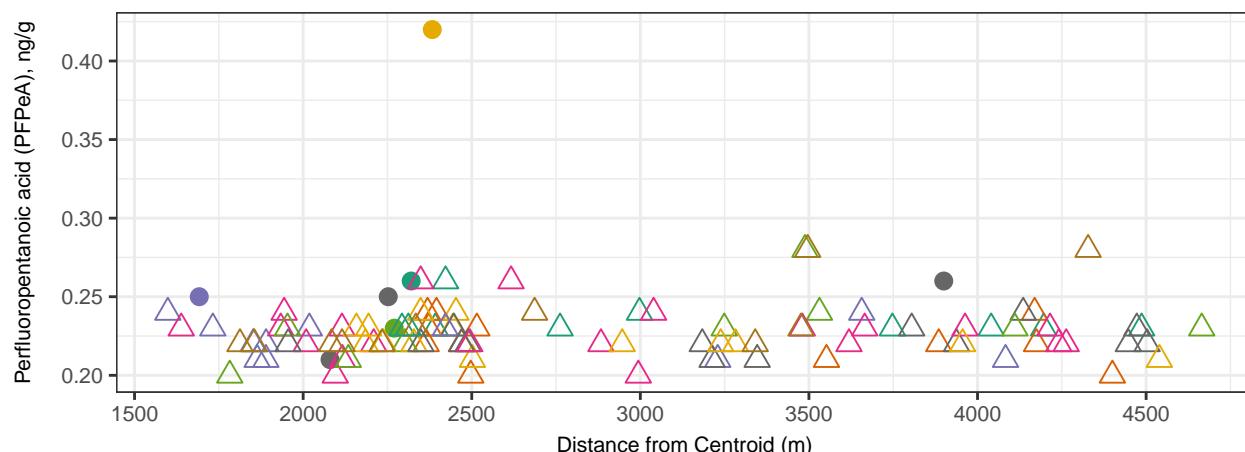
Surface Soil (0 – 0.17 feet)



Near Surface Soil (0.17 – 1 foot)



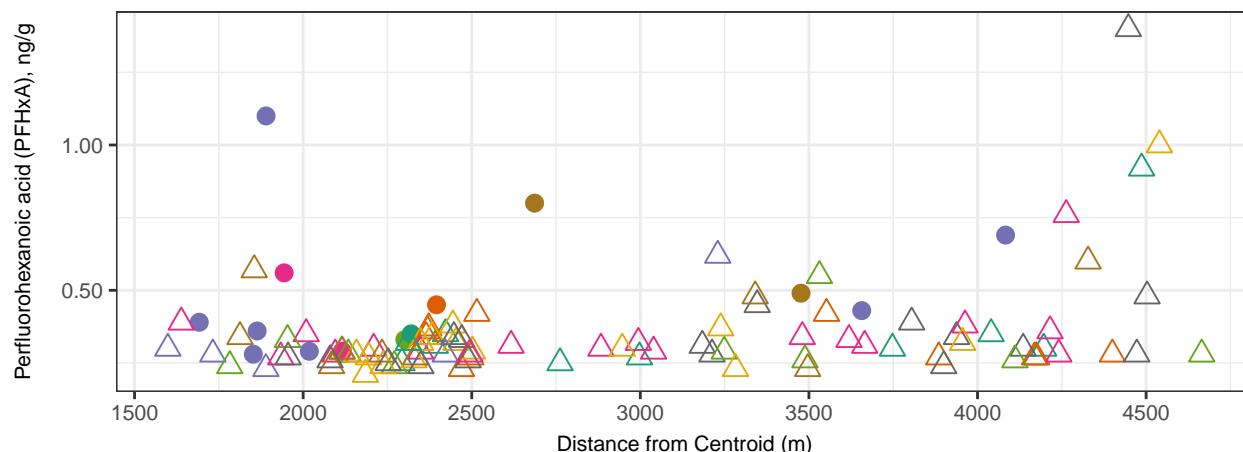
Sub-Surface Soil (1 – 2 feet)



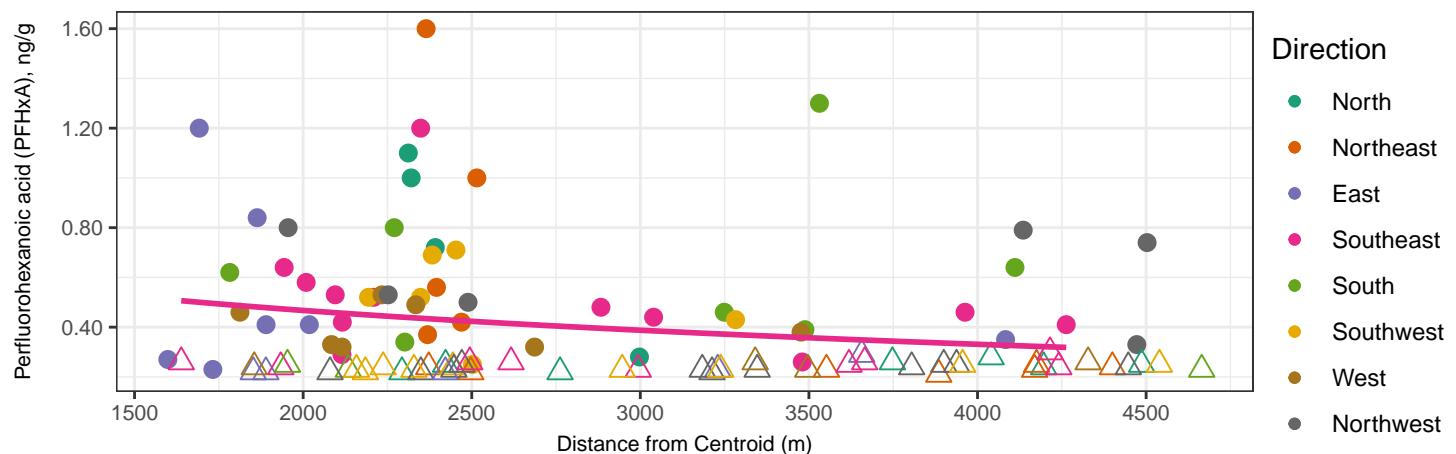
● Detected Value △ Non-Detect Value

Perfluorohexanoic acid (PFHxA)

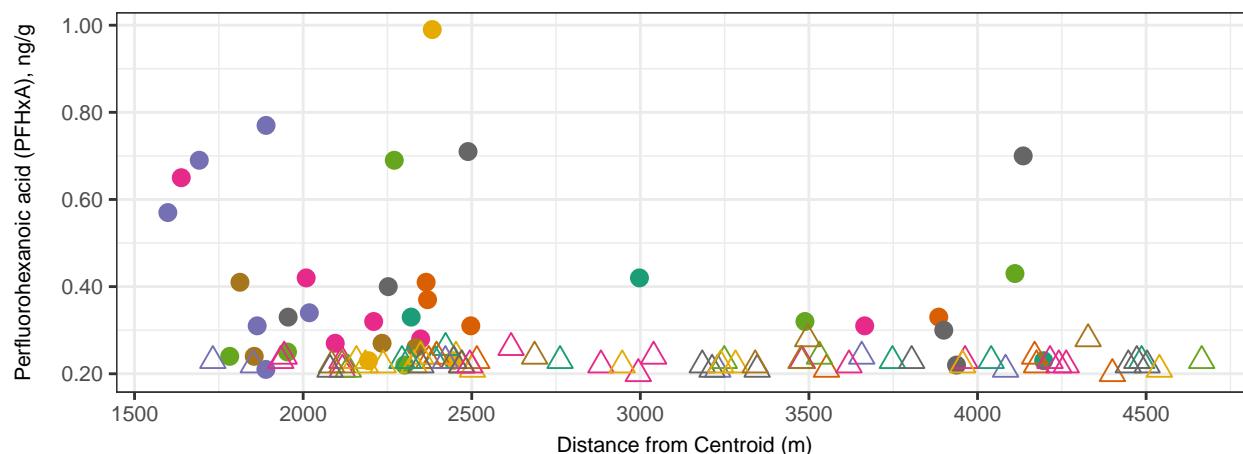
Surface Soil (0 – 0.17 feet)



Near Surface Soil (0.17 – 1 foot)



Sub-Surface Soil (1 – 2 feet)



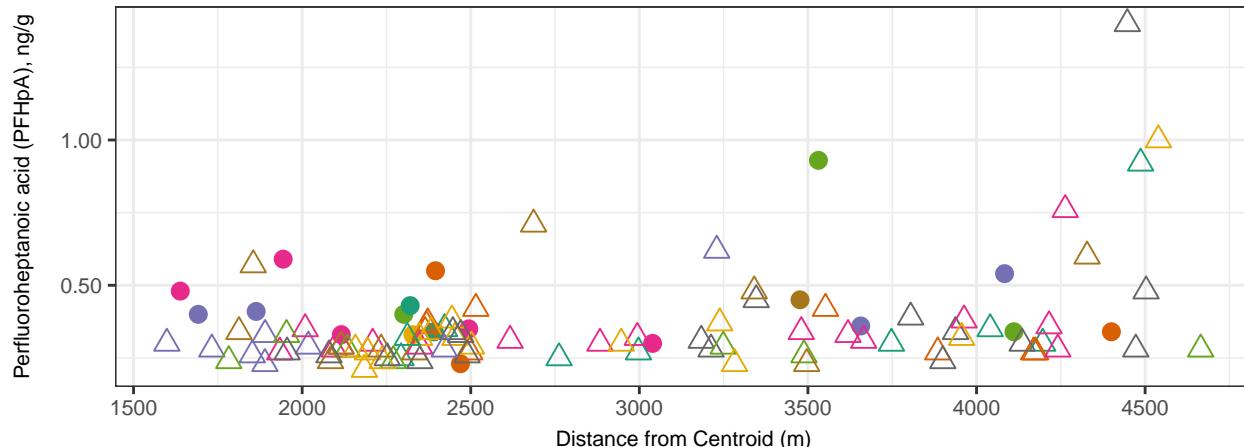
● Detected Value △ Non-Detect Value

Southeast trendlines are logarithmic lines of best fit with the lm smoothing method, and were generated using the stat_smooth function from the ggplot2 package in R Studio. Southeast trend lines are only included for sample intervals with at least 50% detections frequency .

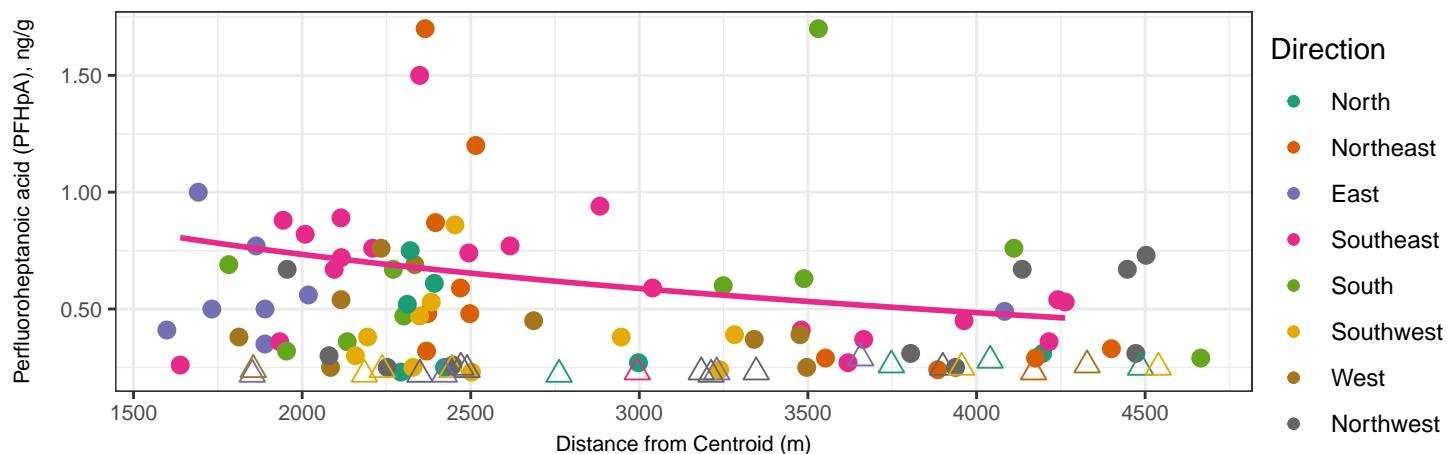
*

Perfluoroheptanoic acid (PFHpA)

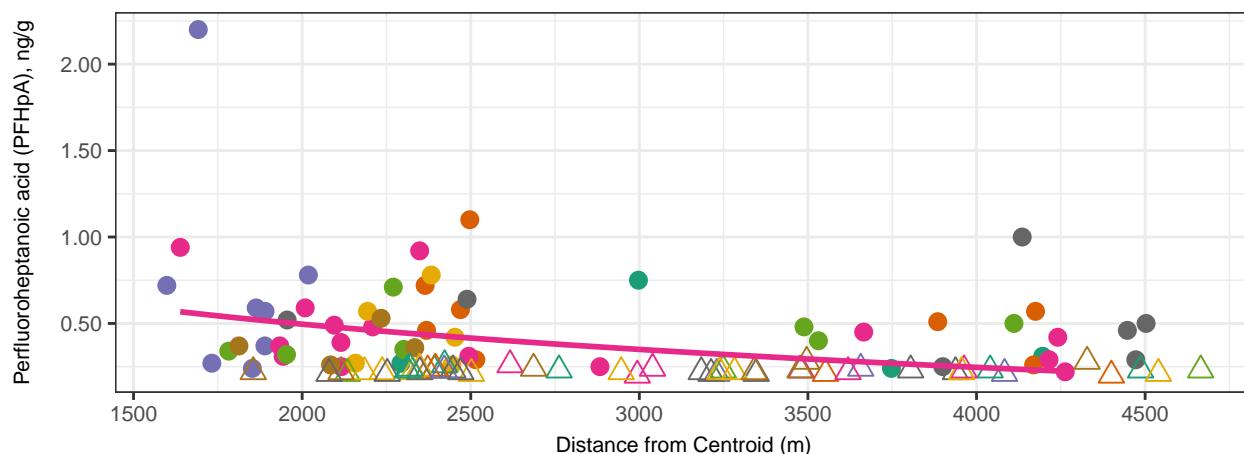
Surface Soil (0 – 0.17 feet)



Near Surface Soil (0.17 – 1 foot)



Sub-Surface Soil (1 – 2 feet)



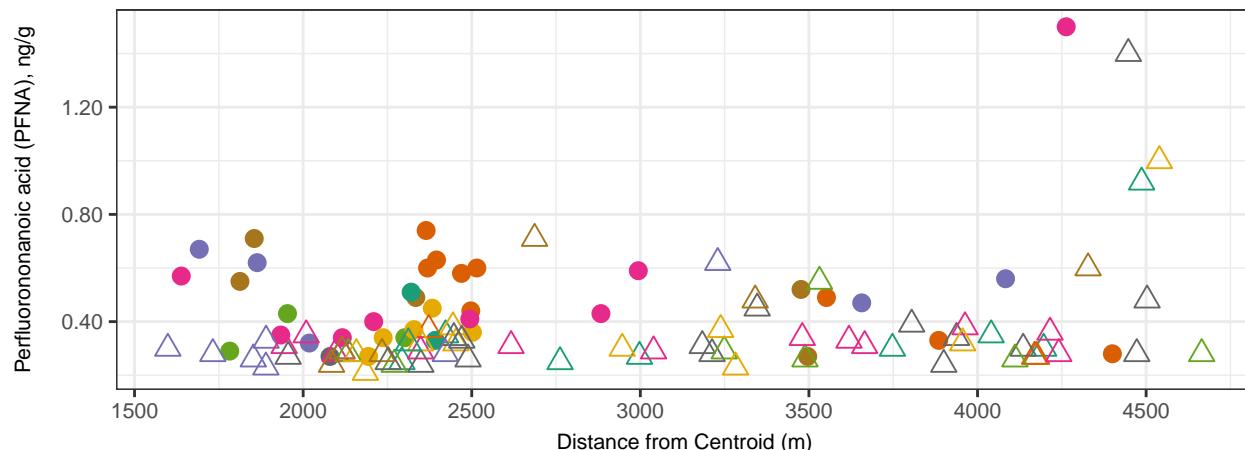
● Detected Value △ Non-Detect Value

Southeast trendlines are logarithmic lines of best fit with the lm smoothing method, and were generated using the stat_smooth function from the ggplot2 package in R Studio. Southeast trend lines are only included for sample intervals with at least 50% detections frequency .

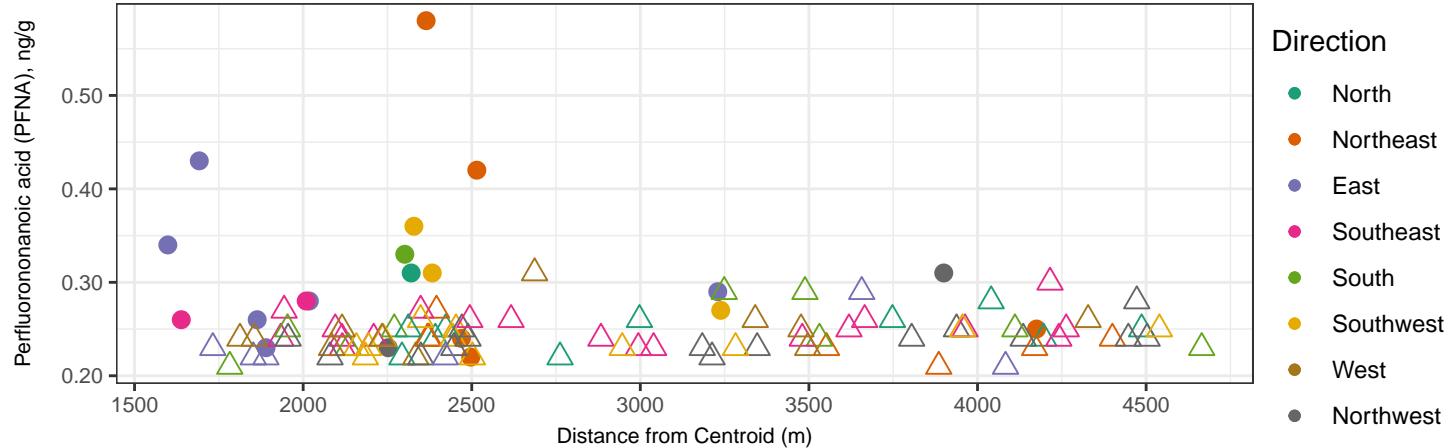
*

Perfluorononanoic acid (PFNA)

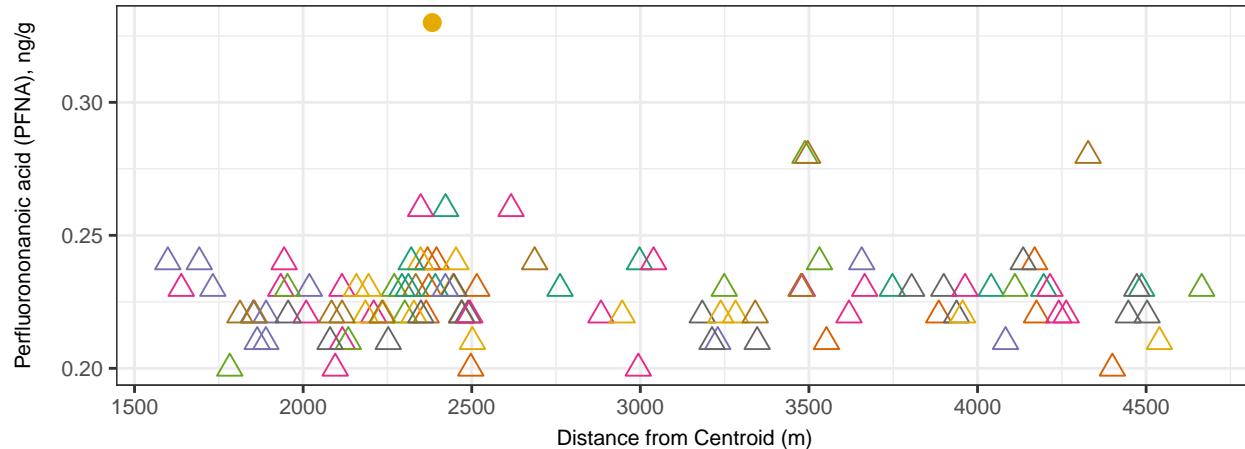
Surface Soil (0 – 0.17 feet)



Near Surface Soil (0.17 – 1 foot)

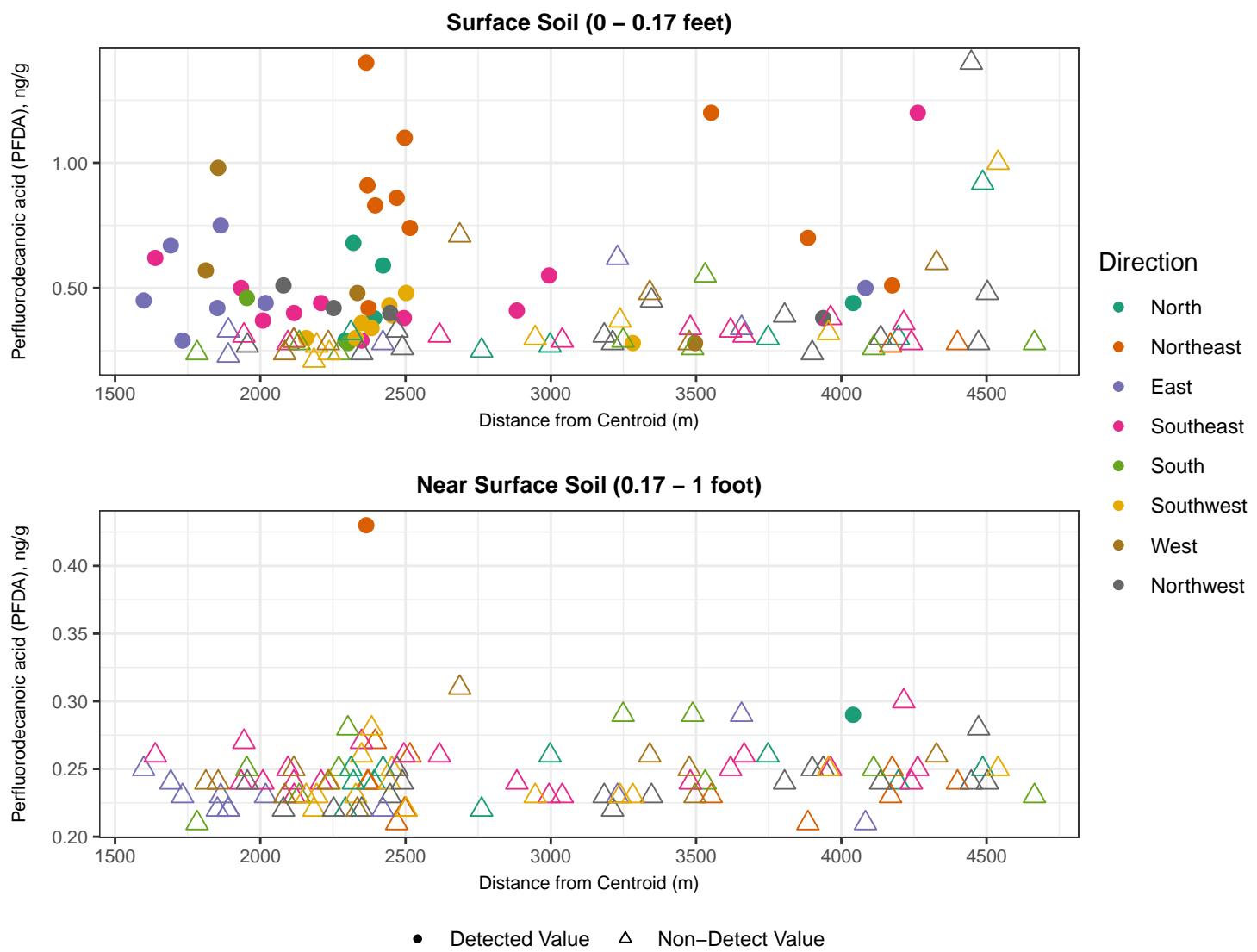


Sub-Surface Soil (1 – 2 feet)

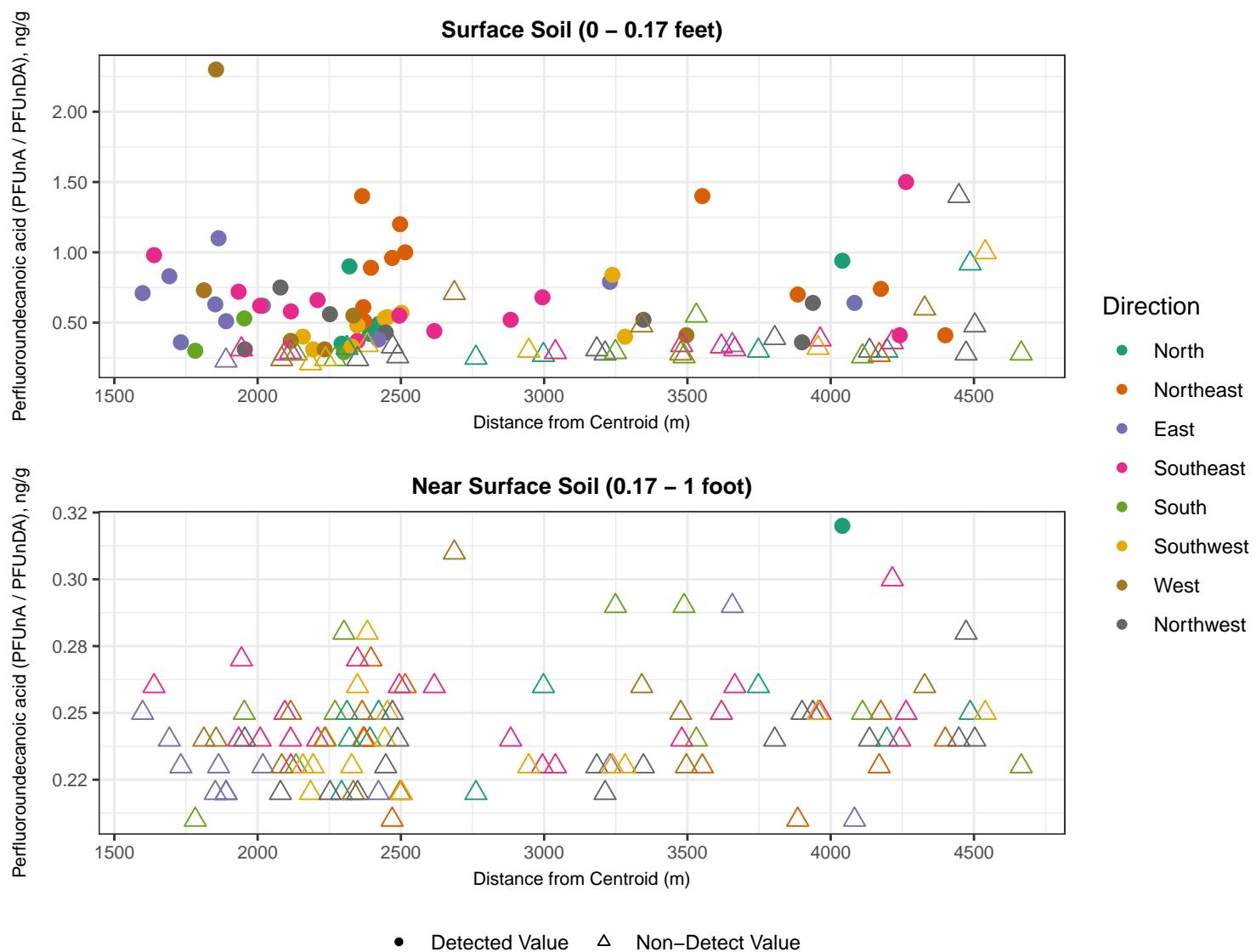


● Detected Value △ Non-Detect Value

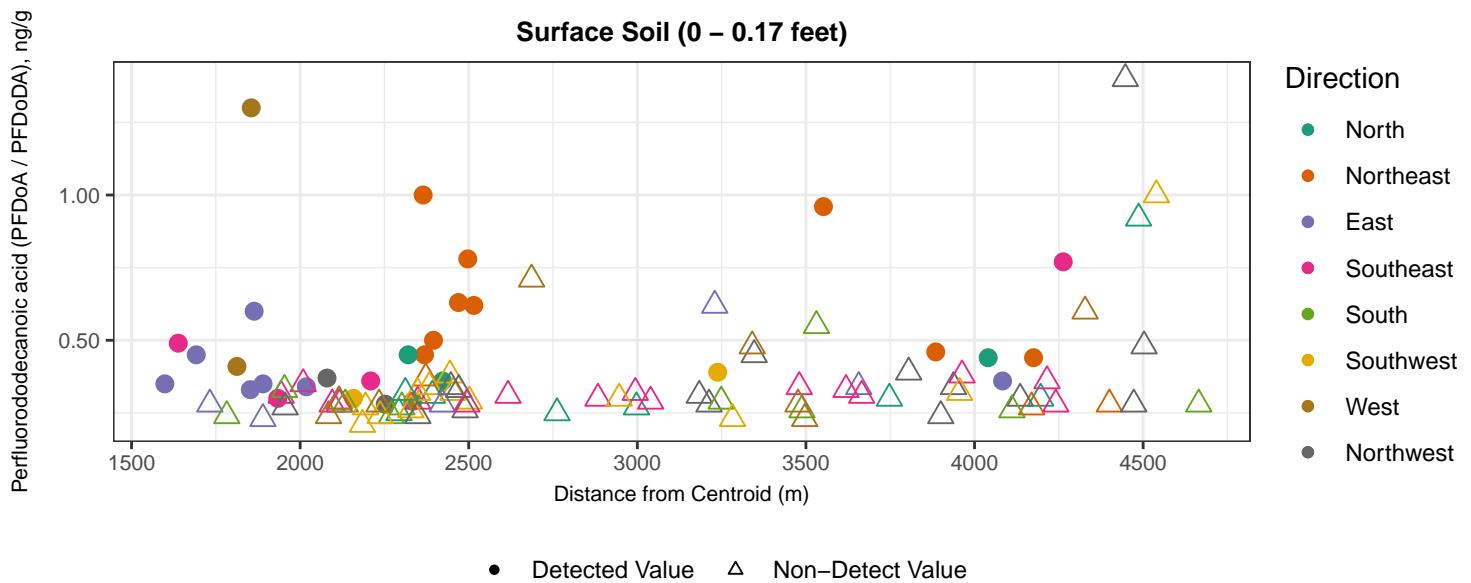
Perfluorodecanoic acid (PFDA)



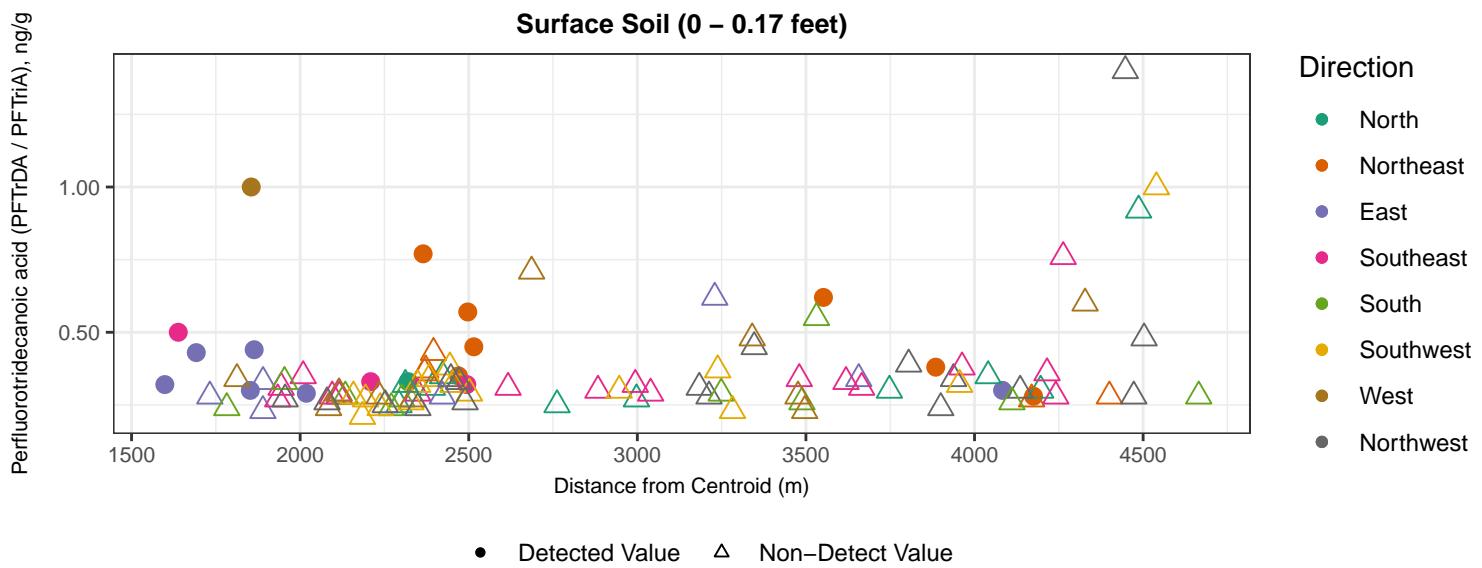
Perfluoroundecanoic acid (PFUnA / PFUnDA)



Perfluorododecanoic acid (PFDoA / PFDoDA)



Perfluorotridecanoic acid (PFTrDA / PFTrA)



Appendix D

Upwind versus Downwind Comparison

Figure D1: Upwind vs Downwind PFOA

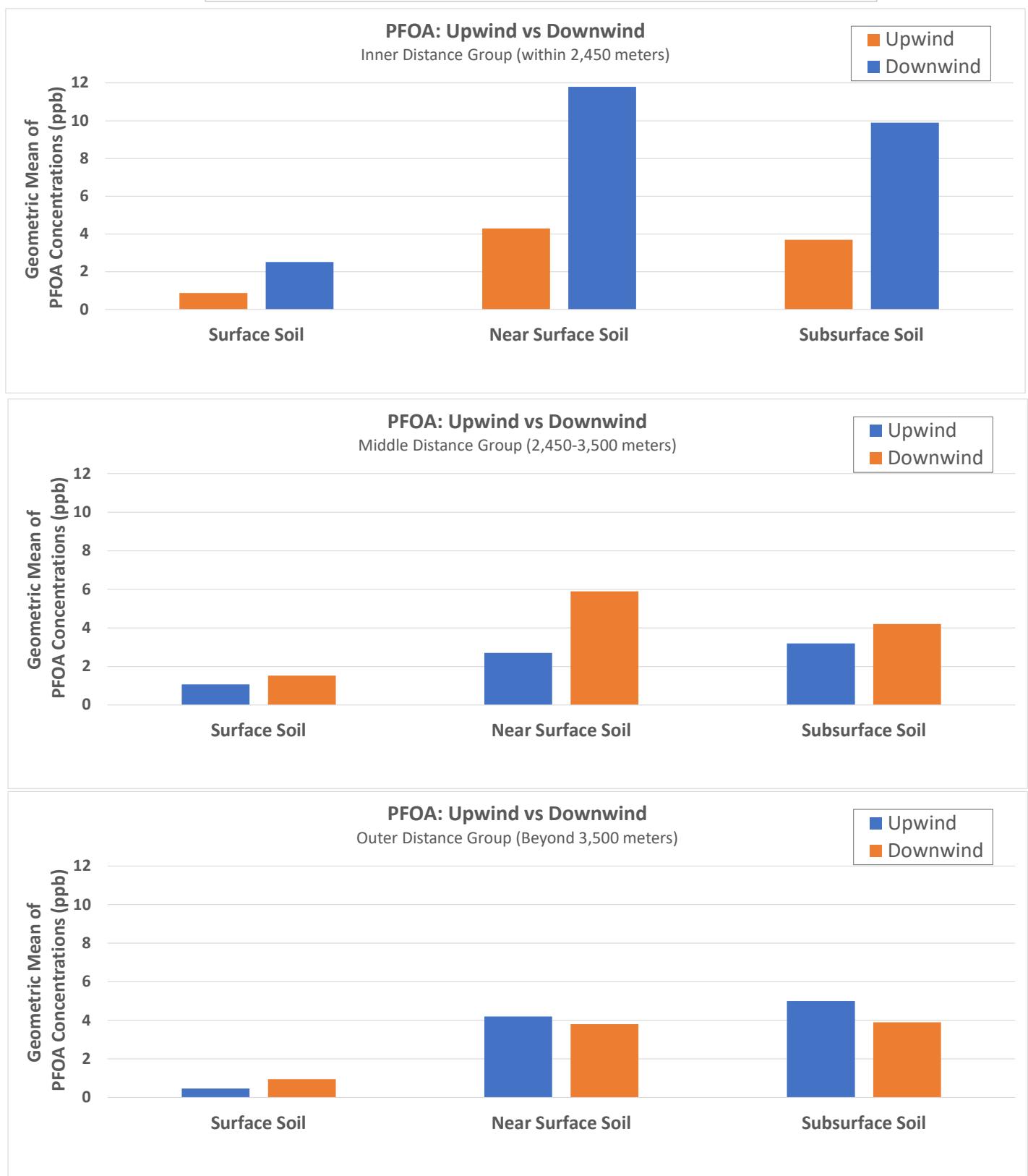


Figure D2: Upwind vs Downwind PFOS

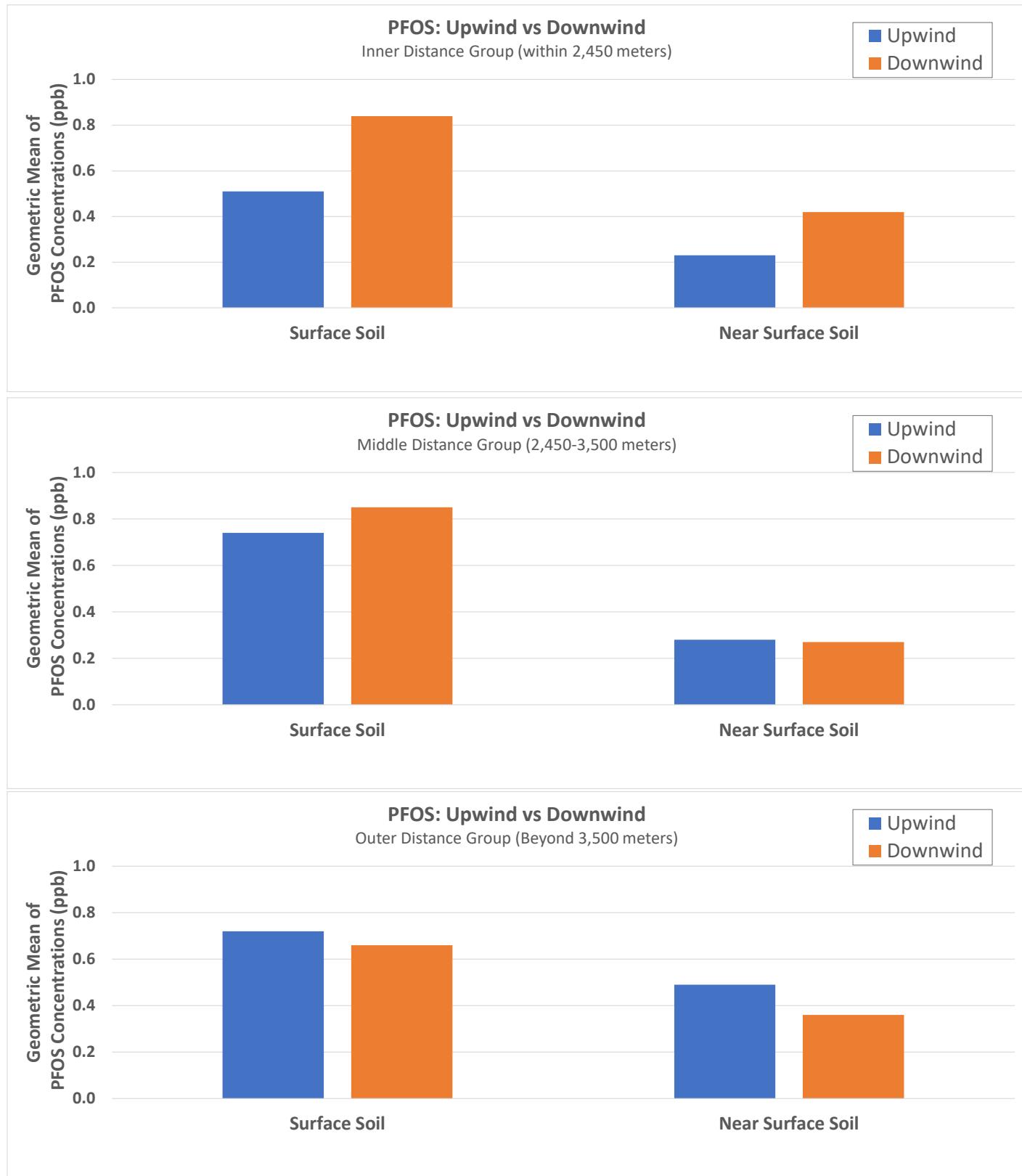


Figure D3: Upwind vs Downwind PFHpA

