FINAL
REMEDIAL INVESTIGATION REPORT
OPERABLE UNITS 1 (SITE 110) AND 2 (SITE 109)
TONAWANDA COKE SITE
3875 RIVER ROAD
TONAWANDA, NEW YORK

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LIST OF ACRONYMS

ACRONYM	Definition
BCP	Brownfield Cleanup Program
BMP	Best Management Practices
C&D	Construction and Demolition
CAMP	Community Air Monitoring Plan
COG	Coke oven gas
CSM	Conceptual Site Model
DOT	Department of Transportation
DUSR	Data Usability Summary Report
FS	Feasibility Study
ft bgs	Feet below ground surface
ft-amsl	Feet above mean sea level
FWRIA	Fish and Wildlife Resources Impact Analysis
HDPE	High-density polyethylene
HRS	Hazard Ranking System
IDW	Investigation Derived Waste
IRM	Interim remedial measure
Koc	Organic carbon partition coefficient
Kow	Log octanol-water partition coefficient
mg/kg	milligrams per kilogram
mL/min	Milliliters/minute
MNA	Monitored Natural Attenuation
MS/MSD	Matrix spike/matrix spike duplicate
MW	monitoring well
NYCRR	New York Codes, Rules, and Regulations
NYSDEC	New York State Department of Environmental Conservation
ORP	Oxidation Reduction Potential
OU	Operable Unit
PAH	Polycyclic aromatic hydrocarbon
PCB	Polychlorinated biphenyls
PFAS	Per- and Polyfluoroalkyl Substances
PID	Photoionization detector

ACRONYM	Definition
PPE	Personal protective equipment
PRAP	Proposed Remedial Action Plan
PVC	Polyvinyl chloride
QAPP	Quality Assurance Project Plan
QC	Quality Control
QHHEA	Qualitative human health exposure assessment
RAO	Remedial Action Objectives
RI	Remedial Investigation
RITC	Riverview Innovation & Technology Campus, Inc.
RIWP	Remedial Investigation Work Plan
ROD	Record of Decision
RQD	Rock quality designation
SB	soil boring
SCG	Standards, Criteria, and Guidance
SCO	Soil Cleanup Objective
SGV	Standards and Guidance Values
SPDES	State Pollution Discharge Elimination System
SVOC	Semivolatile organic compound
SWPPP	Stormwater Pollution Prevention Plan
TAL	Target Analyte List
TCC	Tonawanda Coke Corporation
TCL	Target Compound List
TCLP	Toxicity Characteristic Leaching Procedure
TOGS	Technical and Operational Guidance Series
TP	test pit
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USGS	U. S. Geological Survey
VOC	Volatile organic compound

EXECUTIVE SUMMARY

On behalf of Honeywell International Inc. (Honeywell), Parsons has prepared this Remedial Investigation (RI) Report for Operable Units (OU) 1 and 2 of the Tonawanda Coke State Superfund Site. OU-1 and OU-2, also known as Sites 110 and 109, respectively, are portions of the former Tonawanda Coke Corporation (TCC) facility. Site 110 also includes an adjacent National Grid right-of-way. TCC filed for bankruptcy protection in 2018 and all industrial activity on Sites 109 and 110 ceased at that time.

Legacy environmental conditions at the former TCC facility are being addressed under two separate New York State Department of Environmental Conservation (NYSDEC) remedial programs. Sites 109 and 110, which are the subjects of this report, along with Site 108 (presented in a separate report), represent a portion of the former TCC facility property and two sections of National Grid property, and collectively comprise the Tonawanda Coke State Superfund Site, Site #915055. These three areas are being addressed under the New York State Superfund Program. The RI results for Site 108 are detailed in a separate report submitted by Honeywell to NYSDEC. The remainder of the former TCC facility is being addressed under the New York State Brownfield Cleanup Program.

Site 109 is an approximately 7.5-acre rectangular area oriented perpendicular to the east side of River Road, in the southwestern portion of the former TCC facility property. The western boundary of Site 109 is approximately 0.3 miles east of the Niagara River. Two drainage ditches run through Site 109, one along the southern edge of the Site 109 boundary and one through the north-central portion of Site 109. The eastern section of Site 109 is paved and includes the former truck scale, tarping station and the security office. In 1977, an unknown quantity of brick, rubble, and demolition material was placed within Site 109. A coal conveyor historically ran along the southern site boundary rising from a tunnel under River Road and then elevated adjacent to, and over, the southern drainage ditch on Site 109.

Site 110 is an approximately 6.1-acre irregular-shaped area located in the northeast portion of the former TCC facility property. A 1.8-acre triangular portion of Site 110 is located east of the former TCC property on land owned by National Grid. The western boundary of Site 110 is approximately 1 mile east of the Niagara River. Site 110 was bound by numerous rail tracks. Placement of industrial and construction and demolition (C&D) wastes from plant operations occurred at multiple areas throughout Site 110. Prior to 1978, materials such as tar sludge, fly ash, and cinders were reportedly deposited within Site 110.

No industrial production processes are known to have occurred on Site 109 or Site 110. The final stormwater treatment ponds for Sites 109, 110 and the Brownfield Cleanup Site are located on Site 109. Based on historical test pits as well as test pits and monitoring wells installed during the Focused RI, fill is present across most of Site 109 and all of Site 110.

Riverview Innovation & Technology Campus, Inc. (RITC) owns the former TCC properties and is proposing a commercial/industrial complex on the former TCC facility properties at 3875 River Road and 3800 River Road. The campus will bring high technology, jobs, and environmental stewardship to properties that had been abused for decades. Dramatic progress transforming the former TCC facility from an abandoned coke facility to a property with a viable long-term vision has already occurred. The cleanup and redevelopment will allow Sites 108, 109, 110, and the remainder of the former TCC facility to be restored to productive use. The property can support a number of uses supporting the technology and commercial resources across the approximately 140-acre campus.

Following completion of an earlier Remedial Investigation and Feasibility Study (RI/FS), a Record of Decision (2008 ROD) was issued by NYSDEC on March 31, 2008, which presented the selected remedies for Site 109 and Site 110. The remedies were based on industrial use of the property and required institutional and engineering controls involving restricting access and filing an environmental easement to control future use. The required easement was never filed by the Tonawanda Coke Corporation

The TCC facility was an active industrial facility at the time of the 2008 ROD. The former TCC facility is now inactive and future site use for Sites 109 and 110 is anticipated to include commercial as well as industrial operations. Therefore, as specified in the February 2020 Order on Consent:

> "The supplemental investigation of Sites 109 and 110 will be limited to a Focused RI/FS to determine whether and to what extent additional investigation and/or remedial work may be necessary due to the change in use of the site."

Focused RI Field Activities Summary

There have been historical data gathering events at Sites 109 and 110 focused on on-site soils, groundwater, surface water, and drainage ditch soils. The scope of the Focused Remedial Investigation (RI), completed in 2020 through 2023, was designed to address data gaps identified through review of existing data.

The 2020 through 2023 Focused RI scope included:

- Surface and subsurface soil investigation
- Groundwater investigation
- Drainage ditch soil investigation
- Surveying of all test pits, monitoring wells, and soil sampling locations

Waste and Residual Characteristics

The coke plant at the former TCC facility heated coal in the absence of oxygen to separate the liquids and gasses from the coal and leave the residual carbon. The residual carbon, referred to as coke, was the primary product produced at the former TCC facility. The processes followed to produce coke and its associated by-products are well understood. The materials used and resulting from the production of coke that may have impacted materials disposed of at Sites 109 and 110 are also well understood:

- Coal

  Three types of metallurgical "met" coal were used to produce coke at the former TCC facility. Coal is a naturally occurring sedimentary material.
- Coke/Breeze

  Coke is the carbon left after the liquids and gasses have been removed from the met coal. Coke is a relatively inert material. Fine-grained coke, typically resulting from crushing and screening, is referred to as breeze.
- Tar

  Tar was removed from coal as part of the coke manufacturing process and was processed at the coke plant of the former TCC facility as part of the coke by-products operations. Tar in its production form was sold and used as a component of asphalt, roof shingles, and other commercial and industrial goods.
- Oil

  Oils containing benzene, toluene and xylenes and other chemicals were by-products of the coking operations. These compounds are similar to the components of gasoline. These liquids were present in containers, pipes, tanks, and process equipment at the main plant. In their pure clean form, they are used to produce other chemicals and plastics. Fuel oil, diesel fuel and lubricating oils were used for power production, heavy equipment, rail operations, and machinery.

The majority of these materials can be identified at Site 109 and 110 either by their physical characteristics or by the presence of their component constituents:

- Volatile organic compounds (VOCs)
  Found predominately in light oils. The majority of VOCs were conveyed and consumed in the coke plant of the former TCC facility and combustion processes or sold for further refining and use as feedstock for manufacturing. VOCs are also found at low concentrations in coal.
- Semivolatile organic compounds (SVOCs)
  Prevalent in coal, coke, tar, oils, and ash.
- Polycyclic aromatic hydrocarbons (PAHs)
  A subset of the SVOCs and present in coal, coke, tar, oils, and ash.
- Naphthalene
  A by-product of coke making and prevalent in coke oven gas (COG) residuals and the process equipment from the tar processing area, through the concentrators, and precipitators. Also present in coal and tar.
- Cyanide
  A constituent of the COG and present in the gas processing equipment. Cyanide was concentrated historically in the purifier boxes on the BCP Site portion of the property before the COG was sold for off-site consumption.

Nature and Extent of Impacts

Historical sample results and analytical data compiled as part of the Focused RI were compared to applicable standards, criteria, and guidance values (SCGs) for soil and groundwater to assess impacts and to develop an understanding of the nature and distribution of environmental impacts.

Site 109

SURFACE AND SUBSURFACE SOIL

Soil analytical results were compared to commercial use soil SCGs, which is consistent with anticipated future site use. Fill material consists of earthen materials mixed with coal, coke, coke manufacturing by-products, construction and demolition debris, and other debris. For convenience, references to soil and comparisons to soil cleanup objectives include fill, underlying native soils, and surface and subsurface materials that are non-soil fill, such as coal, breeze, and ash, as well as mixtures of these materials and soil.

Surface soil and, to a lesser extent, subsurface soil concentrations of constituents exceeding the Commercial SCG are present throughout Site 109. The primary constituents exceeding SCGs are SVOCs (particularly PAHs). Exceedances of SCGs for SVOCs occur primarily within fill from the surface to as deep as 10.6 feet below ground surface (ft bgs). The deeper exceedances are associated with elevated fill in berms, in comparison with the depth below the typical site grade. The highest concentrations of constituents occur in drainage ditch samples, likely due to spills from the former overhead coal conveyor and/or due to erosion and transport of soils impacted with coal and coke from areas upgradient of Site 109 into the on-site drainage ditch.

GROUNDWATER

Groundwater impacts at Site 109 are limited, with most SCG exceedances observed in the upgradient well. Groundwater samples show exceedances of SCGs for one or more constituents in samples from all wells. However, most exceedances are for metals, which are likely primarily due to naturally occurring conditions.

Groundwater gradients are predominantly to the west-southwest. Groundwater occurs in a perched unit in fill that is likely a series of pocketed saturated areas, some of which are connected, while others are isolated. A thick, low permeability clay layer is present beneath the fill, which prevents significant downward migration of groundwater.

Site 110

SURFACE AND SUBSURFACE SOIL

Soil analytical results were compared to commercial use soil SCGs, which is consistent with anticipated future site use. Fill material consists of earthen materials mixed with coal, coke, coke manufacturing by-products, construction and demolition debris, and other debris. References to soil and comparisons to soil cleanup objectives include fill, underlying native soils, and surface and subsurface materials that are non-soil fill, such as coal, breeze, and ash, as well as mixtures of these materials and soil.

Surface and subsurface soil concentrations of constituents exceeding Commercial SCGs are present throughout Site 110. The primary constituents exceeding SCGs are SVOCs (particularly PAHs). Localized VOC exceedances of SCGs (primarily BTEX compounds) were also noted in samples from one monitoring well boring. Exceedances of SCGs for SVOCs occur primarily within fill from the surface to as deep as 7 ft bgs. The deeper exceedances are associated with the elevated piles of fill on Site 110. Surface and subsurface tar is present in multiple locations on Site 110, but the presence of these materials does not appear to impact soil quality in adjacent intervals.

GROUNDWATER

Groundwater samples exceeded one or more SCGs in samples from all wells at Site 110. Exceedances of SCGs occur primarily for SVOCs (primarily PAHs), metals, and cyanide. Localized VOC exceedances of SCGs (primarily BTEX compounds) were also noted at one monitoring well. Metals exceedances of SCGs at Site 110 are likely primarily due to naturally occurring conditions.

Groundwater gradients across Site 110 are flat and slightly eastward. Groundwater occurs in a perched fill unit that is likely a series of pocketed saturated areas, some of which are connected, while others are isolated. A thick, low permeability clay layer is present beneath the fill, which prevents significant downward migration of shallow groundwater.

Conceptual Site Model

Site 109

Results of the previous investigations and the 2020/2021 Focused RI indicate that the primary sources of impacts to Site 109 are historical material disposal practices.

A layer of fill is present across the majority of Site 109, typically ranging in thickness from 0 feet to 16 feet. The fill consists of silt and clay and includes a variety of other materials co-placed with the earthen materials, including C&D debris such as concrete, red brick, yellow fire brick, rock fragments, wood, and common fill materials typical of coking facilities such as breeze, coke, coal, and slag.

Historical spills from the former coal conveyor, which formerly ran along the southern site boundary adjacent to the drainage ditch, and/or erosion and transport of soils impacted with coal and coke from areas upgradient of Site 109 into the on-site drainage ditch may have impacted soil quality within the drainage ditch.

Groundwater impacts at Site 109 are very limited, with most impacts observed in the upgradient well. The data indicates that constituents of fill at Site 109 are not significantly impacting groundwater.

Site 110

Results of both the prior investigations and the 2020/2021 Focused RI indicate that the primary sources of impacts to Site 110 are historical material disposal practices. A layer of fill is present across the entirety of Site 110, ranging in thickness from 3.0 feet to 16.5 feet. The fill consists of coke breeze and is often mixed with earthen materials including silt and sand, debris including brick, glass, wood, plastic, rubber, and coke manufacturing by-products including coke, coal, slag, and ash. The fill may contribute to impacts to groundwater through leaching.

Localized areas at Site 110 contain subsurface tar in various forms. Results indicate that tar-impacted materials may be contributing to groundwater impacts; however, results indicate that tar is not contributing significantly to groundwater impacts and are likely confined to locations where tar is in direct contact with groundwater. Results indicate that groundwater impacts are not migrating significantly eastward onto the adjacent National Grid property, aside from potential cyanide impacts.

Qualitative Human Health Exposure Assessment

A QHHEA was completed, consistent with NYSDEC guidance (NYSDEC 2010a), to evaluate how people might be exposed to site-related constituents, and to identify and characterize the potentially exposed population(s) now and under the reasonably anticipated future use of Sites 109 and 110. Potential exposures for current and future site use, which is anticipated to be commercial, are detailed below.

Current Site Worker Under the current use scenario, there is a potentially complete pathway for site workers performing surface or intrusive work, such as site investigation or interim remedial measures (IRM) activities, to come in contact with all identified impacted media. Proper use of personal protective equipment (PPE), decontamination methods, and other protective measures during on-site work, consistent with currently used health and safety measures, minimizes the risk of exposure to impacted media for current site workers.

Future Site Worker: It is anticipated that the primary future use of Sites 109 and 110 will be commercial, which will include landscaping, paving and buildings. This would provide at least a partial cover, which would reduce but not eliminate potential exposure by future site workers to impacted surface soil. There is a potentially complete pathway for site workers performing construction activities during future redevelopment, or subsequent construction or maintenance activities, to come in contact with all identified impacted media. Site remediation and/or proper use of PPE, decontamination methods, and other protective measures during these activities would minimize the risk of exposure to impacted media for future site workers.

Future Office Worker: The only identified, potentially complete exposure pathway for future office workers is via inhalation, specifically inhalation of fugitive dust and inhalation due to vapor intrusion into buildings of VOCs originating from impacted soil and/or groundwater.

There were no exceedances of groundwater SGCs or Commercial Soil SCGs for VOCs at Site 109, therefore, the potential exposure pathway for VOCs is considered incomplete at Site 109.

There was only one VOC exceedance of Commercial SCGs for soil and one localized exceedance of SCGs for groundwater at Site 110. However, relatively high levels of VOCs were detected in the tar samples characterized. Therefore, the potential exposure pathway for VOCs via a future inhalation pathway is considered complete for Site 110.

There is no complete exposure pathway associated with groundwater usage by future office workers. There is a municipal water supply available for Sites 109 and 110 and it is anticipated that institutional controls, such as an environmental easement, will be implemented in the future, preventing use of site groundwater for drinking water purposes.

Given that the areas of the site that future office workers will be interacting with will be paved, landscaped, and otherwise developed, there is no complete exposure pathway associated with direct contact or incidental ingestion of surface or subsurface soil. **Current/Future Off-Site Worker:** Potential exposure pathways for current/future off-site workers only exist for Site 110, as significant groundwater impacts were not observed at downgradient wells at Site 109. Off-site workers at the National Grid property downgradient of Site 110 may encounter groundwater impacted with cyanide while doing intrusive work. Site remediation and/or proper use of PPE, decontamination methods, and other protective measures during these activities would minimize the risk of exposure to impacted groundwater for off-site workers.

Next Steps

A Focused Feasibility Study (FS) was be prepared by Parsons and submitted to NYSDEC in March 2023 using information developed during the site investigation to develop and evaluate the range of technologies appropriate for Sites 109 and 110. Consistent with the February 2020 Order on Consent, alternatives were developed to consider additional actions that may be necessary beyond those identified in the 2008 ROD due to the change in use of the site, which is anticipated to include commercial development.

Based on the results of the FS, NYSDEC will prepare a draft ROD Amendment. The draft ROD Amendment will describe the remedy preferred by NYSDEC and will summarize the basis for the recommendation of the preferred remedy by discussing each alternative and the reasons for choosing or rejecting it. The goal of any cleanup plan is to protect public health and the environment. NYSDEC will present the draft ROD Amendment to the public for its review and comment during a 30-day comment period and at a public meeting. NYSDEC will consider public comments as it selects the remedy to address impacts related to Sites 109 and 110. The selected remedy will be described in the final ROD Amendment, which will explain why the remedy was selected and respond to any public comments.

1.0 INTRODUCTION

On behalf of Honeywell, Parsons has prepared this Remedial Investigation (RI) Report for Operable Units (OU) 1 and 2 of the Tonawanda Coke Site. This RI Report includes the results from the Focused RI completed by Honeywell in 2020 through 2023 as well as the results from several historical investigations completed by others.

OU-1 and OU-2, also known as Sites 110 and 109, respectively, are portions of the former Tonawanda Coke Corporation (TCC) facility located at 3875 River Road in Tonawanda, Erie County, New York (**Figure 1**). TCC filed for bankruptcy protection in 2018 and all industrial activities on the property ceased at that time. On October 10, 2019, the sale of the property was completed to Riverview Innovation & Technology Campus, Inc. (RITC).

Remediation of the property is being completed under two separate New York State Department of Environmental Conservation (NYSDEC) programs: the New York State Superfund Program and the New York State Brownfield Cleanup Program (BCP). The Tonawanda Coke State Superfund Site is listed in the Registry of Inactive Hazardous Waste Disposal Sites in New York State as Site Number 915055 with a Site Classification of "2" pursuant to Environmental Conservation Law (ECL) 27-1305. Three areas, representing a portion of the former TCC facility property and two sections of National Grid Corporation property, together make up the Tonawanda Coke State Superfund Site (**Figure 2**):

- Site 108 is between River Road and the Niagara River at 3800 River Road.
- Site 109, the subject of this report, at 3875 River Road, lies near River Road on the western portion of the 3875 River Road parcel.
- Site 110, the subject of this report, lies partially in the northeast portion of the 3875 River Road parcel, and extends eastward onto National Grid Corporation property.

These three areas are being addressed under the New York State Superfund Program pursuant to the Order on Consent and Administrative Settlement (Index No. B9-85-2-77D) entered into between Honeywell and the NYSDEC on February 24, 2020. The RI results for Site 108 are detailed in a separate report submitted by Honeywell to NYSDEC.

The remainder of the former TCC facility property is being addressed under the New York State Brownfield Cleanup Program (BCP) pursuant to BCP Agreement (Index No. C915353-02-20) between the NYSDEC and RITC, dated February 14, 2020. This portion of the property is referred to as the BCP Site (Site No. C915353).

The goal is to develop and implement cleanup plans that protect public health and the environment and achieve sustainable remedies that will support the future return of the property to beneficial reuse.

The Riverview Innovation & Technology Campus, Inc. (RITC) owns the properties and is proposing a commercial/industrial complex on the former TCC facility properties at 3875 River Road and 3800 River Road. The campus will bring high technology, jobs, and environmental stewardship to properties that had been mismanaged for decades. The brownfield redeveloper has made dramatic progress transforming the former TCC facility from an abandoned coke facility to a property with a viable long-term vision. The cleanup and redevelopment will allow the Superfund and BCP properties to be restored to productive use. The property can serve a number of uses, such as supporting the technology and commercial resources across the approximately 140-acre campus.

1.1 Focused RI Program Objectives

According to *DER-10 / Technical Guidance for Site Investigation and Remediation* (NYSDEC 2010a) the purpose of an RI is to:

1. Delineate the areal and vertical extent of impacts in all media at or emanating from the site.
2. Determine the surface and subsurface characteristics of the site, including topography, geology, and hydrogeology, including depth to groundwater.
3. Identify the sources of contamination, the migration pathways, and actual or potential receptors of constituents on or through air, soil, bedrock, sediment, groundwater, surface water, utilities, and structures at an impacted site, without regard to property boundaries.
4. Collect and evaluate all data necessary for a fish and wildlife resource impact analysis (FWRIA), to determine all actual and potential adverse impact to fish and wildlife resources.
5. Collect and evaluate all data necessary to evaluate the actual and potential threats to public health and the environment. This includes evaluating all current and future potential public health exposure pathways as well as potential impacts to biota.
6. Collect the data necessary to evaluate any release to an environmental medium and develop remedial alternative(s) to address the release.

Following completion of an earlier Remedial Investigation and Feasibility Study (RI/FS), a Record of Decision (2008 ROD) was issued by NYSDEC on March 31, 2008, which presented the selected remedies for Site 109 and Site 110. The remedies were based on industrial use of the property and required institutional and engineering controls involving restricting access and filing an environmental easement to control future use. The required easement was never filed by the Tonawanda Coke Corporation. The TCC was an active industrial facility at the time of the 2008 ROD. The former TCC facility is now inactive and future site use for Sites 109 and 110 is anticipated to be commercial, rather than industrial. Therefore, as specified in the February 2020 Order on Consent:

> "The supplemental investigation of Sites 109 and 110 will be limited to a Focused RI/FS to determine whether and to what extent additional investigation and/or remedial work may be necessary due to the change in use of the site."

Therefore, in developing the Focused Remedial Investigation Work Plan (RIWP), the RI objectives under DER-10 (NYSDEC 2010a) were considered within the framework of a focused RI, with the primary goal of determining if the remedies prescribed in the 2008 ROD remain protective, given the anticipated change of site use from industrial to commercial, and if not, to determine what additional remedial action may be required.

1.2 RI Report Organization

This RI Report is organized as follows:

- **Section 1 – Introduction**
  Describes the objectives of the 2020/2021 Focused RI and the RI Report organization.
- **Section 2 – Background**
  Provides information regarding the site location and use, and a summary of relevant site history, including former site operations, previous investigations, and previously implemented interim remedial measures (IRMs).
- **Section 3 – Focused Remedial Investigation Data Collection Activities**
  Provides a summary of investigation activities completed as part of the 2020/2021 RI, as well as air monitoring procedures and data management / data validation procedures.

- **Section 4 – Site Physical Characteristics**
  Details site characteristics including topography, geology, hydrogeology, surface water hydrology, and wetlands based on historical data and new data collected during the 2020/2021 Focused RI.
- **Section 5 – Investigation Results and Nature and Extent of Impacts**
  Identifies applicable standards, criteria, and guidance Values (SCGs), discusses data validation and usability, and presents nature and extent of impacts based on the historical investigation and 2020/2021 Focused RI results for each environmental media.
- **Section 6 – Conceptual Site Model (CSM)**
  Presents the current conceptual site model including potential sources, nature and extent of impacts, and fate and transport.
- **Section 7 – Qualitative Human Health Exposure Assessment (QHHEA)**
  Presents the QHHEA results.
- **Section 8 – Preliminary Remedial Action Objectives (RAOs)**
  Presents preliminary RAOs for each impacted environmental media.
- **Section 9 – Summary and Conclusions**
- **Section 10 – References**

2.0 BACKGROUND

2.1 Site Location and Description

The former Tonawanda Coke property at 3875 River Road is located on the east side of River Road in the Town of Tonawanda, Erie County, New York. Sites 109 and 110 occupy about 12 acres of the properties referenced by Tax Map/Parcel Nos. 64.08-1-10 (RITC), 65.052-1 (National Grid), and 65.05-2-2 (National Grid) at 3875 River Road, Tonawanda, New York 14150 (**Figure 2**).

Site 109 is an approximately 7.5-acre rectangular area oriented perpendicular to the east side of River Road, in the southwestern portion of the former TCC facility property at 3875 River Road. There is a large berm along the west side of Site 109, running parallel to River Road, and another large berm in the east portion of Site 109 closer to the BCP Site boundary. Two concrete-lined settling/separation ponds that are part of the stormwater management system are present on Site 109, as discussed in Section 4.3. The western boundary of Site 109 is approximately 0.3 miles east of the Niagara River. The closest residential area to Site 109 is on James Avenue, approximately 0.4 miles south of Site 109 (**Figure 3**).

Site 110 is an approximately 6.1-acre irregular-shaped area located in the northeast portion of the former TCC facility property. A 1.8-acre triangular portion of Site 110 is east of the former TCC property on land owned by National Grid. There are several sets of high voltage overhead powerlines and underground utilities running across Site 110 on the National Grid property. The topography across the site is relatively flat, except for an elevated area in the south-central portion of the site. The western boundary of Site 110 is approximately 1 mile east of the Niagara River. The nearest residences to Site 110 are located on Ritchie Avenue approximately 0.3 miles southeast of Site 110 (**Figure 3**).

Test pit excavation in berm along western side of Site 109

Drilling at Site 110, with power lines visible on National Grid-owned portion of Site 110.

Sites 109 and 110 are currently zoned for industrial use. The surrounding area is a combination of the BCP Site, commercial and industrial operations, a landfill, utility rights-of-way, and public water utilities. The Erie County Water Authority Van de Water Treatment Plant is located to the southwest, west of River Road.

In addition to the portion of the former TCC facility being addressed under the BCP program, here are several sites subject to NYSDEC remedial programs in the vicinity (**Figure 1**):

Sites Subject to NYSDEC Remedial Programs	NYSDEC Site Number	Location
The Tonawanda Plastics Site (3821 River Road) – in the BCP	C915003 / 915003	South of Site 109
Roblin Steel	915056	Northwest of Site 109
River Road/Cherry Farm Niagara Mohawk closed landfill	915031 / 915063	North-northwest of Site 109
The C.R. Huntley Fly Ash Landfill (Niagara Mohawk – Huntley Station)	915076	North of Sites 109 and 110
The C.R. Huntley Steam Station part of which is in the BCP as the Huntley Power South Parcel	C915337	Southwest of Site 109

2.2 Site History

The history of Sites 109 and 110 is linked to the remainder of the former TCC facility at 3875 and 3800 River Road. For purposes of the recent RI, a description of the activities that were conducted on Sites 109 and 110 are included. To provide context, a description of the activities at the overall former TCC facility are included as well.

2.2.1 Former TCC Facility

A metallurgical coke manufacturing and by-products plant was operated at the former TCC facility from 1917 through late 2018. The coke-making process involved the removal of gasses, liquids (oils), and tar from coal by heating the coal in the absence of oxygen. The resulting carbon material (coke) was used, among other things, in foundries and for steel production. The by-products were used in the manufacturing process or sold for off-site use. Manufacturing processes used at the plant included by-products coking, light oil distillation, ammonia recovery, and benzene, toluene, and xylene extraction.

The former TCC facility was owned and operated from 1917 through 1947 by Semet-Solvay Company, which was a subsidiary of Allied Chemical and Dye Corporation. In 1947, Semet-Solvay Company was merged into Allied Chemical Corporation, which owned and operated the facility until January 27, 1978, when it was sold to TCC. TCC operated the facility from 1978 until it filed for bankruptcy protection in October 2018, at which time all operations ceased.

Between October 2018 and May 2020, the U.S. Environmental Protection Agency (USEPA) conducted emergency response activities to remove some gases and limited liquids from pipes and tanks, treat wastewater, and manage stormwater.

On October 10, 2019, the property was sold to RITC through a sale ordered by the U.S. Bankruptcy Court. RITC entered the BCP Site into the Brownfield Cleanup Program, and following entry into the program transitioned responsibility for the properties from the USEPA to RITA between March and June 2020.

The former TCC facility, exclusive of Sites 108, 109, and 110, (**Figure 2**) is the subject of a BCP Agreement.

2.2.2 Sites 109 and 110

No active industrial manufacturing processes are known to have occurred on Site 109 or Site 110; in general, both sites appear to have been used for stormwater management, materials management, and disposal. The stormwater treatment ponds, truck scale, security office, and underground utilities are located on Site 109. The east end of the River Road Tunnel and the footings for the former elevated coal conveyor are also still present along the southern boundary of the site. Site 110 appears to have been used for logistics and disposal.

Placement of industrial and construction and demolition (C&D) wastes from plant operations occurred at multiple areas throughout Site 110. Numerous abandoned vehicles are located on Site 110. Prior to 1978, materials such as tar sludge, fly ash, and cinders were reportedly deposited in the rear of the plant, within Site 110. Site 110 was bound by numerous rail tracks.

In 1977, an unknown quantity of brick, rubble, and demolition material was placed within Site 109. Reinforced concrete settling ponds are present and in use on Site 109 for the treatment and discharge of surface water under a NYSDEC approved Storm Water Pollution Prevention Plan (SWPPP) for the BCP Site.

2.3 Site Investigation History

Four major investigations and several other sampling events have previously been conducted at the former TCC facility, focusing primarily on Sites 108, 109, and 110. Historical investigation activities and results from these investigations are summarized below. Historical boring and test pit logs are included in **Appendix A**, historical well construction logs are provided in **Appendix B**, and historical soil data from previous investigations are provided in **Appendix C**.

In July 1982 and May 1983, the U.S. Geological Survey (USGS) performed a study investigating toxic chemical entry into the Niagara River (USEPA 1985). The study consisted of sampling several inactive hazardous waste disposal sites within an approximately 3-mile-wide band along the Niagara River. As part of this program, USGS collected two groundwater samples, ten soil samples, and two surface water samples from the former TCC facility property. Data from these samples were qualified as exceeding analytical holding times and having other quality control (QC) issues that may have compromised the data integrity.

Following the USGS investigation, several major investigations were performed at the former TCC facility, including Sites 109 and 110. Investigation activities are presented in previously submitted reports and summarized in the following table. Historical investigation results are incorporated into the discussion of nature and extent of impacts in Section 5.3.

REPORT	ACTIVITIES PERFORMED
New York State Superfund Phase I Summary Report, November 1983, prepared by Recra Research, Inc.	Review of existing data to calculate a USEPA Hazard Ranking System (HRS) Score to assess the relative threat associated with actual or potential release of hazardous substances from the site. As a result of the analysis, Sites 109 and 110 were not ranked or listed under CERCLA.

REPORT	ACTIVITIES PERFORMED
Phase II Site Investigation Tonawanda Coke Site, December 1986 prepared by Malcolm Pirnie, Inc.	• Installation of one overburden groundwater monitoring well at Site 109 and one overburden groundwater monitoring well adjacent to Site 110. • Collection of two groundwater samples from Site 109 (two rounds at one well) and two groundwater samples from Site 110 (two rounds at the one well adjacent to the site). • Excavation of five test pits at Site 109 and four test pits on/adjacent to Site 110. • Collection of one composite soil sample from the four test pits on/adjacent to Site 110 • Collection of one surface water sample at Site 109 and one surface water sample adjacent to Site 110.
Supplemental Site Investigation Tonawanda Coke Corporation, Tonawanda, New York, July 1990 prepared by Conestoga-Rovers & Associates	• Installation of one overburden groundwater monitoring well at Site 109, and two overburden groundwater monitoring wells at/adjacent to Site 110. • Collection of four groundwater samples from Site 109 (two rounds of sampling at two wells) and six groundwater samples from Site 110 (two rounds of sampling at three wells on/adjacent to Site 110) • Excavation of two test pits at Site 110 • Collection of one composite soil sample from test pits at Site 110 • Collection of six surface water samples at/adjacent to Site 109 and five surface water samples adjacent to Site 110 • Collection of one drainage ditch soil sample adjacent to Site 109 and two sediment samples adjacent to Site 110
Additional Site Investigation Tonawanda Coke Corporation, Tonawanda, New York, November 1992 prepared by Conestoga-Rovers & Associates	• Installation of two overburden groundwater monitoring wells off-site of Site 110 • Collection of one groundwater sample from a well off-site of Site 110 • Collection of five surface water samples adjacent to Site 110 • Collection of two sediment samples adjacent to Site 110
Remedial Investigation Summary Report, Tonawanda Coke Corporation, Tonawanda, New York, May 1997 prepared by Conestoga-Rovers and Associates	Summary of available information from the previous investigations pertaining to groundwater, surface water, soils, drainage ditch soils, and sediments and discussed their significance regarding potential impacts to human health and the environment.
Final Supplemental Report Revision 1 and Feasibility Study, Tonawanda Coke Corporation, Tonawanda, New York, January 2008, prepared by Conestoga-Rovers and Associates	• Collection of five surface soil samples from both Site 109 and Site 110, with one of the Site 110 samples being located slightly outside of Site 110 boundaries. • Excavation of one test pit at Site 110

2.4 Interim Remedial Measures (IRMs)

In August 2005, an excavation was performed in the area around monitoring well MW-3 adjacent to Site 110 to assess soil conditions and address elevated concentrations of volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), metals, and cyanide in groundwater samples from these wells. (Conestoga-Rovers & Associates 2008). A 90-foot-long, 6-foot-deep trench was excavated parallel to the railroad tracks running adjacent to MW-3R. A small amount of "coal tar" was observed in excavated material. Coal tar was separated from other excavated material and taken by TCC for recycling on-site, by reprocessing during coke manufacturing. The IRM was effective in removing the source of groundwater impacts and no further actions were deemed necessary (Conestoga-Rovers & Associates 2008).

Two IRMs/remedial actions were conducted on and adjacent to Site 109. The sediment was removed from the concrete lined settling ponds on Site 109 in 2021. Over 300 tons of residual sediment from the TCC operations was removed, stabilized, and disposed offsite (Inventum 2021a). Also in 2021, accumulated storm and groundwater, the asbestos containing materials (ACMs), coal conveyor, and tar pipelines were removed from the river road tunnel between Site 109 and 108 (Inventum 2021b).

3.0 FOCUSED REMEDIAL INVESTIGATION DATA COLLECTION ACTIVITIES

Data collection activities for the Focused RI were conducted in accordance with the following documents:

- NYSDEC's DER-10 - *Technical Guidance for Site Investigation and Remediation* (NYSDEC 2010a)
- NYSDEC-approved *Final Work Plan, Focused Remedial Investigation and Feasibility Study for Operable Units 1 (Site 110) and 2 (Site 109), Tonawanda Coke Site* (Parsons 2020), including the following appendices:
  - Field Sampling Plan
  - Quality Assurance Project Plan
  - Health and Safety Plan
  - Community Air Monitoring Plan

NYSDEC-approved modifications to the Work Plan during execution of the field work were detailed in correspondence listed below and are included in Appendix D.

- Completion of a second round of groundwater sampling with a modified analytical scope, including addition of Monitored Natural Attenuation (MNA) parameters, as detailed in *Remedial Investigation Work Plan Addendum, Operable Units 1 (Site 110) and 2 (Site 109), Tonawanda Coke Site* (Parsons 2021).
- Addition of test pits (TP-33-2020 series) adjacent to MW-06-2020 due to the presence of subsurface tar at MW-06-2020 (Verbal discussion with NYSDEC)).
- Addition of one monitoring well (MW-16-2020) installed to address potential impacts downgradient of MW-06-2020. Addition of test pits TP-34-2021 through TP-38-2021 to investigate tar observed on the ground surface along the southern site boundary. Completion of a comprehensive surface inspection at Site 110 to look for tar on the ground surface. Completion of an additional round of groundwater elevation measurements at all Site 109 and Site 110 monitoring wells (04/27/2021 email).

3.1 Site 109

The scope of the Focused RI at Site 109 was designed to fill data gaps identified through review of existing data and determine if the existing remedy was protective in light of the change in use from industrial to commercial. Tasks included in the scope for Site 109 are detailed in the following sections:

- Section 3.1.1 - Surface and subsurface soil investigation
- Section 3.1.2 – Drainage ditch surface and subsurface soil investigation
- Section 3.1.3 – Groundwater investigation
- Section 3.3 – Site survey
- Section 3.4 – Groundwater elevation survey
- Section 3.5 – Investigation-derived waste (IDW) management
- Section 3.6 – Community Air Monitoring Plan (CAMP) implementation
- Section 3.7 – Data management and validation

3.1.1 Surface and Subsurface Soil Investigation

The surface and subsurface investigation included soil logging and sampling during test pit (TP) excavations, monitoring well installations, and drainage ditch soil borings (SB). Each surface and subsurface soil investigation activity is discussed in detail in the following subsections. Fill material at the site is primarily historically placed soils but also includes other materials such as ash and breeze. For convenience, references to "soil" throughout this section include fill soils, underlying native soils, and surface and subsurface materials that are non-soil fill, such as ash and breeze, as well as mixtures of these materials and soil.

3.1.1.1 TEST PIT EXCAVATIONS

To visually assess the types of fill present, allow for subsurface soil sample collection, and provide refinement of the understanding of the vertical and lateral extent of fill, test pits were excavated throughout Site 109 in September 2020, as shown on **Figure 4**. Test pits were excavated at six locations, identified as:

- TP-01-2020
- TP-02-2020
- TP-03-2020
- TP-04-2020
- TP-05-2020
- TP-06-2020

At test pit locations TP-03-2020, TP-04-2020, and TP-05-2020, a center point was located, and test pits were excavated to the north, south, east, and west of the center point. TP-01-2020, TP-02-2020, and TP-06-2020 were single linear test pits excavated to determine the composition of berms.

All test pits were excavated to the top of the clay layer, except at TP-01-2020, where refusal was encountered at 10.6 feet below ground surface (ft bgs) on what appeared to be a concrete slab. The excavator was offset, and another pit was dug in an attempt to reach native soil, but refusal was encountered again on what appeared to be a concrete slab, this time at 10.8 ft bgs. A site drawing from 1967 shows an abandoned transformer station in this area. It is likely that the object causing refusal was the concrete slab from the former transformer station.

As test pits were excavated, soil was visually assessed, photographed, screened with a photoionization detector (PID), and documented in a field log. Test pit logs are provided in **Appendix E**. Once the clay layer was identified or, in the case of TP-01-2020, refusal was reached, the test pit was backfilled by replacing the materials in the reverse order in which they were removed. Care was taken to not leave significant amounts of subsurface soil on the ground surface.

Soil samples were collected for chemical analysis from TP-01-2020, TP-05-2020, and TP-04-2020. At TP-01-2020 and TP-05-2020, surface soil samples were collected from 0 to 0.16 and 0.16 to 1.0 ft bgs. At TP-01-2020, two subsurface soil samples (2.0 to 3.0 ft bgs and 10 to 10.6 ft bgs) were collected to characterize the different types of fill observed. Fill was not observed at TP-05-2020, so the subsurface soil sample was collected from the top of native clay instead of from fill. Analytical sampling was not initially planned for TP-04-2020, so surface soil samples were not collected. However, a subsurface sample was collected at this location due to staining on soil around what may be creosote-treated wood poles.

All samples were analyzed for Target Compound List (TCL) VOCs, SVOCs, pesticides, polychlorinated biphenyls (PCBs), Target Analyte List (TAL) metals and cyanide. Samples from TP-01-2020 were also analyzed for per- and polyfluoroalkyl substances (PFAS). PFAS sampling and analysis followed the guidance provided in NYSDEC's *Guidelines for Sampling and Analysis of PFAS* (NYSDEC 2020).

3.1.1.2 MONITORING WELL INSTALLATION SOIL LOGGING AND SAMPLING

During drilling for the three new monitoring wells installed in October 2020, soil was visually assessed, photographed, screened with a PID, and documented in a field log. At each well boring, soil samples were collected for chemical analysis. Surface soil samples were collected from 0 to 0.16 and 0.16 to 1.0 ft bgs. A subsurface sample was also collected at each of the sampled locations, with subsurface sample depths dependent upon types of fill present as well as the presence of staining, odors, elevated PID reading, etc. All samples were analyzed for TCL VOCs, SVOCs, pesticide/PCBs, TAL metals, cyanide, and PFAS. Monitoring well installation details are provided in Section 3.1.3.1. Boring logs are provided in **Appendix F**.

3.1.2 Drainage Ditch Surface and Subsurface Soil Investigation

To assess the soils within the on-site stormwater drainage ditches, surface and subsurface soil samples were collected in October 2020 at the following locations, as shown on **Figure 4**:

- SB-01-2020 was adjacent to the ditch on the south side of the site.
- SB-02-2020 was located along the ditch on the south side of the site.
- SB-03-2020 was adjacent to the ditch on the north side of the site.
- SB-04-2020 was located in the southwestern corner of the site, where hardened tar had been observed during earlier investigations associated with the Tonawanda Plastics site and adjacent to Outfall-004 (Parsons 2017).

SB-01-2020, SB-03-2020, and SB-04-2020 are considered soil samples because they were collected from the banks of the ditch, or in the case of SB-04-2020, adjacent to the outfall. SB-02-2020 may be considered a sediment sample because it was collected from the bottom of the drainage ditch.

Three of the soil borings were drilled using a drill rig. The fourth boring (SB-02-2020) was too close to possible underground utility locations for drilling with a drill rig; therefore, this sample was collected by hand in December 2020, by hand-pushing a macrocore into the subsurface. Soil boring depths coincide with the depth to the clay layer at each location. During drilling and hand coring, soil was visually assessed, photographed, screened with a PID, and documented in a field log. Boring logs are provided in **Appendix F**.

Soil samples were collected for chemical analysis at each soil boring location. Surface soil samples were collected at 0 to 0.16 ft bgs and 0.16 to 1.0 ft bgs. A subsurface soil sample of the underlying fill was also collected at each soil boring location, except at SB-03-2020, where the subsurface sample was not collected because fill was not encountered. All samples were analyzed for TCL VOCs, SVOCs, pesticide/PCBs, TAL metals and cyanide. Samples from SB-04-2020 were also analyzed for PFAS. PFAS sampling and analysis followed the guidance provided in NYSDEC's *Guidelines for Sampling and Analysis of PFAS* (NYSDEC 2020).

3.1.3 Groundwater Investigation

3.1.3.1 GROUNDWATER MONITORING WELL INSTALLATION

Three new groundwater monitoring wells were installed in October 2020 at Site 109 to assess groundwater quality and gradients within the shallow water-bearing zone in fill, perched on top of the clay layer. Monitoring well locations are shown on **Figure 4**. The three new well borings were drilled using a drilling rig and hollow stem augers. During drilling for monitoring well installation, soils were logged, and analytical samples were collected as described in Section 3.1.1.2.

Well screens at MW-01-2020 and MW-02-2020 are 5 feet long. The well screen at MW-03-2020, which is located on top of a berm, is 10 feet long due to a greater depth to clay, and to maximize the potential water-bearing interval within fill. Well screens were installed at the following depths:

- MW-01-2020: 4 to 9 ft bgs
- MW-02-32020: 5 to 10 ft bgs
- MW-03-2020: 10 to 20 ft bgs

All monitoring wells were constructed using 2-inch diameter polyvinyl chloride (PVC) screens and 2-inch diameter PVC riser, all of which were certified clean from the manufacturer. The annular space around the screen was filled with filter sand to at least 1 foot above the top of the screen, followed by 1 to 2 feet of bentonite, followed by grout to the surface. Exact monitoring well construction was determined based on the depth of clay and screened interval. Monitoring wells were finished with 3-foot stick-up protective casings and a 2-foot diameter concrete well pads. Boring and monitoring well construction logs are provided in **Appendix F**.

When monitoring wells were installed, no groundwater was present for development. Wells were purged prior to groundwater sampling.

3.1.3.2 GROUNDWATER SAMPLING

Each of the three newly installed wells, along with the existing well MW-17-89, were sampled in December 2020 and again in September 2021. Existing well MW-04 was found not to be in suitable condition for sampling during project scoping, therefore, consistent with the Focused RI Work Plan, was not sampled. An electronic water level meter was used to measure the depth to groundwater in each well on the day of sampling.

3.1.3.2.1 December 2020 Sampling

Low-flow sampling methods were implemented by purging each well using a peristaltic pump and dedicated high-density polyethylene (HDPE) tubing. Groundwater purging occurred at a rate between 140 milliliters/minute (mL/min) and 500 mL/min. During purging, water quality parameters were monitored at approximately five-minute intervals until parameters were considered stable. Water quality parameters monitored included depth to water, temperature, pH, conductivity, oxidation reduction potential (ORP), dissolved oxygen, and turbidity.

Three wells (MW-01-2020, MW-02-2020, and MW-03-2020) were sampled prior to stabilization due to poor groundwater yield and low recharge rates. Each of these wells was purged dry and allowed to recharge overnight. The samples were collected immediately upon resuming purging the next day, due to slow overnight recharge. For all wells, water quality parameters and field observations during sampling were recorded on groundwater sampling forms and are included in **Appendix G**.

Laboratory analytical parameters for each well from the December 2020 samples were as follows:

	MW-01-2020	MW-02-2020	MW-03-2020	MW-17-89
TCL VOCs	X	X	X	X
TCL SVOCs	X	X	X	X
Pesticides	X	X		X
PCBs	X	X		X
TAL Metals	X	X		X
Cyanide	X	X		X
PFAS			X	X
1,4-Dioxane				X

The sample from MW-03-2020 was analyzed for limited parameters because the well ran dry before all the sample bottles could be filled.

Groundwater samples were collected directly from dedicated sample tubing into laboratory-supplied sample bottles.

During the December 2020 sampling event, groundwater samples from MW-01-2020 turned blue upon being collected into sample bottles for VOCs and metals. These bottles are preserved with hydrochloric acid and nitric acid, respectively, which are both acidic. The reason for the color change is uncertain.

3.1.3.2.2 September 2021 Sampling

Low-flow sampling methods were implemented by purging each well using a peristaltic pump and HDPE tubing. Groundwater purging occurred at a rate between 165 mL/min and 500 mL/min. During purging, water quality parameters were monitored at approximately five-minute intervals until parameters were considered stable. Water quality parameters monitored included depth to water, temperature, pH, conductivity, ORP, dissolved oxygen, and turbidity. Water quality parameters and field observations during sampling were recorded on groundwater sampling forms and are included in **Appendix G**.

Three wells (MW-01-2020, MW-02-2020, and MW-03-2020) were sampled prior to stabilization due to poor groundwater yield and low recharge rates. Each of these wells was purged dry and allowed to recharge. Recharge rates were extremely slow. As a result, the wells were allowed to recharge for three days so that there would be sufficient volume for sampling. Samples were collected immediately upon resuming purging.

Based on the results of the first round of sampling (December 2020) and discussion with NYSDEC, the analytical parameter list for the second round of sampling was revised as detailed in the NYSDEC-approved *Remedial Investigation Work Plan Addendum* (Parsons 2021). Revisions to the analytical parameter list included removal of pesticides, PFAS, and 1,4-dioxane, and addition of dissolved constituents, including SVOCs, PCBs, metals, and cyanide. Laboratory analytical parameters for the September 2021 samples were as follows:

	MW-01-2020	MW-02-2020	MW-03-2020	MW-17-89
TCL VOCs	X	X	X	X
TCL SVOCs	X	X	X	X
TCL Dissolved SVOCs	X		X	X
PCBs	X	X	X	X
Dissolved PCBs	X	X		X
TAL Metals	X	X	X	X
TAL Dissolved Metals	X	X	X	X
Cyanide	X	X	X	X
Dissolved Cyanide	X	X	X	X

Samples from MW-02-2020 and MW-03-2020 were not analyzed for the full suite of analytes because the wells ran dry before all sample bottles could be filled. Dissolved PCBs were prioritized at MW-02-2020 due to low level PCB detections in the sample from this well during the first round of sampling.

Most samples were collected directly into the sample container from dedicated sample tubing. For samples to be analyzed for dissolved components, a dedicated 0.45-micron pore size disposable filter was attached to the end of sample tubing. Sample water was run through the filter to collect suspended material and the filtered water sample was collected directly into the sample bottle from the discharge end of the field filter.

3.2 Site 110

The scope of the Focused RI at Site 110 was designed to fill data gaps identified through review of existing data and determine if the existing remedy was protective in light of the change in use from industrial to commercial. Tasks included in the scope are detailed in the following sections:

- Section 3.2.1 – Surface and subsurface soil investigation
- Section 3.2.2 – Groundwater investigation
- Section 3.3 – Site survey
- Section 3.4 – Groundwater elevation survey
- Section 3.5 – IDW management
- Section 3.6 – CAMP implementation
- Section 3.7 – Data management and validation

3.2.1 Surface and Subsurface Soil Investigation

The surface and subsurface investigation included soil logging and sampling during test pit excavations and monitoring well installations. Each surface and subsurface soil investigation activity is discussed in detail in the following subsections.

3.2.1.1 TEST PIT EXCAVATION

To visually assess the types of fill present, allow for subsurface soil sample collection, and provide refinement of the understanding of the vertical and lateral extent of fill, test pits were excavated throughout Site 110, as shown on **Figure 5**.

Five test pits were excavated in October 2020. One additional test pit - TP-33-20—0 - was excavated in November 2020 to further assess the subsurface adjacent to monitoring well MW-06-2020. This additional excavation was initiated in response to the presence of subsurface tar-saturated material encountered during monitoring well installation.

Part of Site 110 is located on National Grid property. In May 2021, National Grid granted access and in June 2021, three additional test pits were excavated on National Grid property. A fourth test pit planned for National Grid property was moved to the northwest, off National Grid property, due to the presence of overhead powerlines precluding safe excavation. The National Grid site boundary was not initially clear in the field, so this test pit location was not excavated until access to National Grid property was granted.

Also in June 2021, five additional test pits (TP-34-2021 through TP-38-2021) were excavated at the request of NYSDEC to investigate surficial tar observations on the south side of Site 110.

In November 2022, two additional test pits (TP-51-2022 and TP-52-2022) were excavated on either side of MW-05-2020 to evaluate potential sources of cyanide detected in groundwater samples from the monitoring well. These test pits were excavated in accordance with the Work Plan for the Focused Remedial Investigation Phase II of Operable Unit 1 (Site 110) (Parsons 2022).

In total, 15 test pit locations were excavated on Site 110 and are identified as:

- TP-07-2020
- TP-08-2020
- TP-09-2020
- TP-10-2020
- TP-11-2020

- TP-12-2020
- TP-13-2020
- TP-14-2020
- TP-15-2020
- TP-33-2020
- TP-34-2021
- TP-35-2021
- TP-36-2021
- TP-37-2021
- TP-38-2021
- TP-51-2022
- TP-52-2022

At most test pit locations, a center point was located, and test pits were excavated to the north, south, east, and west of the center point. This was not done at TP-07-2020, TP-33-2020, or TP-34-2021 through TP-38-2021 where instead, several linear test pits were excavated in the general area of the location, as the goal of these test pits was to identify the extent of previously observed tar material. Offsets from original test pit locations (in addition to north, south, east, and west excavations) were excavated at TP-08-2020, TP-10-2020, and TP-11-2020 to identify the extent of observed tar material. TP-51-2022 and TP-21-2022 were single linear test pits excavated to determine potential sources of cyanide in the vicinity of MW-05-2020.

Test pits were excavated to the top of the clay layer, except for at TP-07-2020D, TP-33-2020D, and TP-38-2021. In TP-07-2020D and TP-33-2020D, significant amounts of water inundated the test pits, precluding safe excavation to native material. In TP-38-2021, a significant amount of rubber (presumed discarded conveyor belting) was encountered, and the excavator became tangled. One offset was attempted and again refusal was reached on rubber.

As the test pits were excavated, soil was visually assessed, photographed, screened with a PID, and documented in a field log. Test pit logs are included in **Appendix E**. Once the clay layer was identified or when excavation could not continue due to water infiltration or refusal, the test pit was backfilled by replacing the materials in the reverse order in which they were removed. Care was taken not to leave significant amounts of subsurface soil on the ground surface.

Soil samples were collected for chemical analysis from TP-07-2020 through TP-09-2020, TP-12-2020 through TP-15-2020, ,TP-34-2021, TP-51-2022, and TP-52-2022. At each location besides TP-34-2021, TP-51-2022, and TP-52-2022, surface soil samples were collected from 0 to 0.16 ft bgs and 0.16 to 1.0 ft bgs. A subsurface soil sample was also collected at each of the sampled locations, with subsurface sample depths dependent upon types of fill present as well as the presence of staining, odors, elevated PID reading, etc. Multiple subsurface soil samples were collected from TP-14-2020 to characterize the different types of fill present. Although analytical samples were not planned for TP-34-2021, a fill sample was also collected at this location to characterize a nodule and breeze-rich pliable tar/fill mixture.

All samples were analyzed for TCL VOCs, SVOCs, pesticide, PCBs, TAL metals and cyanide. Samples from TP-07-2020 and TP-12-2020 were also analyzed for PFAS. PFAS sampling and analysis followed the guidance provided in NYSDEC’s *Guidelines for Sampling and Analysis of PFAS* (NYSDEC 2020).

In a subset of test pits that contained tar material, a sample of tar material was collected for chemical analysis. Samples of tar material were collected from TP-07-2020, TP-08-2020, TP-10-2020, and TP-34-2021. Samples from TP-08-2020 and TP-10-2020 were analyzed by the Toxicity Characteristic Leaching Procedure (TCLP) for regulated SVOCs, metals, pesticides, herbicides, and PCBs; and for ignitability, corrosivity, reactivity, and paint filter test. Samples from TP-07-2020 and TP-34-2021 were sampled for the same analytes; however, after submittal to the analytical laboratory, the analysis was changed to total concentrations for all chemical parameters rather than TCLP due to the consistency of the sample matrix being incompatible with TCLP testing protocols. All four tar samples were analyzed for total VOCs rather than TCLP VOCs due to the potential for damaging the VOC TCLP laboratory equipment due to the sample matrix. Tar samples from TP-08-2020 and TP-20-2020 were of pliable tar/fill mixture only and samples from TP-07-2020 and TP-34-2021 were of pliable tar/fill mixture with a tar-saturated component. Further detailed discussion of the tar material encountered on Site 110 is provided in Section 4.2.3 and results of tar analytical sampling are discussed in Section 5.4.2.3.

3.2.1.2 MONITORING WELL INSTALLATION SOIL LOGGING AND SAMPLING

During drilling of soil borings for monitoring well installation, soils were visually assessed, photographed, screened with a PID, and documented in a field log. At each well boring, soil samples were collected for chemical analysis. Surface soil samples were collected at 0 to 0.16 and 0.16 to 1.0 ft bgs at all locations except MW-23-2022. A subsurface soil sample was also collected at each of the sampled locations, with subsurface sample depths dependent upon types of fill present as well as the presence of staining, odors, elevated PID reading, etc. All samples from MW-04-2020 through MW-08-2020 and MW-16-2020 were analyzed for TCL VOCs, SVOCs, pesticides/PCBs, TAL metals, cyanide, and PFAS. The sample from MW-23-2022 was analyzed for TCL VOCs, SVOCs, TAL metals, and cyanide. Monitoring well installation details are provided in Section 3.2.2.1. Boring logs are provided in **Appendix F**.

3.2.2 Groundwater Monitoring Wells

3.2.2.1 GROUNDWATER MONITORING WELL INSTALLATION

Four new groundwater monitoring wells were installed in October 2020, two in July 2021, and one in December 2022 at Site 110 to assess groundwater quality and gradients within the shallow water-bearing zone on top of the clay layer. MW-23-2022, installed in December 2022, was installed in the area proximate to abandoned vehicles to evaluate whether they may have been a potential source of VOCs in groundwater. The seven well borings were drilled using a drilling rig and hollow stem augers.

All monitoring wells were constructed using 5 to 5.25 feet of 2-inch diameter PVC screen and 2-inch diameter PVC riser, all of which were certified clean from the manufacturer. Well screens were installed at the following depths:

- MW-04-2020: 5 to 10 ft bgs
- MW-05-2020: 4 to 9 ft bgs
- MW-06-2020: 4 to 9 ft bgs
- MW-07-2020: 4 to 9 ft bgs
- MW-08-2020: 1 to 6 ft bgs
- MW-16-2020: 2 to 7 ft bgs
- MW-23-2022: 3.75 to 9 ft bgs

The annular space around the screen was filled with filter sand to at least 1 foot above the top of the screen, followed by 1 to 2 feet of bentonite, followed by grout to the surface. Exact monitoring well construction was determined based on the depth of clay and screened interval. Monitoring wells were finished with 3-foot-high stick-up protective casings and a 2-foot-diameter concrete well pad. Soil boring and monitoring well installation logs are included in **Appendix F**. All wells were developed after installation and purged prior to sampling. All wells were developed by removing 10 well volumes, unless the well went dry, in which case it was purged dry three times., After purging dry, the water level was allowed to recover to 80% before purging again.

3.2.2.2 GROUNDWATER SAMPLING

Each of the four groundwater monitoring wells installed in October 2020 were sampled in December 2020. All six new Site 110 monitoring wells (including the four installed in October 2020 and the two installed in July 2021) were sampled in September 2021. MW-23-2022, installed in December 2022, was sampled in January 2023. No other Site 110 wells were sampled at that time. An electronic water level meter was used to measure the depth to groundwater in each well on the day of sampling.

3.2.2.2.1 December 2020 Sampling

Low-flow sampling methods were implemented by purging each well using a peristaltic pump and HDPE tubing. Groundwater purging occurred at a rate between 120 mL/min and 500 mL/min. During purging, water quality parameters were monitored at approximately five-minute intervals until parameters were considered stable. Water quality parameters monitored include depth to water, temperature, pH, conductivity, ORP, dissolved oxygen, and turbidity. Water quality parameters and field observations during sampling were recorded on groundwater sampling forms and are included in **Appendix G**.

One well (MW-07-2020) was sampled prior to stabilization due to poor groundwater yield and low recharge rates. The well was purged dry and allowed to recharge overnight. The sample was collected immediately upon resuming purging.

Laboratory analytical parameters for the December 2020 samples were as follows:

	MW-04-2020	MW-05-2020	MW-06-2020	MW-07-2020
TCL VOCs	X	X	X	X
TCL SVOCs	X	X	X	X
Pesticides	X	X	X	X
PCBs	X	X	X	X
TAL Metals	X	X	X	X
Cyanide	X	X	X	X
PFAS	X			X
1,4-Dioxane	X			X

Groundwater samples were collected directly from dedicated sample tubing into laboratory-supplied sample bottles.

During the December 2020 sampling event, groundwater samples from MW-04-2020 turned blue upon being collected into sample bottles for VOCs and metals. These bottles are preserved with hydrochloric acid and nitric acid, respectively, which are both acidic.

3.2.2.2.2 September 2021 Sampling

Low-flow sampling methods were implemented by purging each well using a peristaltic pump and HDPE tubing. Groundwater purging occurred at a rate between 100 mL/min and 500 mL/min. During purging, water quality parameters were monitored at approximately five-minute intervals until parameters were considered stable. Water quality parameters monitored include depth to water, temperature, pH, conductivity, ORP, dissolved oxygen, and turbidity. Water quality parameters and field observations during sampling were recorded on groundwater sampling forms and are included in **Appendix G**.

Two wells (MW-05-2020 and MW-07-2020) were sampled prior to stabilization due to poor groundwater yield and low recharge rates. The wells were purged dry and allowed to recharge for one to two days. Samples were collected immediately upon resuming purging.

Based on the results of the first round of sampling (December 2020) and discussion with NYSDEC, the analytical parameter list for the second round of sampling was revised as detailed in the NYSDEC-approved *Remedial Investigation Work Plan Addendum* (Parsons 2021). Revisions to the analytical parameter list included removal of pesticides, PFAS, and 1,4-dioxane, and addition of dissolved constituents, including SVOCs, PCBs, metals, and cyanide. MNA indicators were also added for a subset of monitoring wells (MW-04-2020, MW-05-2020, MW-06-2020, and MW-08-2020). The results will be used during the Focused FS as part of the evaluation of alternatives.

MNA parameters include nitrate, total nitrogen, sulfate, sulfide, methane, total organic carbon, chloride, and alkalinity. Additionally, a ferrous iron field test was performed using a Hach Iron (Ferrous) Color Disc Test Kit at the subset of MNA wells. Field measurements of pH, ORP, and dissolved oxygen (DO) measured during purging will also be used to evaluate MNA. Lab analytical parameters for the September 2021 samples were as follows:

	MW-04-2020	MW-05-2020	MW-06-2020	MW-07-2020	MW-08-2020	MW-16-2020
TCL VOCs	X	X	X	X	X	X
TCL SVOCs	X	X	X	X	X	X
TCL Dissolved SVOCs	X	X	X	X	X	X
PCBs	X	X	X	X	X	X
Dissolved PCBs	X	X	X	X	X	X
TAL Metals	X	X	X	X	X	X
TAL Dissolved Metals	X	X	X	X	X	X
Cyanide	X	X	X	X	X	X
Dissolved Cyanide	X	X	X	X	X	X
MNA Parameters	X	X	X		X	

Most samples were collected directly into the sample container from dedicated sample tubing. For samples to be analyzed for dissolved components, a dedicated 0.45-micron pore size disposable filter was attached to the end of sample tubing. Sample water was run through the filter to collect suspended material and the filtered water sample was collected directly into the sample bottle from the discharge end of the field filter.

During the September 2021 sampling event, the groundwater samples from MW-05-2020 turned blue upon being collected into sample bottles for metals (total and dissolved). These bottles are preserved with sodium hydroxide, which is basic.

3.2.2.2.3 January 2023 Sampling

Low-flow sampling methods were implemented by purging MW-23-2022 using a peristaltic pump and HDPE tubing. Groundwater purging occurred at a rate between 100 mL/min and 500 mL/min. During purging, water quality parameters were monitored at approximately five-minute intervals until parameters were considered stable. Water quality parameters monitored include depth to water, temperature, pH, conductivity, ORP, dissolved oxygen, and turbidity. Water quality parameters and field observations during sampling were recorded on groundwater sampling forms and are included in Appendix G.

Based on the data gaps identified during Phase I of the Focused RI and discussion with NYSDEC, only MW-23-2022 was sampled in January 2023 as detailed in the NYSDEC-approved *Focused Remedial Investigation Phase II Work Plan* (Parsons 2022). The MW-23-2022 sample was analyzed TCL VOCs, TCL SVOCs, TAL metals, cyanide, and TOC, as well as dissolved TCL SVOCs, dissolved TAL metals, and dissolved cyanide.

3.3 Site Survey

After the excavation of test pits and installation of soil borings and monitoring wells, a New York state-licensed land surveyor completed a site survey. The site survey included collecting as-built geographic coordinates and elevations for test pits, newly installed and pre-existing groundwater monitoring wells (including top of inner casing and protective outer casing elevations), soil borings, site boundaries, and other notable site features. Horizontal survey data are based on the North American Datum of 1983 (NAD83) New York State Plane West coordinate system. Elevations are based on the North American Vertical Datum of 1988 (NAVD88).

3.4 Groundwater Elevation Survey

To refine understanding of groundwater gradients, water levels were collected at all three newly installed wells at Site 109, all four newly installed wells at Site 110, and the pre-existing well MW-17-89 at Site 109 in December 2020, prior to groundwater sampling.

Another round of water levels was collected in January 2021. During this gauging event, wells from Sites 108, 109, and 110, as well as the BCP Site and Tonawanda Plastics, were gauged on the same day to provide additional groundwater elevation data around the perimeter of Site 109 and 110.

A third round of water levels were collected in September 2021, prior to groundwater sampling. This gauging event included all Site 109 and 110 wells (including the two wells installed in 2021 at Site 110 subsequent to prior gauging events), Site 108 wells, and a subset of Tonawanda Plastics wells. Water levels were also contemporaneously collected at the BCP Site wells.

A fourth round of water levels were collected in January 2023. Wells from Site 110 and Site 108 were gauged during this event. No Site 109 wells were gauged during this event.

Water levels were measured using an electronic water level meter. Groundwater elevations were calculated based on water level measurements at monitoring wells and surveyed elevations of monitoring wells. Control point (i.e., inner well casing) elevations are presented in Table 2.

3.5 IDW Management

3.5.1 Soils / Solid Waste

Soils excavated from test pits that did not exhibit any gross impacts were placed back in the cavity after completion of the test pit. For this field effort, gross impacts are defined as soils exhibiting the presence of mobile tar and/or free oils. Fill was separated from clay excavated from a test pit and the clay was replaced in the bottom of the cavity.

When significant amounts of tar were encountered, the material was stockpiled and staged on plastic sheeting adjacent to the test pit from which it originated. Stockpiles were covered with plastic sheeting to protect against precipitation. Samples of tar materials were collected and analyzed as described in Section 3.2.1.1. A record was kept of which test pits produced stockpiled tar-impacted material, and which samples (if applicable) were collected from that material. A record was also kept of the nature of removed tar materials (i.e., composition and consistency). Because multiple waste characterization samples were collected for tar materials displaying different characteristics, stockpiled tar material is represented among the waste characterization sample results. Stockpiles of tar-impacted soils remain onsite and are pending removal during remediation. In December 2022, stockpiles were re-covered with UV-resistant tarps to ensure that piles continue to remain protected from the elements.

Soils from borings conducted for monitoring well installation were stockpiled, containerized in labeled Department of Transportation (DOT)-compliant 55-gallon open-top steel drums and stored in the IDW Storage Area at Site 109. One waste characterization sample was collected for every 100 cubic yards of stockpiled or drummed materials. Approximately one cubic yard of soil was generated between Site 109 and Site 110 soil borings. Therefore, one composite waste characterization sample was collected, representing both Site 109 and Site 110 IDW. The waste characterization sample was analyzed for TCLP VOCs, SVOCs, metals, pesticides, herbicides, and PCBs; and for ignitability, corrosivity, reactivity, and paint filter test. Analytical results from the waste characterization sample indicate that the IDW soils are non-hazardous, and waste transportation and offsite disposal efforts are being coordinated to include Site 108 IDW.

3.5.2 Water

For the initial phases of the project, monitoring well purge water and equipment decontamination water was containerized in 55-gallon open-top steel drums and subsequently disposed of in the on-site frac tank. Water from the frac tank was discharged to the Town of Tonawanda wastewater facilities under RITC's Industrial Sewer Connection Permit No. 331, which allows for up to 2,000 gallons per day for equipment decontamination water from investigations on the 3875 River Road property.

Later discussions between Honeywell, RITC, and the Publicly Owned Treatment Works (POTW) permit manager resulted in a change of protocol to water disposal for water generated on Sites 109 and 110. Beginning with the September 2021 groundwater sampling event, all monitoring well purge water and decontamination water was containerized in 55-gallon open-top steel drums. A waste characterization sample was collected and analyzed for VOCs, SVOCs, pesticides, herbicides, metals, mercury, cyanide, PCBs, pH, flashpoint, and reactivity. Additional waste characterization samples were taken from the Phase II drums: one of decontamination water and one of purge water and analyzed for the same analytes just listed. Water drums remain onsite and are pending removal upon receipt of Phase II characterization results.

3.5.3 Personal Protective and Disposable Sampling Equipment

Personal protective equipment (PPE), disposable sampling equipment (e.g., tubing), and general trash that may have come in contact with potentially impacted soils/water generated during completion of the Focused RI were containerized in DOT-compliant 55-gallon open-top steel drums and stored in the IDW Storage Area. Drums were labeled as non-hazardous waste.

3.6 Community Air Monitoring Plan (CAMP)

The CAMP was implemented during all ground-intrusive activities to provide data to verify protection for the downwind community. The CAMP required continuous monitoring for VOCs and particulates, established action level concentrations, and defined responses to action levels. VOC and particulate data were monitored in real time via a mobile application, to allow for rapid response if levels exceeded action levels. A summary of CAMP data was prepared daily and posted on the RITC website (www.riverviewtechcampus.com). There were no exceedances of action levels during Site 109 or Site 110 activities.

3.7 Data Management and Validation

Data validation was performed in accordance with USEPA Region 2 standard operating procedures for organic and inorganic data review and the Quality Assurance Project Plan (QAPP) developed for this project (Parsons 2020). These validation guidelines are regional modifications to the National Functional Guidelines for organic and inorganic data review. Validation included the following:

- Verification of 100 percent of all QC sample results (both qualitative and quantitative)
- Verification of the identification of 100 percent of all sample results (both positive hits and non-detects)
- Recalculation of 10 percent of all investigative sample results
- Preparation of a Data Usability Summary Report (DUSR)

The quality of the data has been assessed and is documented in the DUSRs (**Appendix H**).

The following Quality Assurance (QA)/QC samples were collected for each type of sample collected:

- One matrix spike/matrix spike duplicate (MS/MSD) per 20 samples
- One field duplicate sample per 20 samples
- One equipment blank for the full suite of analytes per 20 samples per type of sample collection
- One equipment blank for PFAS analysis per day (only on days that PFAS were sampled for)
- One field blank for PFAS analysis per day (only on days that PFAS were sampled for)
- One VOC trip blank per cooler containing aqueous samples

4.0 SITE PHYSICAL CHARACTERISTICS

4.1 Topography

Site 109 is a rectangular area of about 1,000 feet by 250 feet with an undulating surface in some areas. Overall, Site 109 slopes from the east to the west, from elevation 600 feet above mean sea level [ft-amsl] at the boundary with the BCP Site to elevation 576 ft-amsl at River Road .

There are two large berms oriented north-south along the western border of Site 109, with steep slopes extending downward to River Road and to the rest of Site 109. These berms create locally high topography, however in general, the site elevation steadily increases moving east across Site 109. There is another large berm near the east end of Site 109, adjacent to the stormwater settling ponds (**Figure 4**).

Site 110 is an irregularly shaped area about 950 feet long and 500 feet at its widest point on the east side of the BCP Site and on adjacent National Grid property. There is a mounded area about 200 feet by 300 feet in size in the south-central portion of Site 110 where the topography is about 6 feet higher than the surrounding ground (**Figure 5**). Other than this elevated area, topography across Site 110 is relatively flat, varying from approximately 606 ft-amsl to 610 ft-amsl.

4.2 Geology

Fill material is the uppermost stratigraphic unit over most of the former TCC facility property, including Sites 109 and 110, varying in thickness from 0 feet to 16 feet at Site 109 and from 3 feet to 16.5 feet at Site 110 (**Figures 6 through 9**). At Site 109, fill thickness is generally consistent with topography, with the greatest thicknesses of fill in the bermed areas. At Site 110, the thickest layer of fill observed is located in the elevated area in the southern portion of the site. Elsewhere across Site 110, fill thicknesses are relatively consistent, ranging from 3 feet to 9.4 feet, with fill thicknesses thinning eastward.

The fill typically consists of silt and/or clay, gravel, breeze, concrete, brick (yellow and/or red), slag, coke, coal, and ash. Some test pits on both Site 109 and Site 110 contained varying amounts of wood, some of it possibly creosote-treated, which in some cases resembled telephone poles and railroad ties. Several test pits at Site 110 also contained pockets of tar materials, most frequently in the form of a pliable tar/fill mixture (tar and breeze, sometimes with other fill). In many test pits and soil borings, fill material was mixed with blocky, crumbly clay, suggesting that historic activities likely involved using native clay to stabilize and/or cap the fill. Fill materials observed at Site 109 and Site 110 are discussed in further detail in Sections 4.2.1 and 4.2.2, respectively. Types and distribution of tar encountered at Site 110 are discussed in further detail in Section 4.2.3.

Underlying the fill material is a native glaciolacustrine deposit consisting of clay. On the eastern side of Site 109, the clay immediately underlying the fill is soft to stiff and gray to gray-green in color. This gray clay was observed in several test pits and soil borings across Site 110 as well, where it occasionally is a yellow-gray color and contains some black, fibrous organic material. Where encountered, the softer gray clay is only 1 foot to 2 feet thick, and overlies stiffer, reddish-brown clay. Where gray clay was not encountered, the uppermost native material is stiff, reddish-brown clay. Locally, the topography of the top of the clay unit has been modified during historic site uses such as excavations for storage areas, building foundations, surface water management, as well as apparent excavation of clay for use as fill cap material.

Clay underlying fill at TP-11-2020.

No borings were completed through the clay as part of the Focused RI at Sites 109 and 110. However, as part of the BCP Site investigation, four soil borings were drilled through the clay to the top of bedrock and subsequently drilled into bedrock. According to these borings, the clay unit consists of a stiff, dry, silty clay with low to medium plasticity overlying a higher plasticity clay, which overlies bedrock at approximately 50.7 to 54 ft bgs (548.61 to 553.8 ft-amsl). Two borings have also been drilled to the top of rock at the Tonawanda Plastics property, which is directly south of Site 109. These borings primarily consisted of clay or silty clay with some lenses of silty and gravelly clay. Refusal, presumably on bedrock, was encountered in these borings at 44 and 36.4 ft bgs, corresponding to elevations of 550 and 552.4 ft-amsl (Parsons 2017), consistent with the BCP Site data.

Based on regional data, bedrock underlying the site is the Salina Group, specifically the Camillus shale, which is a shale and mudstone. The Camillus shale also contains gypsum, dolomite, and significant thicknesses of salt beds (La Sala 1968). Four borings advanced on the BCP Site included coring approximately 12 feet into bedrock, which consisted of thinly laminated shale with pockets of gypsum. Rock quality designations (RQDs) from these cores ranged from 75 percent at the top of rock (in the 54 to 56 ft bgs interval) to 13 percent in the bottommost (61 to 66 ft bgs) interval and water loss to the formation was noted from 62 to 63 ft bgs.

RQDs from the Huntley Steam Generation Site along the Niagara River one-half mile south of Site 109 described the top of rock as thinly bedded and weathered (Goldberg-Zoino Associates 1983).

4.2.1 Site 109 Fill Material

In general, fill material encountered at Site 109 during the Focused RI was composed of silt, clay, and C&D debris, including concrete, red brick, yellow fire brick, rock fragments, and wood. Several test pits also contained coke and coke manufacturing by-products including silt to gravel sized breeze and coal. Three locations (TP-01-2020, TP-06-2020, and MW-03-2020) also contained varying amounts of what appeared to be slag. TP-01-2020 and MW-03-2020 are both located in the berm on the west side of Site 109, while TP-06-2020 is located in the berm on the east side of the site. Fill from MW-03-2020 also contained finer grained materials that may be fly ash. These results are consistent with data from historical test pits, which generally indicate similar types of fill material at Site 109.

In TP-04-2020, large wooden poles, resembling telephone poles, were uncovered between 0.16 and 3.0 ft bgs. The poles appeared to have been treated with creosote, based on shiny black-gray color and creosote-like odor. These wood poles were embedded in a reworked layer of clay fill, which had black-gray staining and sheen. A sample of this potentially impacted clay was collected for chemical analysis. Results of this sample are discussed in Section 5.4.2.3.

Silt, clay, coke fragments, brick, an d concrete at TP-03-2020.

Breeze-rich fill also containing silt, rock, metal, wood, coal, coke, slag, and brick at TP-06-2020.

Potentially creosote-treated wood poles pulled from TP-04-2020.

Chunks of slag from TP-06-2020.

4.2.2 Site 110 Fill Material

The primary component of fill at Site 110 is classified as coke breeze. Most test pits also contained varying amounts of silt, sand, gravel, coke, coal, red brick, and yellow fire brick. Several test pits also contained slag and one test pit (TP-10-2020) contained significant amounts of what was identified in the field as fly ash. Many test pits also contained debris including glass, wood, and plastic sheeting and fragments. These observations are generally consistent with historical test pits at Site 110, although historical test pits documented several test pits with "cinders", which were not seen during the Focused RI.

Many test pits from the Focused RI also contained "nodules." These are presumed to be a man-made material, potentially associated with a furnace of some sort. Nodules were typically the size of fine to medium gravel, generally smooth on the outside, ranged from deep red to brown to yellow in color, and were somewhat powdery when cracked open. Often, nodules appeared in wet, sandy fill layers and sometimes appeared to be oxidized on the outside.

In TP-14-2020, a blue sandy silt and woody debris fill with a strong sulfur-like odor was encountered overlying native soil in all test pit extents. In TP-51-2022 and TP-52-2022, a layer of red-brown wood chips with a strong chemical odor was encountered in each. There was a hard layer with minimal blue staining above the wood chips, but no blue staining on the wood chips themselves. The red-brown wood chips were not observed elsewhere on Sites 109 or 110 and are consistent with purifier residuals. The different characteristics of the blue and red-brown fill observed in TP-14-2020 and TP-51-2022 and TP-52-2022, respectively, demonstrate the variability in the appearance of purifier residuals.

At TP-07-2020, several large pieces of wood, possibly railroad ties that appeared to be coated with creosote or tar, were pulled from just beneath the surface. Tar materials were also encountered in several test pits throughout Site 110. Tar materials encountered had a variety of compositions and properties and are described in detail in the following section.

Breeze-rich fill also containing nodules and debris at TP-09-2020

Breeze and nodule fill overlying gray with yellow mottling, grading to red native clay at TP-11-2020.

Blue, woody fill at TP-14-2020.

Breeze, silt, and nodule fill at TP-12-2020.

4.2.3 Site 110 Tar Material

Based on test pits completed as part of the Focused RI, surface and subsurface tar is present in several locations within Site 110, however tar saturated material occurred only in relatively small and isolated areas. A summary of tar materials observed, locations, depths, and details are provided in **Table 1**, illustrated on **Figure 10**, and shown on test pit and monitoring well installation logs in **Appendices E and F**.

It appears that tar at Site 110 is the result of historical placement for disposal at the specific locations where tar was encountered, rather than subsurface migration, because tar was nearly always encountered as a pliable tar/fill mixture (i.e., generally mixed with breeze and sometimes other fill materials). These other materials were potentially used as a means of stabilizing tar for disposal based on observations during test pitting. Additionally, tar materials appeared as discontinuous layers and pockets of various types of tar products, rather than as a continuous sitewide layer.

4.2.3.1 TYPES OF TAR MATERIAL

The different varieties of tar material found at Site 110 have been classified into the following categories, which are based on consistency and composition and potential for mobility:

- **Tar Saturated**
  Tar saturated consists of relatively low viscosity tar that can drain from the soil matrix under gravity. Low viscosity was classified on the basis that tar was observed dripping from side walls in test pits or could be easily manipulated by hand. While the viscous Tar Saturated classification was based on observations of tar that may drain from a sidewall of an excavation after the adjacent soil has been removed, it is not necessarily indicative of subsurface mobility.

The top of a layer of tar saturated material at TP-34-2021.

- **Coated Material**
  Low viscosity tar that does not move independently from the matrix and the matrix is not saturated. Coated material observed included a breeze/soil/nodule mixture coated with low viscosity tar, as well as large railroad ties coated with low viscosity tar.

Coated railroad ties at TP-07-2020.

- **Pliable Tar and Pliable Tar/Fill Mixture**
  Does not move freely but can be deformed by hand pressure and will hold the deformed shape. Pliable tar was commonly observed as a tar/fill mixture, with tar and most commonly breeze or nodules, forming a pliable mixture. Pliable tar was also commonly encountered mixed with debris including plastic sheeting, metal cans, and concrete. Pliable tar/fill mixture was observed at Site 110 as both continuous layers and discrete chunks and pockets.

Chunk of pliable tar/fill mixture (mixed with breeze and nodules) at TP-35-2021.

- **Hardened/Solidified Tar, Hardened Tar/Fill Mixture**

  Does not move freely and cannot be deformed by hand. Hardened tar was commonly observed as a tar fill mixture, most frequently consisting of a hardened mix of tar, breeze, nodules, and sometimes C&D. Hardened/solidified tar often formed a solid ledge that was strong enough support its own weight when underlying material was removed. Hardened tar was also observed as small, discrete chunks.

Ledge of hardened tar at TP-33-2021.

4.2.3.2 DISTRIBUTION OF TAR MATERIALS AT SITE 110

Tar-saturated material, which is the only form of tar encountered at Site 110 that appears potentially mobile, was found in three very localized areas (**Figure 10**):

- Test pit TP-07-2020, which was previously identified as Tar Seep No. 1
- Test pits TP-34-2021 and TP-35-2021, which are adjacent to each other along the southern boundary of Site 110
- Test pit TP-33-2020 and monitoring well MW-06-2020, which are adjacent to each other

TP-07-2020 was excavated to investigate an area where surficial tar seeps had previously been observed. Pliable tar/fill mixture (mixed with breeze) and little tar-saturated material was observed from 2.5 to 3.5 ft bgs. Multiple additional test pits were excavated to the south, west, and north of TP-07-2020, and while pliable tar/fill mixture was encountered in test pits to the south and west, tar-saturated material was not encountered again.

TP-34-2021 and TP-35-2021 were excavated to investigate areas on the southern boundary of Site 110, along the former rail alignment, where surficial tar seeps had previously been observed. In TP-34-2021, tar-saturated material was encountered at 1.5 ft bgs and graded into pliable tar/fill mixture (mixed with breeze and nodules with some clay towards the bottom of the interval). TP-35-2021, pliable tar fill mixture as well as C&D debris coated with pliable tar was observed just beneath the surface. A mixture with varying amounts of tar, breeze, nodules, coke, gravel, and C&D continued to 7.7 ft bgs, with a discrete layer of tar-saturated material 3.0 to 3.25 ft bgs. Additional test pits were excavated to the east and west of TP-34-2021 and TP-35-2021 to determine the extent of tar, and tar was not observed in either direction. Additional test pits were excavated to the north as well to determine the extent of tar in this direction. Tar was not observed, but test pits did not reach native soil due to refusal on rubber debris.

During installation of monitoring well MW-06-2020, tar-saturated material was encountered from approximately 6 to 6.7 ft bgs, coinciding with a zone of groundwater saturation. To determine the extent of tar-saturated material, five test pits were dug in the vicinity of the well. Tar-saturated material was only encountered in one of these test pits, located directly south of the well. This test pit, TP-33-2020D, had tar-saturated material and hardened tar/fill mixture from 4.5 to 5.0 ft bgs. An additional pit (TP-33-2020F) was excavated to the south to delineate the extent of tar-saturated material. No tar was encountered in test pit TP-33-2020F.

4.3 Surface Water Hydrology

Surface water hydrology for Sites 109 and 110 are considered within the context of the site stormwater management program. At the time of the bankruptcy, the TCC facility discharged stormwater to the Niagara River under State Pollution Discharge Elimination System (SPDES) Permit Number NY0002399 (NYSDEC 2017) through three outfalls (**Figure 4**), identified as 001, 002, and 004. Outfall 003 was not in use at the time of the bankruptcy and there had been no flow from this outfall since 2008 (TCC 2016).

Outfall 001, located on Site 109, served as the historical discharge point for noncontact cooling water, boiler blowdown and stormwater runoff from the former production area after treatment in two concrete-lined settling/skimming ponds/lagoons, also located on Site 109.

Outfall 002, located on the BCP Site, at the southeastern boundary of Site 109, served and still serves as the discharge point for runoff from the coal and coke yards.

Outfall 004 discharges the combined flow from Outfalls 001 and 002 on Site 109 as well as flow from portions of the Tonawanda Plastics property. Outfall 004 discharges to a drainage ditch on the east side of River Road where it combines with flows from other industrial properties north and south of Site 109. The combined flow is conveyed through a culvert under River Road, into a drainage ditch on Site 108, and finally to the Niagara River.

As a condition of their SPDES permit, TCC developed a Best Management Practices Plan (BMP) in September 2016, which described institutional and engineering controls to minimize the potential for release of pollutants to waters of New York state (TCC 2016). Among others, these included maintenance and operation of the two concrete-lined settling/separation ponds at Outfall 001 located on Site 109 and a series of earthen settling/sedimentation basins in the coal and coke yards hydraulically upgradient of Outfall 002.

TCC surrendered their SPDES permit after the 2018 bankruptcy and the USEPA assumed management of stormwater controls on the BCP Site, Site 108, Site 109, and Site 110. The USEPA continued a program of monthly, quarterly, and semiannual monitoring through May 2020. Currently, stormwater for the property at 3875 River Road is managed under RITC's Stormwater Pollution Prevention Plan (SWPPP) (Inventum 2020a)

A drainage ditch that is part of the stormwater management system runs along the southern border of Site 109 and receives surface flow from Site 109 and the Tonawanda Plastics Site (**Figure 4**). This ditch flows west and drains into the Outfall 004 on the east side of River Road, which directs flow underneath the road onto Site 108. Another drainage ditch flows along the north side of Site 109 and directs surface water under the western berm and combines with flow from Outfall 004 and other discharges along and from River Road. The discharge combines with flow from the west side of River Road and Site 108 and is conveyed in a ditch that traverses Site 108 before flowing west into the Niagara River.

Site 110 is relatively remote from the site stormwater management system. Based on topography, surface water likely flows locally in all directions from the elevated mound near the center of the site. Based on the presence of wetlands (see Section 4.4) along the northeast and southeast site boundaries, some surface water may flow in these directions.

4.4 Wetlands

As part of RI/FS activities for the BCP Site described in the RI Work Plan (Inventum 2020b) prepared on behalf of RITC, a wetland delineation was conducted. The wetland delineation identified a wetland to the north of Site 110 that does not fall within Site 110. A 41-acre, state-regulated freshwater wetland, designated BW-6, borders Site 110 to the south and east, according to the NYSDEC Environmental Resource Mapper. The wetland delineation also identified four additional Palustrine Emergent (PEM) wetlands on Sites 109 and 110, totaling 0.908 acres (Earth Dimensions, Inc. 2021). The wetland delineation identified the wetlands as being non-federally jurisdictional under the Navigable Waters Protection Rule due to apparent lack of connectivity to an intermittent or perennial stream. A letter was submitted to the USACE and NYSDEC requesting Approved Jurisdictional Determination (AJD) for the investigation area. In a letter dated February 1, 2022, the NYSDEC determined that none of the wetlands identified are state regulated. In a letter dated January 6, 2023, the USACE issued a letter confirming that these areas are not waters of the U.S. and are not regulated under Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act of 1899. Correspondence with the USACE related to wetlands is included as **Appendix I.**

4.5 Hydrogeology

Fill on top of the clay layer is the uppermost water-bearing unit at the former TCC facility, including Sites 109 and 110. This is a perched fill unit and is likely a series of pocketed saturated areas, some of which are connected while others are isolated. Due to the irregular characteristics of the uppermost water-bearing unit, the fill water-bearing zone at Sites 109 and 110 cannot produce an adequate volume for groundwater use and is not suitable as a source of potable water. After purging, these wells required 24- to 36-hours to produce enough water to fill sample bottles before going dry.

Fill at Site 109 was noted to frequently contain large amounts of clay, likely contributing to low and variable permeability. Groundwater was not encountered during installation of any of the monitoring wells at Site 109. As a result, monitoring wells were installed dry, with the expectation that fill may transmit water seasonally. Water was also not encountered in any test pits at Site 109. Groundwater was present in Site 109 monitoring wells during subsequent gauging and sampling events (December 2020, January 2021, and September 2021);

however, during sampling, wells displayed low productivity and were slow to recharge. Average static water levels in Site 109 wells were:

- 8.11 ft bgs in December 2020
- 8.63 ft bgs in January 2021
- 7.88 ft bgs in September 2021

At Site 110, the fill was more commonly saturated than at Site 109, but the water-bearing unit in fill still appears to be discontinuous and highly dependent upon the nature of fill. During monitoring well installation at Site 110, water was observed at approximately 6 ft bgs in MW-04-2020 through MW-06-2020, 5 ft bgs in MW-07-2020, 2.5 ft bgs in MW-16-2020, 1.5 ft bgs at MW-23-2022, and 0.5 ft bgs in MW-08-2020. Groundwater was also encountered during excavation at 29 out of 50 test pit arms at Site 110. In test pits excavated at TP-07-2020, water was only encountered in two out of five excavations. In one of these excavations (TP-07-2020D), water was not encountered until a wooden pole was pulled from the sidewall, at which point water flowed from the cavity where the pole had been and inundated the test pit. The nature of water within this test pit exemplifies the highly variable nature of groundwater in the fill at Site 110, with the presence and flow of water being highly dependent upon the types of fill material. Average static water levels at Site 110 wells were:

- 3.96 ft bgs in December 2020
- 4.07 ft bgs in January 2021
- 5.13 ft bgs in September 2021
- 3.23 ft bgs in January 2023

Groundwater elevations were calculated for Sites 109 and 110 using static depths to water and top of PVC riser elevations from the site survey. Measured groundwater elevations for all gauging events are included in **Table 2**. Site 109 and 110 groundwater elevation contours from all gauging events are presented in **Figures 11a through 11c** (Site 109) and **12a through 12d** (Site 110). For gauging events that included contemporaneous water level measurements at Site 108, Tonawanda Plastics, and the BCP site (January and September 2021), groundwater elevation data from relevant wells at these sites were also used to develop Sites 109 and 110 modeled groundwater contours.

Although groundwater is likely discontinuous across the site due to the variable thickness and nature of fill, including some low-permeability, clay-rich fill, groundwater elevations from all three gauging events suggest that the groundwater gradient is generally to the west-southwest across Site 109.

Groundwater elevation data indicate that the groundwater gradient is extremely flat across Site 110. Data from all four monitoring events indicate a slight eastward gradient. Historical data from July 1992 also indicate a generally eastward groundwater gradient across Site 110.

The underlying clay unit has a hydraulic conductivity of about 3.3×10^{-8} centimeters per second in the dense, silty upper clay zone and 2.1×10^{-8} centimeters per second in the high plasticity lower clay zone, indicating that this unit serves as an aquitard to vertical groundwater movement (Inventum 2021c). Because the clay unit serves as an aquitard, vertical groundwater flow through clay is restricted. Therefore, groundwater flow primarily occurs horizontally within fill, along the top of the clay unit, and is likely controlled by the permeability of fill and local surface water discharge points.

Based on regional hydrogeology, the upper bedrock, which is at a depth of approximately 54 ft bgs to 50.7 ft-bgs at the BCP Site (Inventum 2021c), is expected to be water-bearing. However, given the aquitard between the water-bearing fill and bedrock, the two units are not hydraulically connected.

5.0 DATA SUMMARY AND NATURE AND EXTENT OF IMPACTS

5.1 Waste and Residual Characteristics

The coke plant at the former TCC facility heated coal in the absence of oxygen to separate the liquids and gasses from the coal and leave the residual carbon. The residual carbon, referred to as coke, was the primary product produced at the former TCC facility. The processes followed to produce coke and its associated by-products are well understood. The materials used and resulting from the production of coke that may have impacted materials disposed of at Sites 109 and 110 are also well understood:

- Coal

  Three types of metallurgical "met" coal were used to produce coke at the former TCC facility. Coal is a naturally occurring sedimentary material. For reference, **Table 3** includes analysis of a coal sample collected from the main plant site at the former TCC facility.

- Coke/Breeze

  Coke is the carbon left after the liquids and gasses have been removed from the met coal. Coke is a relatively inert material. Fine grained coke, typically resulting from crushing and screening, is referred to as breeze. For reference, **Table 3** includes analysis of a coke sample collected from the main plant site at the former TCC facility. The analysis indicates the effectiveness of the coking process in removing the VOC and SVOC constituents of coal.

- Tar

  Tar was removed from coal as part of the coke manufacturing process and was processed at the coke plant of the former TCC facility as part of the coke by-products operations. Tar in its production form was sold and used as a component of asphalt, roof shingles, and other commercial and industrial goods.

- Oil

  Oils containing benzene, toluene and xylenes and other chemicals were by-products of the coking operations. These compounds are similar to the components of gasoline. These liquids were present in containers, pipes, tanks, and process equipment at the main plant. In their pure clean form, they are used to produce other chemicals and plastics. Fuel oil, diesel fuel and lubricating oils were used for power production, heavy equipment, rail operations, and machinery.

The majority of these materials can be identified at Sites 109 and 110 either by their physical characteristics or by the presence of their component constituents:

- VOCs

  Found predominately in light oils. The majority of VOCs produced at TCC were conveyed and consumed in the coke oven gas (COG) at former TCC facility or sold for further refining and use as feedstock for manufacturing. VOCs are also found at low concentrations in coal.

- SVOCs

  Prevalent in coal, coke, tar, oils, and ash.

- Polycyclic aromatic hydrocarbons (PAHs)
  A subset of the SVOCs and present in coal, coke, tar, oils, and ash.

- Naphthalene

  A by-product of coke making and prevalent in coke oven gas (COG) residuals and the process equipment from the tar processing area, through the concentrators, and precipitators. Also present in coal and tar.

- Cyanide
  A constituent of the COG and present in the gas processing equipment. Cyanide was concentrated historically in the purifier boxes before the COG was sold for off-site consumption.

5.2 Standards, Criteria, and Guidance (SCG) Identification

This RI Report evaluates the extent to which SCGs have been exceeded. This includes consideration of SCGs related to soil and groundwater, as detailed below.

5.2.1 Soils

A soil cleanup level may be derived from one or more of the following:

- New York Codes, Rules, and Regulations 6 NYCRR 375-6.8(a) or (b)
- Modified from the regulatory value based on site-specific characteristics
- Based on other information, including background levels or feasibility

Feasibility means suitable to site conditions, capable of being successfully carried out with available technology, implementable and cost effective (see 6 NYCRR 375-1.2(s)).

Future use of Sites 109 and 110 will be commercial, therefore surface and subsurface soil data are compared to Commercial Use Soil Cleanup Objectives (SCOs), as established in 6 NYCRR Part 375 (NYSDEC 2006). A total PAH concentration of 500 mg/kg may be used as a soil cleanup level in lieu of achieving all of the PAH-specific SCOs in 6 NYCRR 375-6 for non-residential use sites (i.e., commercial or industrial use sites) for all subsurface soil, which is defined for this provision as “soil beneath permanent structures, pavement, or similar cover systems; or at least one foot of soil cover (which must meet the applicable SCOs)” (NYSDEC 2010b).

PFAS soil results are compared to Commercial guidance values included in *Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs* (NYSDEC 2021).

Fill material at the site is primarily historically placed soils but also includes other materials such as ash and breeze. For convenience, references to soil and comparisons to soil SCOs include fill soils, underlying native soils, and surface and subsurface materials that are non-soil fill, such as ash and breeze, as well as mixtures of these materials and soil.

5.2.2 Groundwater

Groundwater data for VOCs, SVOCs, PCBs, pesticides, cyanide, and metals are compared to Class GA water quality standards and guidance values under Division of Water *Technical and Operational Guidance Series* (TOGS) 1.1.1. (NYSDEC 1998). Groundwater data for PFAS are compared to the screening levels established in 2023 Addendum June 1998 *Division of Water Technical and Operational Guidance No. 1.1.1* (NYSDEC 2023).

5.3 Data Validation and Usability Reports (DUSRs)

Analytical results from all samples were validated and reviewed by Parsons for usability with respect to the following requirements:

- Final Work Plan, Focused Remedial Investigation and Feasibility Study for Operable Units 1 (Site 110) and 2 (Site 109), Tonawanda Coke Site (Parsons 2020), including the QAPP
- USEPA Region II Standard Operating Procedures (SOPs) for organic and inorganic data review
- *Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs* (NYSDEC 2021)

The analytical laboratory for this project was ALS in Rochester, New York. This laboratory is certified to conduct project analyses through the New York State Department of Health (NYSDOH) and the National Environmental Laboratory Accreditation Program (NELAP).

Certain reported results were qualified as estimated based on various factors. The reported analytical results for all analyses were 100 percent complete (i.e., usable).

5.4 Investigation Results and Nature and Extent of Impacts by Media

Analytical results for samples collected during the Focused RI, organized by site and sample media, are presented in the following subsections. Analytical results are compared to SCGs as described in Section 5.2. Based on analytical results, as well as the results from historic investigations, a discussion of the extent of impacts for each sample media is also provided.

5.4.1 Site 109

5.4.1.1 SURFACE AND SUBSURFACE SOIL

Validated surface (0.0 to 0.16 ft bgs and 0.16 to 1.0 ft bgs) and subsurface (greater than 1.0 ft bgs) soil sample analytical results and exceedances of SCGs from the 2020/2021 Focused RI are shown in **Table 4** and data from historical investigations are included in **Appendix C**. Complete subsurface soil analytical results from the Focused RI are included in the DUSR in **Appendix H**. Soil sample results summarized below are inclusive of historical and Focused RI data collected from test pits, monitoring wells, and soil borings in drainage ditches.

As shown on **Figure 13 through 17**, Commercial SCGs are exceeded for one or more compounds in at least one surface soil sample from 13 of the 14 Focused RI and historical sample locations. Exceedances of SCGs in subsurface soil are less frequent than in surface soils, with at least one compound exceeding Commercial SCGs in five of the nine Focused RI soil sample locations. Concentration of some SVOCs and one metal exceed Commercial SCGs as detailed in the following subsections. These results are consistent with historical data, which indicate SVOC exceedances of Commercial SCGs, but no exceedances for VOCs, metals, or cyanide.

NYSDEC has determined that the Soil SCGs for the Protection of Ecological Resources would also be applicable to the surface soils within the onsite ditch. These criteria are typically lower than the Commercial Use SCGs. Ditch soil results were not compared directly to these criteria, however, given that all ditch surface soil samples exceeded the Commercial Use SCGs, they would also exceed the SCGs for the Protection of Ecological Resources.

5.4.1.1.1 Volatile Organic Compounds

There were no exceedances of Commercial SCGs for any VOCs, indicating VOC impacts to soils at Site 109 are not a concern.

5.4.1.1.2 Semivolatile Organic Compounds

Results indicate SVOC concentrations exceeded the Commercial SCG in at least one sample from 14 of the 15 sampled locations, as shown on **Figures 14 through 16**. All SVOCs that exceed standards are PAHs. The SVOCs that exceed SCGs are:

- benzo(a)anthracene
- benzo(a)pyrene
- benzo(b)fluoranthene
- chrysene
- dibenzo(a,h)anthracene
- indeno(1,2,3-cd)pyrene.

SVOC exceedances and the range of concentrations in surface and subsurface soil are summarized in the following table:

Compound	Frequency of Exceedances (out of 28 collected samples)[1]	Commercial SCG (mg/kg)	Minimum Concentration (mg/kg)	Maximum Concentration (mg/kg)	Average Concentration (mg/kg)[2]
Benzo(A)Anthracene	7	5.6	0.014	96	9.3
Benzo(A)Pyrene	19	1	0.021	86	9.0
Benzo(B)Fluoranthene	8	5.6	0.023	83	9.1
Chrysene	1	56	0.015	70	6.8
Dibenzo(a,h)Anthracene	8	0.56	0.0042	9	1.1
Indeno(1,2,3-Cd)Pyrene	8	5.6	0.016	40	5.7
Total PAHs	1	500	0.18	940	91

Notes:

1. Frequency denotes the number of wells where exceedance occurred during at least one sampling event.
2. For non-detects, half of the detection limit was used for calculating the average.

Surface soil (0.0 to 0.16 ft bgs and 0.16 to 1.0 ft bgs) exceedances for SVOCs are widespread across Site 109, with nine out of nine Focused RI surface soil sample locations showing concentrations exceeding the Commercial SCGs in one or both surface soil sample intervals. These results are consistent with historical investigations, which indicate SVOC exceedances of Commercial SCGs at four out of five sample locations.

The highest SVOC concentrations in surface soil from the 2020 Focused RI occur in samples from SB-01-2020 and SB-02-2020, which are both located within an on-site drainage ditch that runs along the south side of the site. Subsurface soil samples did not exceed Commercial SCGs at these locations, indicating the elevated concentrations in surface soils may be due to spills from the former elevated coal conveyor running through this area and/or due to erosion and transport of soils impacted with coal and coke from areas upgradient of Site 109 into the on-site drainage ditch.

Hand clearing at drainage ditch soil sample location SB-01-2020.

Exceedances of SCGs for SVOCs in subsurface soil are less widespread than for surface soil, with five out of nine sampled locations having concentrations of at least one SVOC exceeding the Commercial SCGs. The highest subsurface SVOC concentrations in subsurface soil were detected in a sample from TP-01-2020, excavated in the western berm, which contained coal in the sample interval, likely contributing to elevated PAH concentrations. The sample collected from stained clay around potentially creosote-treated poles in TP-04-2020 only contained one low-level SVOC exceedance, indicating that surrounding soil is not significantly impacted by the utility pole.

The maximum total PAH concentrations measured at each sampling location are shown in **Figure 16**. Total PAH concentrations exceeding the Commercial SCG of 500 milligrams per kilogram (mg/kg) only occurred in one sample from one location during the 2020/2021 Focused RI (the 0.0 to 0.16 ft bgs depth interval at SB-02-2020) and one sample during historical investigations (SS-9). Elevated concentrations in the sample from SB-02-2020 may be due to spills from the former elevated coal conveyor running through this area and/or due to erosion and transport of soils impacted with coal and coke from areas upgradient of Site 109 into the on-site drainage ditch. This sample was collected from the area of a road leading from the truck scale area to the settling ponds and “coke dust” was noted in historical sample SS-9, potentially contributing to elevated levels of PAHs in this sample (CRA 2008). Additionally, all samples that yielded the highest concentrations of PAHs, including those within the onsite drainage ditch, contained varying amounts of breeze, coke, and/or coal, based on field examination, while the majority of fill at Site 109 consists of C&D debris (brick, concrete, silt). In general, samples collected from C&D debris, in the absence of breeze, coke, and/or coal, yielded lower PAH concentrations than samples collected from breeze, coke, and/or coal. Therefore, it appears that breeze, coke, and/or coal in fill and ditch surface soils are likely the source of PAHs in soil samples from Site 109.

5.4.1.1.3 PFAS

There were no exceedances of Commercial SCGs for PFAS compounds, indicating PFAS impacts to soils at Site 109 are not a concern.

5.4.1.1.4 Pesticides and PCBs

There were no exceedances of Commercial SCGs for pesticides or PCBs, indicating pesticides and PCB impacts to soils at Site 109 are not a concern.

5.4.1.1.5 Metals

Except for arsenic in one sample (0.0 to 0.16 ft bgs at SB-01-2020 (25.7 mg/Kg v a commercial SCG of 16 mg/Kg), no metals concentrations exceed Commercial SCGs, as shown on Figure 17. These results indicate that metals impact to soils at Site 109 are not a concern.

5.4.1.1.6 Cyanide

Cyanide concentrations do not exceed SCGs in any samples, indicating that cyanide impacts to soils at Site 109 are not a concern.

5.4.1.2 GROUNDWATER

As discussed in Section 3.1.3.2, each of the three newly installed wells, along with the existing well, were sampled in December 2020 and September 2021. In addition to total (unfiltered) constituents, the September 2021 sampling included collection of samples for dissolved (field filtered) constituents for SVOCs, PCBs, metals, and cyanide. Validated groundwater analytical results for detected compounds are summarized and compared to Class GA SGCs on Table 5 and Table 6 and illustrated on Figure 18. Complete groundwater analytical results are included in the DUSR in Appendix H.

SVOCs, metals, and PCBs were detected in concentrations exceeding SCGs during the December 2020 sampling event. Only metals were detected in concentrations exceeding Class GA SGVs during the September 2021 sampling event. PFAS and pesticides were not detected in concentrations exceeding SGVs during the December 2020 sampling event and were therefore not analyzed for during the September 2021 sampling event.

Exceedances of SCGs are discussed in the following subsections. Based on the groundwater sampling results discussed below, impacts to groundwater are not a significant concern at Site 109.

5.4.1.2.1 Volatile Organic Compounds

There were no exceedances of SCGs for VOCs in Focused RI or historical groundwater samples, indicating that VOC impacts to groundwater at Site 109 are not a concern.

5.4.1.2.2 Semivolatile Organic Compounds

SVOCs were only exceeded at the upgradient well (MW-01-2020) during the 2020 sampling event. SVOCs were not detected above the groundwater SCGs in samples from this well or any other wells during the 2021 sampling event. Groundwater from MW-01-2020 is representative of conditions upgradient of Site 109 or of conditions at the upgradient edge of Site 109 and is not indicative of site-wide impacts to groundwater at Site 109. Historically, chrysene was detected in exceedance of the SCG in one sample from MW-4, which is generally upgradient. Data indicates SVOCs are not migrating through Site 109 in groundwater and Site conditions are not contributing significantly to SVOCs in groundwater, indicating that SVOC impacts to groundwater are not a concern at Site 109.

5.4.1.2.3 PFAS

There were no exceedances of SCGs for PFAS, indicating that PFAS impacts to groundwater at Site 109 are not a concern.

5.4.1.2.4 Pesticides

There were no exceedances of SCGs for pesticides, indicating that pesticide impacts to groundwater at Site 109 are not a concern.

5.4.1.2.5 PCBs

Total PCBs were detected slightly above SCGs (0.091 ug/L versus the SCG of 0.09 ug/L) at monitoring well MW-02-2020 during the 2020 sampling event. PCBs were not detected in samples from any other wells in 2020, were not detected in any samples in 2021, and have historically not been detected in Site 109 groundwater, indicating that PCB impacts to Site 109 groundwater are not a concern

5.4.1.2.6 Metals

Concentrations of at least one metal exceeded SCGs in all wells sampled in 2020 and 2021. Concentrations of six metals exceeded SCGs (iron, magnesium, manganese, sodium, thallium, and antimony) in at least one monitoring well. Metals exceedances and the range of concentrations in unfiltered groundwater samples are summarized in the following table:

Compound	Frequency of Exceedances (out of 4 sampled wells)[1]	Class GA SCG (ug/l)	Minimum Concentration (ug/l)	Maximum Concentration (ug/l)	Average Concentration (ug/l)[2]
Iron	4	300	100 U	2200	800
Magnesium	4	35000	12600	414000	106000
Manganese	3	300	4.5	823	300
Sodium	7	20000	31900	467000	170000
Thallium	2	0.5	9	9	6

Notes:
1. Frequency denotes the number of wells where exceedance occurred during at least one sampling event.
2. For non-detects, half of the detection limit was used for calculating the average.
3. U indicates the analyte was not detected at the provided detection limit.

The presence and concentration of four of the metals (Iron, Manganese, Magnesium, and Sodium) are considered to be representative of naturally occurring background concentrations. Concentrations of these metals in groundwater are generally elevated throughout the Tonawanda, New York area.

Concentrations of thallium and antimony exceeded their SCGs at the upgradient well (MW-01-2020) during the Focused RI. Groundwater from MW-01-2020 is representative of conditions upgradient of Site 109 or of conditions at the upgradient edge of Site 109. The nearby monitoring wells MW-BCP-15A and MW-BCP-16A at the BCP Site were non-detect for these contaminants in 2021 and 2022. In general, the groundwater sampling events completed at the BCP Site have not identified antimony and thallium in concentrations that could be impacting Site 109. Localized thallium and antimony impacts may be due to leaching of coal combustion byproducts, particularly fly ash, as discussed below.

Thallium also exceeded its SCG at downgradient well MW-03-2020 in 2021. Samples from this well were not analyzed for metals during the 2020 sampling event due to insufficient productivity from the well. Other than at the upgradient well, discussed above, this was the only well at Site 109 where the thallium concentration was detected above its SCG. Thallium is commonly found in coal combustion products, particularly fly ash, which was observed within the screened interval during well installation. Leaching of thallium from this material is a potential cause of thallium observed in the groundwater sample. Given the limited distribution of fly ash at Site 109 and the limited detections of thallium in groundwater, there are not significant site-wide sources or associated thallium impacts to groundwater at Site 109 and offsite migration is unlikely. Monitoring well MW-15-2020 was planned for installation at Site 108. This location is downgradient of MW-03-2020. However, only two feet of fill, unsaturated, was found overlying the clay layer at this location, therefore no well was installed. These results further indicate offsite migration is unlikely.

Metals concentrations in field filtered samples did not show significant decreases in comparison to unfiltered samples. This indicates that elevated metals concentrations detected are not due to suspended solids in samples. Metals exceedances in dissolved (field filtered) groundwater samples are summarized in the following table:

Compound	Frequency of Exceedances (out of 4 sampled wells) [1]	Class GA SCG (ug/l)	Minimum Concentration (ug/l)[2]	Maximum Concentration (ug/l)	Average (ug/l)
Antimony	1	3	10.5	10.5	30
Iron	2	300	61.4	1990	1000
Magnesium	2	35000	15800	514000	180000
Manganese	2	300	10 U	811	400
Sodium	4	20000	81700	264000	156000
Thallium	1	0.5	10 U	13.1	7

Notes:

1. Frequency denotes the number of wells where exceedance occurred during at least one sampling event.
2. Values with a U qualifier are halved for calculating the average.
3. U indicates the analyte was not detected at the provided detection limit.

5.4.1.2.7 Cyanide

Although one historical sample from MW-17-89 contained cyanide that exceeded the SCG, the sample concentrations from this well in 2020 and 2021 were below the cyanide SCG. Given that there is only one historical cyanide exceedance and no samples from the Focused RI resulted in cyanide concentrations exceeding the SCG, cyanide impacts to groundwater at Site 109 are not a concern.

5.4.2 Site 110

5.4.2.1 SURFACE AND SUBSURFACE SOIL

Validated surface (0.0 to 0.16 ft bgs and 0.16 to 1.0 ft bgs) and subsurface (greater than 1.0 ft bgs) soil analytical results and exceedances of SCGs from the 2020/2021 Focused RI are shown in **Table 7** and data from historical investigations are included in **Appendix C**. Complete subsurface soil analytical results are included in the DUSR in **Appendix H**. Soil sample results summarized are inclusive of those collected from test pits and monitoring wells.

As shown on **Figures 19 through 24**, Commercial SCGs are exceeded for one or more compound in at least one surface soil sample from all 17 Focused RI and historical sample locations. Exceedances of SCGs in subsurface soil are slightly less frequent than in surface soil, with at least one compound exceeding Commercial SCGs in 14 out of 17 subsurface soil sample locations. Concentrations of VOCs, SVOCs, metals, and cyanide exceed Commercial SCGs as detailed in the following subsections.

5.4.2.1.1 Volatile Organic Compounds

Benzene exceeds the Commercial SCG in one sample (6.0 to 6.5 ft bgs at TP-34-2021), as shown on **Figure 24**. This sample was collected from an interval containing pliable tar/fill mixture. Samples that were collected from directly beneath tar samples do not have VOC impacts, indicating that VOCs and tar itself are not significantly migrating into the soil matrix. Historically, VOCs have not been detected exceeding SCGs in surface or subsurface soil samples. Given that there is only one isolated exceedance, VOC impacts to soils at Site 110 are not a significant site-wide concern based on commercial SCG exceedances. However, given that groundwater is impacted by VOCs at one well (MW-06-2020), as discussed in Section 5.4.2.2.1, and VOCs are constituents of tar present at Site 110, tar and tar-impacted soils may be a localized source of VOC impacts to groundwater in the vicinity of monitoring well MW-06-2020.

5.4.2.1.2 Semivolatile Organic Compounds

Results indicate SVOC concentrations exceeded the Commercial SCGs in at least one sample from all sampled locations, except TP-51-2022, as shown on **Figures 20 through 22**. These results are consistent with historical data, which show exceedances for SVOCs in surface and subsurface soil samples. Nearly all SVOCs that exceed standards are PAHs. The SVOCs that exceed SCGs most frequently are:

- benzo(a)anthracene
- benzo(a)pyrene
- benzo(b)fluoranthene
- chrysene
- dibenzo(a,h)anthracene
- indeno(1,2,3-cd)pyrene

SVOC exceedances in surface and subsurface soil are summarized in the following table:

Compound	Frequency of Exceedances (out of 44 collected samples)	Commercial SCG (mg/kg)	Minimum Concentration (mg/kg)	Maximum Concentration (mg/kg)	Average Concentration (mg/kg)
2-Methylphenol	1	500	0.017	1100	28
3&4-Methylphenol	1	500	0.021	2700	61
Phenol	1	500	0.031	1600	38
Acenaphthene	1	500	0.048	750	28
Acenaphthylene	1	500	0.047	6400	160
Anthracene	1	500	0.031	5500	140
Benzo(A)Anthracene	27	5.6	0.04	4700	140
Benzo(A)Pyrene	38	1	0.053	4400	140
Benzo(B)Fluoranthene	30	5.6	0.059	4400	140
Benzo(G,H,I)Perylene	1	500	0.022	1900	72
Benzo(K)Fluoranthene	3	56	0.021	1900	57
Chrysene	9	56	0.042	4300	130
Dibenzo(a,h)Anthracene	34	0.56	0.0069	3400	49
Dibenzofuran	1	350	0.033	4500	110
Fluoranthene	2	500	0.077	13000	370
Fluorene	1	500	0.045	7300	180
Indeno(1,2,3-Cd)Pyrene	27	5.6	0.023	2200	81
Naphthalene	2	500	0.12	25000	770

Compound	Frequency of Exceedances (out of 44 collected samples)	Commercial SCG (mg/kg)	Minimum Concentration (mg/kg)	Maximum Concentration (mg/kg)	Average Concentration (mg/kg)
Phenanthrene	3	500	0.096	19000	490
Pyrene	2	500	0.069	8300	250
Total PAH	10	500	1.9	110000	3200

Notes:

1. Frequency denotes the number of wells where exceedance occurred during at least one sampling event.
2. Values with a U qualifier are halved for calculating the average.
3. U indicates the analyte was not detected at the provided detection limit.

Surface soil exceedances for SVOCs are widespread across Site 110, with all 13 Focused RI sample locations showing concentrations exceeding Commercial SCGs in one or both surface soil sample intervals. These results are consistent with historical investigations, which indicate SVOC exceedances of Commercial SCGs at all five sampled locations. Because SVOC concentrations in surface soil exceed SCGs at all sampled locations, SVOCs in surface soil appear to be consistent with the widespread presence of coal and coke (Section 4.2.2) throughout Site 110 and are not associated with any specific area or activity.

Exceedance of SCGs for SVOCs in subsurface soil are slightly less widespread than for surface soil, with at least one subsurface soil sample from 13 out of 17 sample locations yielding SVOC concentrations exceeding Commercial SCGs.

The maximum total PAH concentrations measured at each sample location are shown in **Figure 23**. Total PAH concentrations exceeding 500 mg/kg occur in ten samples from seven locations. Exceedances of the total PAH SCG are scattered and intermittent, with no clear spatial trend. The total PAH SCG was exceeded in the surface interval in six samples and was exceeded in a subsurface interval in four samples. MW-04-2020 was the only location where the total PAH SCG was exceeded in both a surface and subsurface interval.

Approximately half of the soil samples with total PAH concentrations exceeding 500 mg/kg contained tar in the sample interval, as either a continuous layer, globs/chunks, or as coated material. The data strongly supports that there are multiple sources of PAHs present, including tar. The other exceedances of the alternate SCG of 500 parts per million total PAHs is likely due to coal, coke, or other industrial wastes present at the location. Additional discussion of tar material encountered at Site 110 is included in Section 4.2.3.2. The highest PAH concentrations occur in the sample from TP-34-2021, which was collected along the former rail lines and from within a thick, continuous layer of pliable tar/fill mixture.

Of the samples that exceed the 500 mg/kg total PAHs that were not impacted by tar, all contained coal either in the sample interval or elsewhere in the test pit, indicating that residual coal present in these is contributing the elevated PAH concentrations.

While samples from intervals containing tar may result in elevated SVOC concentrations, tar does not appear to significantly impact the quality of adjacent soil. The subsurface sample from MW-06-2020 was collected directly beneath tar-saturated material and the subsurface sample from TP-07-2020 was collected 0.5 ft below tar-saturated material and a known tar seep. Individual SVOC concentrations from these samples do not exceed any SCGs and total PAH concentrations also do not exceed the SCG. This suggests that tar-saturated material, which is the least viscous tar product encountered, does not appear to migrate vertically to impact the quality of underlying soil.

Further discussion of the physical properties of the tar products encountered at Site 110 is included in Section 4.2.3.

5.4.2.1.3 PFAS

There were no exceedances of SCGs for PFAS, indicating that PFAS impacts to soil at Site 110 are not a concern.

5.4.2.1.4 Pesticides and PCBs

There were no exceedances of SCGs for pesticides and PCBs, indicating that pesticide and PCB impacts to soil at Site 110 are not a concern.

5.4.2.1.5 Metals

Only three metals, arsenic, mercury, and barium, exceed Commercial SCGs in Site 110 soil samples from the Focused RI. At least one of these metals exceed SCGs in six samples from four locations, as shown in **Table 7**. There is no spatial pattern of locations with metals concentrations exceeding SCGs. Metals exceedances are likely due to the presence of historic fill throughout the site. Historical soil samples did not identify concentrations of metals that exceeded the SCGs. Metals exceedances in soil are summarized in the following table:

Compound	Frequency of Exceedances (out of 44 collected samples)[1]	Commercial SCG (mg/kg)	Minimum Concentration (mg/kg)	Maximum Concentration (mg/kg)	Average Concentration (mg/kg)
Arsenic	2	16	2.9	21.9	9.3
Barium	3	400	10.9	505	130
Mercury	1	2.8	0.015	6.5	0.6

Notes:
1. Frequency denotes the number of wells where exceedance occurred during at least one sampling event.
2. Values with a U qualifier are halved for calculating the average.
3. U indicates the analyte was not detected at the provided detection limit.

5.4.2.1.6 Cyanide

Cyanide only exceeded the Commercial SCG in one sample from one location (3.25 to 4.0 ft bgs at TP-14-2020, estimated concentration 123J mg/Kg v SCG of 27 mg/Kg). This sample was collected from a blue sandy silt and woody debris fill with a strong sulfur-like odor. Fill with woodchips was also observed in TP-51-2022 and TP-52-2022, but samples from these locations did not exceed the Commercial SCG for cyanide. This fill was not observed anywhere else on Sites 109 or 110 and is consistent with purifier waste, which would be expected to contain elevated concentrations of cyanide.

However, because this product was only encountered at three locations, and cyanide concentrations are below SCGs at all other sample locations, cyanide impacts to soil at Site 110 are localized to the specific deposit of this by-product and are not of concern for the remainder of the site. Cyanide concentrations have not been detected exceeding the SCG in historical surface or subsurface soil samples at Site 110.

5.4.2.2 GROUNDWATER

As discussed in Section 3.2.2.2, each of the four groundwater monitoring wells installed in October 2020 were sampled in December 2020. All six new Site 110 monitoring wells (including the four installed in October 2020 and the two installed in July 2021) were sampled in September 2021. In addition to total (unfiltered) constituents, the September 2021 sampling included collection of samples for dissolved (field filtered) SVOCs, PCBs, metals, and cyanide. MW-23-2022 was sampled in January 2023 for total (unfiltered) constituents, and for dissolved (field filtered) SVOCs, PCBs, metals, and cyanide. Validated groundwater analytical results for detected compounds are summarized and compared to Class GA SCGs on **Tables 8, 9 and 10** and shown on **Figure 25**. Historical groundwater sampling results are shown on **Figure 26**.

As discussed in Section 3.2.2.2, MNA parameters were also collected from a subset of Site 110 wells. Results of MNA sampling are summarized in **Table 11** and will be used for remedial alternative evaluation during the FS. Complete groundwater analytical results from the Focused RI are included in the DUSR in **Appendix H**.

VOCs, SVOCs, pesticides, cyanide, and metals were detected in concentrations exceeding SCGs in samples from the December 2020 sampling event. VOCs, SVOCs, cyanide, and metals were also detected in concentrations exceeding SCGs during the September 2021 sampling event; pesticides were not analyzed for during the 2021 event. Metals were detected in concentrations exceeding SCGs in samples from the January 2023 sampling event. Exceedances of SCGs are detailed in the following subsections.

5.4.2.2.1 Volatile Organic Compounds

VOCs were detected in concentrations exceeding SCGs in groundwater samples from one location during the Focused RI. Samples collected from MW-06-2020 exceeded SCGs for seven VOCs in 2020 and nine VOCs in 2021, including BTEX compounds.

VOC exceedances in total groundwater samples are summarized in the following table:

Compound	Frequency of Exceedances (out of 12 collected samples)[1]	Class GA SCG (ug/l)	Minimum Concentration (ug/l)[3]	Maximum Concentration (ug/l)	Average Concentration (ug/l)[2]
Benzene	2	1	0.5	430	62
Chloroform	1	7	1 U	70	6.3
Chloromethane	1	5	1 U	250	21
Ethylbenzene	2	5	1 U	1700	230
Isopropylbenzene	2	5	1 U	44	6.4
m&p-Xylenes	2	5	2 U	3000	420
o-Xylene	2	5	1 U	1100	150
Styrene	2	5	1 U	260	37
Toluene	2	5	1 U	1700	250

Notes:
1. Frequency denotes the number of wells where exceedance occurred during at least one sampling event.
2. Values with a U qualifier are halved for calculating the average.
3. U indicates the analyte was not detected at the provided detection limit. Results from MW-06-2020 were excluded from maximums and averages because results from MW-06-2020 with U qualifier were one to two orders of magnitude above other results.

Groundwater elevation data indicate that the groundwater gradient is extremely flat across Site 110 but tends to have a slight eastward direction. Monitoring well MW-16-2020 is located approximately 100 feet east (downgradient) of MW-06-2020. The sample collected from this well did not contain VOCs in concentrations exceeding SCGs, indicating that VOC impacts observed at MW-06-2020 are not indicative of a sitewide plume, but rather, are localized impacts, likely related to subsurface tar observed during monitoring well installation, and further evidenced by tar-like odors and sheen observed during purging for groundwater sampling. Historical data indicate VOC exceedances at MW-3 and its replacement, MW-3R, which are located slightly off-site of Site 110, to the southwest. However, as described in Section 2.3, a 2005 IRM mitigated groundwater impacts through the removal of subsurface tar in this area, (Conestoga-Rovers & Associates 2008), further indicating that VOC impacts to groundwater at Site 110 are limited to localized impacts.

5.4.2.2.2 Semivolatile Organic Compounds

SGCs were exceeded for multiple SVOCs during one or both of sampling events for all monitoring wells except MW-05-2020 and MW-08-2020. SVOC exceedances in total (unfiltered) groundwater samples are summarized in the following table:

Compound	Frequency of Exceedances (out of 12 collected samples)[1]	Class GA SCG (ug/l)	Minimum Concentration (ug/l)[3]	Maximum Concentration (ug/l)	Average Concentration (ug/l)[2]
’,1'-Biphenyl	2	5	0.93 U	67	9.2
2-Methylphenol	1	1	0.93 U	5.4	4.4
3&4-Methylphenol	1	1	0.93 U	4.7	4.3
Acenaphthene	2	20	0.16	120	19
Benzo(A)Anthracene	4	0.002	0.15	0.36	0.19
Benzo(A)Pyrene	4	ND	0.12	0.39	0.18
Benzo(B)Fluoranthene	4	0.002	0.14	0.38	0.18
Benzo(K)Fluoranthene	3	0.002	0.089	0.14	0.13
bis-(2-Ethylhexyl)Phthalate	1	5	4.7 U	6.3	3.6
Chrysene	4	0.002	0.1	0.34	0.16
Fluorene	2	50	0.14	83	12
Indeno(1,2,3-Cd)Pyrene	2	0.002	0.13	0.25	0.15
Naphthalene	2	10	0.078	18000	2300

Notes:
1. Frequency denotes the number of wells where exceedance occurred during at least one sampling event.
2. Values with a U qualifier are halved for calculating the average.
3. U indicates the analyte was not detected at the provided detection limit. Results from MW-06-2020 were excluded from maximums and averages because results from MW-06-2020 with U qualifier were one to two orders of magnitude above other results.

The highest SVOC concentrations were measured in MW-06-2020. As discussed in Section 5.4.2.2.1, subsurface tar was observed during installation of this monitoring well, and tar-like odors and sheen were observed during purging for groundwater sampling, indicating tar is likely contributing to SVOC concentrations at this location. There were no exceedances of SVOC SCGs during any sampling event at MW-05-2020 and at MW-23-2022, both of which are located to the north and east (downgradient) of the mounded area where pliable tar was frequently noted during test pitting, indicating pliable tar is not contributing significantly to SVOCs in groundwater at these locations. The lack of SVOC impacts at MW-05-2020 and MW-23-22 indicates that SVOC impacts to groundwater resulting from tar are relatively localized and/or these wells are not in significant communication with other areas due to the heterogeneous nature and hydrogeology of the fill. As discussed in Section 4.5, this is a perched fill unit and is likely a series of pocketed saturated areas, some of which are connected while others are isolated.

The only SVOC exceeding SCGs at MW-08-2020, which is located on the adjacent National Grid property, was bis(2-ethylhexyl)phthalate, which is a manufactured chemical found in plastics and is not a site-related constituent. It is a common laboratory contaminant. For example, it was detected in various laboratory method blanks for the Focused RI soil/sediment data. Further, the compound was only detected in concentrations exceeding SCGs in the dissolved sample, indicating that it could be due to lab contamination. The lack of SVOC impacts at MW-08-2020 indicates SVOC groundwater impacts are not migrating significantly eastward off Site 110.

The majority of compounds exceeding SCGs are PAHs. Concentrations of the following PAHs exceeded SCGs in at least one sample from MW-04-2020, MW-07-2020, and MW-16-2020:

- benzo(a)anthracene
- benzo(a)pyrene
- benzo(b)fluoranthene
- benzo(k)fluoranthene
- chrysene

The concentration of indeno(1,2,3-cd)pyrene also exceeds the SCG in samples from MW-04-2020 and MW-23-2022. Benzo(a)anthracene and benzo(b)fluoranthene are the only PAHs with concentrations exceeding SCGs in the sample from MW-23-2022.

As described in Section 3.2.2.2, samples were analyzed for both dissolved and total SVOCs during the 2021 and 2023 field sampling events in order to evaluate the impact of suspended solids, which SVOCs tend to sorb to, on total SVOC concentrations. The above compounds were not detected in field filtered samples from MW-04-2020, MW-07-2020, MW-16-2020, and MW-23-2022 wells, aside from one detection for benzo(b)fluoranthene in the duplicate sample from MW-16-2020, indicating that elevated concentrations in total constituent (unfiltered) samples are likely influenced by the presence of suspended solids with sorbed PAHs.

Samples collected from MW-06-2020 resulted in a unique set of SVOCs exceeding SCGs, which were not observed to exceed the SCGs in any other wells at Site 110. Concentrations of the following compounds were uniquely detected in this well at concentrations exceeding SCGs in at least one sampling event:

- 1,1'-biphenyl
- 2-methylphenol
- 3&4-methylphenol
- acenaphthene
- fluorene
- naphthalene

The source of these PAHs is uncertain but may be due to the presence of subsurface tar within the saturated zone observed during well installation and further evidenced by sheen and tar-like odors during purging for groundwater sampling. MW-06-2020 is the only well where subsurface tar-saturated material was observed in the saturated zone during drilling, and these compounds are all commonly found in tar. However, other Site 110 wells that are located proximal to tar do not have detections of the unique set of SVOCs detected in MW-06-2020. SVOC concentrations did not decrease significantly in filtered samples, indicating that elevated SVOC concentrations in the unfiltered sample are likely not due to the presence of suspended solids with sorbed PAHs.

5.4.2.2.3 Pesticides

The concentration of alpha-BHC in the groundwater sample from MW-06-2020 collected in 2020 exceeded its SCG. Pesticides were not detected in concentrations exceeding SCGs in any other samples at Site 110, therefore, this single pesticide exceedance is considered anomalous, and pesticide impacts to Site 110 groundwater are not a concern.

5.4.2.2.4 Metals

Concentrations of at least one metal exceeded SCGs in all wells sampled in 2020, 2021, and 2023. Concentrations of five metals exceeded SCGs (iron, magnesium, manganese, sodium, and thallium) in at least one monitoring well. Metals exceedances in total (unfiltered) groundwater samples are summarized in the following table:

Compound	Frequency of Exceedances (out of 11 collected samples)[1]	Class GA SCG (ug/l)	Minimum Concentration (ug/l)[3]	Maximum Concentration (ug/l)[3]	Average Concentration (ug/l)[2]
Iron	11	300	1350	277000	39000
Magnesium	6	35000	24000	185000	48000
Manganese	11	300	1120	18400	4600
Sodium	8	20000	16300	151000	46000
Thallium	1	0.5	10 U	12.7	5.6

Note:

1. Frequency denotes the number of wells where exceedance occurred during at least one sampling event.
2. Values with a U qualifier are halved for calculating the average.
3. U indicates the analyte was not detected at the provided detection limit. Results from MW 06 2020 were excluded from maximums and averages because results from MW-06-2020 with U qualifier were one to two orders of magnitude above other results.

The presence and concentration of four of the metals (iron, manganese, magnesium, and sodium) are considered to be representative of naturally occurring background concentrations. Concentrations of these metals in groundwater are generally elevated throughout the Tonawanda, New York area. These results are consistent with historical data, which show exceedances of iron, manganese, and sodium in filtered and unfiltered samples from two wells located adjacent to Site 110.

Thallium exceeded its SCG at downgradient well MW-08-2020 in 2020 and 2021. This was the only well at Site 110 where the thallium concentration was detected above its SGC, which indicates that there are not significant site-wide thallium impacts to groundwater at Site 110.

Metals concentrations in field filtered samples did not show significant decreases in comparison to unfiltered samples. This indicates that elevated metals concentrations are not due to suspended solids in samples. Metals exceedances in dissolved (field filtered) groundwater samples are summarized in the following table:

Compound	Frequency of Exceedances (out of 7 collected samples)[1]	Class GA SCG (ug/l)	Minimum Concentration (ug/l)	Maximum Concentration (ug/l)	Average Concentration (ug/l)[2]
Iron	6	300	1470	240000	44000
Magnesium	5	35000	23100	172000	52000
Manganese	6	300	1040	18700	5500
Sodium	5	20000	16000	121000	39000
Thallium	1	0.5	8.2	8.2	5.4

Note:

1. Frequency denotes the number of wells where exceedance occurred during at least one sampling event.
2. Values with a U qualifier are halved for calculating the average.
3. U indicates the analyte was not detected at the provided detection limit.

5.4.2.2.5 Cyanide

All wells sampled except MW-06-2020 had concentrations exceeding SCGs for cyanide during at least one sampling event. Historical samples from MW-2 and MW-3R-89, located on the BF Site immediately south-west of Site 110, also contained cyanide exceeding SCGs. Cyanide exceedances in total (unfiltered) groundwater samples are summarized in the following table:

Compound	Frequency of Exceedances (out of 11 collected samples)[1]	Class GA SCG (ug/l)	Minimum Concentration (ug/l)	Maximum Concentration (ug/l)	Average Concentration (ug/l)[2]
Cyanide, Total	9	200	179	5710	1200

Note:

1. Frequency denotes the number of wells where exceedance occurred during at least one sampling event.
2. Values with a U qualifier are halved for calculating the average.
3. U indicates the analyte was not detected at the provided detection limit.

Cyanide concentrations in nearly all wells decreased slightly in dissolved (field filtered) samples. Cyanide exceedances in field filtered samples are summarized in the following table:

Compound	Frequency of Exceedances (out of 7 collected samples)[1]	Class GA SCG (ug/l)	Minimum Concentration (ug/l)	Maximum Concentration (ug/l)	Average Concentration (ug/l)[2]
Cyanide, Dissolved	5	200	181	4310	950

Note:

1. Frequency denotes the number of wells where exceedance occurred during at least one sampling event.
2. Values with a U qualifier are halved for calculating the average.
3. U indicates the analyte was not detected at the provided detection limit.

The highest cyanide concentration was detected in the sample from MW-05-2020, which is adjacent to the mounded area near the center of Site 110. In TP-51-2022 and TP-52-2022 directly adjacent to MM-05-2020, a layer of red-brown wood chips with a strong chemical odor was encountered. There was a hard layer with minimal blue staining above the wood chips, but no blue staining on the wood chips themselves. The red-brown wood chips were not observed elsewhere on Sites 109 or 110 and are consistent with purifier residuals which would be expected to contain elevated cyanide concentrations.

The second highest cyanide concentration was in the sample from MW-08-2020, downgradient of the blue stained soils/residuals indicative of purifier waste at TP-14-2020. This was also the location of the only exceedance of Commercial Soil SCGs for cyanide.

5.4.2.3 TAR CHARACTERIZATION

Samples of the pliable tar/fill mixture and tar-saturated material were collected from test pit TP-07-2020 and TP-34-2021 and samples of pliable tar/fill mixture were collected from TP-08-2020 and—TP--10-2020A. Samples were analyzed for hazardous waste characterization parameters, VOCs, SVOCs, metals, pesticides, herbicides, and PCBs. Due to the sample matrices (i.e., tar), which were not compatible with the laboratory's equipment, TCLP was not run for any analytes on samples from TP-07-2020 and TP-34-2021. TCLP was run for all analytes besides VOCs (SVOCs, metals, pesticides, and herbicides) on samples from TP-08-2020 and TP-10-2020A. For analytes/samples that could not be run for TCLP, total constituent analysis was run instead. Data for analysis of hazardous waste characteristics are presented in Table 12.

For samples/analytes which were run for TCLP, results are compared to USEPA's Hazardous Waste Regulatory Levels (40 CFR § 261.24). Concentrations of constituents in TCLP samples do not exceed USEPA's Hazardous Waste Regulatory Levels. However, based on TCLP analysis of tar conducted during other site activities, the pliable tar may be characteristically hazardous for benzene.

The tar samples were also analyzed for reactive cyanide, reactive sulfide, corrosivity, and ignitability. Reactive cyanide was not detected. Reactive sulfide was detected in the sample from TP-34-2021 at a concentration of 3.2 mg/kg. There is no USEPA accepted analytical method for determining reactivity. Generators must use their knowledge of the process generating the waste stream and the waste stream itself and make a determination if the waste is reactive. The pH measurements ranged from 7.72 to 6.96, indicating none of the sampled tar material would be considered hazardous based on corrosivity. Samples did not ignite up to 200 degrees Fahrenheit, indicating that samples would not be considered hazardous based on ignitability.

6.0 CONCEPTUAL SITE MODEL

The conceptual site model for Sites 109 and 110 developed below considers sources, nature and extent of impacts, and constituent fate and transport. This conceptual site model is expanded on in Section 7 to consider potential human health exposures.

6.1 Site 109

6.1.1 Sources and Transport Mechanisms

Results of the previous investigations and the 2020/2021 Focused RI indicate that the primary sources of impacts to Site 109 are material management and disposal practices. A layer of fill is present across the majority of Site 109, ranging in thickness from 0 feet to 16 feet. The fill typically consists of silt and clay and includes a variety of other materials co-placed with the earthen materials, including C&D debris such as concrete, red brick, yellow fire brick, rock fragments, and wood, and coke manufacturing by-products such as breeze, coke, coal, fly ash, and slag.

Historical spills from the former coal conveyor, which formerly ran along the southern site boundary directly over the drainage ditch and/or erosion and transport of soils impacted with coal and coke from areas upgradient of Site 109 into the on-site drainage ditch may have impacted soil quality within the drainage ditch.

Groundwater impacts at Site 109 are very limited, with most impacts observed in the upgradient well. The data indicates that conditions at Site 109 are not significantly impacting site groundwater.

6.1.2 Nature and Extent of Impacts

Analytical results of the 2020/2021 Focused RI and prior investigations for Site 109 are discussed in detail in Section 5.4.1 and are summarized in the following subsections:

- Surface and subsurface soil
- Groundwater

6.1.2.1 SURFACE AND SUBSURFACE SOIL

Surface soil, and to a lesser extent subsurface soil, impacts are present throughout Site 109. The primary impacts are due to SVOCs (particularly PAHs). The primary PAHs exceeding SCGs are benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene. Exceedances of SCGs for SVOCs occur primarily within fill from the surface to as deep as 10.6 ft bgs. The highest concentrations of PAHs occur in drainage ditch surface soils, likely due to spills from the former coal conveyor and/or due to erosion and transport of soils impacted with coal and coke from areas upgradient of Site 109 into the on-site drainage ditch.

6.1.2.2 GROUNDWATER

Groundwater impacts at Site 109 are very limited, with most impacts observed in the upgradient well (MW-01-2020). Groundwater samples show exceedances of SCGs for one or more constituents in samples from all wells. Exceedances occur for metals, PCBs, and SVOCs. However, most exceedances are for metals, which are likely primarily due to naturally occurring conditions. Metals exceedances of SCGs for iron, magnesium, manganese, and sodium are likely primarily due to naturally occurring conditions, while limited exceedances for thallium (one sample each from MW-01-2020 and MW-03-2020) and antimony (one sample from MW-01-2020) may be due to the presence of impacted fill and/or result from upgradient conditions. SVOCs, including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, and indeno(1,2,3-cd)pyrene exceeded SCGs in the sample from upgradient well MW-01-2020during the December 2020 sampling event but were not detected exceeding SCGs in the September 2021 sampling event. Similarly, PCBs were detected slightly above SCGs in one well, MW-02-2020, in the first round of sampling, but not in the second round.

6.2 Site 110

6.2.1 Sources and Transport Mechanisms

Results of the previous investigations and the 2020/2021 Focused RI indicate that the primary sources of impacts to Site 110 are material disposal practices. A layer of fill is present across the entirety of Site 110, ranging in thickness from 3.0 feet to 16.5 feet. The fill typically consists of coke breeze and is often mixed with earthen materials including silt and sand, debris including brick, glass, wood, plastic, and rubber, and coke manufacturing by-products including coke, coal, slag, and fly ash. Pockets of material presumed to be purifier waste have also been observed within fill. The constituents within fill may contribute to impacts to groundwater through leaching and direct contact.

Localized areas also contain subsurface tar in various forms, which may be contributing to localized groundwater impacts where tar exists within the saturated zone. The monitoring well most significantly impacted by PAHs was the only location where groundwater is in direct contact with tar-saturated materials, (MW-06-2020). This is also the only well with VOC impacts, indicating that direct groundwater contact with tar may be the primary mechanism of VOC and SVOC groundwater impacts at this well. There were no exceedances of SVOC SCGs during any sampling event at MW-05-2020, which is located to the north and east (downgradient) of the mounded area where pliable tar was frequently noted during test pitting, additional evidence that tar is not contributing significantly to SVOCs in groundwater, aside from in locations where tar is in direct contact to groundwater, which may produce highly localized impacts due to very limited groundwater flow across Site 110.

Groundwater gradients across Site 110 are very low, and slightly eastward. Groundwater within the fill is perched and is likely a series of pocketed saturated areas, some of which are connected while others are isolated. The lack of SVOC impacts at MW-08-2020 located on the eastern end of Site 110 on the adjacent National Grid property indicates SVOC groundwater impacts are not migrating significantly eastward off Site 110. The detection of cyanide in the sample from monitoring well MW-08-2020 may be a result of the blue residuals, typical of purifier waste, noted in upgradient test pit TP-14-2020.

6.2.2 Nature and Extent of Impacts

Analytical results of the 2020/2021 Focused RI, 2022/2023 Focused RI Phase II, and prior investigations for Site 110 are discussed in detail in Section 5.4.2 and are summarized in the following subsections:

- Surface and subsurface soil
- Groundwater

6.2.2.1 SURFACE AND SUBSURFACE SOIL

Surface and subsurface soil impacts are present throughout Site 110. The primary constituents are SVOCs (particularly PAHs). The primary PAHs exceeding SCGs are benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene, Exceedances of SCGs for SVOCs occur primarily within fill from the surface to as deep as 7 ft bgs. Although there were exceedances of SCGs for two metals in soil, these were significantly less frequent than exceedances for PAHs and were almost always co-located with PAH exceedances. The only exceedance for cyanide can be directly attributed to the blue fill that was sampled, which is consistent with purifier waste. Surface and subsurface tar is present in multiple locations throughout Site 110 but does not appear to significantly impact soil quality in adjacent intervals.

6.2.2.2 GROUNDWATER

Groundwater samples show exceedances of one or more SCGs in samples from all wells. Exceedances of SCGs occur primarily for SVOCs (particularly PAHs), cyanide, and metals. PAHs most commonly exceeding SCGs are benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, and chrysene. Metals exceedances of SCGs for iron, magnesium, manganese, and sodium are likely primarily due to naturally occurring conditions, while thallium impacts only occur in one sample from one well, MW-08-2020 and may be due to the presence of subsurface fill. Localized VOC impacts (primarily BTEX compounds) were also noted at one monitoring well, MW-06-2020.

6.3 Fate and Transport

SVOCs, primarily PAHs, are the most prevalent constituents detected in exceedance of commercial use SCGs in soil at both Sites 109 and 110. VOCs and cyanide were also detected at concentrations exceeding commercial use SCGs at Site 110. Metals exceeded groundwater SCGs at both sites. The following subsections discuss fate and transport for these constituents for both Sites.

6.3.1 SVOCs

In general, PAHs are relatively insoluble in water and solubility decreases as the molecular weight increases. PAHs have a high log octanol-water partition coefficient (Kow) and high organic carbon partition coefficient (Koc). They therefore tend to remain bound to soil particles. As a result, PAHs are not highly mobile. Additionally, PAHs are degraded by microorganisms. The most important factors influencing overall degradation rates are temperature, pH, oxidation-reduction potential, concentration, and the presence of microbial species. PAHs do not tend to biomagnify in food chains because they are rapidly metabolized, especially in fish, where the skin tends to act as a barrier to the migration to body tissues.

At Site 109, SVOCs were only exceeded at the upgradient well (MW-01-2020) during the 2020 sampling event. SVOCs were not detected above the groundwater SCGs in samples from this well or any other wells during the 2021 sampling event, indicating SVOC impacts to groundwater are not a significant concern at Site 109.

The sample from MW-08-2020 on the National Grid portion of Site 110 had an elevated bis-(2-ethylhexyl)phthalate concentration in the dissolved sample, which is likely due to lab contamination. Samples from MW-06-2020 at Site 110 had elevated SVOC concentrations, potentially due to the presence of tar in the saturated interval. Sample concentrations decrease significantly directly downgradient, at MW-16-2020, indicating that significant SVOC concentrations in groundwater are not migrating offsite at Site 110. PAH concentrations in samples from Site 110 monitoring wells were typically lower for SVOCs in all dissolved phase (field-filtered) samples, indicating that PAHs are bound to soil particles and that elevated concentrations in total constituent (unfiltered) samples are likely influenced by the presence of soil particles with sorbed PAHs within the samples.

6.3.2 VOCs

VOCs were not detected in Site 109 soils and groundwater in concentrations exceeding SCGs, so they are not a constituent of concern at Site 109. VOCs were not found in concentrations that exceed the Commercial Use SCGs for soil, which take into consideration potential exposures due to soil vapor intrusion. The maximum concentration in comparison to its criteria was at MW-03, where trichloroethene was measured at approximately 3% of its Commercial Use SCG, indicating potential concerns regarding exposure via soil vapor intrusion are unlikely.

VOCs were only detected in concentrations in excess of SCGs in groundwater from one well at Site 110: MW--06-2020. At this well, tar was observed within the saturated zone during monitoring well installation and sheen and odor were observed in groundwater purged during sampling. Therefore, tar may be impacting groundwater at this location Downgradient monitoring well, MW-16-2020, does not appear to be impacted by VOCs, indicating that VOC impacts at Site 110 are highly localized and do not appear to be migrating offsite.

VOC impacts in soil and groundwater may locally impact potential on-site receptors via soil vapor intrusion. Considerations for future site development and occupancy related to vapor intrusion at Sites 109 and 110 will be included in the FFSs for those sites.

6.3.3 Metals

At Site 109, concentrations of six metals exceeded SCGs (iron, magnesium, manganese, sodium, thallium, and antimony) in at least one monitoring well. The presence and concentration of four of the metals (iron, manganese, magnesium, and sodium) are considered to be representative of naturally occurring background concentrations. Concentrations of thallium and antimony exceeded their SCGs at the upgradient well (MW-01-2020) during the Focused RI. Groundwater from MW-01-2020 is representative of conditions upgradient of Site 109 or of conditions at the upgradient edge of Site 109. Thallium also exceeded its SCG at Site 109 downgradient well MW-03-2020 in 2021. Other than at the upgradient well, discussed above, this was the only well at Site 109 where the thallium concentration was detected above its SCG. Thallium is commonly found in coal combustion products, particularly fly ash, which was observed within the screened interval during well installation. Leaching of thallium from this material is a potential cause of thallium observed in the groundwater sample. Given the limited distribution of fly ash at Site 109 and the limited detections of thallium in groundwater, there are not significant site-wide sources or associated thallium impacts to groundwater at Site 109 and offsite migration is unlikely.

Other than the four naturally-occurring metals, thallium was the only metal that exceeded its SCG at Site 110. Thallium exceeded its SCG at downgradient well MW-08-2020 in 2020 and 2021. This was the only well at Site 110 where the thallium concentration was detected above its SGC, which indicates that there are not significant site-wide thallium impacts to groundwater at Site 110. MW-08-2020 is the most downgradient well at Site 110. As discussed in Section 4.5, groundwater gradients are relatively low, and the perched groundwater within the fill unit and is likely a series of pocketed saturated areas, some of which are connected while others are isolated. Therefore, significant off-site migration of thallium is unlikely.

6.3.4 Cyanide

Cyanide was not detected in Site 109 soils and groundwater in concentrations exceeding SCGs, therefore it is not a constituent of concern at Site 109.

Cyanide was detected in all but one soil samples collected from Site 110, however, it was only detected with a concentration in excess of SCGs in one sample (TP-14-2020). Cyanide was detected at concentrations exceeding SCGs in groundwater samples from all but one (MW-06-2020) monitoring well at Site 110. The highest concentrations in groundwater were detected at MW-05-2020 and MW-08-2020, downgradient of presumed purifier waste, which would be expected to contain elevated levels of cyanide. Cyanide can leach from these materials, causing groundwater contamination. Cyanide in the groundwater typically is primarily in the form of iron-cyanide complexes. These complexes are stable under the conditions of the aquifer and are transported as nonreactive solutes. Dilution is the primary natural attenuation mechanism for iron-cyanide complexes. MW-08-2020 is the most downgradient well at Site 110. As discussed in Section 4.5, groundwater gradients are relatively low, and the perched groundwater within the fill unit and is likely a series of pocketed saturated areas, some of which are connected while others are isolated. Therefore, significant off-site migration of cyanide is unlikely.

6.3.5 Tar

Tar was not encountered on Site 109.

Based on analytical samples and observations during test pit excavations at Site 110, tar does not appear to be significantly migrating vertically or laterally. The only type of tar that appears potentially mobile is in areas characterized as tar saturated, based on the material dripping down the excavation sidewalls at some locations. However, this dripping was due to removal of adjacent soil and is not indicative of the potential mobility under normal conditions. The lack of mobility of tar saturated material is indicated by soil samples taken from beneath tar. The subsurface sample from MW-06-2020 was collected directly beneath tar-saturated material and the subsurface sample from TP-07-2020 was collected 0.5 ft below tar-saturated material and a known tar seep. Individual SVOC concentrations from these samples do not exceed any SCGs and total PAH concentrations also do not exceed the SCG. This suggests that tar-saturated material, which is the least viscous tar product encountered, does not appear to migrate vertically to impact the quality of underlying soil.

Tar and tar-impacted material may locally impact potential on-site receptors via soil vapor intrusion.

7.0 QUALITATIVE HUMAN HEALTH EXPOSURE ASSESSMENT

According to Appendix 3B of DER-10:

> "The overall purpose of the Qualitative Human Health Exposure Assessment (or the exposure assessment) is to evaluate and document how people might be exposed to site-related contaminants, and to identify and characterize the potentially exposed population(s) now and under the reasonably anticipated future use of the site." (NYSDEC 2010a)

The qualitative human health exposure assessment (QHHEA) must include:

- A description of the constituent source(s) including the location of the release to the environment (any waste disposal area or point of discharge).
- An explanation of the release and transport mechanisms to the exposed population.
- Identification of all potential exposure point(s) where actual or potential human contact may occur.
- Description(s) of the route(s) of exposure (i.e., ingestion, inhalation, dermal absorption).
- A characterization of the receptor populations who may be exposed to constituents at a point of exposure.

An exposure pathway is ***complete*** when all five elements of an exposure pathway are documented; a ***potential*** exposure pathway exists when any one or more of the five elements comprising an exposure pathway are unknown. An exposure pathway may be eliminated from further evaluation when any one of the five elements comprising an exposure pathway has not existed in the past, does not exist in the present, and can reasonably be anticipated to never exist in the future.

Sources and transport mechanisms, nature and extent of impacts, and fate and transport are discussed in Section 6. Potential exposure points/exposure media, potential exposure routes, and potentially impacted populations are discussed in the following subsections. The QHHEA is illustrated on **Figure 27**.

This QHHEA has been developed based on the results of the historical investigations and the 2020/2021 Focused RI. It is consistent with the anticipated future use of Sites 109 and 110, which is commercial. An environmental easement will be placed on the property that, at minimum, will prohibit unpermitted groundwater use and uncontrolled subsurface excavations, and may include other institutional controls to protect commercial and industrial users of the property from potential exposure to environmental impacts related to historical facility operations. A Site Management Plan (SMP) will define the procedures to be followed while redeveloping and maintaining the property. An Excavation Work Plan (EWP) will define the procedures to be followed while excavating on the property for foundations, utilities, and other subgrade construction.

Groundwater ingestion is not considered a potential exposure pathway for any offsite receptors because groundwater is not in use as, or suitable for use as, a potable source in any adjacent offsite areas. Roblin Steel (former Wickwire Plant), which is downgradient of Site 109, has an environmental easement in place prohibiting the use of groundwater as a potable water source. It is anticipated that a similar environmental easement will be established at Site 108, which is also downgradient of Site 109. National Grid property, which is downgradient of Site 110, is vacant and does not contain any water wells, and is under high voltage powerlines which would prevent future site development.

Potential exposure pathways for the four identified potential receptors are discussed in the following table.

- Current site worker (including workers performing work on the portion of Site 110 owned by National Grid)
- Future site worker (including workers performing work on the portion of Site 110 owned by National Grid)

- Future office worker
- Current and future off-site workers

Environmental Media & Exposure Route	Human Exposure Assessment
Direct contact with groundwater (and incidental ingestion)	• Current site workers may come into contact with impacted groundwater while performing intrusive work such as investigation or IRM/remedial activities. • Future site workers may encounter contaminated groundwater during intrusive construction activities for future redevelopment or subsequent construction/maintenance activities. • Current/future off-site utility workers may encounter impacted groundwater during intrusive work in the off-site National Grid utility corridor (downgradient of Site 110). These workers may not be HAZWOPER trained or aware of the constituents in groundwater. Remediation may minimize the risk of exposure. This potential exposure is only relevant to Site 110, as data do not indicate significant off-site migration of contaminants in groundwater at Site 109. • For all of the above potential exposures, proper use of PPE, decontamination methods, and other protective measures would minimize the risk of exposure.
Inhalation (exposure related to volatilization of contaminants / vapor intrusion)	• There were no VOC exceedances in any media in samples from Site 109. Therefore, the following exposures are only applicable to Site 110, where there were limited soil and groundwater VOC exceedances and relatively high levels of VOCs in subsurface tar samples. • Current site workers may encounter impacted vapors while performing work at the site. • Future site workers may encounter impacted vapors while performing redevelopment or other work at the site. • Future office workers may encounter impacted vapors via vapor intrusion into buildings of VOCs originating from subsurface tar and/or impacted soil and/or groundwater. Remediation and/or site management may reduce this risk. • A soil vapor intrusion evaluation will be completed for any new occupied construction planned on the site. • VOC impacts are not observed in downgradient wells, indicating that VOCs are not travelling off-site. Therefore, offsite exposure to vapors from Site 110 groundwater is not a potential exposure pathway for current/future off-site workers.
Inhalation (exposure related to fugitive dust)	• Current site workers may encounter fugitive dust while performing work at the site. • Future site workers may encounter fugitive dust while performing redevelopment work at the site. • For both of the above potential exposures, mitigation measures such as spreading water for dust suppression and air monitoring would minimize the risk of exposure. • Future office workers will not be exposed to fugitive dust because the anticipated commercial use of the site will include paving, buildings, and landscaping, which will cover impacted soil and prevent mobilization.

Direct contact with surface soil (and incidental ingestion)	• Current site workers may come into contact with impacted surface soil while performing work such as investigation or IRM/remedial activities. • Future site workers may encounter impacted surface soil during construction activities for future redevelopment or subsequent construction/maintenance activities. Remediation may minimize the risk of exposure. • For all of the above potential exposures, proper use of PPE, decontamination methods, and other protective measures would minimize the risk of exposure. • Future office workers will not be exposed to impacted surface soil because the anticipated commercial use of the site will include paving, buildings, and landscaping, which will cover impacted soil.
Direct contact with subsurface soil (and incidental ingestion)	• Current site workers may come into contact with impacted surface soil while performing intrusive work such as investigation or IRM/remedial activities. • Future site workers may encounter impacted surface soil during intrusive construction activities for future redevelopment or subsequent construction/maintenance activities. Remediation may minimize the risk of exposure. • For all of the above potential exposures, proper use of PPE, decontamination methods, and other protective measures would minimize the risk of exposure. • Future office workers will not be exposed to impacted subsurface soil because the anticipated commercial use of the site will include paving, buildings, and landscaping, which will cover impacted soil.

8.0 PRELIMINARY REMEDIAL ACTION OBJECTIVES

Remedial action objectives (RAOs) will be developed in the FFSs for Sites 109 and 110.

9.0 SUMMARY AND CONCLUSIONS

The Focused RI, completed in 2020 and 2021, significantly expanded site information on groundwater and soil. Field observations and analytical results verified the presence of materials and constituents that would be expected in materials resulting from the coking operations associated with the former TCC facility.

9.1 Nature and Extent of Impacts

Historical sample results and analytical data compiled as part of the Focused RI were compared to applicable SCGs for soil and groundwater to assess impacts and to develop an understanding of the nature and distribution of environmental impacts at Sites 109 and 110.

9.1.1 Surface and Subsurface Soil

Soil analytical results were compared to commercial use SCGs, which is consistent with anticipated future use. Surface and subsurface soil exceedances of SCGs are present throughout Sites 109 and 110. The primary constituents exceeding SCGs in surface and subsurface soil are PAHs. Exceedances of SCGs occur primarily within fill that is present in varying thicknesses across both sites.

Drainage ditch soils/sediment showed the highest concentrations of SVOCs at Site 109, potentially due to historic spillage from the former elevated coal conveyor that was located over this area and/or due to erosion and transport of soils impacted with coal and coke from areas upgradient of Site 109 into the on-site drainage ditch.

Areas of subsurface tar, primarily viscous or hardened tar, are present at Site 110. At Site 110, SVOC concentrations are often highest in intervals where tar was encountered. Results indicate that coal present within the fill is also contributing to SVOC concentrations in Site 110 soils.

9.1.2 Groundwater

Groundwater occurs as a perched, intermittent surficial aquifer in the fill unit at Sites 109 and 110. Occurrence of groundwater is highly dependent on the nature (permeability) of the fill. A low conductivity glaciolacustrine clay aquitard is present beneath the fill at Sites 109 and 110 that restricts vertical flow of groundwater from fill.

Groundwater impacts at Site 109 are very limited, with most impacts observed in the upgradient well. Groundwater samples show exceedances of SCGs for one or more constituents in samples from all wells at Site 109. However, most exceedances are for metals, which are likely primarily due to naturally occurring conditions. Results indicate that site soils at Site 109 are not significantly impacting Site 109 groundwater.

Groundwater samples exceeded one or more SCG in samples from all wells at Site 110. Exceedances of SCGs occur primarily for SVOCs (particularly PAHs), cyanide, and metals. Localized VOC impacts (primarily BTEX compounds) were also noted at one monitoring well. Metals exceedances of SCGs at Site 110 are likely primarily due to naturally occurring conditions. Localized areas at Site 110 contain subsurface tar in various forms. Laboratory results indicate that tar does not appear to be contributing significantly to groundwater impacts. Groundwater gradients across Site 110 are very low, and slightly eastward. Results indicate that groundwater impacts are not migrating significantly eastward onto the adjacent National Grid property.

Cyanide has been detected in Site 110 groundwater samples both on the RITC property and that portion of the National Grid property. The detection on the National Grid property may be associated with upgradient disposal of purifier wastes noted in three test pits.

9.2 Conceptual Site Model

9.2.1 Site 109

Results of the previous investigations and the 2020/2021 Focused RI indicate that the primary sources of impacts to Site 109 are material handling and disposal practices.

A layer of fill is present across the majority of Site 109, ranging in thickness from 0 feet to 16 feet. The fill typically consists of silt and clay and includes a variety of other materials co-placed with the earthen materials, including C&D debris such as concrete, red brick, yellow fire brick, rock fragments, and wood, and coke manufacturing by-products such as breeze, coke, coal, and slag.

Historical spillage from the coal conveyor, which formerly ran along the southern site boundary adjacent to the drainage ditch and/or erosion and transport of soils impacted with coal and coke from areas upgradient of Site 109 into the on-site drainage ditch may have impacted soil quality within the open channel drainage ditch.

Groundwater impacts at Site 109 are very limited, with most impacts observed in the upgradient well. Therefore, investigation results indicate constituents of fill at Site 109 are not significantly impacting groundwater through leaching or direct contact.

9.2.2 Site 110

Results of the previous investigations and the 2020/2021 Focused RI indicate that the primary sources of impacts to Site 110 are material disposal practices.

A layer of fill is present across the entirety of Site 110, ranging in thickness from 3.0 feet to 16.5 feet. The fill typically consists of coke breeze and is often mixed with earthen materials including silt and sand, debris including brick, glass, wood, plastic, and rubber, and coke manufacturing by-products including coke, coal, slag, and fly ash. The constituents within this fill may contribute to impacts to groundwater through leaching and direct contact.

Localized areas at Site 110 contain subsurface tar in various forms. Laboratory results indicate that tar-impacted materials are not contributing significantly to groundwater impacts, except for in localized areas where tar is in direct contact with groundwater.

Groundwater gradients across Site 110 are very low, and slightly eastward. Results indicate that SVOC groundwater impacts are not migrating significantly eastward onto the adjacent National Grid property.

Cyanide has been detected in Site 110 groundwater samples both on the RITC property and the portion of the Site located on National Grid property. The detection on the National Grid property may be associated with disposal of purifier wastes noted in upgradient test pit TP-14-2020.

9.6 Qualitative Human Health Exposure Assessment

A QHHEA was completed, consistent with NYSDEC guidance (NYSDEC 2010a), to evaluate how people might be exposed to site-related constituents, and to identify and characterize the potentially exposed population(s) now and under the reasonably anticipated future use of Sites 109 and 110. Potential exposures for current and future site use, which is anticipated to be commercial, are detailed below.

Current Site Worker Under the current use scenario, there is a potentially complete pathway for HAZWOPER-trained site workers performing surface or intrusive work, such as site investigation or IRM activities, to come in contact with all identified impacted media. Proper use of PPE, decontamination methods, and other protective measures during on-site work, consistent with currently used health and safety measures, minimizes the risk of exposure to impacted media for current site workers. That portion of Site 110 that lies on National Grid property is assumed to remain industrial for the foreseeable future. The potential for utility worker exposure, who may or may not be HAZWOPER trained or aware of the constituents in soil or groundwater exists on that portion of Site 110.

Future Site Worker: It is anticipated that the primary future use of Sites 109 and 110 will be commercial, which will include landscaping, paving and buildings. This would provide at least a partial cover, which would reduce but not eliminate potential exposure by future site workers to impacted surface soil. There is a potentially complete pathway for site workers performing construction activities during future redevelopment, or subsequent construction or maintenance activities, to come in contact with all identified impacted media. Site remediation and/or proper use of PPE, decontamination methods, and other protective measures during these activities would minimize the risk of exposure to impacted media for future site workers.

It is anticipated that the primary future use of that portion of Site 110 on National Grid property will remain industrial.

Future Office Worker: The only identified, potentially complete exposure pathway for future office workers is via inhalation, specifically inhalation of fugitive dust and inhalation due to vapor intrusion into buildings of VOCs originating from impacted soil and/or groundwater.

There were no exceedances of groundwater or Commercial Soil SCGs for VOCs at Site 109, therefore, the potential exposure pathway for VOCs is considered incomplete at Site 109.

There was only one VOC exceedance of Commercial SCGs for soil and one localized exceedance of SCGs for groundwater at Site 110. However, relatively high levels of VOCs were detected in the two tar samples characterized. Therefore, the potential exposure pathway for VOCs is considered complete for Site 110.

There is no complete exposure pathway associated with groundwater usage by future office workers. There is a municipal water supply available for Sites 109 and 110 and it is anticipated that institutional controls, such as an environmental easement, will be implemented in the future, preventing use of site groundwater for drinking water purposes.

Given that the areas of the site which future office workers will be interacting will be paved, landscaped, and otherwise developed, there is no complete exposure pathway associated with direct contact or incidental ingestion of surface or subsurface soil.

Current/Future Off-Site Worker: Potential exposure pathways for current/future off-site workers only exist for Site 110, as significant groundwater impacts were not observed at downgradient wells at Site 109. Off-site workers at the National Grid property downgradient of Site 110 may encounter groundwater impacted with cyanide while doing intrusive work. Site remediation and/or proper use of PPE, decontamination methods, and other protective measures during these activities would minimize the risk of exposure to impacted groundwater for off-site workers.

9.7 Next Steps

FFSs are being prepared by Parsons for Honeywell for submittal to and approval by NYSDEC using information developed during the site investigation to develop and evaluate the range of technologies and alternatives appropriate for Sites 109 and 110. Consistent with the February 2020 Order on Consent, alternatives were developed to consider additional actions that may be necessary beyond those identified in the 2008 ROD due to the change in use of the site, which is anticipated to include commercial development.

Based on the results of the FS, NYSDEC will prepare a draft ROD Amendment. The draft ROD Amendment will describe the remedy preferred by NYSDEC and will summarize the basis for the recommendation of the preferred remedy by discussing each alternative and the reasons for choosing or rejecting it. The goal of any cleanup plan is to protect public health and the environment. NYSDEC will present the draft ROD Amendment to the public for its review and comment during a 30-day comment period and at a public meeting. NYSDEC will consider public comments as it selects the remedy to address impacts related to Sites 109 and 110. The selected remedy will be described in the final ROD Amendment, which will explain why the remedy was selected and respond to any public comments.

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TABLES

Honeywell PARSONS

TABLE 1 FOCUSED RI TAR OBSERVATIONS

Location	Depth (ft bgs)	Tar Type	Details	Occurrence
TP-07-2020	0-2.5; 3.0	Coated material	Tar-coated wooden poles	
TP-07-2020	2.5 - 3.5	Pliable tar/fill mixture	Mixed with breeze	
TP-07-2020	2.5 - 3.5	Tar saturated	Dripping off sidewall	
TP-07-2020A	0 - 2.0	Pliable tar/fill mixture		On east end of excavation
TP-07-2020A	2.0 - 3.0	Pliable tar/fill mixture		Most visible on south wall
TP-07-2020C	2.6 - 3.4	Pliable tar/fill mixture	Mixed with breeze and other fill	On north, south, and west sidewalls
TP-08-2020W	1.5 - 5.0	Pliable tar/fill mixture	Mixed with breeze	Tapers out towards the west beneath the base of adjacent mound
TP-08-2020W	5.0 - 8.0	Globs of pliable tar/fill mixture		
TP-08-2020A	3	Pliable tar/fill mixture		Did not excavate beyond tar
TP-08-2020B	3	Pliable tar/fill mixture		Did not excavate beyond tar
TP-08-2020C	0.8	Pliable tar/fill mixture		
TP-09-2020S	2	Globs of pliable tar/fill mixture		
TP-09-2020S	6.0 - 7.0	Hardened tar/fill mixture	Trace hardened tar/fill mixture	
TP-09-2020W	2.5, 3.75; 5.3	Pliable tar/fill mixture	Mixed with breeze	Seams, at 2.5' and 3.75' bgs on north wall and 5.3 ft bgs on south wall
TP-09-2020W2	4	Pliable tar/fill mixture	Mixed with breeze	
TP-09-2020E	4.3 - 6.5	Hardened tar/fill mixture	Mixed with breeze	
TP-10-2020W	13.5 - 15.0	Coated material	Breeze, some clay, little coke, coated in tar	
TP-10-2020E	13.5	Glob of pliable tar/fill mixture	One glob, 2" in size	
TP-10-2020N	2.5 - 3.8	Pliable tar/fill mixture	Mixed with breeze and coke, plastic wadded up	Pulled from eastern sidewall, 1.5 x 1' pocket
TP-10-2020A	0.5 - 2.5	Pliable tar/fill mixture	Nearly solid, mixed with breeze, fly ash, nodules	2 x 2' pocket fell out of wall
TP-10-2020A	13.5 - 15.5	Pliable tar/fill mixture	Highly viscous, mixed mostly with breeze	
TP-11-2020E	2.0 - 3.0	Pliable tar/fill mixture		
TP-11-2020N	3.4	Pliable tar/fill mixture		
TP-11-2020W	1.0 - 1.5	Pliable tar/fill mixture	Highly viscous, mixed with breeze and concrete	0.5 x 2' pocket
TP-11-2020S	2	Pliable tar/fill mixture		Predominantly on south end, small pocket on north end, gets deeper moving south
TP-12-2020S	0 - 4.5	Pliable tar/fill mixture		Trace discrete, ~1" diameter chunks
TP-12-2020W	0 - 5.5	Pliable tar/fill mixture		One small, discrete chunk observed in soil stockpile; Not possible to determine exact depth of origin
TP-12-2020E	0.0 - 4.0	Pliable tar/fill mixture		One discrete chunk
TP-13-2020S	3.0 - 5.0	Hardened tar/fill mixture	Hardened tar with brick	Observed in interval with strong tar-like odor and heavy sheen on water
TP-15-2020S	2.5	Hardened tar/fill mixture		Trace discrete chunks
TP-33-2020B	2.0 - 3.0	Hardened tar/fill mixture	Mixed with breeze, nodules, and wood	Forms iron stained ledge on west and south walls
TP-33-2020D	4.5 - 5.0	Hardened tar/fill mixture	Mixed with breeze and nodules	
TP-33-2020D	4.5 - 5.0	Tar saturated material		

TABLE 1 FOCUSED RI TAR OBSERVATIONS

Location	Depth (ft bgs)	Tar Type	Details	Occurrence
TP-34-2021	1.5 - 7.5	Tar saturated	Tar saturated towards the top, grades to pliable tar/fill mixture	Continuous layer
TP-34-2021	1.5 - 7.5	Pliable tar/fill mixture	Mixed with breeze and nodules; Very nodule rich 6.5 - 7.5 ft bgs; Some clay mixed in towards bottom of interval	Continuous layer
TP-35-2021	0.0 - 3.0	Pliable tar/fill mixture	Mixed with breeze and nodules	Discrete chunks; Tar also observed on ground surface prior to digging
TP-35-2021	0.0 - 3.0	Coated material	C&D debris coated in pliable tar/fill mixture	
TP-35-2021	3.25 - 5.0	Pliable tar/fill mixture	Mixed with breeze and nodules	Discrete chunks
TP-35-2021	3.0 - 3.25	Tar saturated		
TP-35-2021	5.0 - 6.5; 7.0 - 7.7	Pliable tar/fill mixture	Tar-rich matrix mixed with breeze, nodules, coke, and gravel	
MW-06-2020	4.5 - 5.5	Pliable tar/fill mixture	Mixed with crushed brick and breeze	
MW-06-2020	6.0 - 6.5	Tar saturated		
TP-51-2022	4.5 - 5.0	Pliable tar/fill mixture	8"x6"x2" chunk	One discrete chunk

TABLE 2 FOCUSED RI MEASURED GROUNDWATER ELEVATIONS

Location ID	Measuring Point Elevation (ft NAVD88)[1]	Water Elevation (ft NAVD88)			
		December 2020	January 2021	September 2021	January 2023
Site 109					
MW-01-2020	603.30	599.54	598.05	598.36	NA
MW-02-2020	590.31	581.28	582.37	581.47	NA
MW-03-2020	589.63	572.91	571.52	575.25	NA
MW-17-89	578.79	575.86	575.59	575.43	NA
Site 110					
MW-04-2020	611.35	607.09	606.85	606.17	607.92
MW-05-2020	610.07	605.77	606.01	603.89	606.72
MW-06-2020	609.47	606.01	605.89	604.48	606.54
MW-07-2020	610.67	606.85	605.54	605.54	607.47
MW-08-2020	608.01	NA	NA	603.52	604.58
MW-16-2020	609.24	NA	NA	604.42	606.03
MW-23-2022	610.05	NA	NA	NA	607.00

Notes:

NA: Not Applicable

1. Measuring point is the top of the PVC riser for each well

TABLE 3 FOCUSED RI TYPICAL COAL, COKE AND TAR ANALYTICAL RESULTS

				Field Sample ID	Coal - 10152021		Coke - 10152021	
				Sampled	10/15/2021		10/15/2021	
					Coal		Coke	
				Location	Coal Charging Building		Coke Pile West of Battery	
Analytical Method	CAS_RN	Chemical Name	Unit	Soil Cleanup Objective (SCO) for Commercial Use(1)				
	TSO	Total Solids	%		88.4		98.6	
		Metals						
SW6010	7429-90-5	Aluminum	mg/kg		5500		686	M
SW6010	7440-38-2	Arsenic	mg/kg	16	6.89		1.21	
SW6010	7440-39-3	Barium	mg/kg	400	75.8		12.8	
SW6010	7440-41-7	Beryllium	mg/kg	590	0.441		0.245	U
SW6010	7440-43-9	Cadmium	mg/kg	9.3	0.354		0.245	U
SW6010	7440-70-2	Calcium	mg/kg		21800		258	DM
SW6010	7440-47-3	Chromium, Total(2)	mg/kg	400	9.15		1.35	
SW6010	7440-48-4	Cobalt	mg/kg		4.77		2.45	U
SW6010	7440-50-8	Copper	mg/kg	270	21.3		7.63	D
SW6010	7439-89-6	Iron	mg/kg		9150		1770	
SW6010	7439-92-1	Lead	mg/kg	1000	38.0		1.63	
SW6010	7439-95-4	Magnesium	mg/kg		7330		88.6	J
SW6010	7439-96-5	Manganese	mg/kg	10000	311		14.0	D
SW6010	7440-02-0	Nickel	mg/kg	310	9.69		1.48	J
SW6010	7440-09-7	Potassium	mg/kg		1100		129	
SW6010	7782-49-2	Selenium	mg/kg	1500	0.917	J	0.980	U
SW6010	7440-23-5	Sodium	mg/kg		158		62.4	J
SW6010	7440-62-2	Vanadium	mg/kg		11.9		1.42	
SW6010	7440-66-6	Zinc	mg/kg	10000	74.9		5.51	
SW7471	7439-97-6	Mercury	mg/kg	2.8	2.21		0.00548	
		Volatiles						
SW8260C	71-43-2	Benzene	mg/kg	44	0.0782		0.00658	U
SW8260C	100-41-4	Ethylbenzene	mg/kg	390	0.0609		0.00658	U
SW8260C	100-42-5	Styrene	mg/kg		0.106		0.0164	U
SW8260C	108-88-3	Toluene	mg/kg	500	0.181		0.00658	U
SW8260C	179601-23-1	m,p-Xylene	mg/kg	500	0.336		0.00658	U
SW8260C	95-47-6	O-Xylene (1,2-Dimethylbenzene)	mg/kg	500	0.308		0.00658	U
SW8260C	1330-20-7	Total Xylenes	mg/kg	500	0.644		0.00658	U
		Semivolatiles						
SW8270D		1,1-Biphenyl	mg/kg		20	J	0.286	U
SW8270D	91-57-6	2-Methylnaphthalene	mg/kg		73.5		0.165	J
SW8270D	86-74-8	Carbazole	mg/kg		70.9		0.286	U
		PAHs						
SW8270D	83-32-9	Acenaphthene	mg/kg	500	39.6		0.286	U
SW8270D	208-96-8	Acenaphthylene	mg/kg	500	90.2		0.286	U
SW8270D	120-12-7	Anthracene	mg/kg	500	154		0.286	U
SW8270D	56-55-3	Benzo(A)Anthracene	mg/kg	5.6	208		0.286	U
SW8270D	50-32-8	Benzo(A)Pyrene	mg/kg	1	147		0.286	U
SW8270D	205-99-2	Benzo(B)Fluoranthene	mg/kg	5.6	134		0.286	U
SW8270D	191-24-2	Benzo(G,H,I)Perylene	mg/kg	500	76.1		0.286	U
SW8270D	207-08-9	Benzo(K)Fluoranthene	mg/kg	56	134		0.286	U
SW8270D	218-01-9	Chrysene	mg/kg	56	184		0.286	U
SW8270D	53-70-3	Dibenz(A,H)Anthracene	mg/kg	0.56	24		0.286	U
SW8270D	132-64-9	Dibenzofuran	mg/kg	350	91.4		0.286	U
SW8270D	206-44-0	Fluoranthene	mg/kg	500	539		0.347	
SW8270D	86-73-7	Fluorene	mg/kg	500	140		0.286	U
SW8270D	193-39-5	Indeno(1,2,3-C,D)Pyrene	mg/kg	5.6	79.4		0.286	U
SW8270D	91-20-3	Naphthalene	mg/kg	500	213		1.29	
SW8270D	85-01-8	Phenanthrene	mg/kg	500	611		0.432	
SW8270D	129-00-0	Pyrene	mg/kg	500	382		0.260	J
		Total PAHs(3)	mg/kg	500	3247		6.05	
		Total PAHs(3)	mg/kg	500	3200		6.00	

Notes:
(1) Unless otherwise noted, soil cleanup objectives from Table 375-6.8(b) in NYSDEC's "6 NYCRR PART 375 Environmental Remediation Programs," December 14, 2006.
(2) Hexavalent chromium standard is presented. The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.
(3) Value from NYSDEC "CP-51/Soil Cleanup Guidance", October 21, 2010.
D: Sample, laboratory Control Sample, or Matric Spike Duplicate results above Relative Percent Difference limit.
J: Result estimated between the quantitation limit and half the quantitation limit

TABLE 3 FOCUSED RI TYPICAL COAL, COKE AND TAR ANALYTICAL RESULTS

				Field Sample ID	Coal - 10152021	Coke - 10152021
				Sampled	10/15/2021	10/15/2021
					Coal	Coke
				Location	Coal Charging Building	Coke Pile West of Battery
Analytical Method	CAS_RN	Chemical Name	Unit	Soil Cleanup Objective (SCO) for Commercial Use[(1)]		

M: Matrix spike recoveries outside QC limits. Matrix bias indicated.
ND: Analyzed for but not detected at or above the quantitation limit
Only detected compounds are presented
Shaded: Value exceeds Commercial SCOs

TABLE 4 FOCUSED RI SITE 109 SOIL ANALYTICAL SUMMARY

				Location ID	MW-01-2020	MW-01-2020	MW-01-2020	MW-02-2020	MW-02-2020	MW-02-2020	MW-03-2020	MW-03-2020
				Field Sample ID	MW-01-2020-0.0-0.16-10132020	MW-01-2020-0.16-1.0-10132020	MW-01-2020-3.0-4.0-10132020	MW-02-2020-0.0-0.16-10142020	MW-02-2020-0.16-1.0-10142020	MW-02-2020-5.0-6.0-10142020	MW-03-2020-0.0-0.16-10142020	MW-03-2020-0.16-1.0-10142020
				Start Depth (ft)	0	0.16	3	0	0.16	5	0	0.16
				End Depth (ft)	0.16	1	4	0.16	1	6	0.16	1
				Sampled	10/13/2020	10/13/2020	10/13/2020	10/14/2020	10/14/2020	10/14/2020	10/14/2020	10/14/2020
				SDG	R2009622	R2009622	R2009622	R2009622	R2009622	R2009622	R2009712	R2009712
				Lab Sample ID	R2009622-001	R2009622-002	R2009622-005	R2009622-009	R2009622-010	R2009622-011	R2009712-007	R2009712-008
				Sample Type	REG	REG	REG	REG	REG	REG	REG	REG
				Matrix	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Analytical Method	CAS_RN	Chemical Name	Unit	Soil Cleanup Objective (SCO) for Commercial Use(1)								
E160.3	SOLID	Solids	%		85.2	83.7	82.1	78.6	84.9	89.8	76.7	84.3
E160.3	SOLIDS	Total Solids	%									
		PFAS										
E537M	2991-50-6	n-Ethyl Perfluorooctanesulfonamidoacetic Acid (n-ETFOSAA)	mg/kg		0.0011 U	0.0012 U	0.0012 U	0.0013 U	0.0011 U	0.001 U	0.0012 U	0.0011 U
E537M	375-85-9	Perfluoroheptanoic Acid (PFHpA)	mg/kg		0.00023 J	0.0012 U	0.0012 U	0.0013 U	0.0011 U	0.001 U	0.0012 U	0.0011 U
E537M	355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	mg/kg		0.0011 U	0.0012 U	0.0012 U	0.0013 U	0.0011 U	0.001 U	0.0012 U	0.0011 U
E537M	1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	mg/kg	0.440(2)	0.00037 J	0.00071 J	0.0012 U	0.00027 J	0.00031 J	0.001 U	0.0012 U	0.0011 U
E537M	335-67-1	Perfluorooctanoic Acid (PFOA)	mg/kg	0.500(2)	0.0011 U	0.0012 U	0.0012 U	0.0013 U	0.0011 U	0.001 U	0.0012 U	0.0011 U
E537M	2058-94-8	Perfluoroundecanoic Acid (Pfunda)	mg/kg		0.0011 U	0.0012 U	0.0012 U	0.0013 U	0.0011 U	0.001 U	0.0012 U	0.0011 U
		Metals and Cyanide										
SW6010	7429-90-5	Aluminum	mg/kg		1870	2420	12600	15500	4970	12600	18100	18000
SW6010	7440-38-2	Arsenic	mg/kg	16	2.8	2.3	11.6	5.3	2.3	7.8	5.6	5.4
SW6010	7440-39-3	Barium	mg/kg	400	43.7	42.1	101	104	53.8	79.9	98.5	124
SW6010	7440-41-7	Beryllium	mg/kg	590	0.446	0.454	0.781	0.742	0.328 J	0.646	0.821	0.821
SW6010	7440-43-9	Cadmium	mg/kg	9.3	0.223 J	0.299 J	0.885	0.448 J	0.159 J	0.367 J	0.507 J	0.673
SW6010	7440-70-2	Calcium	mg/kg		26200	44400	4500	16700	14500	3690	9070	36600
SW6010	7440-47-3	Chromium(3)	mg/kg	400	9.6	10.6	18.2	20.3	8.1	17.7	23.7	24.9
SW6010	7440-48-4	Cobalt	mg/kg		2.5 J	2.6 J	8.9	16.6	2.2 J	11.5	12.2	10.6
SW6010	7440-50-8	Copper	mg/kg	270	17.4	17.6	18.8	19.4	9.7	15.6	33.3	88.7
SW6010	7439-89-6	Iron	mg/kg		7620	7240	24900	26200	9470	24200	29400	29100
SW6010	7439-92-1	Lead	mg/kg	1000	17.5	25.1	38.1	30.4	14	28.3	29.7	42.8
SW6010	7439-95-4	Magnesium	mg/kg		4800	9990	2970	7660	2570	3340	5300	10100
SW6010	7439-96-5	Manganese	mg/kg	10000	171	232	380	994	863	448	617	596
SW6010	7440-02-0	Nickel	mg/kg	310	7.5	7.2	22.8	19.2	4.9	19.1	21.1	21.7
SW6010	7440-09-7	Potassium	mg/kg		292	384	1230	2330	632	1250	2770	2730
SW6010	7782-49-2	Selenium	mg/kg	1500	1.2 U	1.2 U	11.5 U	1.2 U	1.1 U	1.1 J	0.93 J	1.1 U
SW6010	7440-22-4	Silver	mg/kg	1500	1.2 U	1.2 U	1.2 U	1.2 U	1.1 U	1.1 U	1.2 U	1.1 U
SW6010	7440-23-5	Sodium	mg/kg		113 J	131	111 J	82 J	81.7 J	92.7 J	154	155
SW6010	7440-28-0	Thallium	mg/kg		1.2 U	1.2 U	1.2 U	1.2 U	1.1 U	1.1 U	1.2 U	1.1 U
SW6010	7440-62-2	Vanadium	mg/kg		8.4	9.1	27.2	31.5	15.2	27.4	36.3	35.6
SW6010	7440-66-6	Zinc	mg/kg	10000	102	126	721	90.4	20.7	88.8	128	182
SW7471	7439-97-6	Mercury	mg/kg	2.8	0.045	0.056	0.106	0.109	0.073	0.042	0.068	0.133
SW9012	57-12-5	Cyanide, Total	mg/kg	27	0.37	0.45	3.34	0.44	1.37	1.08	0.3 U	0.23 J
		Pesticides										
SW8081	72-55-9	4,4'-DDE	mg/kg	62	0.01 U	0.01 U	0.01 U	0.011 U	0.01 U	0.0095 U	0.0059 J	0.011
SW8081	50-29-3	4,4'-DDT	mg/kg	47	0.01 U	0.01 U	0.01 U	0.011 U	0.01 U	0.0095 U	0.011 U	0.01 U
SW8081	1031-07-8	Endosulfan Sulfate(4)	mg/kg	200	0.01 U	0.01 U	0.01 U	0.011 U	0.01 U	0.0095 U	0.011 U	0.01 U
SW8081	7421-93-4	Endrin Aldehyde	mg/kg		0.01 U	0.01 U	0.01 U	0.011 U	0.01 U	0.0095 U	0.011 U	0.01 U
SW8081	53494-70-5	Endrin Ketone	mg/kg		0.01 U	0.01 U	0.01 U	0.011 U	0.01 U	0.0095 U	0.011 U	0.01 U
SW8081	5566-34-7	Gamma-Chlordane	mg/kg		0.01 U	0.01 U	0.01 U	0.011 U	0.01 U	0.0095 U	0.011 U	0.01 U
SW8081	76-44-8	Heptachlor	mg/kg	15	0.01 U	0.01 U	0.01 U	0.011 U	0.01 U	0.0095 U	0.011 U	0.01 U
SW8081	72-43-5	Methoxychlor	mg/kg		0.01 U	0.01 U	0.01 U	0.011 U	0.01 U	0.0095 U	0.0057 J	0.01 U
		PCBs										
SW8082	12672-29-6	Aroclor-1248	mg/kg	1	0.04 U	0.04 U	0.041 U	0.043 U	0.04 U	0.037 U	0.043 U	0.039 U
SW8082	11097-69-1	Aroclor-1254	mg/kg	1	0.04 U	0.04 U	0.041 U	0.043 U	0.04 U	0.037 U	0.043 U	0.039 U
SW8082	11096-82-5	Aroclor-1260	mg/kg	1	0.04 U	0.04 U	0.041 U	0.043 U	0.04 U	0.037 U	0.043 U	0.039 U
SW8082	11100-14-4	Aroclor-1268	mg/kg	1	0.039 J	0.04 U	0.041 U	0.043 U	0.04 U	0.037 U	0.043 U	0.039 U
		Total PCBs(5)	mg/kg	1	0.039	0.04 U	0.041 U	0.043 U	0.04 U	0.037 U	0.043 U	0.039 U
		Volatiles										
SW8260	78-93-3	2-Butanone	mg/kg	500	0.0089 U	0.0072 U	0.0068 U	0.7 U	0.0059 U	0.0073 U	0.007 U	0.0055 U
SW8260	591-78-6	2-Hexanone	mg/kg		0.0089 UJ	0.0072 UJ	0.0068 U	0.0095 U	0.0059 U	0.0073 U	0.007 U	0.0055 U
SW8260	108-10-1	4-Methyl-2-Pentanone	mg/kg		0.0089 U	0.0072 U	0.0068 U	0.0095 U	0.0059 U	0.0073 U	0.007 U	0.0055 U
SW8260	67-64-1	Acetone	mg/kg	500	0.0089 U	0.0072 U	0.0068 U	0.7 U	0.0059 U	0.0073 U	0.007 J	0.0055 U
SW8260	71-43-2	Benzene	mg/kg	44	0.0089 U	0.0072 U	0.0068 U	0.0095 U	0.0059 U	0.0073 U	0.007 U	0.0055 U
SW8260	75-15-0	Carbon Disulfide	mg/kg		0.0089 U	0.0072 U	0.0068 U	0.0095 U	0.0059 U	0.0073 U	0.007 U	0.0055 U
SW8260	67-66-3	Chloroform	mg/kg	350	0.0089 U	0.0072 U	0.0068 U	0.0095 U	0.0059 U	0.0073 U	0.007 U	0.0055 U
SW8260	156-59-2	cis-1,2-Dichloroethene	mg/kg	500	0.0089 U	0.0072 U	0.0068 U	0.0095 U	0.0059 U	0.0073 U	0.007 U	0.0055 U
SW8260	110-82-7	Cyclohexane	mg/kg		0.0089 U	0.0004 J	0.0068 U	0.0095 U	0.0059 U	0.0073 U	0.007 U	0.0055 U
SW8260	100-41-4	Ethylbenzene	mg/kg	390	0.0089 UJ	0.0072 UJ	0.0068 U	0.0095 U	0.0059 U	0.0073 U	0.007 U	0.0055 U
SW8260	98-82-8	Isopropylbenzene	mg/kg		0.0089 UJ	0.0072 UJ	0.0068 U	0.0095 U	0.0059 U	0.0073 U	0.007 U	0.0055 U

TABLE 4 FOCUSED RI SITE 109 SOIL ANALYTICAL SUMMARY

				Location ID	MW-01-2020		MW-01-2020		MW-01-2020		MW-02-2020		MW-02-2020		MW-02-2020		MW-03-2020		MW-03-2020	
				Field Sample ID	MW-01-2020-0.0-0.16-10132020		MW-01-2020-0.16-1.0-10132020		MW-01-2020-3.0-4.0-10132020		MW-02-2020-0.0-0.16-10142020		MW-02-2020-0.16-1.0-10142020		MW-02-2020-5.0-6.0-10142020		MW-03-2020-0.0-0.16-10142020		MW-03-2020-0.16-1.0-10142020	
				Start Depth (ft)	0		0.16		3		0		0.16		5		0		0.16	
				End Depth (ft)	0.16		1		4		0.16		1		6		0.16		1	
				Sampled	10/13/2020		10/13/2020		10/13/2020		10/14/2020		10/14/2020		10/14/2020		10/14/2020		10/14/2020	
				SDG	R2009622		R2009622		R2009622		R2009622		R2009622		R2009622		R2009712		R2009712	
				Lab Sample ID	R2009622-001		R2009622-002		R2009622-005		R2009622-009		R2009622-010		R2009622-011		R2009712-007		R2009712-008	
				Sample Type	REG		REG		REG		REG		REG		REG		REG		REG	
				Matrix	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
Analytical Method	CAS_RN	Chemical Name	Unit	Soil Cleanup Objective (SCO) for Commercial Use(1)																
SW8260	XYLENES1314	m&p-Xylenes	mg/kg	500	0.018	UJ	0.014	UJ	0.014	U	0.019	U	0.012	U	0.015	U	0.014	U	0.011	U
SW8260	79-20-9	Methyl Acetate	mg/kg		0.0089	U	0.0072	U	0.0068	U	0.0048	J	0.0059	U	0.0073	U	0.007	U	0.0055	U
SW8260	108-87-2	Methylcyclohexane	mg/kg		0.0089	U	0.00049	J	0.0068	U	0.0095	U	0.0059	U	0.0073	U	0.007	U	0.0055	U
SW8260	95-47-6	o-Xylene	mg/kg	500	0.0089	UJ	0.0072	UJ	0.0068	U	0.0095	U	0.0059	U	0.0073	U	0.007	U	0.0055	U
SW8260	100-42-5	Styrene	mg/kg		0.0089	UJ	0.0072	UJ	0.0068	U	0.0095	U	0.0059	U	0.0073	U	0.007	U	0.0055	U
SW8260	108-88-3	Toluene	mg/kg	500	0.0089	U	0.0072	U	0.0068	U	0.0095	U	0.0059	U	0.0073	U	0.007	U	0.0055	U
SW8260	1330-20-7	Total Xylenes	mg/kg	500	0.018	U	0.014	U	0.014	U	0.019	U	0.012	U	0.015	U	0.014	U	0.011	U
SW8260	156-60-5	trans-1,2-Dichloroethene	mg/kg	500	0.0089	U	0.0072	U	0.0068	U	0.0095	U	0.0059	U	0.0073	U	0.007	U	0.0055	U
SW8260	79-01-6	Trichloroethene	mg/kg	200	0.0089	U	0.0072	U	0.0068	U	0.0095	U	0.0059	U	0.0073	U	0.007	U	0.00051	J
		Semivolatiles																		
SW8270	92-52-4	1,1'-Biphenyl	mg/kg		0.27		0.22		0.15	J	0.015	J	0.022	J	0.037	U	0.042	U	0.011	J
SW8270	105-67-9	2,4-Dimethylphenol	mg/kg		0.2	U	0.2	U	0.2	U	0.041	U	0.039	U	0.037	U	0.042	U	0.039	U
SW8270	91-57-6	2-Methylnaphthalene	mg/kg		2.1		1.4		1.1		0.088		0.12		0.072		0.022		0.042	
SW8270	95-48-7	2-Methylphenol	mg/kg	500	0.2	U	0.2	U	0.2	U	0.041	U	0.039	U	0.037	U	0.042	U	0.039	U
SW8270	34METPH	3&4-Methylphenol	mg/kg	500	0.071	J	0.055	J	0.2	U	0.011	J	0.011	J	0.037	U	0.042	U	0.039	U
SW8270	100-52-7	Benzaldehyde	mg/kg		0.2	U	0.2	U	0.2	U	0.041	U	0.039	U	0.037	U	0.042	UJ	0.039	UJ
SW8270	117-81-7	bis-(2-Ethylhexyl)Phthalate	mg/kg		3.6	U	3.6	U	3.6	U	0.75	U	0.7	U	0.67	U	0.76	U	0.7	U
SW8270	86-74-8	Carbazole	mg/kg		1.8		0.89		0.74		0.075		0.14		0.035	J	0.036	J	0.063	
SW8270	84-74-2	Di-n-Butyl Phthalate	mg/kg		3	U	3	U	3	U	0.62	U	0.59	U	0.56	U	0.63	U	0.59	U
SW8270	108-95-2	Phenol	mg/kg	500	0.2	U	0.2	U	0.2	U	0.041	U	0.039	U	0.037	U	0.042	U	0.039	U
		PAHs																		
SW8270	83-32-9	Acenaphthene	mg/kg	500	1.3		0.65		0.75		0.09		0.17		0.021		0.024		0.035	
SW8270	208-96-8	Acenaphthylene	mg/kg	500	0.55		0.74		0.4		0.11		0.17		0.067		0.08		0.17	
SW8270	120-12-7	Anthracene	mg/kg	500	2.7		1.8		1.2		0.14		0.35		0.061		0.15		0.25	
SW8270	56-55-3	Benzo(A)Anthracene	mg/kg	5.6	11		6.2		5.1		0.74		1.3		0.24		0.4		0.71	
SW8270	50-32-8	Benzo(A)Pyrene	mg/kg	1	18		10		9.3		1.5		2.3		0.36		0.58		1.1	
SW8270	205-99-2	Benzo(B)Fluoranthene	mg/kg	5.6	20		12		9.4		1.6		2.3		0.39		0.71		1.1	
SW8270	191-24-2	Benzo(G,H,I)perylene	mg/kg	500	15		8.8		7.6		1.2		1.8		0.22		0.28		0.72	
SW8270	207-08-9	Benzo(K)Fluoranthene	mg/kg	56	6.6		3.8		3.5		0.46		0.62		0.14		0.24		0.38	
SW8270	218-01-9	Chrysene	mg/kg	56	13		7.5		5.9		0.89		1.4		0.3		0.45		0.77	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	mg/kg	0.56	2		1.4		1.3		0.23		0.31		0.064		0.067		0.19	
SW8270	132-64-9	Dibenzofuran	mg/kg	350	1.1		0.81		0.54		0.05		0.1		0.026		0.03		0.04	
SW8270	206-44-0	Fluoranthene	mg/kg	500	19		10		8.5		1.3		2.2		0.49		0.8		1.1	
SW8270	86-73-7	Fluorene	mg/kg	500	0.97		0.54		0.43		0.042		0.11		0.026		0.044		0.055	
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	mg/kg	5.6	15		8.9		7.5		1.2		1.8		0.26		0.28		0.81	
SW8270	91-20-3	Naphthalene	mg/kg	500	2.3		1.8		1.1		0.27		0.41		0.07		0.069		0.14	
SW8270	85-01-8	Phenanthrene	mg/kg	500	12		6.2		4.9		0.53		1.1		0.29		0.46		0.56	
SW8270	129-00-0	Pyrene	mg/kg	500	19		10		8.5		1.3		2.2		0.48		0.72		1.1	
		Total PAHs(5)	mg/kg	500	160		91		76		12		19		3.5		5.4		9.2	

Notes:

(1) Unless otherwise noted, soil cleanup objectives from Table 375-6.8(b) in NYSDEC's "6 NYCRR PART 375 Environmental Remediation Programs," December 14, 2006.

(2) PFAS criteria are guidance levels from the NYSDEC document titled "Sampling, Analysis, and Asssessmen of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs," November 2022.

(3) Hexavalent chromium standard is presented. The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.

(4) This SCO is for the sum of endosulfan I, endosulfan II, and endosulfan sulfate.

(5) Value from NYSDEC "CP-51/Soil Cleanup Guidance", October 21, 2010.

Only detected compounds are presented

Shaded: Value exceeds Commercial SCOs

TABLE 4 FOCUSED RI SITE 109 SOIL ANALYTICAL SUMMARY

				Location ID	MW-03-2020	SB-01-2020	SB-01-2020	SB-01-2020	SB-02-2020	SB-02-2020	SB-02-2020	SB-03-2020
				Field Sample ID	MW-03-2020-8.0-10.0-10142020	SB-01-2020-0.0-0.16-10132020	SB-01-2020-0.16-1.0-10132020	SB-01-2020-3.0-4.0-10132020	SB-02-2020-0.0-0.16-12032020	SB-02-2020-0.16-1.0-12032020	SB-02-2020-2-3-12042020	SB-03-2020-0.0-0.16-10142020
				Start Depth (ft)	8	0	0.16	3	0	0.16	2	0
				End Depth (ft)	10	0.16	1	4	0.16	1	3	0.16
				Sampled	10/14/2020	10/13/2020	10/13/2020	10/13/2020	12/3/2020	12/3/2020	12/4/2020	10/14/2020
				SDG	R2009712	R2009622	R2009622	R2009622	R2011582	R2011582	R2011582	R2009712
				Lab Sample ID	R2009712-009	R2009622-003	R2009622-004	R2009622-006	R2011582-001	R2011582-002	R2011582-003	R2009712-001
				Sample Type	REG	REG	REG	REG	REG	REG	REG	REG
				Matrix	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Analytical Method	CAS_RN	Chemical Name	Unit	Soil Cleanup Objective (SCO) for Commercial Use(1)								
E160.3	SOLID	Solids	%		90	67	73.7	86.8				77
E160.3	SOLIDS	Total Solids	%						75.1	80.8	85.6	
		PFAS										
E537M	2991-50-6	n-Ethyl Perfluorooctanesulfonamidoacetic Acid (n-ETFOSAA)	mg/kg		0.0011 U							
E537M	375-85-9	Perfluoroheptanoic Acid (PFHpA)	mg/kg		0.0011 U							
E537M	355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	mg/kg		0.0011 U							
E537M	1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	mg/kg	0.440(2)	0.0011 U							
E537M	335-67-1	Perfluorooctanoic Acid (PFOA)	mg/kg	0.500(2)	0.0011 U							
E537M	2058-94-8	Perfluoroundecanoic Acid (Pfunda)	mg/kg		0.0011 U							
		Metals and Cyanide										
SW6010	7429-90-5	Aluminum	mg/kg		14700	4750	6910	17400	11300	14600	13300	12600
SW6010	7440-38-2	Arsenic	mg/kg	16	3.1	25.7	10	2.9	10.7	5.2	4.1	10.2
SW6010	7440-39-3	Barium	mg/kg	400	132	95	113	85	106	134	107	82.6
SW6010	7440-41-7	Beryllium	mg/kg	590	1.8	0.962	1.3	0.783	1	0.705	0.639	0.732
SW6010	7440-43-9	Cadmium	mg/kg	9.3	0.278 J	0.502 J	0.665 J	0.161 J	2.8	0.359 J	0.364 J	0.744
SW6010	7440-70-2	Calcium	mg/kg		174000	3120	3200	10300	22700	59600	60600	4540
SW6010	7440-47-3	Chromium(3)	mg/kg	400	12.3	14.5	17.5	23.5	26.1	20.5	20.3	19.1
SW6010	7440-48-4	Cobalt	mg/kg		2.9 J	9.3	13.8	9	24.6	10.1	9.8	9.3
SW6010	7440-50-8	Copper	mg/kg	270	42.1	34.1	38.2	19.5	46.5	18.9	18.4	19.6
SW6010	7439-89-6	Iron	mg/kg		12900	14300	20100	26600	42900	27600	27500	24500
SW6010	7439-92-1	Lead	mg/kg	1000	17.2	58	77.4	10.6	94.2	14.1	8.6	58.2
SW6010	7439-95-4	Magnesium	mg/kg		24200	2430	2450	10100	8790	14800	15300	3070
SW6010	7439-96-5	Manganese	mg/kg	10000	1430	211	244	300	1000	637	529	826
SW6010	7440-02-0	Nickel	mg/kg	310	8.6	24.5	26.7	24.8	49.3	23.1	23.9	23.1
SW6010	7440-09-7	Potassium	mg/kg		1240	1120	1290	2390	1650	3550	2820	1420
SW6010	7782-49-2	Selenium	mg/kg	1500	1.1 U	2.3	13.6 U	1.2 U	1.2 U	1.2 U	1.1 U	8.9 J
SW6010	7440-22-4	Silver	mg/kg	1500	1.1 U	1.4 U	1.4 U	1.2 U	1.2 U	1.2 U	1.1 U	0.094 J
SW6010	7440-23-5	Sodium	mg/kg		626	144 U	73.1 J	330	142	291	209	80 J
SW6010	7440-28-0	Thallium	mg/kg		0.722 J	1.4 U	1.4 U	1.2 U	12.1 U	1.2 U	1.1 U	1.2 U
SW6010	7440-62-2	Vanadium	mg/kg		13.5	18.6	22	29.1	31.3	30.8	28.1	30.4
SW6010	7440-66-6	Zinc	mg/kg	10000	83.1	172	225	77	405	71.8	67.8	137
SW7471	7439-97-6	Mercury	mg/kg	2.8	0.087	0.081	0.104	0.018 J	0.278	0.078	0.038 U	0.104
SW9012	57-12-5	Cyanide, Total	mg/kg	27	0.77	0.85	0.95	0.24 U	0.87	0.23 J	0.25 U	0.45
		Pesticides										
SW8081	72-55-9	4,4'-DDE	mg/kg	62	0.0095 U	0.013 U	0.011 U	0.002 U	0.022 U	0.021 U	0.002 U	0.011 U
SW8081	50-29-3	4,4'-DDT	mg/kg	47	0.0095 U	0.018	0.011 U	0.002 U	0.022 U	0.021 U	0.002 U	0.011 U
SW8081	1031-07-8	Endosulfan Sulfate(4)	mg/kg	200	0.0095 U	0.013 U	0.011 U	0.002 U	0.042 J	0.093	0.002 U	0.011 U
SW8081	7421-93-4	Endrin Aldehyde	mg/kg		0.0095 U	0.023	0.011 U	0.002 U	0.022 U	0.021 U	0.0012 J	0.011 U
SW8081	53494-70-5	Endrin Ketone	mg/kg		0.0095 U	0.013 U	0.011 U	0.002 U	0.023	0.022 J	0.002 U	0.011 U
SW8081	5566-34-7	Gamma-Chlordane	mg/kg		0.0095 U	0.013 U	0.011 U	0.002 U	0.021 J	0.026	0.002 U	0.011 U
SW8081	76-44-8	Heptachlor	mg/kg	15	0.0095 U	0.013 U	0.011 U	0.002 U	0.022 U	0.021 U	0.0018 J	0.011 U
SW8081	72-43-5	Methoxychlor	mg/kg		0.0095 U	0.013 U	0.011 U	0.002 U	0.022 U	0.021 U	0.0014 J	0.011 U
		PCBs										
SW8082	12672-29-6	Aroclor-1248	mg/kg	1	0.081	0.051 U	0.045 U	0.039 U	0.043 U	0.042 U	0.026 J	0.043 U
SW8082	11097-69-1	Aroclor-1254	mg/kg	1	0.037 U	0.051 U	0.045 U	0.039 U	0.043 U	0.042 U	0.039 U	0.043 U
SW8082	11096-82-5	Aroclor-1260	mg/kg	1	0.024 J	0.032 J	0.045 U	0.039 U	0.043 U	0.042 U	0.039 U	0.043 U
SW8082	11100-14-4	Aroclor-1268	mg/kg	1	0.037 U	0.051 U	0.045 U	0.039 U	0.043 U	0.042 U	0.039 U	0.043 U
		Total PCBs(5)	mg/kg	1	0.105	0.032	0.045 U	0.039 U	0.043 U	0.042 U	0.026	0.043 U
		Volatiles										
SW8260	78-93-3	2-Butanone	mg/kg	500	0.14 J	0.01 U	0.0072 J	0.0047 U	0.0061 U	0.0032 J	0.0032 J	0.0081 U
SW8260	591-78-6	2-Hexanone	mg/kg		0.24 U	0.01 UJ	0.0015 J	0.0047 U	0.0061 U	0.0058 U	0.006 U	0.0081 U
SW8260	108-10-1	4-Methyl-2-Pentanone	mg/kg		0.24 U	0.01 U	0.00071 J	0.0047 U	0.0061 U	0.0058 U	0.006 U	0.0081 U
SW8260	67-64-1	Acetone	mg/kg	500	0.24 U	0.01 U	0.058	0.0044 J	ND	0.02	0.026	0.021
SW8260	71-43-2	Benzene	mg/kg	44	0.014 J	0.01 U	0.0098 U	0.0047 U	0.00077 J	0.0015 J	0.0011 J	0.0081 U
SW8260	75-15-0	Carbon Disulfide	mg/kg		0.24 U	0.01 U	0.0098 U	0.0047 U	0.0061 UJ	0.00053 J	0.006 UJ	0.0081 U
SW8260	67-66-3	Chloroform	mg/kg	350	0.24 U	0.00061 J	0.001 J	0.0047 U	0.0061 U	0.0058 U	0.006 U	0.0081 U
SW8260	156-59-2	cis-1,2-Dichloroethene	mg/kg	500	4.7	0.01 U	0.0098 U	0.0047 U	0.0061 U	0.0058 U	0.006 U	0.00081 J
SW8260	110-82-7	Cyclohexane	mg/kg		0.015 J	0.00063 J	0.0019 J	0.0047 U	0.0061 UJ	0.0018 J	0.021 J	0.0081 U
SW8260	100-41-4	Ethylbenzene	mg/kg	390	0.035 J	0.01 UJ	0.0098 UJ	0.0047 U	0.0008 J	0.00034 J	0.00057 J	0.0081 U
SW8260	98-82-8	Isopropylbenzene	mg/kg		0.24 U	0.01 UJ	0.0098 UJ	0.0047 U	0.0061 U	0.00028 J	0.00036 J	0.0081 U

TABLE 4 FOCUSED RI SITE 109 SOIL ANALYTICAL SUMMARY

				Location ID	MW-03-2020	SB-01-2020	SB-01-2020	SB-01-2020	SB-02-2020	SB-02-2020	SB-02-2020	SB-03-2020
				Field Sample ID	MW-03-2020-8.0-10.0-10142020	SB-01-2020-0.0-0.16-10132020	SB-01-2020-0.16-1.0-10132020	SB-01-2020-3.0-4.0-10132020	SB-02-2020-0.0-0.16-12032020	SB-02-2020-0.16-1.0-12032020	SB-02-2020-2-3-12042020	SB-03-2020-0.0-0.16-10142020
				Start Depth (ft)	8	0	0.16	3	0	0.16	2	0
				End Depth (ft)	10	0.16	1	4	0.16	1	3	0.16
				Sampled	10/14/2020	10/13/2020	10/13/2020	10/13/2020	12/3/2020	12/3/2020	12/4/2020	10/14/2020
				SDG	R2009712	R2009622	R2009622	R2009622	R2011582	R2011582	R2011582	R2009712
				Lab Sample ID	R2009712-009	R2009622-003	R2009622-004	R2009622-006	R2011582-001	R2011582-002	R2011582-003	R2009712-001
				Sample Type	REG	REG	REG	REG	REG	REG	REG	REG
				Matrix	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Analytical Method	CAS_RN	Chemical Name	Unit	Soil Cleanup Objective (SCO) for Commercial Use(1)								
SW8260	XYLENES1314	m&p-Xylenes	mg/kg	500	0.77	0.021 UJ	0.02 UJ	0.0093 U	0.0025 J	0.0011 J	0.0013 J	0.016 U
SW8260	79-20-9	Methyl Acetate	mg/kg		0.24 U	0.01 U	0.0098 U	0.0047 U	0.0061 U	0.0058 U	0.0018 J	0.0014 J
SW8260	108-87-2	Methylcyclohexane	mg/kg		0.07 J	0.00081 J	0.0035 J	0.0047 U	0.00067 J	0.0048 J	0.053	0.0081 U
SW8260	95-47-6	o-Xylene	mg/kg	500	0.062 J	0.01 UJ	0.0098 UJ	0.0047 U	0.0024 J	0.00066 J	0.00066 J	0.0081 U
SW8260	100-42-5	Styrene	mg/kg		0.24 U	0.01 UJ	0.0098 UJ	0.0047 U	0.00084 J	0.00029 J	0.00041 J	0.0081 U
SW8260	108-88-3	Toluene	mg/kg	500	0.044 J	0.01 U	0.00044 J	0.0047 U	0.0017 J	0.0022 J	0.0027 J	0.0081 U
SW8260	1330-20-7	Total Xylenes	mg/kg	500	0.83	0.021 U	0.02 U	0.0093 U	0.0049 J	0.0018 J	0.0020 J	0.016 U
SW8260	156-60-5	trans-1,2-Dichloroethene	mg/kg	500	6.3	0.01 U	0.0098 U	0.0047 U	0.0061 U	0.0058 U	0.006 U	0.0011 J
SW8260	79-01-6	Trichloroethene	mg/kg	200	6.5	0.01 U	0.0098 U	0.0047 U	0.0061 U	0.0058 U	0.006 U	0.00045 J
		Semivolatiles										
SW8270	92-52-4	1,1'-Biphenyl	mg/kg		0.37 U	1.5	0.78	0.038 U	2.1 U	2 U	0.38 U	0.023 J
SW8270	105-67-9	2,4-Dimethylphenol	mg/kg		0.37 U	0.37	0.23	0.038 U	2.1 U	2 U	0.38 U	0.043 U
SW8270	91-57-6	2-Methylnaphthalene	mg/kg		0.17	2.4 J	8.3	0.0043 J	0.63 J	ND	0.38 U	0.17
SW8270	95-48-7	2-Methylphenol	mg/kg	500	0.37 U	0.37	0.23	0.038 U	2.1 U	2 U	0.38 U	0.043 U
SW8270	34METPH	3&4-Methylphenol	mg/kg	500	0.37 U	3.1	1.9	0.038 U	2.1 U	2 U	0.38 U	0.043 U
SW8270	100-52-7	Benzaldehyde	mg/kg		0.37 U	0.33	0.35	0.038 U	11 U	10 U	1.9 U	0.043 UJ
SW8270	117-81-7	bis-(2-Ethylhexyl)Phthalate	mg/kg		6.7 U	3.3 J	2 J	0.69 U	0.9 J	3.1 U	0.57 U	0.13 J
SW8270	86-74-8	Carbazole	mg/kg		0.2 J	2.2 J	4.6	0.038 U	1.7 J	1.4 J	0.38 U	0.13
SW8270	84-74-2	Di-n-Butyl Phthalate	mg/kg		5.6 U	0.56 J	0.34 J	0.58 U	2.1 U	2 U	0.38 U	0.66 U
SW8270	108-95-2	Phenol	mg/kg	500	0.37 U	3	1.9	0.038 U	2.1 U	2 U	0.38 U	0.043 U
		PAHs										
SW8270	83-32-9	Acenaphthene	mg/kg	500	0.11	1.2 J	3.3	0.0076 U	6.9	4.9	0.38 U	0.14
SW8270	208-96-8	Acenaphthylene	mg/kg	500	0.36	1.4	1.5	0.0076 U	20	8.5	0.38 U	0.097
SW8270	120-12-7	Anthracene	mg/kg	500	0.47	4.4 J	6.7	0.0076 U	32	12	0.067 J	0.19
SW8270	56-55-3	Benzo(A)Anthracene	mg/kg	5.6	1.1	96	26	0.014	73	25	0.12 J	0.95
SW8270	50-32-8	Benzo(A)Pyrene	mg/kg	1	1.7	20 J	43	0.021	86	34	0.11 J	1.8
SW8270	205-99-2	Benzo(B)Fluoranthene	mg/kg	5.6	2	21 J	43	0.023	83	34	0.11 J	1.8
SW8270	191-24-2	Benzo(G,H,I)perylene	mg/kg	500	1.1	16 J	32	0.017	38	15	0.38 U	1.3
SW8270	207-08-9	Benzo(K)Fluoranthene	mg/kg	56	0.68	6.6 J	15	0.0078	28	13	0.38 U	0.5
SW8270	218-01-9	Chrysene	mg/kg	56	1.3	16 J	30	0.015	70	25	0.12 J	1.1
SW8270	53-70-3	Dibenzo(a,h)Anthracene	mg/kg	0.56	0.24	3.6 J	7.1	0.0042 J	9	3.6	0.38 U	0.21
SW8270	132-64-9	Dibenzofuran	mg/kg	350	0.19	1.3 J	3.3	0.0076 U	8.1	6.2	0.38 U	0.078
SW8270	206-44-0	Fluoranthene	mg/kg	500	2.5	21 J	47	0.022	180	63	0.34 J	1.8
SW8270	86-73-7	Fluorene	mg/kg	500	0.26	1.2 J	2.7	0.0076 U	19	12	0.38 U	0.066
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	mg/kg	5.6	0.99	17 J	31	0.016	40	16	0.38 U	1.3
SW8270	91-20-3	Naphthalene	mg/kg	500	0.39	3.2 J	9.4	0.0057 J	4.1	0.97 J	0.38 U	0.16
SW8270	85-01-8	Phenanthrene	mg/kg	500	1.5	14 J	29	0.016	89	28	0.24 J	0.94
SW8270	129-00-0	Pyrene	mg/kg	500	2.2	20 J	46	0.018	150	51	0.26 J	1.7
		Total PAHs(5)	mg/kg	500	17	260	380	0.18	940	350	1.4	14

Notes:
(1) Unless otherwise noted, soil cleanup objectives from Table 375-6.8(b) in NYSDEC's "6 NYCRR PART 375 Environmental Remediation Programs," December 14, 2006.
(2) PFAS criteria are guidance levels from the NYSDEC document titled "Sampling, Analysis, and Asssessmen of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs," November 2022.
(3) Hexavalent chromium standard is presented. The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.
(4) This SCO is for the sum of endosulfan I, endosulfan II, and endosulfan sulfate.
(5) Value from NYSDEC "CP-51/Soil Cleanup Guidance", October 21, 2010.
Only detected compounds are presented
Shaded: Value exceeds Commercial SCOs

TABLE 4 FOCUSED RI SITE 109 SOIL ANALYTICAL SUMMARY

				Location ID	SB-03-2020	SB-04-2020	SB-04-2020	SB-04-2020	SB-04-2020	TP-01-2020	TP-01-2020	TP-01-2020
				Field Sample ID	SB-03-2020-0.16-1.0-10142020	SB-04-2020-0.0-0.16-10142020	SB-04-2020-0.0-0.16-10142020 FD	SB-04-2020-0.16-1.0-10142020	SB-04-2020-3.0-4.0-10142020	TP-01-2020-0.0-0.16-09292020	TP-01-2020-0.16-1.0-09292020	TP-01-2020-2.0-3.0-09292020
				Start Depth (ft)	0.16	0	0	0.16	3	0	0.16	2
				End Depth (ft)	1	0.16	0.16	1	4	0.16	1	3
				Sampled	10/14/2020	10/14/2020	10/14/2020	10/14/2020	10/14/2020	9/29/2020	9/29/2020	9/29/2020
				SDG	R2009712	R2009712	R2009712	R2009712	R2009712	R2009023	R2009023	R2009023
				Lab Sample ID	R2009712-002	R2009712-003	R2009712-004	R2009712-005	R2009712-006	R2009023-002	R2009023-003	R2009023-004
				Sample Type	REG	REG	FD	REG	REG	REG	REG	REG
				Matrix	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Analytical Method	CAS_RN	Chemical Name	Unit	Soil Cleanup Objective (SCO) for Commercial Use(1)								
E160.3	SOLID	Solids	%		87.1	77.1	78.4	85.9	85.6	86.6	90	91
E160.3	SOLIDS	Total Solids	%									
		PFAS										
E537M	2991-50-6	n-Ethyl Perfluorooctanesulfonamidoacetic Acid (n-ETFOSAA)	mg/kg			0.0013 U	0.0012 U	0.0011 U	0.0003 J	0.0011 U	0.00092 U	0.00085 U
E537M	375-85-9	Perfluoroheptanoic Acid (PFHpA)	mg/kg			0.0013 U	0.0012 U	0.0011 U	0.0011 U	0.00029 J	0.00024 J	0.00085 U
E537M	355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	mg/kg			0.0013 U	0.0012 U	0.00037 J	0.0011 U	0.0011 U	0.00092 U	0.00085 U
E537M	1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	mg/kg	0.440(2)		0.0013 U	0.0012 U	0.0011 U	0.0011 U	0.00082 J	0.00081 J	0.00046 J
E537M	335-67-1	Perfluorooctanoic Acid (PFOA)	mg/kg	0.500(2)		0.0013 U	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.00092 U	0.00014 J
E537M	2058-94-8	Perfluoroundecanoic Acid (Pfunda)	mg/kg			0.0013 U	0.0012 U	0.0011 U	0.0011 U	0.00024 J	0.00092 U	0.00085 U
		Metals and Cyanide										
SW6010	7429-90-5	Aluminum	mg/kg		13000	17900	16900	15500	15100	18300	12200	9920
SW6010	7440-38-2	Arsenic	mg/kg	16	8.9	5.8	5.4	4.9 J	8	6.9	6.8	3.9
SW6010	7440-39-3	Barium	mg/kg	400	76.4	104	101	128 J	114	99.3	95.7	76
SW6010	7440-41-7	Beryllium	mg/kg	590	0.723	0.802	0.748	0.951	0.865	0.85	0.797	0.56
SW6010	7440-43-9	Cadmium	mg/kg	9.3	0.597	0.637	0.576 J	1.3	0.696	0.359 J	0.629	0.527 J
SW6010	7440-70-2	Calcium	mg/kg		3350	7910	10300	52400 J	37200	5920	51600	73500
SW6010	7440-47-3	Chromium(3)	mg/kg	400	17.8	23.4	22.1	20 J	24.2	23.7	18.1	14.9
SW6010	7440-48-4	Cobalt	mg/kg		10	10.5	9.4	10.6	10.1	11.1	6.9	6.1
SW6010	7440-50-8	Copper	mg/kg	270	13.7	68.1	65	262 J	69.4	18.1	130	102
SW6010	7439-89-6	Iron	mg/kg		27600	28900	26800	24400	25500	29600	19300	17700
SW6010	7439-92-1	Lead	mg/kg	1000	41	28.9	28.8	39.3	52.4	36.7	60.9	38.7
SW6010	7439-95-4	Magnesium	mg/kg		3060	5690	5440	11500 J	10700	4570	10600	27300
SW6010	7439-96-5	Manganese	mg/kg	10000	904	534	483	849 J	568	663	586	449
SW6010	7440-02-0	Nickel	mg/kg	310	18.4	20.5	19	19.2	24.3	19.9	17.6	14.4
SW6010	7440-09-7	Potassium	mg/kg		1110	2940	2790	2780	2350	2090	1710	1750
SW6010	7782-49-2	Selenium	mg/kg	1500	11.5 U	1.2 U	1.2 U	1.1 U	1.1 U	0.828 J	1.1 U	1.1 U
SW6010	7440-22-4	Silver	mg/kg	1500	1.2 U	1.2 U	1.2 U	1.1 U	0.09 J	1.1 U	1.1 U	1.1 U
SW6010	7440-23-5	Sodium	mg/kg		81.8 J	87.1 J	90 J	195	194	78.9 J	177	178
SW6010	7440-28-0	Thallium	mg/kg		1.2 U	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U	11 U
SW6010	7440-62-2	Vanadium	mg/kg		33.3	36.3	33.6	28.8	30	37.4	24.6	20.1
SW6010	7440-66-6	Zinc	mg/kg	10000	102	142	148	387	166	2.2 U	2.1 U	2.2 U
SW7471	7439-97-6	Mercury	mg/kg	2.8	0.091	0.057	0.062	0.127 J	0.433	0.072	0.14	0.149
SW9012	57-12-5	Cyanide, Total	mg/kg	27	0.35	0.42	0.31	0.24	0.27	0.29 J	0.32	0.31
		Pesticides										
SW8081	72-55-9	4,4'-DDE	mg/kg	62	0.0099 U	0.011 U	0.0058 J	0.0099 U	0.01 U	0.015 J	0.011 J	0.019 U
SW8081	50-29-3	4,4'-DDT	mg/kg	47	0.0099 U	0.011 U	0.011 U	0.0099 U	0.01 U	0.011 J	0.018 J	0.019 U
SW8081	1031-07-8	Endosulfan Sulfate(4)	mg/kg	200	0.0099 U	0.011 U	0.011 U	0.0099 U	0.01 U	0.019 U	0.018 U	0.019 U
SW8081	7421-93-4	Endrin Aldehyde	mg/kg		0.0099 U	0.011 U	0.011 U	0.0099 U	0.01 U	0.019 U	0.018 U	0.019 U
SW8081	53494-70-5	Endrin Ketone	mg/kg		0.0099 U	0.011 U	0.011 U	0.0099 U	0.01 U	0.019 U	0.018 U	0.019 U
SW8081	5566-34-7	Gamma-Chlordane	mg/kg		0.0099 U	0.011 U	0.011 U	0.0099 U	0.01 U	0.019 U	0.018 U	0.019 U
SW8081	76-44-8	Heptachlor	mg/kg	15	0.0099 U	0.011 U	0.011 U	0.0099 U	0.01 U	0.019 U	0.018 U	0.019 U
SW8081	72-43-5	Methoxychlor	mg/kg		0.0099 U	0.011 U	0.011 U	0.0099 U	0.01 U	0.019 U	0.018 U	0.019 U
		PCBs										
SW8082	12672-29-6	Aroclor-1248	mg/kg	1	0.038 U	0.05 J	0.042 UJ	0.039 U	0.039 U	0.038 U	0.036 U	0.036 U
SW8082	11097-69-1	Aroclor-1254	mg/kg	1	0.038 U	0.043 U	0.042 U	0.039 U	0.039 U	0.038 U	0.036 U	0.036 U
SW8082	11096-82-5	Aroclor-1260	mg/kg	1	0.038 U	0.043 U	0.042 U	0.039 U	0.024 J	0.038 U	0.026 J	0.036 U
SW8082	11100-14-4	Aroclor-1268	mg/kg	1	0.038 U	0.043 U	0.042 U	0.039 U	0.039 U	0.038 U	0.036 U	0.036 U
		Total PCBs(5)	mg/kg	1	0.038 U	0.05	0.042 U	0.039 U	0.024	0.038 U	0.026	0.036 U
		Volatiles										
SW8260	78-93-3	2-Butanone	mg/kg	500	0.0061 U	0.0049 J	0.0064 U	0.006 U	0.0087 U	0.0087 U	0.0069 U	0.0069 U
SW8260	591-78-6	2-Hexanone	mg/kg		0.0061 U	0.0085 U	0.0064 U	0.006 U	0.0087 U	0.0087 U	0.0069 U	0.0069 U
SW8260	108-10-1	4-Methyl-2-Pentanone	mg/kg		0.0061 U	0.0085 U	0.0064 U	0.006 U	0.0087 U	0.0087 U	0.0069 U	0.0069 U
SW8260	67-64-1	Acetone	mg/kg	500	0.0061 U	0.025 J	0.0062 J	0.006 U	0.0087 U	0.033	0.0069 U	0.0069 U
SW8260	71-43-2	Benzene	mg/kg	44	0.0061 U	0.0085 U	0.0064 U	0.006 U	0.0087 U	0.0087 U	0.0069 U	0.0069 U
SW8260	75-15-0	Carbon Disulfide	mg/kg		0.0061 U	0.0085 U	0.0064 U	0.006 U	0.0087 U	0.0087 U	0.0069 U	0.0069 U
SW8260	67-66-3	Chloroform	mg/kg	350	0.0061 U	0.0085 U	0.0064 U	0.006 U	0.0087 U	0.0087 U	0.0069 U	0.0069 U
SW8260	156-59-2	cis-1,2-Dichloroethene	mg/kg	500	0.0061 U	0.0085 U	0.0064 U	0.006 U	0.0087 U	0.0087 U	0.0069 U	0.0069 U
SW8260	110-82-7	Cyclohexane	mg/kg		0.0061 U	0.0085 U	0.0064 U	0.006 U	0.0087 U	0.0087 U	0.0069 U	0.0069 U
SW8260	100-41-4	Ethylbenzene	mg/kg	390	0.0061 U	0.0085 U	0.0064 U	0.006 U	0.0087 U	0.0087 U	0.0069 U	0.0069 U
SW8260	98-82-8	Isopropylbenzene	mg/kg		0.0061 U	0.0085 U	0.0064 U	0.006 U	0.0087 U	0.0087 U	0.0069 U	0.0069 U

TABLE 4 FOCUSED RI SITE 109 SOIL ANALYTICAL SUMMARY

				Location ID	SB-03-2020		SB-04-2020		SB-04-2020		SB-04-2020		SB-04-2020		TP-01-2020		TP-01-2020		TP-01-2020	
				Field Sample ID	SB-03-2020-0.16-1.0-10142020		SB-04-2020-0.0-0.16-10142020		SB-04-2020-0.0-0.16-10142020 FD		SB-04-2020-0.16-1.0-10142020		SB-04-2020-3.0-4.0-10142020		TP-01-2020-0.0-0.16-09292020		TP-01-2020-0.16-1.0-09292020		TP-01-2020-2.0-3.0-09292020	
				Start Depth (ft)	0.16		0		0		0.16		3		0		0.16		2	
				End Depth (ft)	1		0.16		0.16		1		4		0.16		1		3	
				Sampled	10/14/2020		10/14/2020		10/14/2020		10/14/2020		10/14/2020		9/29/2020		9/29/2020		9/29/2020	
				SDG	R2009712		R2009712		R2009712		R2009712		R2009712		R2009023		R2009023		R2009023	
				Lab Sample ID	R2009712-002		R2009712-003		R2009712-004		R2009712-005		R2009712-006		R2009023-002		R2009023-003		R2009023-004	
				Sample Type	REG		REG		FD		REG		REG		REG		REG		REG	
				Matrix	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
Analytical Method	CAS_RN	Chemical Name	Unit	Soil Cleanup Objective (SCO) for Commercial Use[1]																
SW8260	XYLENES1314	m&p-Xylenes	mg/kg	500	0.012	U	0.017	U	0.013	U	0.012	U	0.017	U	0.017	U	0.014	U	0.014	U
SW8260	79-20-9	Methyl Acetate	mg/kg		0.0061	U	0.0085	U	0.0064	U	0.006	U	0.0087	U	0.0087	U	0.0069	U	0.0069	U
SW8260	108-87-2	Methylcyclohexane	mg/kg		0.0061	U	0.0085	U	0.0064	U	0.006	U	0.0087	U	0.0087	U	0.0069	U	0.0069	U
SW8260	95-47-6	o-Xylene	mg/kg	500	0.0061	U	0.0085	U	0.0064	U	0.006	U	0.0087	U	0.0087	U	0.0069	U	0.0069	U
SW8260	100-42-5	Styrene	mg/kg		0.0061	U	0.0085	U	0.0064	U	0.006	U	0.0087	U	0.0087	U	0.0069	U	0.0069	U
SW8260	108-88-3	Toluene	mg/kg	500	0.0061	U	0.0085	U	0.0064	U	0.006	U	0.0087	U	0.00088	J	0.0069	U	0.0069	U
SW8260	1330-20-7	Total Xylenes	mg/kg	500	0.012	U	0.017	U	0.013	U	0.012	U	0.017	U	0.017	U	0.014	U	0.014	U
SW8260	156-60-5	trans-1,2-Dichloroethene	mg/kg	500	0.0061	U	0.0085	U	0.0064	U	0.006	U	0.0087	U	0.0087	U	0.0069	U	0.0069	U
SW8260	79-01-6	Trichloroethene	mg/kg	200	0.0061	U	0.0085	U	0.0064	U	0.006	U	0.0087	U	0.0087	U	0.0069	U	0.00093	J
		Semivolatiles																		
SW8270	92-52-4	1,1'-Biphenyl	mg/kg		0.012	J	0.042	U	0.043	U	0.013	J	0.12	U	0.038	U	0.11	U	0.037	U
SW8270	105-67-9	2,4-Dimethylphenol	mg/kg		0.039	U	0.042	U	0.043	U	0.038	U	0.12	U	0.038	U	0.11	U	0.037	U
SW8270	91-57-6	2-Methylnaphthalene	mg/kg		0.1		0.032		0.03		0.048		0.083		0.03		0.11		0.022	
SW8270	95-48-7	2-Methylphenol	mg/kg	500	0.039	U	0.042	U	0.043	U	0.038	U	0.12	U	0.038	U	0.11	U	0.037	U
SW8270	34METPH	3&4-Methylphenol	mg/kg	500	0.039	U	0.042	U	0.043	U	0.038	U	0.12	U	0.038	U	0.11	U	0.037	U
SW8270	100-52-7	Benzaldehyde	mg/kg		0.039	UJ	0.042	UJ	0.043	UJ	0.038	UJ	0.12	U	0.038	U	0.11	U	0.037	U
SW8270	117-81-7	bis-(2-Ethylhexyl)Phthalate	mg/kg		0.059	J	0.77	U	0.78	UJ	0.039	J	2.1	U	0.69	U	2	U	0.67	U
SW8270	86-74-8	Carbazole	mg/kg		0.06		0.036	J	0.048		0.073		0.1	J	0.037	J	0.2		0.036	J
SW8270	84-74-2	Di-n-Butyl Phthalate	mg/kg		0.59	U	0.64	U	0.65	U	0.58	U	1.8	U	0.58	U	1.7	U	0.56	U
SW8270	108-95-2	Phenol	mg/kg	500	0.039	U	0.042	U	0.043	U	0.038	U	0.12	U	0.038	U	0.11	U	0.037	U
		PAHs																		
SW8270	83-32-9	Acenaphthene	mg/kg	500	0.055		0.022		0.033		0.052		0.097		0.02		0.14		0.024	
SW8270	208-96-8	Acenaphthylene	mg/kg	500	0.057		0.095		0.1		0.21		0.24		0.051		0.37		0.11	
SW8270	120-12-7	Anthracene	mg/kg	500	0.084		0.11		0.13		0.35		0.46		0.081		0.67		0.17	
SW8270	56-55-3	Benzo(A)Anthracene	mg/kg	5.6	0.38		0.44		0.51		1.1		1.5		0.41		3.1		0.53	
SW8270	50-32-8	Benzo(A)Pyrene	mg/kg	1	0.69		0.73		0.78		1.5		2.1		0.67		4.9		0.73	
SW8270	205-99-2	Benzo(B)Fluoranthene	mg/kg	5.6	0.69		0.81		0.84		1.6		2.2		0.75		5.1		0.84	
SW8270	191-24-2	Benzo(G,H,I)perylene	mg/kg	500	0.39		0.28		0.29		0.53		1.4		0.43		1.9		0.38	
SW8270	207-08-9	Benzo(K)Fluoranthene	mg/kg	56	0.24		0.27		0.28		0.51		0.76		0.27		1.4		0.28	
SW8270	218-01-9	Chrysene	mg/kg	56	0.48		0.55		0.57		1.2		1.4		0.51		3.4		0.59	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	mg/kg	0.56	0.095		0.074		0.085		0.15		0.36		0.1		0.51		0.11	
SW8270	132-64-9	Dibenzofuran	mg/kg	350	0.038		0.025		0.029		0.063		0.13		0.022		0.14		0.036	
SW8270	206-44-0	Fluoranthene	mg/kg	500	0.72		0.75		0.86		2.2		4.2		0.93		5.6		1	
SW8270	86-73-7	Fluorene	mg/kg	500	0.032		0.028		0.037		0.087		0.2		0.022		0.21		0.047	
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	mg/kg	5.6	0.44		0.33		0.35		0.6		1.5		0.48		3.8		0.45	
SW8270	91-20-3	Naphthalene	mg/kg	500	0.093		0.087		0.089		0.15		0.18		0.063		0.37		0.073	
SW8270	85-01-8	Phenanthrene	mg/kg	500	0.42		0.3		0.38		0.93		2.1		0.34		2.7		0.45	
SW8270	129-00-0	Pyrene	mg/kg	500	0.76		0.75		0.83		2		3.7		0.96		5.9		1.1	
		Total PAHs[5]	mg/kg	500	5.7		5.7		6.2		13		23		6.1		40		6.9	

Notes:
(1) Unless otherwise noted, soil cleanup objectives from Table 375-6.8(b) in NYSDEC's "6 NYCRR PART 375 Environmental Remediation Programs," December 14, 2006.
(2) PFAS criteria are guidance levels from the NYSDEC document titled "Sampling, Analysis, and Asssessmen of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs," November 2022.
(3) Hexavalent chromium standard is presented. The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.
(4) This SCO is for the sum of endosulfan I, endosulfan II, and endosulfan sulfate.
(5) Value from NYSDEC "CP-51/Soil Cleanup Guidance", October 21, 2010.
Only detected compounds are presented
Shaded: Value exceeds Commercial SCOs

TABLE 4 FOCUSED RI SITE 109 SOIL ANALYTICAL SUMMARY

				Location ID	TP-01-2020		TP-04-2020		TP-05-2020		TP-05-2020		TP-05-2020	
				Field Sample ID	TP-01-2020-10.0-10.6-09292020		TP-04-2020-2.5-3.0-09302020		TP-05-2020-0.0-0.16-09292020		TP-05-2020-0.16-1.0-09292020		TP-05-2020-3.0-4.0-09292020	
				Start Depth (ft)	10		2.5		0		0.16		3	
				End Depth (ft)	10.6		3		0.16		1		4	
				Sampled	9/29/2020		9/30/2020		9/29/2020		9/29/2020		9/29/2020	
				SDG	R2009023		R2009132		R2009023		R2009023		R2009023	
				Lab Sample ID	R2009023-005		R2009132-001		R2009023-006		R2009023-007		R2009023-008	
				Sample Type	REG		REG		REG		REG		REG	
				Matrix	SOIL		SOIL		SOIL		SOIL		SOIL	
Analytical Method	CAS_RN	Chemical Name	Unit	Soil Cleanup Objective (SCO) for Commercial Use(1)										
E160.3	SOLID	Solids	%		85.6		77.7		73.5		76.2		87	
E160.3	SOLIDS	Total Solids	%											
		PFAS												
E537M	2991-50-6	n-Ethyl Perfluorooctanesulfonamidoacetic Acid (n-ETFOSAA)	mg/kg		0.0011	U								
E537M	375-85-9	Perfluoroheptanoic Acid (PFHpA)	mg/kg		0.0011	U								
E537M	355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	mg/kg		0.0011	U								
E537M	1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	mg/kg	0.440(2)	0.00032	J								
E537M	335-67-1	Perfluorooctanoic Acid (PFOA)	mg/kg	0.500(2)	0.0011	U								
E537M	2058-94-8	Perfluoroundecanoic Acid (Pfunda)	mg/kg		0.0011	U								
		Metals and Cyanide												
SW6010	7429-90-5	Aluminum	mg/kg		15200		17400		13300		14400		13700	
SW6010	7440-38-2	Arsenic	mg/kg	16	4.3		8.2		11.4		10.6		3.9	
SW6010	7440-39-3	Barium	mg/kg	400	139		125		84		83.2		113	J
SW6010	7440-41-7	Beryllium	mg/kg	590	1.4		0.991		0.844		0.795		0.641	
SW6010	7440-43-9	Cadmium	mg/kg	9.3	0.435	J	0.502	J	0.617	J	0.58	J	0.133	J
SW6010	7440-70-2	Calcium	mg/kg		91600		24700		6650		4050		65500	
SW6010	7440-47-3	Chromium(3)	mg/kg	400	21.5		24.6		20.1		21.1		19.7	J
SW6010	7440-48-4	Cobalt	mg/kg		6		13.6		9		8.8		10	
SW6010	7440-50-8	Copper	mg/kg	270	45.8		27.5		26.9		21.4		21.1	
SW6010	7439-89-6	Iron	mg/kg		20500		34900		25700		26300		26700	
SW6010	7439-92-1	Lead	mg/kg	1000	55.9		53.6		51.6		44.3		9.7	
SW6010	7439-95-4	Magnesium	mg/kg		14300		10500		3230		3020		15400	
SW6010	7439-96-5	Manganese	mg/kg	10000	1140		713		773		733		531	J
SW6010	7440-02-0	Nickel	mg/kg	310	15.7		28.1		25.6		25.7		23.1	
SW6010	7440-09-7	Potassium	mg/kg		2010		2370		1540		1320		2390	
SW6010	7782-49-2	Selenium	mg/kg	1500	1.2	U	0.772	J	1.1	J	12.6	U	0.652	J
SW6010	7440-22-4	Silver	mg/kg	1500	1.2	U	1.3	U	1.3	U	1.3	U	1.1	U
SW6010	7440-23-5	Sodium	mg/kg		557		227		238		340		524	
SW6010	7440-28-0	Thallium	mg/kg		0.928	J	1.3	U	1.3	U	1.3	U	1.1	U
SW6010	7440-62-2	Vanadium	mg/kg		22.4		38		31.6		32.8		28	
SW6010	7440-66-6	Zinc	mg/kg	10000	2.3	U	126		2.5	U	2.5	U	2.2	U
SW7471	7439-97-6	Mercury	mg/kg	2.8	0.14		0.064		0.105		0.095		0.038	U
SW9012	57-12-5	Cyanide, Total	mg/kg	27	0.55		0.28	U	0.74		0.47		0.34	U
		Pesticides												
SW8081	72-55-9	4,4'-DDE	mg/kg	62	0.02	U	0.011	U	0.012	U	0.011	U	0.002	U
SW8081	50-29-3	4,4'-DDT	mg/kg	47	0.02	U	0.011	U	0.0061	J	0.011	U	0.002	U
SW8081	1031-07-8	Endosulfan Sulfate(4)	mg/kg	200	0.02	U	0.011	U	0.012	U	0.011	U	0.002	U
SW8081	7421-93-4	Endrin Aldehyde	mg/kg		0.02	U	0.011	U	0.012	U	0.011	U	0.002	U
SW8081	53494-70-5	Endrin Ketone	mg/kg		0.02	U	0.011	U	0.012	U	0.011	U	0.002	U
SW8081	5566-34-7	Gamma-Chlordane	mg/kg		0.02	U	0.011	U	0.012	U	0.011	U	0.002	U
SW8081	76-44-8	Heptachlor	mg/kg	15	0.02	U	0.011	U	0.012	U	0.011	U	0.002	U
SW8081	72-43-5	Methoxychlor	mg/kg		0.02	U	0.011	U	0.012	U	0.011	U	0.002	U
		PCBs												
SW8082	12672-29-6	Aroclor-1248	mg/kg	1	0.033	J	0.044		0.045	U	0.044	U	0.038	U
SW8082	11097-69-1	Aroclor-1254	mg/kg	1	0.039	U	0.023	J	0.045	U	0.044	U	0.038	U
SW8082	11096-82-5	Aroclor-1260	mg/kg	1	0.021	J	0.031	J	0.045	U	0.044	U	0.038	U
SW8082	11100-14-4	Aroclor-1268	mg/kg	1	0.039	U	0.042	U	0.045	U	0.044	U	0.038	U
		Total PCBs(5)	mg/kg	1	0.054		0.098		0.045	U	0.044	U	0.038	U
		Volatiles												
SW8260	78-93-3	2-Butanone	mg/kg	500	0.0046	U	0.0069	U	0.0095	U	0.0067	U	0.0046	U
SW8260	591-78-6	2-Hexanone	mg/kg		0.0046	U	0.0069	U	0.0095	U	0.0067	U	0.0046	U
SW8260	108-10-1	4-Methyl-2-Pentanone	mg/kg		0.0046	U	0.0069	U	0.0095	U	0.0067	U	0.0046	U
SW8260	67-64-1	Acetone	mg/kg	500	0.014		0.0069	U	0.0095	U	0.0067	U	0.0046	U
SW8260	71-43-2	Benzene	mg/kg	44	0.00029	J	0.0069	U	0.0095	U	0.0067	U	0.0046	U
SW8260	75-15-0	Carbon Disulfide	mg/kg		0.00041	J	0.0069	U	0.0095	U	0.0067	U	0.0046	U
SW8260	67-66-3	Chloroform	mg/kg	350	0.0046	U	0.0069	U	0.00041	J	0.00051	J	0.0046	U
SW8260	156-59-2	cis-1,2-Dichloroethene	mg/kg	500	0.0046	U	0.0069	U	0.0095	U	0.0067	U	0.0046	U
SW8260	110-82-7	Cyclohexane	mg/kg		0.00039	J	0.0069	U	0.0095	U	0.0067	U	0.0046	U
SW8260	100-41-4	Ethylbenzene	mg/kg	390	0.0046	U	0.0069	U	0.0095	U	0.0067	U	0.0046	U
SW8260	98-82-8	Isopropylbenzene	mg/kg		0.0046	U	0.0069	U	0.0095	U	0.0067	U	0.0046	U

TABLE 4 FOCUSED RI SITE 109 SOIL ANALYTICAL SUMMARY

				Location ID	TP-01-2020		TP-04-2020		TP-05-2020		TP-05-2020		TP-05-2020	
				Field Sample ID	TP-01-2020-10.0-10.6-09292020		TP-04-2020-2.5-3.0-09302020		TP-05-2020-0.0-0.16-09292020		TP-05-2020-0.16-1.0-09292020		TP-05-2020-3.0-4.0-09292020	
				Start Depth (ft)	10		2.5		0		0.16		3	
				End Depth (ft)	10.6		3		0.16		1		4	
				Sampled	9/29/2020		9/30/2020		9/29/2020		9/29/2020		9/29/2020	
				SDG	R2009023		R2009132		R2009023		R2009023		R2009023	
				Lab Sample ID	R2009023-005		R2009132-001		R2009023-006		R2009023-007		R2009023-008	
				Sample Type	REG		REG		REG		REG		REG	
				Matrix	SOIL		SOIL		SOIL		SOIL		SOIL	
Analytical Method	CAS_RN	Chemical Name	Unit	Soil Cleanup Objective (SCO) for Commercial Use[1]										
SW8260	XYLENES1314	m&p-Xylenes	mg/kg	500	0.0091	U	0.014	U	0.019	U	0.013	U	0.0092	U
SW8260	79-20-9	Methyl Acetate	mg/kg		0.00077	J	0.0069	U	0.0095	U	0.0067	U	0.0046	U
SW8260	108-87-2	Methylcyclohexane	mg/kg		0.0046	U	0.0069	U	0.0095	U	0.0067	U	0.0046	U
SW8260	95-47-6	o-Xylene	mg/kg	500	0.0046	U	0.0069	U	0.0095	U	0.0067	U	0.0046	U
SW8260	100-42-5	Styrene	mg/kg		0.0046	U	0.0069	U	0.0095	U	0.0067	U	0.0046	U
SW8260	108-88-3	Toluene	mg/kg	500	0.00038	J	0.0069	U	0.0095	U	0.0067	U	0.0046	U
SW8260	1330-20-7	Total Xylenes	mg/kg	500	0.0091	U	0.014	U	0.019	U	0.013	U	0.0092	U
SW8260	156-60-5	trans-1,2-Dichloroethene	mg/kg	500	0.0046	U	0.0069	U	0.0095	U	0.0067	U	0.0046	U
SW8260	79-01-6	Trichloroethene	mg/kg	200	0.0064		0.0069	U	0.0095	U	0.0067	U	0.0046	U
		Semivolatiles												
SW8270	92-52-4	1,1'-Biphenyl	mg/kg		0.089	J	0.1		0.053		0.038	J	0.037	U
SW8270	105-67-9	2,4-Dimethylphenol	mg/kg		0.12	U	0.031	J	0.046	U	0.044	U	0.037	U
SW8270	91-57-6	2-Methylnaphthalene	mg/kg		0.3		0.52		0.44		0.34		0.018	
SW8270	95-48-7	2-Methylphenol	mg/kg	500	0.12	U	0.033	J	0.046	U	0.044	U	0.037	U
SW8270	34METPH	3&4-Methylphenol	mg/kg	500	0.044	J	0.15		0.02	J	0.016	J	0.037	U
SW8270	100-52-7	Benzaldehyde	mg/kg		0.12	U	0.043	U	0.025	J	0.02	J	0.037	U
SW8270	117-81-7	bis-(2-Ethylhexyl)Phthalate	mg/kg		2.2	U	0.42	J	0.83	U	0.8	U	0.68	U
SW8270	86-74-8	Carbazole	mg/kg		0.63	J+	0.4		0.22		0.16		0.037	U
SW8270	84-74-2	Di-n-Butyl Phthalate	mg/kg		1.8	UJ	0.052	J	0.69	U	0.66	U	0.56	U
SW8270	108-95-2	Phenol	mg/kg	500	0.033	J	0.047		0.046	U	0.044	U	0.037	U
		PAHs												
SW8270	83-32-9	Acenaphthene	mg/kg	500	0.46		0.59		0.33		0.22		0.007	J
SW8270	208-96-8	Acenaphthylene	mg/kg	500	1.3		0.32		0.14		0.12		0.0088	
SW8270	120-12-7	Anthracene	mg/kg	500	4.1		0.81		0.38		0.27		0.025	
SW8270	56-55-3	Benzo(A)Anthracene	mg/kg	5.6	7.5		2.4		1.8		1.2		0.075	
SW8270	50-32-8	Benzo(A)Pyrene	mg/kg	1	9.2		4.3		3.5		2.4		0.11	
SW8270	205-99-2	Benzo(B)Fluoranthene	mg/kg	5.6	9.3		4.1		3.4		2.2		0.13	
SW8270	191-24-2	Benzo(G,H,I)perylene	mg/kg	500	5.2		3.2		2.7		1.8		0.088	
SW8270	207-08-9	Benzo(K)Fluoranthene	mg/kg	56	3.3		1.4		1.2		0.85		0.046	
SW8270	218-01-9	Chrysene	mg/kg	56	7.7		2.8		2.3		1.5		0.092	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	mg/kg	0.56	0.91		0.52		0.39		0.27		0.019	
SW8270	132-64-9	Dibenzofuran	mg/kg	350	0.63		0.41		0.18		0.13		0.013	
SW8270	206-44-0	Fluoranthene	mg/kg	500	15		4.9		3.7		2.5		0.13	
SW8270	86-73-7	Fluorene	mg/kg	500	0.94		0.47		0.13		0.091		0.0083	
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	mg/kg	5.6	6.2		3.5		2.7		1.9		0.086	
SW8270	91-20-3	Naphthalene	mg/kg	500	0.88		1.2		0.43		0.3		0.033	
SW8270	85-01-8	Phenanthrene	mg/kg	500	9		3.3		1.9		1.2		0.073	
SW8270	129-00-0	Pyrene	mg/kg	500	14		4.2		3.1		2.1		0.13	
		Total PAHs[5]	mg/kg	500	96		38		28		19		1.1	

Notes:
(1) Unless otherwise noted, soil cleanup objectives from Table 375-6.8(b) in NYSDEC's "6 NYCRR PART 375 Environmental Remediation Programs," December 14, 2006.
(2) PFAS criteria are guidance levels from the NYSDEC document titled "Sampling, Analysis, and Asssessmen of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs," November 2022.
(3) Hexavalent chromium standard is presented. The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.
(4) This SCO is for the sum of endosulfan I, endosulfan II, and endosulfan sulfate.
(5) Value from NYSDEC "CP-51/Soil Cleanup Guidance", October 21, 2010.
Only detected compounds are presented
Shaded: Value exceeds Commercial SCOs

Honeywell PARSONS

TABLE 5 FOCUSED RI SITE 109 GROUNDWATER ANALYTICAL SUMMARY DECEMBER 2020

				Location Description	MW-01-2020		MW-02-2020		MW-03-2020		MW-17-89	
				Location ID	MW-01-2020		MW-02-2020		MW-03-2020		MW-17-89	
				Sample ID	MW-01-2020-12312020		MW-02-2020-12312020		MW-03-2020-12312020		MW-17-89-12302020	
				Matrix	GW		GW		GW		GW	
				Lab Sample ID	R2100005-002		R2100005-003		R2100005-001		R2012370-001	
				Sample Date	12/31/2020		12/31/2020		12/31/2020		12/30/2020	
				Sample Type Code	REG		REG		REG		REG	
Analytical Method	CAS_RN	Chemical Name	Unit	Class GA Groundwater Quality Standard or Guidance Value[1]								
		PFAS										
E537M	27619-97-2	6:2 Fluorotelomer Sulfonate (6:2 FTS)	ug/l	NS					0.0047	U	0.00064	J
E537M	375-73-5	Perfluorobutanesulfonic Acid (PFBS)	ug/l	NS					0.0047	U	0.0011	J
E537M	375-22-4	Perfluorobutanoic Acid (PFBA)	ug/l	NS					0.015		0.019	
E537M	375-85-9	Perfluoroheptanoic Acid (PFHpA)	ug/l	NS					0.0029	J	0.0016	J
E537M	355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	ug/l	NS					0.002	J	0.0016	J
E537M	1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	ug/l	0.0027[2]					0.0015	J	0.0027	
E537M	335-67-1	Perfluorooctanoic Acid (PFOA)	ug/l	0.0067[2]					0.0051		0.0029	
E537M	2706-90-3	Perfluoropentanoic Acid (PFPeA)	ug/l	NS					0.0089		0.002	J
		Metals										
SW6010	7429-90-5	Aluminum	ug/l	NS	152		370				100	U
SW6010	7440-38-2	Arsenic	ug/l	25	10	U	10	U			11	
SW6010	7440-39-3	Barium	ug/l	1000	55.3		92.3				54.3	
SW6010	7440-70-2	Calcium	ug/l	NS	275000		76800				128000	
SW6010	7440-47-3	Chromium	ug/l	50	1.2	J	1.5	J			10	U
SW6010	7440-50-8	Copper	ug/l	200	20	U	4	J			20	U
SW6010	7439-89-6	Iron	ug/l	300	187		373				1020	
SW6010	7439-95-4	Magnesium	ug/l	35000[2]	83300		13900				28700	
SW6010	7439-96-5	Manganese	ug/l	300	83.5		41.9				632	
SW6010	7440-09-7	Potassium	ug/l	NS	7550		7070				5810	
SW6010	7782-49-2	Selenium	ug/l	10	10	U	8.3	J			10	U
SW6010	7440-23-5	Sodium	ug/l	20000	467000		31900				82900	
SW6010	7440-28-0	Thallium	ug/l	0.5[2]	9	J	10	U			10	U
SW6010	7440-62-2	Vanadium	ug/l	NS	1.5	J	3.3	J			50	U
		PESTICIDES										
		PCBS										
SW8082	12672-29-6	Aroclor-1248	ug/l	0.09[3]	0.05	U	0.091				0.051	UJ
		Volatiles										
SW8260	75-15-0	Carbon Disulfide	ug/l	60	1	U	1	U	0.42	J	1	U
SW8260	156-59-2	cis-1,2-Dichloroethene	ug/l	5	1	U	1	U	1.1		1	U
SW8260	156-60-5	trans-1,2-Dichloroethene	ug/l	5	1	U	1	U	0.97	J	1	U
SW8260	79-01-6	Trichloroethene	ug/l	5	1	U	1	U	0.75	J	1	U
		Semivolatiles										
SW8270	56-55-3	Benzo(A)Anthracene	ug/l	0.002[2]	0.27		0.2	U	0.21	U	0.2	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/l	ND	0.35		0.2	U	0.21	U	0.2	U
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/l	0.002[2]	0.38		0.2	U	0.21	U	0.2	U
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/l	NS	0.31		0.2	U	0.21	U	0.2	U
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/l	0.002[2]	0.16	J	0.2	U	0.21	U	0.2	U
SW8270	218-01-9	Chrysene	ug/l	0.002[2]	0.24		0.2	U	0.21	U	0.2	U

TABLE 5 FOCUSED RI SITE 109 GROUNDWATER ANALYTICAL SUMMARY DECEMBER 2020

				Location Description	MW-01-2020		MW-02-2020		MW-03-2020		MW-17-89	
				Location ID	MW-01-2020		MW-02-2020		MW-03-2020		MW-17-89	
				Sample ID	MW-01-2020-12312020		MW-02-2020-12312020		MW-03-2020-12312020		MW-17-89-12302020	
				Matrix	GW		GW		GW		GW	
				Lab Sample ID	R2100005-002		R2100005-003		R2100005-001		R2012370-001	
				Sample Date	12/31/2020		12/31/2020		12/31/2020		12/30/2020	
				Sample Type Code	REG		REG		REG		REG	
Analytical Method	CAS_RN	Chemical Name	Unit	Class GA Groundwater Quality Standard or Guidance Value(1)								
SW8270	206-44-0	Fluoranthene	ug/l	50(2)	0.33		0.2	U	0.21	U	0.2	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/l	0.002(2)	0.27		0.2	U	0.21	U	0.2	U
SW8270	85-01-8	Phenanthrene	ug/l	50	0.21		0.2	U	0.21	U	0.2	U
SW8270	129-00-0	Pyrene	ug/l	50(2)	0.34		0.2	U	0.21	U	0.2	U
SW8270-SIM	123-91-1	1,4-Dioxane	ug/l	0.35(2)	0.046		0.04	U			0.04	U
		Cyanide										
SW9012	57-12-5	Cyanide, Total	ug/l	200	11		18				42	

(1) Unless otherwise noted, groundwater criteria obtained from the NYSDEC document titled, "Division of Water Technical and Operational Guidance Series (TOGS) (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations," June 1998; Errata Sheet for June 1998 Edition. Criteria listed are standards unless otherwise noted.
(2) Guidance value (from TOGS 1.1.1)
(3) Applies to the sum of these substances.
Only detected compounds are presented

Shaded: Value exceeds standard or guidance value
U: Compound not detected at provided detection limit
J: Estimated at given value
NS: No standard established

TABLE 6 FOCUSED RI SITE 109 GROUNDWATER ANALYTICAL SUMMARY SEPTEMBER 2021

					Location Description	MW-01-2020		MW-02-2020		MW-03-2020		MW-17-89	
					Location ID	MW-01-2020		MW-02-2020		MW-03-2020		MW-17-89	
					Sample ID	MW-01-2020-09242021		MW-02-2020-09242021		MW-03-2020-09242021		MW-17-89-09212021	
					Matrix	GW		GW		GW		GW	
					Lab Sample ID	R2110067-005/R2110067-006		R2110067-003/R2110067-004		R2110067-001/R2110067-002		R2109811-001/R2109811-002	
					Sample Date	9/24/2021		9/24/2021		9/24/2021		9/21/2021	
					Sample Type Code	REG		REG		REG		REG	
Analytical Method	CAS_RN	Chemical Name	FRACTION	Unit	Class GA Groundwater Quality Standard or Guidance Value[1]								
		Metals - Totals											
SW6010	7429-90-5	Aluminum	T	ug/l	NS	95.8	J	29.4	J	805		100	U
SW6010	7440-36-0	Antimony	T	ug/l	3	60	U	60	U	60	U	60	U
SW6010	7440-38-2	Arsenic	T	ug/l	25	10	U	10	U	10	U	23	
SW6010	7440-39-3	Barium	T	ug/l	1000	42.1		70.1		39.4		74.1	
SW6010	7440-70-2	Calcium	T	ug/l	NS	105000		96300		320000		143000	
SW6010	7440-47-3	Chromium	T	ug/l	50	3	J	10	U	2.7	J	10	U
SW6010	7440-48-4	Cobalt	T	ug/l	NS	50	U	50	U	50	U	1	J
SW6010	7440-50-8	Copper	T	ug/l	200	20	U	20	U	20	U	5.4	J
SW6010	7439-89-6	Iron	T	ug/l	300	194		100	U	2200		1810	
SW6010	7439-95-4	Magnesium	T	ug/l	35000[2]	12600		159000		414000		29700	
SW6010	7439-96-5	Manganese	T	ug/l	300	4.5	J	106		377		823	
SW6010	7440-09-7	Potassium	T	ug/l	NS	2700		5350		3360		8260	
SW6010	7440-23-5	Sodium	T	ug/l	20000	245000		87400		193000		82600	
SW6010	7440-28-0	Thallium	T	ug/l	0.5[2]	10	U	10	U	9	J	10	U
SW6010	7440-62-2	Vanadium	T	ug/l	NS	1.9	J	2.3	J	2.3	J	1	J
SW6010	7440-66-6	Zinc	T	ug/l	2000[2]	20	U	20	U	5.3	J	4.6	J
		Metals - Dissolved											
SW6010	7429-90-5	Aluminum	D		NS	100	U	100	U	100	U	100	U
SW6010	7440-36-0	Antimony	D	ug/l	3	10.5	J	60	U	60	U	60	U
SW6010	7440-38-2	Arsenic	D	ug/l	25	10	U	10	U	10	U	23	
SW6010	7440-39-3	Barium	D	ug/l	1000	47.1		69.8		27.5		73	
SW6010	7440-70-2	Calcium	D	ug/l	NS	124000		94500		382000		140000	
SW6010	7440-47-3	Chromium	D	ug/l	50	2.6	J	10	U	10	U	10	U
SW6010	7440-48-4	Cobalt	D	ug/l	NS	50	U	0.9	J	1.4	J	0.9	J
SW6010	7440-50-8	Copper	D	ug/l	200	20	U	20	U	20	U	20	U
SW6010	7439-89-6	Iron	D	ug/l	300	100	U	61.4	J	1990		1800	
SW6010	7439-95-4	Magnesium	D	ug/l	35000[2]	15800		156000		514000		29000	
SW6010	7439-96-5	Manganese	D	ug/l	300	10	U	176		688		811	
SW6010	7440-09-7	Potassium	D	ug/l	NS	2770		5260		4230		8130	
SW6010	7440-23-5	Sodium	D	ug/l	20000	264000		86500		191000		81700	
SW6010	7440-28-0	Thallium	D	ug/l	0.5[2]	10	U	10	U	13.1		10	U
SW6010	7440-62-2	Vanadium	D	ug/l	NS	1.7	J	2.6	J	0.8	J	0.9	J
SW6010	7440-66-6	Zinc	D	ug/l	2000[2]	20	U	2.7	J	3.6	J	20	U
		PCBS - Total											
		PCBS - Dissolved											
		Volatiles											
SW8260	75-15-0	Carbon Disulfide	T	ug/l	60	1	U	1	U	3		1	U
SW8260	156-59-2	cis-1,2-Dichloroethene	T	ug/l	5	1	U	1	U	1.4		1	U
SW8260	156-60-5	trans-1,2-Dichloroethene	T	ug/l	5	1	U	1	U	0.58	J	1	U
SW8260	79-01-6	Trichloroethene	T	ug/l	5	1	U	1	U	0.76	J	1	U

TABLE 6 FOCUSED RI SITE 109 GROUNDWATER ANALYTICAL SUMMARY SEPTEMBER 2021

					Location Description	MW-01-2020		MW-02-2020		MW-03-2020		MW-17-89	
					Location ID	MW-01-2020		MW-02-2020		MW-03-2020		MW-17-89	
					Sample ID	MW-01-2020-09242021		MW-02-2020-09242021		MW-03-2020-09242021		MW-17-89-09212021	
					Matrix	GW		GW		GW		GW	
					Lab Sample ID	R2110067-005/R2110067-006		R2110067-003/R2110067-004		R2110067-001/R2110067-002		R2109811-001/R2109811-002	
					Sample Date	9/24/2021		9/24/2021		9/24/2021		9/21/2021	
					Sample Type Code	REG		REG		REG		REG	
Analytical Method	CAS_RN	Chemical Name	FRACTION	Unit	Class GA Groundwater Quality Standard or Guidance Value(1)								
		Semivolatiles - Total											
SW8270	91-20-3	Naphthalene	T	ug/l	10(2)	0.2	U	0.2	U	0.064	J	0.21	U
		Semivolatiles - Dissolved											
SW8270	120-83-2	2,4-Dichlorophenol	D	ug/l	NS	1				0.97	U	0.93	U
		Cyanide - Total											
SW9012	57-12-5	Cyanide, Total	T	ug/l	200	11		38		10	U	40	
		Cyanide - Dissolved											
SW9012	57-12-5	Cyanide	D	ug/l	200	12		36		10	U	38	

(1) Unless otherwise noted, groundwater criteria obtained from the NYSDEC document titled, "Division of Water Technical and Operational Guidance Series (TOGS) (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations," June 1998; Errata Sheet for June 1998 Edition. Criteria listed are standards unless otherwise noted.

(2) Guidance value (from TOGS 1.1.1)

Only detected compounds are presented

Shaded: Value exceeds standard or guidance value

U: Compound not detected at provided detection limit

J: Estimated at given value

NS: No standard established

TABLE 7 - FOCUSED RI SITE 110 SOIL ANALYTICAL SUMMARY

				Location ID	MW-04-2020		MW-04-2020		MW-04-2020		MW-05-2020		MW-05-2020	
				Field Sample ID	MW-04-2020-0.0-0.16-10162020		MW-04-2020-0.16-1.0-10162020		MW-04-2020-4.0-6.0-10162020		MW-05-2020-0.0-0.16-10152020		MW-05-2020-0.16-1.0-10152020	
				Start Depth (ft)	0		0.16		4		0		0.16	
				End Depth (ft)	0.16		1		6		0.16		1	
				Sampled	10/16/2020		10/16/2020		10/16/2020		10/15/2020		10/15/2020	
				SDG	R2009746		R2009746		R2009746		R2009746		R2009746	
				Lab Sample ID	R2009746-012		R2009746-013		R2009746-015		R2009746-001		R2009746-002	
				Sample Type	REG		REG		REG		REG		REG	
				Matrix	SOIL		SOIL		SOIL		SOIL		SOIL	
Analytical Method	CAS_RN	Chemical Name	Unit	Soil Cleanup Objective (SCO) for Commercial Use(1)										
E160.3	SOLID	Solids	%		83.2		84.6		84.1		86.4		84.4	
E160.3	SOLIDS	Total Solids	%											
		PFAS												
E537M	2991-50-6	n-Ethyl Perfluorooctanesulfonamidoacetic Acid (n-ETFOSAA)	mg/kg		0.0011	U	0.0012	U	0.0011	U	0.00031	J	0.0011	U
E537M	375-22-4	Perfluorobutanoic Acid (PFBA)	mg/kg		0.0011	U	0.0012	U	0.0011	U	0.0011	U	0.0011	U
E537M	335-76-2	Perfluorodecanoic acid (PFDA)	mg/kg		0.0011	U	0.0012	U	0.0011	U	0.0011	U	0.0011	U
E537M	375-85-9	Perfluoroheptanoic Acid (PFHpA)	mg/kg		0.0011	U	0.0012	U	0.0011	U	0.0011	U	0.0011	U
E537M	355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	mg/kg		0.0011	U	0.00074	J	0.0011	U	0.0011	U	0.0011	U
E537M	375-95-1	Perfluorononanoic Acid (PFNA)	mg/kg		0.0011	U	0.0012	U	0.0011	U	0.0011	U	0.0011	U
E537M	1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	mg/kg	0.440(2)	0.00019	J	0.0002	J	0.00029	J	0.00039	J	0.0003	J
E537M	335-67-1	Perfluorooctanoic Acid (PFOA)	mg/kg	0.500(2)	0.0011	U	0.0012	U	0.0011	U	0.0011	U	0.0011	U
E537M	376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	mg/kg		0.0011	U	0.0012	U	0.0011	U	0.0011	U	0.0011	U
E537M	2058-94-8	Perfluoroundecanoic Acid (Pfunda)	mg/kg		0.0011	U	0.0012	U	0.0011	U	0.0011	U	0.0011	U
		Metals and Cyanide												
SW6010	7429-90-5	Aluminum	mg/kg		3020		2870		3830		2750		2870	
SW6010	7440-36-0	Antimony	mg/kg		0.797	J	6.7	U	6.5	U	6.8	UJ	7	U
SW6010	7440-38-2	Arsenic	mg/kg	16	9.1		15.1		7.6		8.5	J	8.3	
SW6010	7440-39-3	Barium	mg/kg	400	61.9		73		80.7		58.3		74.6	
SW6010	7440-41-7	Beryllium	mg/kg	590	0.451		0.524		0.508		0.726		0.802	
SW6010	7440-43-9	Cadmium	mg/kg	9.3	0.543	J	1.4		0.886		0.669		0.616	
SW6010	7440-70-2	Calcium	mg/kg		6020		4560		13100		3990		5360	
SW6010	7440-47-3	Chromium(3)	mg/kg	400	12.7		22.6		16		16.6		11.5	
SW6010	7440-48-4	Cobalt	mg/kg		4.2	J	4.9	J	4.1	J	13.6		9.6	
SW6010	7440-50-8	Copper	mg/kg	270	36.9		49.8		31.5		103	J	77.9	
SW6010	7439-89-6	Iron	mg/kg		16400		51000		17600		26600		20400	
SW6010	7439-92-1	Lead	mg/kg	1000	41.2		130		69.8		20.1		15.6	
SW6010	7439-95-4	Magnesium	mg/kg		1810		1340		2290		444	J	491	
SW6010	7439-96-5	Manganese	mg/kg	10000	172		306		252		362		266	
SW6010	7440-02-0	Nickel	mg/kg	310	13.9		20.7		12.5		30		19.4	
SW6010	7440-09-7	Potassium	mg/kg		462		422		625		358		398	
SW6010	7782-49-2	Selenium	mg/kg	1500	0.878	J	11.2	U	10.8	U	0.828	J	0.813	J
SW6010	7440-22-4	Silver	mg/kg	1500	1.2	U	1.1	U	1.1	U	1.1	U	1.2	U
SW6010	7440-23-5	Sodium	mg/kg		90.7	J	109	J	117		103	J	90.6	J
SW6010	7440-28-0	Thallium	mg/kg		1.2	U	1.1	U	1.1	U	1.1	U	1.2	U
SW6010	7440-62-2	Vanadium	mg/kg		15.6		38.3		12.2		15.1		11.9	
SW6010	7440-66-6	Zinc	mg/kg	10000	106		205		264		44.2		27.5	
SW7471	7439-97-6	Mercury	mg/kg	2.8	0.828		0.63		0.216		0.137		0.097	
SW9012	57-12-5	Cyanide, Total	mg/kg	27	2.36		3.18		2.37		2.03		1.44	
		Pesticides												
SW8081	72-54-8	4,4'-DDD	mg/kg	92	0.01	U	0.01	U	0.0052	J	0.0099	U	0.012	U
SW8081	50-29-3	4,4'-DDT	mg/kg	47	0.01	U	0.01	U	0.0099	U	0.0099	U	0.012	U
SW8081	309-00-2	Aldrin	mg/kg	0.68	0.01	U	0.01	U	0.0099	U	0.0099	U	0.012	U
SW8081	319-84-6	Alpha-BHC	mg/kg	3.4	0.01	U	0.01	U	0.0099	U	0.0099	U	0.012	U
SW8081	319-85-7	Beta-BHC	mg/kg	3	0.01	U	0.01	U	0.0099	U	0.0099	U	0.012	U
SW8081	959-98-8	Endosulfan I(4)	mg/kg	200	0.0052	J	0.0067	J	0.0099	U	0.0099	U	0.012	U
SW8081	1031-07-8	Endosulfan Sulfate(4)	mg/kg	200	0.068		0.056		0.028		0.0099	U	0.012	U
SW8081	72-20-8	Endrin	mg/kg	89	0.011		0.0074	J	0.0099	U	0.0099	U	0.012	U
SW8081	7421-93-4	Endrin Aldehyde	mg/kg		0.01	U	0.01	U	0.0099	U	0.0099	U	0.012	U
SW8081	53494-70-5	Endrin Ketone	mg/kg		0.01	U	0.01	U	0.0099	U	0.0099	U	0.012	U
SW8081	5566-34-7	Gamma-Chlordane	mg/kg		0.006	J	0.0056	J	0.0052	J	0.0099	U	0.012	U
SW8081	1024-57-3	Heptachlor Epoxide	mg/kg		0.01	U	0.01	U	0.0099	U	0.0099	U	0.012	U
SW8081	72-43-5	Methoxychlor	mg/kg		0.01	U	0.01	U	0.0099	U	0.0099	U	0.012	U

TABLE 7 - FOCUSED RI SITE 110 SOIL ANALYTICAL SUMMARY

				Location ID	MW-04-2020		MW-04-2020		MW-04-2020		MW-05-2020		MW-05-2020	
				Field Sample ID	MW-04-2020-0.0-0.16-10162020		MW-04-2020-0.16-1.0-10162020		MW-04-2020-4.0-6.0-10162020		MW-05-2020-0.0-0.16-10152020		MW-05-2020-0.16-1.0-10152020	
				Start Depth (ft)	0		0.16		4		0		0.16	
				End Depth (ft)	0.16		1		6		0.16		1	
				Sampled	10/16/2020		10/16/2020		10/16/2020		10/15/2020		10/15/2020	
				SDG	R2009746		R2009746		R2009746		R2009746		R2009746	
				Lab Sample ID	R2009746-012		R2009746-013		R2009746-015		R2009746-001		R2009746-002	
				Sample Type	REG		REG		REG		REG		REG	
				Matrix	SOIL		SOIL		SOIL		SOIL		SOIL	
Analytical Method	CAS_RN	Chemical Name	Unit	Soil Cleanup Objective (SCO) for Commercial Use[1]										
		PCBs												
SW8082	12672-29-6	Aroclor-1248	mg/kg	1	0.13		0.04	U	0.039	U	0.039	U	0.046	U
SW8082	11097-69-1	Aroclor-1254	mg/kg	1	0.068		0.04	U	0.039	U	0.039	U	0.046	U
SW8082	11096-82-5	Aroclor-1260	mg/kg	1	0.11		0.032	J	0.039	U	0.039	U	0.046	U
		Total PCBs[5]		1	0.31		0.032	J	0.039	U	0.039	U	0.046	U
		Volatiles												
SW8260	71-55-6	1,1,1-Trichloroethane	mg/kg	500	0.0018	J	0.0046	J	0.0072	U	0.011	U	0.013	U
SW8260	75-34-3	1,1-Dichloroethane	mg/kg	240	0.0094	U	0.00053	J	0.0072	U	0.011	U	0.013	U
SW8260	78-93-3	2-Butanone	mg/kg	500	0.0094	U	0.0083	U	0.0053	J	0.011	U	0.0059	J
SW8260	67-64-1	Acetone	mg/kg	500	0.0094	U	0.0083	U	0.1	J+	0.015		0.06	
SW8260	71-43-2	Benzene	mg/kg	44	0.0015	J	0.0058	J	0.00076	J	0.011	U	0.013	U
SW8260	74-83-9	Bromomethane	mg/kg		0.0094	UJ	0.0083	UJ	0.0072	UJ	0.0079	J	0.013	UJ
SW8260	75-15-0	Carbon Disulfide	mg/kg		0.0094	U	0.0083	U	0.14	J+	0.00077	J	0.00085	J
SW8260	67-66-3	Chloroform	mg/kg	350	0.0094	U	0.0083	U	0.0072	U	0.011	U	0.013	U
SW8260	74-87-3	Chloromethane	mg/kg		0.0094	U	0.0083	U	0.0072	U	0.005	J	0.013	U
SW8260	156-59-2	cis-1,2-Dichloroethene	mg/kg	500	0.0094	U	0.0083	U	0.0072	U	0.0013	J	0.013	U
SW8260	110-82-7	Cyclohexane	mg/kg		0.0016	J	0.0033	J	0.0088	J+	0.002	J	0.0035	J
SW8260	100-41-4	Ethylbenzene	mg/kg	390	0.0094	U	0.0083	U	0.0072	U	0.011	U	0.013	U
SW8260	98-82-8	Isopropylbenzene	mg/kg		0.0094	U	0.0083	U	0.0072	U	0.011	U	0.013	U
SW8260	XYLENES1314	m&p-Xylenes	mg/kg	500	0.019	U	0.0018	J	0.00077	J	0.022	U	0.0016	J
SW8260	79-20-9	Methyl Acetate	mg/kg		0.0094	U	0.0083	U	0.0072	U	0.011	U	0.013	U
SW8260	1634-04-4	Methyl Tert-Butyl Ether	mg/kg	500	0.0094	U	0.0083	U	0.0072	U	0.011	U	0.013	U
SW8260	108-87-2	Methylcyclohexane	mg/kg		0.0019	J	0.0039	J	0.011	J+	0.0041	J	0.0072	J
SW8260	75-09-2	Methylene Chloride	mg/kg	500	0.0094	U	0.0083	U	0.0072	U	0.011	U	0.013	U
SW8260	95-47-6	o-Xylene	mg/kg	500	0.0094	U	0.00056	J	0.00079	J	0.011	U	0.0011	J
SW8260	100-42-5	Styrene	mg/kg		0.0094	U	0.0083	U	0.0072	U	0.011	U	0.013	U
SW8260	108-88-3	Toluene	mg/kg	500	0.0011	J	0.0051	J	0.00072	J	0.0013	J	0.0016	J
SW8260	1330-20-7	Total Xylenes	mg/kg	500	0.019	U	0.0024	J	0.0016	J	0.022	U	0.0027	J
SW8260	156-60-5	trans-1,2-Dichloroethene	mg/kg	500	0.0094	U	0.0083	U	0.0072	U	0.002	J	0.013	U
SW8260	79-01-6	Trichloroethene	mg/kg	200	0.0094	U	0.0083	U	0.0072	U	0.00079	J	0.013	U
		Semivolatiles												
SW8270	92-52-4	1,1'-Biphenyl	mg/kg		0.41		1.8		0.46		0.12	J	0.14	J
SW8270	105-67-9	2,4-Dimethylphenol	mg/kg		0.2	U	0.2	J	0.12	J	0.19	U	0.04	UJ
SW8270	91-57-6	2-Methylnaphthalene	mg/kg		1.6		6.8		1.9		0.75		0.48	
SW8270	95-48-7	2-Methylphenol	mg/kg	500	0.2	U	0.15	J	0.097	J	0.19	U	0.04	UJ
SW8270	34METPH	3&4-Methylphenol	mg/kg	500	0.12	J	0.41		0.33		0.19	U	0.021	J
SW8270	100-01-6	4-Nitroaniline	mg/kg		0.2	U	0.4	U	0.2	U	0.19	U	0.04	UJ
SW8270	98-86-2	Acetophenone	mg/kg		0.2	U	0.14	J	0.2	U	0.19	U	0.04	UJ
SW8270	100-52-7	Benzaldehyde	mg/kg		0.2	U	0.4	U	0.2	U	0.22		0.12	J
SW8270	117-81-7	bis-(2-Ethylhexyl)Phthalate	mg/kg		3.7	U	7.3	U	3.7	U	3.4	U	0.73	UJ
SW8270	86-74-8	Carbazole	mg/kg		2.1		36		10		0.34		0.29	J
SW8270	84-66-2	Diethyl Phthalate	mg/kg		1.2	U	2.4	U	1.2	U	1.1	U	0.24	UJ
SW8270	131-11-3	Dimethyl Phthalate	mg/kg		1.1	U	2.1	U	1	U	0.98	U	0.21	UJ
SW8270	84-74-2	Di-n-Butyl Phthalate	mg/kg		3.1	U	6.1	U	3.1	U	2.9	U	0.61	UJ
SW8270	86-30-6	n-Nitrosodiphenylamine	mg/kg		0.2	U	0.4	U	0.2	U	0.19	U	0.04	UJ
SW8270	108-95-2	Phenol	mg/kg	500	0.083	J	0.35	J	0.29		0.19	U	0.04	UJ

TABLE 7 - FOCUSED RI SITE 110 SOIL ANALYTICAL SUMMARY

Analytical Method	CAS_RN	Chemical Name	Unit	Soil Cleanup Objective (SCO) for Commercial Use[(1)]										
				Location ID	MW-04-2020		MW-04-2020		MW-04-2020		MW-05-2020		MW-05-2020	
				Field Sample ID	MW-04-2020-0.0-0.16-10162020		MW-04-2020-0.16-1.0-10162020		MW-04-2020-4.0-6.0-10162020		MW-05-2020-0.0-0.16-10152020		MW-05-2020-0.16-1.0-10152020	
				Start Depth (ft)	0		0.16		4		0		0.16	
				End Depth (ft)	0.16		1		6		0.16		1	
				Sampled	10/16/2020		10/16/2020		10/16/2020		10/15/2020		10/15/2020	
				SDG	R2009746		R2009746		R2009746		R2009746		R2009746	
				Lab Sample ID	R2009746-012		R2009746-013		R2009746-015		R2009746-001		R2009746-002	
				Sample Type	REG		REG		REG		REG		REG	
				Matrix	SOIL		SOIL		SOIL		SOIL		SOIL	
		PAHs												
SW8270	83-32-9	Acenaphthene	mg/kg	500	1.5		9.7		2.2		0.26		0.23	J
SW8270	208-96-8	Acenaphthylene	mg/kg	500	16		56		15		2.1		1.1	
SW8270	120-12-7	Anthracene	mg/kg	500	13		90		30		3.2		1.6	
SW8270	56-55-3	Benzo(A)Anthracene	mg/kg	5.6	40		340		130		9.5		4.9	J
SW8270	50-32-8	Benzo(A)Pyrene	mg/kg	1	55		420		170		10		6.4	J
SW8270	205-99-2	Benzo(B)Fluoranthene	mg/kg	5.6	59		490		180		12		7.1	J
SW8270	191-24-2	Benzo(G,H,I)perylene	mg/kg	500	42		330		110		8		4.7	J
SW8270	207-08-9	Benzo(K)Fluoranthene	mg/kg	56	18		160		38	J+	2.9		1.5	
SW8270	218-01-9	Chrysene	mg/kg	56	46		380		170		10		5.9	J
SW8270	53-70-3	Dibenzo(a,h)Anthracene	mg/kg	0.56	9.7		55	J+	17	J+	1.8		0.88	
SW8270	132-64-9	Dibenzofuran	mg/kg	350	2.4		24		5.2		0.35		0.37	J
SW8270	206-44-0	Fluoranthene	mg/kg	500	89		850		340		17		9.6	J
SW8270	86-73-7	Fluorene	mg/kg	500	4.1		50		13		0.35		0.29	J
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	mg/kg	5.6	41		330		120		8.1		5	J
SW8270	91-20-3	Naphthalene	mg/kg	500	6.8		36		14		0.69		0.69	J
SW8270	85-01-8	Phenanthrene	mg/kg	500	37		540		180		2.8		1.5	
SW8270	129-00-0	Pyrene	mg/kg	500	68		780		290		19		12	J
		Total PAHs[(5)]	mg/kg	500	550		4900		1800		110		64	

Notes:
(1) Unless otherwise noted, soil cleanup objectives from Table 375-6.8(b) in NYSDEC's "6 NYCRR PART 375 Environmental Remediation Programs," December 14, 2006.
(2) PFAS criteria are guidance levels from the NYSDEC document titled "Sampling, Analysis, and Asssessmen of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs," November 2022.
(3) Hexavalent chromium standard is presented. The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.
(4) This SCO is for the sum of endosulfan I, endosulfan II, and endosulfan sulfate.
(5) Value from NYSDEC "CP-51/Soil Cleanup Guidance", October 21, 2010.
Only detected compounds are presented
Shaded: Value exceeds Commercial SCOs

TABLE 7 - FOCUSED RI SITE 110 SOIL ANALYTICAL SUMMARY

				Location ID	MW-05-2020		MW-06-2020		MW-06-2020		MW-06-2020		MW-07-2020	
				Field Sample ID	MW-05-2020-4.0-6.0-10152020		MW-06-2020-0.0-0.16-10152020		MW-06-2020-0.16-1.0-10152020		MW-06-2020-7.0-8.0-10152020		MW-07-2020-0.0-0.16-10152020	
				Start Depth (ft)	4		0		0.16		7		0	
				End Depth (ft)	6		0.16		1		8		0.16	
				Sampled	10/15/2020		10/15/2020		10/15/2020		10/15/2020		10/15/2020	
				SDG	R2009746		R2009746		R2009746		R2009746		R2009746	
				Lab Sample ID	R2009746-003		R2009746-004		R2009746-005		R2009746-006		R2009746-009	
				Sample Type	REG		REG		REG		REG		REG	
				Matrix	SOIL		SOIL		SOIL		SOIL		SOIL	
Analytical Method	CAS_RN	Chemical Name	Unit	Soil Cleanup Objective (SCO) for Commercial Use[1]										
E160.3	SOLID	Solids	%		82		78.5		83.5		80.7		88.5	
E160.3	SOLIDS	Total Solids	%											
		PFAS												
E537M	2991-50-6	n-Ethyl Perfluorooctanesulfonamidoacetic Acid (n-ETFOSAA)	mg/kg		0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.0011	U
E537M	375-22-4	Perfluorobutanoic Acid (PFBA)	mg/kg		0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.0011	U
E537M	335-76-2	Perfluorodecanoic acid (PFDA)	mg/kg		0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.0011	U
E537M	375-85-9	Perfluoroheptanoic Acid (PFHpA)	mg/kg		0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.0011	U
E537M	355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	mg/kg		0.0012	U	0.0012	U	0.00043	J	0.0012	U	0.0011	U
E537M	375-95-1	Perfluorononanoic Acid (PFNA)	mg/kg		0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.0011	U
E537M	1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	mg/kg	0.440[2]	0.00022	J	0.00096	J	0.00036	J	0.0012	U	0.00047	J
E537M	335-67-1	Perfluorooctanoic Acid (PFOA)	mg/kg	0.500[2]	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.0011	U
E537M	376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	mg/kg		0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.0011	U
E537M	2058-94-8	Perfluoroundecanoic Acid (Pfunda)	mg/kg		0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.00021	J
		Metals and Cyanide												
SW6010	7429-90-5	Aluminum	mg/kg		21500		4220		2960		20900		1530	
SW6010	7440-36-0	Antimony	mg/kg		6.9	U	7.5	U	6.8	U	7.2	U	6.7	U
SW6010	7440-38-2	Arsenic	mg/kg	16	7		11.8		13.1		3.9		5.1	
SW6010	7440-39-3	Barium	mg/kg	400	276		192		162		156		54.6	
SW6010	7440-41-7	Beryllium	mg/kg	590	3.2		0.749		0.633		1.1		0.366	
SW6010	7440-43-9	Cadmium	mg/kg	9.3	1.2		1.4		1.2		0.405	J	0.222	J
SW6010	7440-70-2	Calcium	mg/kg		81500		4950		3340		7880		1250	
SW6010	7440-47-3	Chromium[3]	mg/kg	400	73.6		21.9		22.1		27.7		7.5	
SW6010	7440-48-4	Cobalt	mg/kg		5.3	J	5.8	J	6.4		11.4		2.4	J
SW6010	7440-50-8	Copper	mg/kg	270	115		63.2		45.9		21.9		16.5	
SW6010	7439-89-6	Iron	mg/kg		27200		29400		635		36100		9280	
SW6010	7439-92-1	Lead	mg/kg	1000	143		60.5		33.1		12.1		15.4	
SW6010	7439-95-4	Magnesium	mg/kg		4390		1110		514		8060		258	
SW6010	7439-96-5	Manganese	mg/kg	10000	2340		308		308		414		78.5	
SW6010	7440-02-0	Nickel	mg/kg	310	30		25.8		66.1		29.8		7.3	
SW6010	7440-09-7	Potassium	mg/kg		1020		466		424		2400		313	
SW6010	7782-49-2	Selenium	mg/kg	1500	1.9		1.2	J	2.3		0.667	J	0.897	J
SW6010	7440-22-4	Silver	mg/kg	1500	1.2	U	1.3	U	1.1	U	1.2	U	1.1	U
SW6010	7440-23-5	Sodium	mg/kg		369		99.3	J	135		136		69.7	J
SW6010	7440-28-0	Thallium	mg/kg		1.2	U	1.3	U	1.1	U	11.9	U	1.1	U
SW6010	7440-62-2	Vanadium	mg/kg		56.1		22.3		17.7		36.8		7	
SW6010	7440-66-6	Zinc	mg/kg	10000	346		143		63.7		88.2		39.5	
SW7471	7439-97-6	Mercury	mg/kg	2.8	0.44		0.661	J	0.19		0.031	J	0.362	
SW9012	57-12-5	Cyanide, Total	mg/kg	27	7.99		4.15		1.58		0.34	U	3.85	
		Pesticides												
SW8081	72-54-8	4,4'-DDD	mg/kg	92	0.01	U	0.011	U	0.01	U	0.01	U	0.0094	U
SW8081	50-29-3	4,4'-DDT	mg/kg	47	0.01	U	0.0097	J	0.01	U	0.01	U	0.0094	U
SW8081	309-00-2	Aldrin	mg/kg	0.68	0.01	U	0.011	U	0.01	U	0.01	U	0.0094	U
SW8081	319-84-6	Alpha-BHC	mg/kg	3.4	0.01	U	0.011	U	0.01	U	0.01	U	0.0094	U
SW8081	319-85-7	Beta-BHC	mg/kg	3	0.01	U	0.011	U	0.01	U	0.01	U	0.0094	U
SW8081	959-98-8	Endosulfan I[4]	mg/kg	200	0.01	U	0.011	U	0.01	U	0.01	U	0.0094	U
SW8081	1031-07-8	Endosulfan Sulfate[4]	mg/kg	200	0.048		0.066		0.01	U	0.01	U	0.014	J
SW8081	72-20-8	Endrin	mg/kg	89	0.01	U	0.011	U	0.01	U	0.01	U	0.0094	U
SW8081	7421-93-4	Endrin Aldehyde	mg/kg		0.011		0.011	U	0.01	U	0.01	U	0.0094	U
SW8081	53494-70-5	Endrin Ketone	mg/kg		0.01	U	0.011	U	0.01	U	0.01	U	0.014	J
SW8081	5566-34-7	Gamma-Chlordane	mg/kg		0.01	U	0.011	U	0.01	U	0.01	U	0.0094	U
SW8081	1024-57-3	Heptachlor Epoxide	mg/kg		0.01	U	0.011	U	0.01	U	0.01	U	0.0094	U
SW8081	72-43-5	Methoxychlor	mg/kg		0.01	U	0.011	U	0.01	U	0.01	U	0.0094	U

TABLE 7 - FOCUSED RI SITE 110 SOIL ANALYTICAL SUMMARY

				Location ID	MW-05-2020		MW-06-2020		MW-06-2020		MW-06-2020		MW-07-2020	
				Field Sample ID	MW-05-2020-4.0-6.0-10152020		MW-06-2020-0.0-0.16-10152020		MW-06-2020-0.16-1.0-10152020		MW-06-2020-7.0-8.0-10152020		MW-07-2020-0.0-0.16-10152020	
				Start Depth (ft)	4		0		0.16		7		0	
				End Depth (ft)	6		0.16		1		8		0.16	
				Sampled	10/15/2020		10/15/2020		10/15/2020		10/15/2020		10/15/2020	
				SDG	R2009746		R2009746		R2009746		R2009746		R2009746	
				Lab Sample ID	R2009746-003		R2009746-004		R2009746-005		R2009746-006		R2009746-009	
				Sample Type	REG		REG		REG		REG		REG	
				Matrix	SOIL		SOIL		SOIL		SOIL		SOIL	
Analytical Method	CAS_RN	Chemical Name	Unit	Soil Cleanup Objective (SCO) for Commercial Use[1]										
		PCBs												
SW8082	12672-29-6	Aroclor-1248	mg/kg	1	0.04	U	0.029	J	0.04	U	0.04	U	0.037	U
SW8082	11097-69-1	Aroclor-1254	mg/kg	1	0.04	U	0.042	U	0.12		0.04	U	0.037	U
SW8082	11096-82-5	Aroclor-1260	mg/kg	1	0.04	U	0.039	J	0.062	J	0.04	U	0.019	J
		Total PCBs[5]		1	0.04	U	0.068		0.18		0.04	U	0.019	
		Volatiles												
SW8260	71-55-6	1,1,1-Trichloroethane	mg/kg	500	0.0072	UJ	0.013	U	0.0089	U	0.0046	U	0.0098	U
SW8260	75-34-3	1,1-Dichloroethane	mg/kg	240	0.0072	UJ	0.013	U	0.0089	U	0.0046	U	0.0098	U
SW8260	78-93-3	2-Butanone	mg/kg	500	0.0094	J-	0.013	U	0.0089	U	0.011		0.0054	J
SW8260	67-64-1	Acetone	mg/kg	500	0.13	J-	0.013	U	0.0089	U	0.11		0.25	
SW8260	71-43-2	Benzene	mg/kg	44	0.0021	J	0.00087	J	0.00064	J	0.0028	J	0.0098	U
SW8260	74-83-9	Bromomethane	mg/kg		0.0072	UJ	0.013	UJ	0.0089	UJ	0.0046	UJ	0.0098	UJ
SW8260	75-15-0	Carbon Disulfide	mg/kg		0.0026	J	0.013	U	0.0089	U	0.00062	J	0.0098	U
SW8260	67-66-3	Chloroform	mg/kg	350	0.0072	UJ	0.013	U	0.0005	J	0.0046	U	0.0098	U
SW8260	74-87-3	Chloromethane	mg/kg		0.0072	UJ	0.013	U	0.0089	U	0.0046	U	0.0098	U
SW8260	156-59-2	cis-1,2-Dichloroethene	mg/kg	500	0.0072	UJ	0.013	U	0.0089	U	0.0046	U	0.0098	U
SW8260	110-82-7	Cyclohexane	mg/kg		0.006	J	0.013	U	0.0089	U	0.0046	U	0.0098	U
SW8260	100-41-4	Ethylbenzene	mg/kg	390	0.00058	J	0.0015	J	0.0015	J	0.0022	J	0.0098	U
SW8260	98-82-8	Isopropylbenzene	mg/kg		0.00034	J	0.013	U	0.0089	U	0.0033	J	0.0098	U
SW8260	XYLENES1314	m&p-Xylenes	mg/kg	500	0.002	J	0.0038	J	0.0034	J	0.0068	J	0.02	U
SW8260	79-20-9	Methyl Acetate	mg/kg		0.0072	UJ	0.013	U	0.0089	U	0.0046	U	0.0098	U
SW8260	1634-04-4	Methyl Tert-Butyl Ether	mg/kg	500	0.0072	UJ	0.013	U	0.0089	U	0.0046	U	0.0098	U
SW8260	108-87-2	Methylcyclohexane	mg/kg		0.0098	J-	0.0011	J	0.0089	U	0.00053	J	0.00092	J
SW8260	75-09-2	Methylene Chloride	mg/kg	500	0.0072	UJ	0.013	U	0.0089	U	0.0046	U	0.0098	U
SW8260	95-47-6	o-Xylene	mg/kg	500	0.0018	J	0.0021	J	0.0016	J	0.0024	J	0.0098	U
SW8260	100-42-5	Styrene	mg/kg		0.0072	UJ	0.013	U	0.0089	U	0.0046	U	0.0098	U
SW8260	108-88-3	Toluene	mg/kg	500	0.0016	J	0.0024	J	0.0022	J	0.0011	J	0.0098	U
SW8260	1330-20-7	Total Xylenes	mg/kg	500	0.0038	J	0.0059	J	0.0050	J	0.0092	J	0.02	U
SW8260	156-60-5	trans-1,2-Dichloroethene	mg/kg	500	0.0072	UJ	0.013	U	0.0089	U	0.0046	U	0.0098	U
SW8260	79-01-6	Trichloroethene	mg/kg	200	0.0072	UJ	0.013	U	0.0089	U	0.0046	U	0.0098	U
		Semivolatiles												
SW8270	92-52-4	1,1'-Biphenyl	mg/kg		0.65		3.2		0.14		0.017	J	0.082	
SW8270	105-67-9	2,4-Dimethylphenol	mg/kg		0.095	J	0.21	U	0.063	J	0.041	U	0.046	J
SW8270	91-57-6	2-Methylnaphthalene	mg/kg		6.7		13		1		0.1		0.5	
SW8270	95-48-7	2-Methylphenol	mg/kg	500	0.072	J	0.11	J	0.047	J	0.041	U	0.04	J
SW8270	34METPH	3&4-Methylphenol	mg/kg	500	0.19		0.39		0.11	J	0.041	U	0.099	
SW8270	100-01-6	4-Nitroaniline	mg/kg		0.12	U	0.21	U	0.12	U	0.041	U	0.077	U
SW8270	98-86-2	Acetophenone	mg/kg		0.12	U	0.08	J	0.051	J	0.041	U	0.077	U
SW8270	100-52-7	Benzaldehyde	mg/kg		0.071	J	0.21	U	0.12	U	0.041	UJ	0.077	U
SW8270	117-81-7	bis-(2-Ethylhexyl)Phthalate	mg/kg		2.1	U	3.9	U	2.1	U	0.75	UJ	1.4	U
SW8270	86-74-8	Carbazole	mg/kg		1.9		23		0.54		0.041	U	0.24	
SW8270	84-66-2	Diethyl Phthalate	mg/kg		0.72	U	1.3	U	0.7	U	0.25	U	0.47	U
SW8270	131-11-3	Dimethyl Phthalate	mg/kg		0.61	U	1.1	U	0.6	U	0.21	U	0.4	U
SW8270	84-74-2	Di-n-Butyl Phthalate	mg/kg		1.8	U	3.3	U	1.8	U	0.63	U	1.2	U
SW8270	86-30-6	n-Nitrosodiphenylamine	mg/kg		0.12	U	0.21	U	0.12	U	0.041	U	0.077	U
SW8270	108-95-2	Phenol	mg/kg	500	0.094	J	0.31		0.04	J	0.041	U	0.051	J

TABLE 7 - FOCUSED RI SITE 110 SOIL ANALYTICAL SUMMARY

				Location ID	MW-05-2020		MW-06-2020		MW-06-2020		MW-06-2020		MW-07-2020	
				Field Sample ID	MW-05-2020-4.0-6.0-10152020		MW-06-2020-0.0-0.16-10152020		MW-06-2020-0.16-1.0-10152020		MW-06-2020-7.0-8.0-10152020		MW-07-2020-0.0-0.16-10152020	
				Start Depth (ft)	4		0		0.16		7		0	
				End Depth (ft)	6		0.16		1		8		0.16	
				Sampled	10/15/2020		10/15/2020		10/15/2020		10/15/2020		10/15/2020	
				SDG	R2009746		R2009746		R2009746		R2009746		R2009746	
				Lab Sample ID	R2009746-003		R2009746-004		R2009746-005		R2009746-006		R2009746-009	
				Sample Type	REG		REG		REG		REG		REG	
				Matrix	SOIL		SOIL		SOIL		SOIL		SOIL	
Analytical Method	CAS_RN	Chemical Name	Unit	Soil Cleanup Objective (SCO) for Commercial Use(1)										
		PAHs												
SW8270	83-32-9	Acenaphthene	mg/kg	500	7.7		8.5		0.26		0.048		0.15	
SW8270	208-96-8	Acenaphthylene	mg/kg	500	7.8		37		1.4		0.06		0.66	
SW8270	120-12-7	Anthracene	mg/kg	500	8.1		50		1.7		0.031		0.89	
SW8270	56-55-3	Benzo(A)Anthracene	mg/kg	5.6	23		100		8.4		0.04	J+	3	
SW8270	50-32-8	Benzo(A)Pyrene	mg/kg	1	28		130		11		0.053	J+	4.7	
SW8270	205-99-2	Benzo(B)Fluoranthene	mg/kg	5.6	25		130		12		0.059	J+	5.2	
SW8270	191-24-2	Benzo(G,H,I)perylene	mg/kg	500	17		84		8.5		0.022	J+	2.9	
SW8270	207-08-9	Benzo(K)Fluoranthene	mg/kg	56	11		41		3.9		0.021	J+	1.2	
SW8270	218-01-9	Chrysene	mg/kg	56	21		110		9		0.042	J+	3.7	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	mg/kg	0.56	4.8		19		1.4		0.0069	J	0.58	
SW8270	132-64-9	Dibenzofuran	mg/kg	350	5.8		25		0.5		0.033		0.34	
SW8270	206-44-0	Fluoranthene	mg/kg	500	40		250		14		0.077	J+	5.8	
SW8270	86-73-7	Fluorene	mg/kg	500	7.1		37		0.43		0.045		0.22	
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	mg/kg	5.6	19		90		8.7		0.023	J+	3.4	
SW8270	91-20-3	Naphthalene	mg/kg	500	79		65		1.9	J	1.8		0.99	
SW8270	85-01-8	Phenanthrene	mg/kg	500	21		210		6.3		0.096		3.1	
SW8270	129-00-0	Pyrene	mg/kg	500	32		200		14		0.069	J+	5.6	
		Total PAHs(5)	mg/kg	500	360		1600		100		2.5		42	

Notes:
(1) Unless otherwise noted, soil cleanup objectives from Table 375-6.8(b) in NYSDEC's "6 NYCRR PART 375 Environmental Remediation Programs," December 14, 2006.
(2) PFAS criteria are guidance levels from the NYSDEC document titled "Sampling, Analysis, and Asssessmen of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs," November 2022.
(3) Hexavalent chromium standard is presented. The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.
(4) This SCO is for the sum of endosulfan I, endosulfan II, and endosulfan sulfate.
(5) Value from NYSDEC "CP-51/Soil Cleanup Guidance", October 21, 2010.
Only detected compounds are presented
Shaded: Value exceeds Commercial SCOs

TABLE 7 - FOCUSED RI SITE 110 SOIL ANALYTICAL SUMMARY

				Location ID	MW-07-2020		MW-07-2020		MW-08-2020		MW-08-2020		MW-08-2020	
				Field Sample ID	MW-07-2020-0.16-1.0-10152020		MW-07-2020-4.0-6.0-10152020		MW-8-2020-0.0-0.16-07132021		MW-8-2020-0.0-0.16-07132021 FD		MW-8-2020-0.16-1.0-07132021	
				Start Depth (ft)	0.16		4		0		0		0.16	
				End Depth (ft)	1		6		0.16		0.16		1	
				Sampled	10/15/2020		10/15/2020		7/13/2021		7/13/2021		7/13/2021	
				SDG	R2009746		R2009746		R2107052		R2107052		R2107052	
				Lab Sample ID	R2009746-010		R2009746-011		R2107052-005		R2107052-006		R2107052-007	
				Sample Type	REG		REG		REG		FD		REG	
				Matrix	SOIL		SOIL		SOIL		SOIL		SOIL	
Analytical Method	CAS_RN	Chemical Name	Unit	Soil Cleanup Objective (SCO) for Commercial Use[1]										
E160.3	SOLID	Solids	%		91.3		74.4							
E160.3	SOLIDS	Total Solids	%						52.5		49.2		66.7	
		PFAS												
E537M	2991-50-6	n-Ethyl Perfluorooctanesulfonamidoacetic Acid (n-ETFOSAA)	mg/kg		0.001	U	0.0013	U	0.0017	UJ	0.0018	UJ	0.0012	UJ
E537M	375-22-4	Perfluorobutanoic Acid (PFBA)	mg/kg		0.001	U	0.0013	U	0.0017	UJ	0.0018	UJ	0.0012	UJ
E537M	335-76-2	Perfluorodecanoic acid (PFDA)	mg/kg		0.001	U	0.0013	U	0.00056	J	0.00073	J	0.0012	UJ
E537M	375-85-9	Perfluoroheptanoic Acid (PFHpA)	mg/kg		0.001	U	0.0013	U	0.0004	J	0.0018	UJ	0.0012	UJ
E537M	355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	mg/kg		0.001	U	0.0013	U	0.0017	UJ	0.0018	UJ	0.0012	UJ
E537M	375-95-1	Perfluorononanoic Acid (PFNA)	mg/kg		0.001	U	0.0013	U	0.0007	J	0.0018	UJ	0.0012	UJ
E537M	1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	mg/kg	0.440[2]	0.00033	J	0.0013	U	0.0018	J	0.0016	J	0.00063	J
E537M	335-67-1	Perfluorooctanoic Acid (PFOA)	mg/kg	0.500[2]	0.001	U	0.0013	U	0.0017	UJ	0.0018	UJ	0.0012	UJ
E537M	376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	mg/kg		0.001	U	0.0013	U	0.0017	UJ	0.0018	UJ	0.0012	UJ
E537M	2058-94-8	Perfluoroundecanoic Acid (Pfunda)	mg/kg		0.001	U	0.0013	U	0.00058	J	0.00054	J	0.00023	J
		Metals and Cyanide												
SW6010	7429-90-5	Aluminum	mg/kg		1110		6160		3370		3740	J	2840	
SW6010	7440-36-0	Antimony	mg/kg		6.6	U	7.9	U	11	U	12.2	UJ	8.3	U
SW6010	7440-38-2	Arsenic	mg/kg	16	3.8		11.9		8.9		9.7		6.3	J
SW6010	7440-39-3	Barium	mg/kg	400	47.3		70.6		91.6		223		162	J
SW6010	7440-41-7	Beryllium	mg/kg	590	0.252	J	1.6		0.623		0.752	J	0.569	
SW6010	7440-43-9	Cadmium	mg/kg	9.3	0.274	J	0.54	J	0.641	J	0.691	J	0.625	J
SW6010	7440-70-2	Calcium	mg/kg		882		5130		11100		9860	J	7260	
SW6010	7440-47-3	Chromium[3]	mg/kg	400	18.8		13.2		14		16.3	J	11.7	
SW6010	7440-48-4	Cobalt	mg/kg		2.4	J	3.5	J	5.9	J	6.2	J	4.6	J
SW6010	7440-50-8	Copper	mg/kg	270	20.7		123		70.8		73.8		62.6	J
SW6010	7439-89-6	Iron	mg/kg		14400		16800		23800		27600	J	28000	
SW6010	7439-92-1	Lead	mg/kg	1000	10.8		27.9		37.9		41.6	J	25.9	
SW6010	7439-95-4	Magnesium	mg/kg		181		956		1680		2060		1100	J
SW6010	7439-96-5	Manganese	mg/kg	10000	103		115		328		370	J	326	
SW6010	7440-02-0	Nickel	mg/kg	310	7.3		11.4		17.8		19.6	J	14.2	
SW6010	7440-09-7	Potassium	mg/kg		190	J	792		638		657	J	469	
SW6010	7782-49-2	Selenium	mg/kg	1500	1.1	J	3.5		1.8	U	20.3	UJ	1.4	U
SW6010	7440-22-4	Silver	mg/kg	1500	1.1	U	1.3	U	1.8	U	2	UJ	1.4	U
SW6010	7440-23-5	Sodium	mg/kg		61.2	J	443		113	J	113	J	102	J
SW6010	7440-28-0	Thallium	mg/kg		1.1	U	1.3	U	1.8	U	2	UJ	1.4	U
SW6010	7440-62-2	Vanadium	mg/kg		4.7	J	12.9		15.8		16.7	J	16.1	
SW6010	7440-66-6	Zinc	mg/kg	10000	52.7		72.8		86.8		90.7		66.7	J
SW7471	7439-97-6	Mercury	mg/kg	2.8	0.378		0.226		0.206		0.207	J	0.044	J
SW9012	57-12-5	Cyanide, Total	mg/kg	27	3.04		4.46		3.32		3.3	J	1.61	
		Pesticides												
SW8081	72-54-8	4,4'-DDD	mg/kg	92	0.0095	U	0.012	U	0.0034	U	0.0035	U	0.0025	U
SW8081	50-29-3	4,4'-DDT	mg/kg	47	0.0095	U	0.012	U	0.0034	U	0.0035	U	0.0025	U
SW8081	309-00-2	Aldrin	mg/kg	0.68	0.0095	U	0.012	U	0.0034	U	0.0035	U	0.0025	U
SW8081	319-84-6	Alpha-BHC	mg/kg	3.4	0.0095	U	0.012	U	0.0034	U	0.0035	U	0.0025	U
SW8081	319-85-7	Beta-BHC	mg/kg	3	0.0095	U	0.012	U	0.0034	U	0.0035	U	0.0025	U
SW8081	959-98-8	Endosulfan I[4]	mg/kg	200	0.0095	U	0.012	U	0.0034	U	0.0035	U	0.0025	U
SW8081	1031-07-8	Endosulfan Sulfate[4]	mg/kg	200	0.0095	U	0.0071	J	0.018	J	0.02	J	0.015	J
SW8081	72-20-8	Endrin	mg/kg	89	0.0095	U	0.012	U	0.0034	U	0.0035	U	0.0025	U
SW8081	7421-93-4	Endrin Aldehyde	mg/kg		0.0095	U	0.012	U	0.0034	U	0.0035	U	0.0025	U
SW8081	53494-70-5	Endrin Ketone	mg/kg		0.0062	J	0.012	U	0.0034	U	0.0035	U	0.0025	UJ
SW8081	5566-34-7	Gamma-Chlordane	mg/kg		0.0095	U	0.012	U	0.0034	U	0.0035	U	0.0025	U
SW8081	1024-57-3	Heptachlor Epoxide	mg/kg		0.0095	U	0.012	U	0.0034	U	0.0022	J	0.0025	U
SW8081	72-43-5	Methoxychlor	mg/kg		0.0095	U	0.012	U	0.0034	U	0.0035	U	0.0025	U

TABLE 7 - FOCUSED RI SITE 110 SOIL ANALYTICAL SUMMARY

				Location ID	MW-07-2020		MW-07-2020		MW-08-2020		MW-08-2020		MW-08-2020	
				Field Sample ID	MW-07-2020-0.16-1.0-10152020		MW-07-2020-4.0-6.0-10152020		MW-8-2020-0.0-0.16-07132021		MW-8-2020-0.0-0.16-07132021 FD		MW-8-2020-0.16-1.0-07132021	
				Start Depth (ft)	0.16		4		0		0		0.16	
				End Depth (ft)	1		6		0.16		0.16		1	
				Sampled	10/15/2020		10/15/2020		7/13/2021		7/13/2021		7/13/2021	
				SDG	R2009746		R2009746		R2107052		R2107052		R2107052	
				Lab Sample ID	R2009746-010		R2009746-011		R2107052-005		R2107052-006		R2107052-007	
				Sample Type	REG		REG		REG		FD		REG	
				Matrix	SOIL		SOIL		SOIL		SOIL		SOIL	
Analytical Method	CAS_RN	Chemical Name	Unit	Soil Cleanup Objective (SCO) for Commercial Use[1]										
		PCBs												
SW8082	12672-29-6	Aroclor-1248	mg/kg	1	0.037	U	0.046	U	0.065	U	0.039	J	0.049	U
SW8082	11097-69-1	Aroclor-1254	mg/kg	1	0.037	U	0.046	U	0.065	UJ	0.24	J	0.049	U
SW8082	11096-82-5	Aroclor-1260	mg/kg	1	0.024	J	0.046	U	0.065	UJ	0.099	J	0.049	U
		Total PCBs[5]		1	0.024		0.046	U	0.065	U	0.38		0.049	U
		Volatiles												
SW8260	71-55-6	1,1,1-Trichloroethane	mg/kg	500	0.011	U	0.011	U	0.012	U	0.011	U	0.012	U
SW8260	75-34-3	1,1-Dichloroethane	mg/kg	240	0.011	U	0.011	U	0.012	U	0.011	U	0.012	U
SW8260	78-93-3	2-Butanone	mg/kg	500	0.011	U	0.011	U	0.012	U	0.011	U	0.012	U
SW8260	67-64-1	Acetone	mg/kg	500	0.011	U	0.033		0.058	U	0.055	U	0.06	U
SW8260	71-43-2	Benzene	mg/kg	44	0.00078	J	0.0029	J	0.012	U	0.00045	J	0.00057	J
SW8260	74-83-9	Bromomethane	mg/kg		0.011	UJ	0.011	UJ	0.012	UJ	0.011	UJ	0.012	UJ
SW8260	75-15-0	Carbon Disulfide	mg/kg		0.011	U	0.00072	J	0.012	U	0.011	U	0.012	U
SW8260	67-66-3	Chloroform	mg/kg	350	0.011	U	0.011	U	0.012	U	0.00059	J	0.00078	J
SW8260	74-87-3	Chloromethane	mg/kg		0.011	U	0.011	U	0.012	U	0.011	U	0.012	U
SW8260	156-59-2	cis-1,2-Dichloroethene	mg/kg	500	0.011	U	0.011	U	0.012	U	0.011	U	0.012	U
SW8260	110-82-7	Cyclohexane	mg/kg		0.0007	J	0.0079	J	0.012	U	0.0015	J	0.012	U
SW8260	100-41-4	Ethylbenzene	mg/kg	390	0.011	U	0.00063	J	0.012	U	0.011	U	0.012	U
SW8260	98-82-8	Isopropylbenzene	mg/kg		0.011	U	0.011	U	0.012	U	0.011	U	0.012	U
SW8260	XYLENES1314	m&p-Xylenes	mg/kg	500	0.021	U	0.0029	J	0.023	U	0.022	U	0.024	U
SW8260	79-20-9	Methyl Acetate	mg/kg		0.011	U	0.011	U	0.002	J	0.011	U	0.025	J+
SW8260	1634-04-4	Methyl Tert-Butyl Ether	mg/kg	500	0.011	U	0.011	U	0.012	U	0.011	U	0.012	U
SW8260	108-87-2	Methylcyclohexane	mg/kg		0.0015	J	0.011		0.012	U	0.0017	J	0.0021	J
SW8260	75-09-2	Methylene Chloride	mg/kg	500	0.011	U	0.011	U	0.012	U	0.011	U	0.012	U
SW8260	95-47-6	o-Xylene	mg/kg	500	0.011	U	0.002	J	0.012	U	0.011	U	0.012	U
SW8260	100-42-5	Styrene	mg/kg		0.011	U	0.011	U	0.012	U	0.011	U	0.012	U
SW8260	108-88-3	Toluene	mg/kg	500	0.00058	J	0.0031	J	0.012	U	0.011	U	0.012	U
SW8260	1330-20-7	Total Xylenes	mg/kg	500	0.021	U	0.0049	J	0.023	U	0.022	U	0.024	U
SW8260	156-60-5	trans-1,2-Dichloroethene	mg/kg	500	0.011	U	0.011	U	0.012	UJ	0.011	U	0.012	UJ
SW8260	79-01-6	Trichloroethene	mg/kg	200	0.011	U	0.011	U	0.012	U	0.011	U	0.012	U
		Semivolatiles												
SW8270	92-52-4	1,1'-Biphenyl	mg/kg		0.06	J	0.094		1.3	U	1.3	U	0.94	U
SW8270	105-67-9	2,4-Dimethylphenol	mg/kg		0.074	UJ	0.089	U	1.3	U	1.3	U	0.94	U
SW8270	91-57-6	2-Methylnaphthalene	mg/kg		0.37		0.64		0.69	J	0.65	J	0.37	J
SW8270	95-48-7	2-Methylphenol	mg/kg	500	0.074	UJ	0.037	J	1.3	U	1.3	U	0.94	U
SW8270	34METPH	3&4-Methylphenol	mg/kg	500	0.05	J-	0.083	J	1.3	U	1.3	U	0.94	U
SW8270	100-01-6	4-Nitroaniline	mg/kg		0.074	U	0.089	U	6.7	U	6.9	U	4.9	U
SW8270	98-86-2	Acetophenone	mg/kg		0.074	U	0.089	U	1.3	U	1.3	U	0.94	U
SW8270	100-52-7	Benzaldehyde	mg/kg		0.056	J	0.089	U	6.7	U	6.9	U	4.9	U
SW8270	117-81-7	bis-(2-Ethylhexyl)Phthalate	mg/kg		1.3	U	1.6	U	2	U	2	U	1.4	U
SW8270	86-74-8	Carbazole	mg/kg		0.17		0.22		0.56	J	0.51	J	0.27	J
SW8270	84-66-2	Diethyl Phthalate	mg/kg		0.45	U	0.54	U	1.3	U	1.3	U	0.94	U
SW8270	131-11-3	Dimethyl Phthalate	mg/kg		0.38	U	0.46	U	1.3	U	1.3	U	0.94	U
SW8270	84-74-2	Di-n-Butyl Phthalate	mg/kg		1.1	U	1.4	U	1.3	U	1.3	U	0.94	U
SW8270	86-30-6	n-Nitrosodiphenylamine	mg/kg		0.074	U	0.089	U	1.3	U	1.3	U	0.94	U
SW8270	108-95-2	Phenol	mg/kg	500	0.031	J-	0.05	J	1.3	U	1.3	U	0.94	U

TABLE 7 - FOCUSED RI SITE 110 SOIL ANALYTICAL SUMMARY

				Location ID	MW-07-2020		MW-07-2020		MW-08-2020		MW-08-2020		MW-08-2020	
				Field Sample ID	MW-07-2020-0.16-1.0-10152020		MW-07-2020-4.0-6.0-10152020		MW-8-2020-0.0-0.16-07132021		MW-8-2020-0.0-0.16-07132021 FD		MW-8-2020-0.16-1.0-07132021	
				Start Depth (ft)	0.16		4		0		0		0.16	
				End Depth (ft)	1		6		0.16		0.16		1	
				Sampled	10/15/2020		10/15/2020		7/13/2021		7/13/2021		7/13/2021	
				SDG	R2009746		R2009746		R2107052		R2107052		R2107052	
				Lab Sample ID	R2009746-010		R2009746-011		R2107052-005		R2107052-006		R2107052-007	
				Sample Type	REG		REG		REG		FD		REG	
				Matrix	SOIL		SOIL		SOIL		SOIL		SOIL	
Analytical Method	CAS_RN	Chemical Name	Unit	Soil Cleanup Objective (SCO) for Commercial Use(1)										
		PAHs												
SW8270	83-32-9	Acenaphthene	mg/kg	500	0.11		0.16		0.72	J	0.32	J	0.2	J
SW8270	208-96-8	Acenaphthylene	mg/kg	500	0.28		0.61		2.2		2.2		1.8	
SW8270	120-12-7	Anthracene	mg/kg	500	0.51		0.76		1.9		1.6		1.4	
SW8270	56-55-3	Benzo(A)Anthracene	mg/kg	5.6	1.4		2.1		11		9.1		8	
SW8270	50-32-8	Benzo(A)Pyrene	mg/kg	1	2.2		3		18		15		12	
SW8270	205-99-2	Benzo(B)Fluoranthene	mg/kg	5.6	2.6		3.2		22		19		15	
SW8270	191-24-2	Benzo(G,H,I)perylene	mg/kg	500	1.2		1.5		14		11		8.5	
SW8270	207-08-9	Benzo(K)Fluoranthene	mg/kg	56	0.78		1		5.8		5		4	
SW8270	218-01-9	Chrysene	mg/kg	56	2		2.3		13		11		8.9	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	mg/kg	0.56	0.35		0.44		2.8		2.5		2.2	
SW8270	132-64-9	Dibenzofuran	mg/kg	350	0.22		0.33		0.6	J	0.58	J	0.31	J
SW8270	206-44-0	Fluoranthene	mg/kg	500	2.8		4.2		21		17		16	
SW8270	86-73-7	Fluorene	mg/kg	500	0.12		0.39		0.53	J	0.44	J	0.34	J
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	mg/kg	5.6	1.3		1.8		16		13		10	
SW8270	91-20-3	Naphthalene	mg/kg	500	0.58		18		1.9	J-	2	J-	0.87	J
SW8270	85-01-8	Phenanthrene	mg/kg	500	1.9		2.6		6.4		5.4		4.1	
SW8270	129-00-0	Pyrene	mg/kg	500	2.8		4		20		16		14	
		Total PAHs(5)	mg/kg	500	21		46		160		130		110	

Notes:

(1) Unless otherwise noted, soil cleanup objectives from Table 375-6.8(b) in NYSDEC's "6 NYCRR PART 375 Environmental Remediation Programs," December 14, 2006.

(2) PFAS criteria are guidance levels from the NYSDEC document titled "Sampling, Analysis, and Asssessmen of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs," November 2022.

(3) Hexavalent chromium standard is presented. The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.

(4) This SCO is for the sum of endosulfan I, endosulfan II, and endosulfan sulfate.

(5) Value from NYSDEC "CP-51/Soil Cleanup Guidance", October 21, 2010.

Only detected compounds are presented

Shaded: Value exceeds Commercial SCOs

TABLE 7 - FOCUSED RI SITE 110 SOIL ANALYTICAL SUMMARY

				Location ID	MW-08-2020		MW-16-2020		MW-16-2020		MW-16-2020		MW-23-2022	
				Field Sample ID	MW-8-2020-1.5-2.0-07142021		MW-16-2020-0.0-0.16-07132021		MW-16-2020-0.16-1.0-07132021		MW-16-2020-2.0-2.5-07132021		MW-23-2022-5-6-12082022	
				Start Depth (ft)	1.5		0		0.16		2		5	
				End Depth (ft)	2		0.16		1		2.5		6	
				Sampled	7/14/2021		7/13/2021		7/13/2021		7/13/2021		12/8/2022	
				SDG	R2107052		R2107052		R2107052		R2107052		R2211778	
				Lab Sample ID	R2107052-010		R2107052-001		R2107052-002		R2107052-003		R2211778-001	
				Sample Type	REG		REG		REG		REG		REG	
				Matrix	SOIL		SOIL		SOIL		SOIL		SOIL	
Analytical Method	CAS_RN	Chemical Name	Unit	Soil Cleanup Objective (SCO) for Commercial Use(1)										
E160.3	SOLID	Solids	%											
E160.3	SOLIDS	Total Solids	%		70.6		73.5		79.7		69.1		71.5	
		PFAS												
E537M	2991-50-6	n-Ethyl Perfluorooctanesulfonamidoacetic Acid (n-ETFOSAA)	mg/kg		0.0012	UJ	0.0013	UJ	0.001	UJ	0.0013	UJ		
E537M	375-22-4	Perfluorobutanoic Acid (PFBA)	mg/kg		0.0012	UJ	0.0013	UJ	0.001	UJ	0.0013	UJ		
E537M	335-76-2	Perfluorodecanoic acid (PFDA)	mg/kg		0.0012	UJ	0.0013	UJ	0.001	UJ	0.0013	UJ		
E537M	375-85-9	Perfluoroheptanoic Acid (PFHpA)	mg/kg		0.00023	J	0.00039	J	0.00025	J	0.0013	UJ		
E537M	355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	mg/kg		0.0012	UJ	0.0013	UJ	0.001	UJ	0.0013	UJ		
E537M	375-95-1	Perfluorononanoic Acid (PFNA)	mg/kg		0.0012	UJ	0.0013	UJ	0.001	UJ	0.0013	UJ		
E537M	1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	mg/kg	0.440(2)	0.00019	J	0.00067	J	0.00063	J	0.0013	UJ		
E537M	335-67-1	Perfluorooctanoic Acid (PFOA)	mg/kg	0.500(2)	0.0012	UJ	0.0013	UJ	0.001	UJ	0.0013	UJ		
E537M	376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	mg/kg		0.0012	UJ	0.0013	UJ	0.001	UJ	0.0013	UJ		
E537M	2058-94-8	Perfluoroundecanoic Acid (Pfunda)	mg/kg		0.0012	UJ	0.00025	J	0.0002	J	0.0013	UJ		
		Metals and Cyanide												
SW6010	7429-90-5	Aluminum	mg/kg		2730		3650		2570		2030		13500	
SW6010	7440-36-0	Antimony	mg/kg		8.5	U	7.7	U	7.1	U	8.7	U	8.4	U
SW6010	7440-38-2	Arsenic	mg/kg	16	8.1		6.7		6.3		9.8		9.3	
SW6010	7440-39-3	Barium	mg/kg	400	136		98.7		156		139		143	
SW6010	7440-41-7	Beryllium	mg/kg	590	0.595		0.539		0.533		0.81		0.95	
SW6010	7440-43-9	Cadmium	mg/kg	9.3	0.368	J	0.744		0.355	J	0.232	J	0.63	J
SW6010	7440-70-2	Calcium	mg/kg		3090		14900		5740		1690		6860	
SW6010	7440-47-3	Chromium(3)	mg/kg	400	7.5		11.5		7.4		5		19.5	
SW6010	7440-48-4	Cobalt	mg/kg		2.4	J	4.2	J	3.4	J	3.1	J	6	J
SW6010	7440-50-8	Copper	mg/kg	270	53		31.6		28.3		16.8		36.6	
SW6010	7439-89-6	Iron	mg/kg		12400		13300		8990		10000		34900	
SW6010	7439-92-1	Lead	mg/kg	1000	21.8		32.1		23.7		13.5		121	J
SW6010	7439-95-4	Magnesium	mg/kg		294		6690		869		238		2180	J
SW6010	7439-96-5	Manganese	mg/kg	10000	42		314		86.4		75.2		344	
SW6010	7440-02-0	Nickel	mg/kg	310	9.9		12		8.7		9.1		21.6	
SW6010	7440-09-7	Potassium	mg/kg		329		783		451		246	J	1280	
SW6010	7782-49-2	Selenium	mg/kg	1500	1.1	J	1.2	J	11.8	U	1.2	J	14	U
SW6010	7440-22-4	Silver	mg/kg	1500	1.4	U	1.3	U	1.2	U	1.5	U	0.3	J
SW6010	7440-23-5	Sodium	mg/kg		76.4	J	79.3	J	75.7	J	81.7	J	210	
SW6010	7440-28-0	Thallium	mg/kg		1.4	U	1.3	U	1.2	U	1.5	U	1.4	U
SW6010	7440-62-2	Vanadium	mg/kg		11.8		12.9		9.9		9.4		23.8	
SW6010	7440-66-6	Zinc	mg/kg	10000	29.8		85.4		36.8		19.9		356	
SW7471	7439-97-6	Mercury	mg/kg	2.8	0.14		0.363		0.172		0.297		0.184	J
SW9012	57-12-5	Cyanide, Total	mg/kg	27	3.39		1.5		1.22		1.25		0.69	
		Pesticides												
SW8081	72-54-8	4,4'-DDD	mg/kg	92	0.0023	U	0.0023	U	0.0022	U	0.0026	U		
SW8081	50-29-3	4,4'-DDT	mg/kg	47	0.0023	U	0.0023	U	0.0022	U	0.0026	U		
SW8081	309-00-2	Aldrin	mg/kg	0.68	0.0023	U	0.0023	U	0.0022	U	0.0026	U		
SW8081	319-84-6	Alpha-BHC	mg/kg	3.4	0.0023	U	0.0023	U	0.0022	U	0.0026	U		
SW8081	319-85-7	Beta-BHC	mg/kg	3	0.0023	U	0.0023	U	0.0022	U	0.0026	U		
SW8081	959-98-8	Endosulfan I(4)	mg/kg	200	0.0023	U	0.0023	U	0.0022	U	0.0026	U		
SW8081	1031-07-8	Endosulfan Sulfate(4)	mg/kg	200	0.0031		0.0023	U	0.0022	U	0.0026	U		
SW8081	72-20-8	Endrin	mg/kg	89	0.0023	U	0.0023	U	0.0022	U	0.0026	U		
SW8081	7421-93-4	Endrin Aldehyde	mg/kg		0.0023	U	0.0023	U	0.0022	U	0.0026	U		
SW8081	53494-70-5	Endrin Ketone	mg/kg		0.0023	U	0.0023	U	0.0022	U	0.0026	U		
SW8081	5566-34-7	Gamma-Chlordane	mg/kg		0.0023	U	0.0023	U	0.0022	U	0.0026	U		
SW8081	1024-57-3	Heptachlor Epoxide	mg/kg		0.0023	U	0.0023	U	0.0022	U	0.0026	U		
SW8081	72-43-5	Methoxychlor	mg/kg		0.0023	U	0.0023	U	0.0022	U	0.0026	U		

Honeywell PARSONS

TABLE 7 - FOCUSED RI SITE 110 SOIL ANALYTICAL SUMMARY

				Location ID	MW-08-2020		MW-16-2020		MW-16-2020		MW-16-2020		MW-23-2022	
				Field Sample ID	MW-8-2020-1.5-2.0-07142021		MW-16-2020-0.0-0.16-07132021		MW-16-2020-0.16-1.0-07132021		MW-16-2020-2.0-2.5-07132021		MW-23-2022-5-6-12082022	
				Start Depth (ft)	1.5		0		0.16		2		5	
				End Depth (ft)	2		0.16		1		2.5		6	
				Sampled	7/14/2021		7/13/2021		7/13/2021		7/13/2021		12/8/2022	
				SDG	R2107052		R2107052		R2107052		R2107052		R2211778	
				Lab Sample ID	R2107052-010		R2107052-001		R2107052-002		R2107052-003		R2211778-001	
				Sample Type	REG		REG		REG		REG		REG	
				Matrix	SOIL		SOIL		SOIL		SOIL		SOIL	
Analytical Method	CAS_RN	Chemical Name	Unit	Soil Cleanup Objective (SCO) for Commercial Use[1]										
		PCBs												
SW8082	12672-29-6	Aroclor-1248	mg/kg	1	0.045	U	0.045	U	0.043	U	0.05	U		
SW8082	11097-69-1	Aroclor-1254	mg/kg	1	0.045	U	0.045	U	0.032	J	0.05	U		
SW8082	11096-82-5	Aroclor-1260	mg/kg	1	0.045	U	0.045	U	0.043	U	0.05	U		
		Total PCBs[5]		1	0.045	U	0.045	U	0.032		0.05	U		
		Volatiles												
SW8260	71-55-6	1,1,1-Trichloroethane	mg/kg	500	0.0079	U	0.0084	U	0.009	U	0.0099	U	0.0064	U
SW8260	75-34-3	1,1-Dichloroethane	mg/kg	240	0.0079	U	0.0084	U	0.009	U	0.0099	U	0.0064	U
SW8260	78-93-3	2-Butanone	mg/kg	500	0.0079	U	0.0084	U	0.009	U	0.0099	U	0.015	
SW8260	67-64-1	Acetone	mg/kg	500	0.039	U	0.042	U	0.045	U	0.05	U	0.091	
SW8260	71-43-2	Benzene	mg/kg	44	0.0079	U	0.0084	U	0.009	U	0.0099	U	0.00058	J
SW8260	74-83-9	Bromomethane	mg/kg		0.0079	UJ	0.0084	UJ	0.009	UJ	0.0099	UJ	0.0064	U
SW8260	75-15-0	Carbon Disulfide	mg/kg		0.0015	J	0.0084	U	0.009	U	0.0032	J	0.0011	J
SW8260	67-66-3	Chloroform	mg/kg	350	0.00053	J	0.0084	U	0.009	U	0.00057	J	0.0064	U
SW8260	74-87-3	Chloromethane	mg/kg		0.0079	U	0.0084	U	0.009	U	0.0099	U	0.0064	U
SW8260	156-59-2	cis-1,2-Dichloroethene	mg/kg	500	0.0079	U	0.0084	U	0.009	U	0.0099	U	0.0064	U
SW8260	110-82-7	Cyclohexane	mg/kg		0.00061	J	0.00081	J	0.0016	J	0.0032	J	0.0064	U
SW8260	100-41-4	Ethylbenzene	mg/kg	390	0.0079	U	0.0084	U	0.009	U	0.0099	U	0.0064	U
SW8260	98-82-8	Isopropylbenzene	mg/kg		0.0079	U	0.0084	U	0.009	U	0.0099	U	0.0064	U
SW8260	XYLENES1314	m&p-Xylenes	mg/kg	500	0.016	U	0.017	U	0.018	U	0.02	U	0.013	U
SW8260	79-20-9	Methyl Acetate	mg/kg		0.0079	U	0.0084	U	0.009	U	0.0099	U	0.0022	J
SW8260	1634-04-4	Methyl Tert-Butyl Ether	mg/kg	500	0.0079	U	0.0084	U	0.009	U	0.0099	U	0.0064	U
SW8260	108-87-2	Methylcyclohexane	mg/kg		0.00097	J	0.0011	J	0.0022	J	0.005	J	0.0064	U
SW8260	75-09-2	Methylene Chloride	mg/kg	500	0.0079	U	0.0084	U	0.009	U	0.0099	U	0.0088	
SW8260	95-47-6	o-Xylene	mg/kg	500	0.0079	U	0.0084	U	0.009	U	0.0099	U	0.0064	U
SW8260	100-42-5	Styrene	mg/kg		0.0079	U	0.0084	U	0.009	U	0.0099	U	0.0064	U
SW8260	108-88-3	Toluene	mg/kg	500	0.0079	U	0.0084	U	0.009	U	0.0099	U	0.0064	U
SW8260	1330-20-7	Total Xylenes	mg/kg	500	0.016	U	0.017	U	0.018	U	0.02	U	0.013	U
SW8260	156-60-5	trans-1,2-Dichloroethene	mg/kg	500	0.0079	UJ	0.0084	UJ	0.009	UJ	0.0099	UJ	0.0064	U
SW8260	79-01-6	Trichloroethene	mg/kg	200	0.0079	U	0.0084	U	0.009	U	0.0099	U	0.0064	U
		Semivolatiles												
SW8270	92-52-4	1,1'-Biphenyl	mg/kg		0.47	U	4.5	U	0.84	U	0.48	U	0.89	U
SW8270	105-67-9	2,4-Dimethylphenol	mg/kg		0.47	U	4.5	U	0.84	U	0.48	U	0.89	U
SW8270	91-57-6	2-Methylnaphthalene	mg/kg		0.47	U	1	J	0.41	J	0.41	J	0.89	U
SW8270	95-48-7	2-Methylphenol	mg/kg	500	0.47	U	4.5	U	0.84	U	0.48	U	0.89	U
SW8270	34METPH	3&4-Methylphenol	mg/kg	500	0.47	U	4.5	U	0.84	U	0.1	J	0.89	U
SW8270	100-01-6	4-Nitroaniline	mg/kg		2.4	U	23	U	4.4	U	2.5	U	4.6	U
SW8270	98-86-2	Acetophenone	mg/kg		0.47	U	4.5	U	0.84	U	0.48	U	0.89	U
SW8270	100-52-7	Benzaldehyde	mg/kg		2.4	U	23	U	4.4	U	2.5	U	4.6	U
SW8270	117-81-7	bis-(2-Ethylhexyl)Phthalate	mg/kg		0.71	U	6.8	U	1.3	U	0.72	U	1.4	U
SW8270	86-74-8	Carbazole	mg/kg		0.47	U	4.7		0.48	J	0.096	J	0.89	U
SW8270	84-66-2	Diethyl Phthalate	mg/kg		0.47	U	4.5	U	0.84	U	0.48	U	0.89	U
SW8270	131-11-3	Dimethyl Phthalate	mg/kg		0.47	U	4.5	U	0.84	U	0.48	U	0.89	U
SW8270	84-74-2	Di-n-Butyl Phthalate	mg/kg		0.47	U	4.5	U	0.84	U	0.48	U	0.89	U
SW8270	86-30-6	n-Nitrosodiphenylamine	mg/kg		0.47	U	4.5	U	0.84	U	0.48	U	0.89	U
SW8270	108-95-2	Phenol	mg/kg	500	0.47	U	4.5	U	0.84	U	0.48	U	0.89	U

TABLE 7 - FOCUSED RI SITE 110 SOIL ANALYTICAL SUMMARY

				Location ID	MW-08-2020		MW-16-2020		MW-16-2020		MW-16-2020		MW-23-2022	
				Field Sample ID	MW-8-2020-1.5-2.0-07142021		MW-16-2020-0.0-0.16-07132021		MW-16-2020-0.16-1.0-07132021		MW-16-2020-2.0-2.5-07132021		MW-23-2022-5-6-12082022	
				Start Depth (ft)	1.5		0		0.16		2		5	
				End Depth (ft)	2		0.16		1		2.5		6	
				Sampled	7/14/2021		7/13/2021		7/13/2021		7/13/2021		12/8/2022	
				SDG	R2107052		R2107052		R2107052		R2107052		R2211778	
				Lab Sample ID	R2107052-010		R2107052-001		R2107052-002		R2107052-003		R2211778-001	
				Sample Type	REG		REG		REG		REG		REG	
				Matrix	SOIL		SOIL		SOIL		SOIL		SOIL	
Analytical Method	CAS_RN	Chemical Name	Unit	Soil Cleanup Objective (SCO) for Commercial Use(1)										
		PAHs												
SW8270	83-32-9	Acenaphthene	mg/kg	500	0.47	U	4.5	U	0.84	U	0.48	U	0.89	U
SW8270	208-96-8	Acenaphthylene	mg/kg	500	0.25	J	5.2		1.1		0.25	J	0.89	U
SW8270	120-12-7	Anthracene	mg/kg	500	0.26	J	6.7		0.88		0.25	J	0.89	U
SW8270	56-55-3	Benzo(A)Anthracene	mg/kg	5.6	1		26		4.2		0.9		0.94	J
SW8270	50-32-8	Benzo(A)Pyrene	mg/kg	1	1.5		31		5.7		1		1.5	J
SW8270	205-99-2	Benzo(B)Fluoranthene	mg/kg	5.6	1.8		36		6.8		1.2		2.1	J
SW8270	191-24-2	Benzo(G,H,I)perylene	mg/kg	500	1.1		20		4.1		0.62		1.2	J
SW8270	207-08-9	Benzo(K)Fluoranthene	mg/kg	56	0.53		13		2.1		0.38	J	0.7	J
SW8270	218-01-9	Chrysene	mg/kg	56	1.2		29		4.6		0.92		1.3	J
SW8270	53-70-3	Dibenzo(a,h)Anthracene	mg/kg	0.56	0.24	J	4.5		0.86		0.16	J	0.35	J
SW8270	132-64-9	Dibenzofuran	mg/kg	350	0.47	U	1.8	J	0.29	J	0.17	J	0.89	U
SW8270	206-44-0	Fluoranthene	mg/kg	500	2		71		9.7		1.6		1.1	
SW8270	86-73-7	Fluorene	mg/kg	500	0.1	J	2.8	J	0.21	J	0.48	U	0.89	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	mg/kg	5.6	1.3		23		4.9		0.68		1.3	J
SW8270	91-20-3	Naphthalene	mg/kg	500	0.13	J	2.9	J	0.66	J	0.49	J-	0.68	J
SW8270	85-01-8	Phenanthrene	mg/kg	500	0.88		50		4.9		1.1		0.44	J
SW8270	129-00-0	Pyrene	mg/kg	500	1.7		60		8.7		1.4		0.92	
		Total PAHs(5)	mg/kg	500	14		380		60		11		13	

Notes:

(1) Unless otherwise noted, soil cleanup objectives from Table 375-6.8(b) in NYSDEC's "6 NYCRR PART 375 Environmental Remediation Programs," December 14, 2006.

(2) PFAS criteria are guidance levels from the NYSDEC document titled "Sampling, Analysis, and Asssessmen of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs," November 2022.

(3) Hexavalent chromium standard is presented. The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.

(4) This SCO is for the sum of endosulfan I, endosulfan II, and endosulfan sulfate.

(5) Value from NYSDEC "CP-51/Soil Cleanup Guidance", October 21, 2010.

Only detected compounds are presented

Shaded: Value exceeds Commercial SCOs

TABLE 7 - FOCUSED RI SITE 110 SOIL ANALYTICAL SUMMARY

				Location ID	MW-23-2022		TP-07-2020		TP-07-2020		TP-07-2020		TP-07-2020	
				Field Sample ID	MW-23-2022-5-6-12082022FD		TP-07-2020-0.0-0.16-10062020		TP-07-2020-0.0-0.16-10062020 FD		TP-07-2020-0.16-1.0-10062020		TP-07-2020-4.0-5.0-10062020	
				Start Depth (ft)	5		0		0		0.16		4	
				End Depth (ft)	6		0.16		0.16		1		5	
				Sampled	12/8/2022		10/6/2020		10/6/2020		10/6/2020		10/6/2020	
				SDG	R2211778		R2009343		R2009343		R2009343		R2009343	
				Lab Sample ID	R2211778-002		R2009343-001		R2009343-002		R2009343-003		R2009343-004	
				Sample Type	FD		REG		FD		REG		REG	
				Matrix	SOIL		SOIL		SOIL		SOIL		SOIL	
Analytical Method	CAS_RN	Chemical Name	Unit	Soil Cleanup Objective (SCO) for Commercial Use[1]										
E160.3	SOLID	Solids	%				88.3		89.2		84.4		86.1	
E160.3	SOLIDS	Total Solids	%		69.7									
		PFAS												
E537M	2991-50-6	n-Ethyl Perfluorooctanesulfonamidoacetic Acid (n-ETFOSAA)	mg/kg				0.001	U	0.001	U	0.0011	U	0.0011	U
E537M	375-22-4	Perfluorobutanoic Acid (PFBA)	mg/kg				0.001	U	0.001	U	0.0011	U	0.0011	U
E537M	335-76-2	Perfluorodecanoic acid (PFDA)	mg/kg				0.001	U	0.001	U	0.0011	U	0.0011	U
E537M	375-85-9	Perfluoroheptanoic Acid (PFHpA)	mg/kg				0.001	U	0.001	U	0.0011	U	0.0011	U
E537M	355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	mg/kg				0.001	U	0.001	U	0.0011	U	0.0011	U
E537M	375-95-1	Perfluorononanoic Acid (PFNA)	mg/kg				0.001	U	0.001	U	0.0011	U	0.0011	U
E537M	1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	mg/kg	0.440[2]			0.001	U	0.001	U	0.00022	J	0.0011	U
E537M	335-67-1	Perfluorooctanoic Acid (PFOA)	mg/kg	0.500[2]			0.001	U	0.001	U	0.0011	U	0.0011	U
E537M	376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	mg/kg				0.001	UJ	0.001	UJ	0.0011	UJ	0.0011	UJ
E537M	2058-94-8	Perfluoroundecanoic Acid (Pfunda)	mg/kg				0.001	U	0.001	U	0.0011	U	0.0011	U
		Metals and Cyanide												
SW6010	7429-90-5	Aluminum	mg/kg		20700		1500		1240		2300		11000	
SW6010	7440-36-0	Antimony	mg/kg		8	UJ	6.8	U	6.7	U	6.8	UJ	6.5	U
SW6010	7440-38-2	Arsenic	mg/kg	16	5.6		2.9		3.6		10.2	J	4.1	
SW6010	7440-39-3	Barium	mg/kg	400	164		30.3		25		49		101	
SW6010	7440-41-7	Beryllium	mg/kg	590	1.28		0.272	J	0.28	J	0.57		0.57	
SW6010	7440-43-9	Cadmium	mg/kg	9.3	0.2	J	0.125	J	0.112	J	0.194	J	0.333	J
SW6010	7440-70-2	Calcium	mg/kg		4830	J	1210	J	637	J	3030	J	52200	
SW6010	7440-47-3	Chromium[3]	mg/kg	400	26	J	4.7		4.6		8.6		26.1	
SW6010	7440-48-4	Cobalt	mg/kg		11.7	J	1.9	J	1.8	J	3.8	J	8.5	
SW6010	7440-50-8	Copper	mg/kg	270	24.4		13		12.3		20.1		22	
SW6010	7439-89-6	Iron	mg/kg		38100		4210		4010		8040	J	25500	
SW6010	7439-92-1	Lead	mg/kg	1000	61.7	J	7.9		7.8		10.9		15.2	
SW6010	7439-95-4	Magnesium	mg/kg		4430	J	317		204		1030	J	12500	
SW6010	7439-96-5	Manganese	mg/kg	10000	401	J	48.1		42.5		103		1560	
SW6010	7440-02-0	Nickel	mg/kg	310	27		4	J	3.9	J	9		19.4	
SW6010	7440-09-7	Potassium	mg/kg		1930	J	228		222	J	443		2210	
SW6010	7782-49-2	Selenium	mg/kg	1500	1.3	U	1.1	U	1.1	U	1.1	U	1.1	U
SW6010	7440-22-4	Silver	mg/kg	1500	1.3	U	1.1	U	1.1	U	1.1	U	1.1	U
SW6010	7440-23-5	Sodium	mg/kg		140		62.7	J	61.6	J	71.3	J	161	
SW6010	7440-28-0	Thallium	mg/kg		1.3	U	1.1	U	1.1	U	1.1	UJ	1.1	U
SW6010	7440-62-2	Vanadium	mg/kg		36.6		4	J	4.1	J	9		77.5	
SW6010	7440-66-6	Zinc	mg/kg	10000	191	J	20.3		20.3		30.8		58.1	
SW7471	7439-97-6	Mercury	mg/kg	2.8	1.21	J	0.091		0.113		0.222	J	0.015	
SW9012	57-12-5	Cyanide, Total	mg/kg	27	0.67		0.82		0.77		0.77		0.37	
		Pesticides												
SW8081	72-54-8	4,4'-DDD	mg/kg	92			0.011	U	0.0098	J	0.013	U	0.0096	U
SW8081	50-29-3	4,4'-DDT	mg/kg	47			0.011	UJ	0.011	UJ	0.013	UJ	0.0096	UJ
SW8081	309-00-2	Aldrin	mg/kg	0.68			0.011	U	0.011	U	0.013	U	0.0096	U
SW8081	319-84-6	Alpha-BHC	mg/kg	3.4			0.011	U	0.011	U	0.013	U	0.0096	U
SW8081	319-85-7	Beta-BHC	mg/kg	3			0.011	U	0.011	U	0.013	U	0.0096	U
SW8081	959-98-8	Endosulfan I[4]	mg/kg	200			0.011	U	0.011	U	0.013	U	0.0096	U
SW8081	1031-07-8	Endosulfan Sulfate[4]	mg/kg	200			0.011	U	0.011	U	0.013	U	0.0096	U
SW8081	72-20-8	Endrin	mg/kg	89			0.011	UJ	0.011	UJ	0.013	UJ	0.0096	UJ
SW8081	7421-93-4	Endrin Aldehyde	mg/kg				0.011	U	0.011	J	0.013	U	0.0096	U
SW8081	53494-70-5	Endrin Ketone	mg/kg				0.011	U	0.011	U	0.013	U	0.0096	U
SW8081	5566-34-7	Gamma-Chlordane	mg/kg				0.011	U	0.011	U	0.013	U	0.0096	U
SW8081	1024-57-3	Heptachlor Epoxide	mg/kg				0.011	U	0.011	U	0.013	U	0.0096	U
SW8081	72-43-5	Methoxychlor	mg/kg				0.011	UJ	0.011	UJ	0.013	UJ	0.0096	UJ

TABLE 7 - FOCUSED RI SITE 110 SOIL ANALYTICAL SUMMARY

				Location ID	MW-23-2022		TP-07-2020		TP-07-2020		TP-07-2020		TP-07-2020	
				Field Sample ID	MW-23-2022-5-6-12082022FD		TP-07-2020-0.0-0.16-10062020		TP-07-2020-0.0-0.16-10062020 FD		TP-07-2020-0.16-1.0-10062020		TP-07-2020-4.0-5.0-10062020	
				Start Depth (ft)	5		0		0		0.16		4	
				End Depth (ft)	6		0.16		0.16		1		5	
				Sampled	12/8/2022		10/6/2020		10/6/2020		10/6/2020		10/6/2020	
				SDG	R2211778		R2009343		R2009343		R2009343		R2009343	
				Lab Sample ID	R2211778-002		R2009343-001		R2009343-002		R2009343-003		R2009343-004	
				Sample Type	FD		REG		FD		REG		REG	
				Matrix	SOIL		SOIL		SOIL		SOIL		SOIL	
Analytical Method	CAS_RN	Chemical Name	Unit	Soil Cleanup Objective (SCO) for Commercial Use(1)										
		PCBs												
SW8082	12672-29-6	Aroclor-1248	mg/kg	1			0.044	U	0.043	U	0.049	U	0.037	U
SW8082	11097-69-1	Aroclor-1254	mg/kg	1			0.044	U	0.043	U	0.049	U	0.037	U
SW8082	11096-82-5	Aroclor-1260	mg/kg	1			0.044	U	0.043	U	0.049	U	0.037	U
		Total PCBs(5)		1			0.044	U	0.043	U	0.049	U	0.037	U
		Volatiles												
SW8260	71-55-6	1,1,1-Trichloroethane	mg/kg	500	0.0081	U	0.011	U	0.012	U	0.014	U	0.0046	U
SW8260	75-34-3	1,1-Dichloroethane	mg/kg	240	0.0081	U	0.011	U	0.012	U	0.014	U	0.0046	U
SW8260	78-93-3	2-Butanone	mg/kg	500	0.015		0.011	U	0.012	U	0.014	U	0.0043	J
SW8260	67-64-1	Acetone	mg/kg	500	0.1		0.011	U	0.012	U	0.014	U	0.052	
SW8260	71-43-2	Benzene	mg/kg	44	0.00056	J	0.00061	J	0.0034	J	0.0021	J	0.00055	J
SW8260	74-83-9	Bromomethane	mg/kg		0.0081	U	0.011	U	0.012	U	0.014	U	0.0046	U
SW8260	75-15-0	Carbon Disulfide	mg/kg		0.0015	J	0.011	U	0.012	U	0.014	U	0.00079	J
SW8260	67-66-3	Chloroform	mg/kg	350	0.0081	U	0.011	U	0.012	U	0.014	U	0.0046	U
SW8260	74-87-3	Chloromethane	mg/kg		0.0081	U	0.011	U	0.012	U	0.014	U	0.0046	U
SW8260	156-59-2	cis-1,2-Dichloroethene	mg/kg	500	0.0081	U	0.011	U	0.012	U	0.014	U	0.0046	U
SW8260	110-82-7	Cyclohexane	mg/kg		0.0081	U	0.011	U	0.012	U	0.014	U	0.0046	U
SW8260	100-41-4	Ethylbenzene	mg/kg	390	0.0081	U	0.011	U	0.012	U	0.014	U	0.0046	U
SW8260	98-82-8	Isopropylbenzene	mg/kg		0.0081	U	0.011	U	0.012	U	0.014	U	0.0046	U
SW8260	XYLENES1314	m&p-Xylenes	mg/kg	500	0.016	U	0.022	U	0.00094	J	0.028	U	0.0093	U
SW8260	79-20-9	Methyl Acetate	mg/kg		0.0017	J	0.011	U	0.012	U	0.014	U	0.0046	U
SW8260	1634-04-4	Methyl Tert-Butyl Ether	mg/kg	500	0.0081	U	0.011	U	0.012	U	0.014	U	0.0046	U
SW8260	108-87-2	Methylcyclohexane	mg/kg		0.0081	U	0.011	U	0.012	U	0.014	U	0.00031	J
SW8260	75-09-2	Methylene Chloride	mg/kg	500	0.0081	U	0.011	U	0.012	U	0.014	U	0.0046	U
SW8260	95-47-6	o-Xylene	mg/kg	500	0.0081	U	0.011	U	0.012	U	0.014	U	0.0046	U
SW8260	100-42-5	Styrene	mg/kg		0.0081	U	0.011	U	0.012	U	0.014	U	0.0046	U
SW8260	108-88-3	Toluene	mg/kg	500	0.0081	U	0.00045	J	0.0015	J	0.00089	J	0.0046	U
SW8260	1330-20-7	Total Xylenes	mg/kg	500	0.016	U	0.022	U	0.00094	J	0.028	U	0.0093	U
SW8260	156-60-5	trans-1,2-Dichloroethene	mg/kg	500	0.0081	U	0.011	U	0.012	U	0.014	U	0.0046	U
SW8260	79-01-6	Trichloroethene	mg/kg	200	0.0081	U	0.011	U	0.012	U	0.014	U	0.0046	U
		Semivolatiles												
SW8270	92-52-4	1,1'-Biphenyl	mg/kg		0.92	U	1.3	J	0.12	J	0.23		0.012	J
SW8270	105-67-9	2,4-Dimethylphenol	mg/kg		0.92	U	0.1	J	0.036	U	0.12	U	0.038	U
SW8270	91-57-6	2-Methylnaphthalene	mg/kg		0.92	U	4.4	J	0.61	J	0.99		0.049	
SW8270	95-48-7	2-Methylphenol	mg/kg	500	0.92	U	0.12	J	0.017	J	0.037	J	0.038	U
SW8270	34METPH	3&4-Methylphenol	mg/kg	500	0.92	U	0.46	J	0.052	J	0.13		0.038	U
SW8270	100-01-6	4-Nitroaniline	mg/kg		4.8	U	1	J	0.036	UJ	0.12	U	0.038	U
SW8270	98-86-2	Acetophenone	mg/kg		0.92	U	0.11	UJ	0.026	J	0.12	U	0.038	U
SW8270	100-52-7	Benzaldehyde	mg/kg		4.8	U	0.11	UJ	0.025	J	0.12	U	0.038	U
SW8270	117-81-7	bis-(2-Ethylhexyl)Phthalate	mg/kg		1.4	U	2.1	U	0.66	U	2.2	U	0.69	U
SW8270	86-74-8	Carbazole	mg/kg		0.92	U	22	J	0.44	J	2.1		0.031	J
SW8270	84-66-2	Diethyl Phthalate	mg/kg		0.92	U	0.69	U	0.22	U	0.73	U	0.23	U
SW8270	131-11-3	Dimethyl Phthalate	mg/kg		0.92	U	0.59	U	0.19	U	0.62	U	0.2	U
SW8270	84-74-2	Di-n-Butyl Phthalate	mg/kg		0.92	U	1.7	U	0.55	U	1.8	U	0.58	U
SW8270	86-30-6	n-Nitrosodiphenylamine	mg/kg		0.92	U	0.12	J	0.036	UJ	0.12	U	0.038	U
SW8270	108-95-2	Phenol	mg/kg	500	0.92	U	0.43	J	0.043	J	0.14		0.038	U

Honeywell PARSONS

TABLE 7 - FOCUSED RI SITE 110 SOIL ANALYTICAL SUMMARY

				Location ID	MW-23-2022		TP-07-2020		TP-07-2020		TP-07-2020		TP-07-2020	
				Field Sample ID	MW-23-2022-5-6-12082022FD		TP-07-2020-0.0-0.16-10062020		TP-07-2020-0.0-0.16-10062020 FD		TP-07-2020-0.16-1.0-10062020		TP-07-2020-4.0-5.0-10062020	
				Start Depth (ft)	5		0		0		0.16		4	
				End Depth (ft)	6		0.16		0.16		1		5	
				Sampled	12/8/2022		10/6/2020		10/6/2020		10/6/2020		10/6/2020	
				SDG	R2211778		R2009343		R2009343		R2009343		R2009343	
				Lab Sample ID	R2211778-002		R2009343-001		R2009343-002		R2009343-003		R2009343-004	
				Sample Type	FD		REG		FD		REG		REG	
				Matrix	SOIL		SOIL		SOIL		SOIL		SOIL	
Analytical Method	CAS_RN	Chemical Name	Unit	Soil Cleanup Objective (SCO) for Commercial Use(1)										
		PAHs												
SW8270	83-32-9	Acenaphthene	mg/kg	500	0.92	U	6.6	J	0.19	J	0.6		0.098	
SW8270	208-96-8	Acenaphthylene	mg/kg	500	0.92	U	20	J	0.85	J	2.5		0.047	
SW8270	120-12-7	Anthracene	mg/kg	500	0.92	U	53	J	1.4	J	5.2		0.21	
SW8270	56-55-3	Benzo(A)Anthracene	mg/kg	5.6	1.9	J	84	J	5.4	J	14		0.22	
SW8270	50-32-8	Benzo(A)Pyrene	mg/kg	1	2.5	J	92	J	7.1	J	16		0.29	
SW8270	205-99-2	Benzo(B)Fluoranthene	mg/kg	5.6	6.3	J	98	J	8.8	J	19		0.34	
SW8270	191-24-2	Benzo(G,H,I)perylene	mg/kg	500	2.1	J	57	J	4.9	J	11		0.17	
SW8270	207-08-9	Benzo(K)Fluoranthene	mg/kg	56	1.6	J	34	J	2.6	J	6		0.11	
SW8270	218-01-9	Chrysene	mg/kg	56	2.8	J	90	J	6.3	J	16		0.21	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	mg/kg	0.56	0.94	J	15	J	1.2	J	2.6		0.052	
SW8270	132-64-9	Dibenzofuran	mg/kg	350	0.92	U	16	J	0.51	J	1.3		0.15	
SW8270	206-44-0	Fluoranthene	mg/kg	500	1.5		250	J	11	J	35		0.54	
SW8270	86-73-7	Fluorene	mg/kg	500	0.92	U	32	J	0.39	J	1.8		0.27	
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	mg/kg	5.6	2.5	J	63	J	5	J	12		0.19	
SW8270	91-20-3	Naphthalene	mg/kg	500	0.62	J	16	J	2	J	4.4		0.12	
SW8270	85-01-8	Phenanthrene	mg/kg	500	0.46	J	230	J	4.7	J	22		0.72	
SW8270	129-00-0	Pyrene	mg/kg	500	1.2		180	J	9.5	J	27		0.38	
		Total PAHs(5)	mg/kg	500	24		1300		72		200		4.1	

Notes:

(1) Unless otherwise noted, soil cleanup objectives from Table 375-6.8(b) in NYSDEC's "6 NYCRR PART 375 Environmental Remediation Programs," December 14, 2006.

(2) PFAS criteria are guidance levels from the NYSDEC document titled "Sampling, Analysis, and Asssessmen of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs," November 2022.

(3) Hexavalent chromium standard is presented. The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.

(4) This SCO is for the sum of endosulfan I, endosulfan II, and endosulfan sulfate.

(5) Value from NYSDEC "CP-51/Soil Cleanup Guidance", October 21, 2010.

Only detected compounds are presented

Shaded: Value exceeds Commercial SCOs

TABLE 7 - FOCUSED RI SITE 110 SOIL ANALYTICAL SUMMARY

Analytical Method	CAS_RN	Chemical Name	Unit	Soil Cleanup Objective (SCO) for Commercial Use[1]	TP-08-2020		TP-08-2020		TP-08-2020		TP-09-2020		TP-09-2020	
				Field Sample ID	TP-08-2020-0.0-0.16-10012020		TP-08-2020-0.16-1.0-10012020		TP-08-2020-5.0-6.0-10012020		TP-09-2020-0.0-0.16-10012020		TP-09-2020-0.16-1.0-10012020	
				Start Depth (ft)	0		0.16		5		0		0.16	
				End Depth (ft)	0.16		1		6		0.16		1	
				Sampled	10/1/2020		10/1/2020		10/1/2020		10/1/2020		10/1/2020	
				SDG	R2009205		R2009205		R2009205		R2009205		R2009205	
				Lab Sample ID	R2009205-001		R2009205-002		R2009205-003		R2009205-004		R2009205-005	
				Sample Type	REG		REG		REG		REG		REG	
				Matrix	SOIL		SOIL		SOIL		SOIL		SOIL	
E160.3	SOLID	Solids	%		84		85.4		83.2		85.8		83.9	
E160.3	SOLIDS	Total Solids	%											
		PFAS												
E537M	2991-50-6	n-Ethyl Perfluorooctanesulfonamidoacetic Acid (n-ETFOSAA)	mg/kg											
E537M	375-22-4	Perfluorobutanoic Acid (PFBA)	mg/kg											
E537M	335-76-2	Perfluorodecanoic acid (PFDA)	mg/kg											
E537M	375-85-9	Perfluoroheptanoic Acid (PFHpA)	mg/kg											
E537M	355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	mg/kg											
E537M	375-95-1	Perfluorononanoic Acid (PFNA)	mg/kg											
E537M	1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	mg/kg	0.440[2]										
E537M	335-67-1	Perfluorooctanoic Acid (PFOA)	mg/kg	0.500[2]										
E537M	376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	mg/kg											
E537M	2058-94-8	Perfluoroundecanoic Acid (Pfunda)	mg/kg											
		Metals and Cyanide												
SW6010	7429-90-5	Aluminum	mg/kg		1500		2290		3500		3540		4080	
SW6010	7440-36-0	Antimony	mg/kg		6.6	U	6.9	U	6.7	U	0.745	J	6.9	U
SW6010	7440-38-2	Arsenic	mg/kg	16	5.4		7.8		12.1		14.1		18.1	
SW6010	7440-39-3	Barium	mg/kg	400	45.8		60.6		61.8		92.5		83.3	
SW6010	7440-41-7	Beryllium	mg/kg	590	0.353		0.505		0.668		0.615		0.688	
SW6010	7440-43-9	Cadmium	mg/kg	9.3	0.176	J	0.207	J	0.289	J	1.2		1.2	
SW6010	7440-70-2	Calcium	mg/kg		2050		3330		5030		7030		5440	
SW6010	7440-47-3	Chromium[3]	mg/kg	400	13.3		12.7		74.3		36.3		29.1	
SW6010	7440-48-4	Cobalt	mg/kg		2.7	J	3.5	J	5.9		5.3	J	6.3	
SW6010	7440-50-8	Copper	mg/kg	270	57.4		32.5		73		87.5		116	
SW6010	7439-89-6	Iron	mg/kg		12500		16000		24200		27900		48900	
SW6010	7439-92-1	Lead	mg/kg	1000	13.9		26.6		27.9		159		208	
SW6010	7439-95-4	Magnesium	mg/kg		307		504		975		1370		1400	
SW6010	7439-96-5	Manganese	mg/kg	10000	120		200		242		376		424	
SW6010	7440-02-0	Nickel	mg/kg	310	13.2		16.6		79.9		25.9		30.6	
SW6010	7440-09-7	Potassium	mg/kg		360		277		298		616		661	
SW6010	7782-49-2	Selenium	mg/kg	1500	1	J	11.5	U	11.1	U	10.8	U	2.3	
SW6010	7440-22-4	Silver	mg/kg	1500	1.1	U	1.2	U	1.1	U	0.086	J	0.206	J
SW6010	7440-23-5	Sodium	mg/kg		110	U	73.8	J	88	J	100	J	107	J
SW6010	7440-28-0	Thallium	mg/kg		1.1	U	1.2	U	1.1	U	1.1	U	1.2	U
SW6010	7440-62-2	Vanadium	mg/kg		10.3		16.4		15.1		20.5		24.4	
SW6010	7440-66-6	Zinc	mg/kg	10000	34.1		31.6		45.3		290		405	
SW7471	7439-97-6	Mercury	mg/kg	2.8	0.201		0.132		0.21		1.2		1.5	
SW9012	57-12-5	Cyanide, Total	mg/kg	27	2.41		2.04		2.13		13.9		12.2	
		Pesticides												
SW8081	72-54-8	4,4'-DDD	mg/kg	92	0.01	U	0.01	U	0.011	U	0.0098	U	0.01	U
SW8081	50-29-3	4,4'-DDT	mg/kg	47	0.01	U	0.01	U	0.011	U	0.013	J	0.0092	J
SW8081	309-00-2	Aldrin	mg/kg	0.68	0.01	U	0.01	U	0.011	U	0.0098	U	0.01	U
SW8081	319-84-6	Alpha-BHC	mg/kg	3.4	0.01	U	0.01	U	0.011	U	0.0098	U	0.01	U
SW8081	319-85-7	Beta-BHC	mg/kg	3	0.01	U	0.01	U	0.011	U	0.0098	U	0.01	U
SW8081	959-98-8	Endosulfan I[4]	mg/kg	200	0.01	U	0.01	U	0.011	U	0.0098	U	0.01	U
SW8081	1031-07-8	Endosulfan Sulfate[4]	mg/kg	200	0.01	U	0.01	U	0.029		0.057		0.01	U
SW8081	72-20-8	Endrin	mg/kg	89	0.01	U	0.01	U	0.011	U	0.0098	U	0.01	U
SW8081	7421-93-4	Endrin Aldehyde	mg/kg		0.01	U	0.01	U	0.0085	J	0.0098	U	0.01	U
SW8081	53494-70-5	Endrin Ketone	mg/kg		0.01	UJ	0.01	UJ	0.011	UJ	0.0098	U	0.01	UJ
SW8081	5566-34-7	Gamma-Chlordane	mg/kg		0.01	U	0.01	U	0.01	NJ	0.0078	J	0.0091	J
SW8081	1024-57-3	Heptachlor Epoxide	mg/kg		0.01	U	0.01	U	0.011	U	0.014		0.0066	J
SW8081	72-43-5	Methoxychlor	mg/kg		0.01	U	0.01	U	0.011	U	0.0098	U	0.01	U

TABLE 7 - FOCUSED RI SITE 110 SOIL ANALYTICAL SUMMARY

Analytical Method	CAS_RN	Chemical Name	Unit	Soil Cleanup Objective (SCO) for Commercial Use[1]										
				Location ID	TP-08-2020		TP-08-2020		TP-08-2020		TP-09-2020		TP-09-2020	
				Field Sample ID	TP-08-2020-0.0-0.16-10012020		TP-08-2020-0.16-1.0-10012020		TP-08-2020-5.0-6.0-10012020		TP-09-2020-0.0-0.16-10012020		TP-09-2020-0.16-1.0-10012020	
				Start Depth (ft)	0		0.16		5		0		0.16	
				End Depth (ft)	0.16		1		6		0.16		1	
				Sampled	10/1/2020		10/1/2020		10/1/2020		10/1/2020		10/1/2020	
				SDG	R2009205		R2009205		R2009205		R2009205		R2009205	
				Lab Sample ID	R2009205-001		R2009205-002		R2009205-003		R2009205-004		R2009205-005	
				Sample Type	REG		REG		REG		REG		REG	
				Matrix	SOIL		SOIL		SOIL		SOIL		SOIL	
		PCBs												
SW8082	12672-29-6	Aroclor-1248	mg/kg	1	0.04	U	0.04	U	0.041	U	0.28		0.17	
SW8082	11097-69-1	Aroclor-1254	mg/kg	1	0.04	U	0.04	U	0.041	U	0.068	J	0.062	
SW8082	11096-82-5	Aroclor-1260	mg/kg	1	0.022	J	0.021	J	0.041	U	0.18	J	0.17	
		Total PCBs[5]		1	0.022		0.021		0.041	U	0.53		0.40	
		Volatiles												
SW8260	71-55-6	1,1,1-Trichloroethane	mg/kg	500	0.011	U	0.00048	J	0.013	U	0.015	U	0.016	U
SW8260	75-34-3	1,1-Dichloroethane	mg/kg	240	0.011	U	0.01	U	0.013	U	0.015	U	0.016	U
SW8260	78-93-3	2-Butanone	mg/kg	500	0.011	U	0.01	U	0.038		0.015	U	0.016	U
SW8260	67-64-1	Acetone	mg/kg	500	0.011	U	0.01	U	0.19		0.015	U	0.016	U
SW8260	71-43-2	Benzene	mg/kg	44	0.011	U	0.00067	J	0.095		0.0026	J	0.016	U
SW8260	74-83-9	Bromomethane	mg/kg		0.011	U	0.01	U	0.013	U	0.015	U	0.016	U
SW8260	75-15-0	Carbon Disulfide	mg/kg		0.011	U	0.00076	J	0.0036	J	0.015	U	0.016	U
SW8260	67-66-3	Chloroform	mg/kg	350	0.011	U	0.01	U	0.013	U	0.015	U	0.016	U
SW8260	74-87-3	Chloromethane	mg/kg		0.011	U	0.01	U	0.013	U	0.015	U	0.016	U
SW8260	156-59-2	cis-1,2-Dichloroethene	mg/kg	500	0.011	U	0.01	U	0.013	U	0.015	U	0.016	U
SW8260	110-82-7	Cyclohexane	mg/kg		0.011	U	0.00095	J	0.013	U	0.015	U	0.016	U
SW8260	100-41-4	Ethylbenzene	mg/kg	390	0.011	U	0.01	U	0.045		0.015	U	0.016	U
SW8260	98-82-8	Isopropylbenzene	mg/kg		0.011	U	0.01	U	0.0056	J	0.015	U	0.016	U
SW8260	XYLENES1314	m&p-Xylenes	mg/kg	500	0.023	U	0.021	U	0.049		0.03	U	0.031	U
SW8260	79-20-9	Methyl Acetate	mg/kg		0.011	U	0.01	U	0.003	J	0.015	U	0.016	U
SW8260	1634-04-4	Methyl Tert-Butyl Ether	mg/kg	500	0.011	U	0.01	U	0.013	U	0.015	U	0.016	U
SW8260	108-87-2	Methylcyclohexane	mg/kg		0.011	U	0.0016	J	0.013	U	0.015	U	0.016	U
SW8260	75-09-2	Methylene Chloride	mg/kg	500	0.011	U	0.01	U	0.013	U	0.015	U	0.016	U
SW8260	95-47-6	o-Xylene	mg/kg	500	0.011	U	0.01	U	0.037		0.015	U	0.016	U
SW8260	100-42-5	Styrene	mg/kg		0.011	U	0.01	U	0.0076	J	0.015	U	0.016	U
SW8260	108-88-3	Toluene	mg/kg	500	0.011	U	0.00048	J	0.038		0.0012	J	0.00079	J
SW8260	1330-20-7	Total Xylenes	mg/kg	500	0.023	U	0.021	U	0.0860		0.03	U	0.031	U
SW8260	156-60-5	trans-1,2-Dichloroethene	mg/kg	500	0.011	U	0.01	U	0.013	U	0.015	U	0.016	U
SW8260	79-01-6	Trichloroethene	mg/kg	200	0.011	U	0.01	U	0.013	U	0.015	U	0.016	U
		Semivolatiles												
SW8270	92-52-4	1,1'-Biphenyl	mg/kg		0.19		0.13		1.1		0.72		0.7	
SW8270	105-67-9	2,4-Dimethylphenol	mg/kg		0.094	J	0.073	J	0.33		0.058	J	0.054	J
SW8270	91-57-6	2-Methylnaphthalene	mg/kg		1.3		0.98		3.6		3.3		3	
SW8270	95-48-7	2-Methylphenol	mg/kg	500	0.09	J	0.079	J	0.14		0.057	J	0.046	J
SW8270	34METPH	3&4-Methylphenol	mg/kg	500	0.3		0.26		0.36		0.19		0.13	
SW8270	100-01-6	4-Nitroaniline	mg/kg		0.12	U	0.11	U	0.12	U	0.12	U	0.12	U
SW8270	98-86-2	Acetophenone	mg/kg		0.12	U	0.11	U	0.062	J	0.098	J	0.12	U
SW8270	100-52-7	Benzaldehyde	mg/kg		0.094	J	0.066	J	0.12	U	0.09	J	0.087	J
SW8270	117-81-7	bis-(2-Ethylhexyl)Phthalate	mg/kg		2.2	U	2.1	U	2.2	U	2.2	U	2.1	U
SW8270	86-74-8	Carbazole	mg/kg		0.65		0.45		5.2		6.6		9.4	
SW8270	84-66-2	Diethyl Phthalate	mg/kg		0.72	U	0.69	U	0.73	U	0.72	U	0.71	U
SW8270	131-11-3	Dimethyl Phthalate	mg/kg		0.62	U	0.59	U	0.62	U	0.61	U	0.6	U
SW8270	84-74-2	Di-n-Butyl Phthalate	mg/kg		1.8	U	1.7	U	1.8	U	1.8	U	1.8	U
SW8270	86-30-6	n-Nitrosodiphenylamine	mg/kg		0.12	U	0.11	U	0.12	U	0.12	U	0.12	U
SW8270	108-95-2	Phenol	mg/kg	500	0.13		0.24		0.18		0.15		0.11	J

TABLE 7 - FOCUSED RI SITE 110 SOIL ANALYTICAL SUMMARY

				Location ID	TP-08-2020	TP-08-2020	TP-08-2020	TP-09-2020	TP-09-2020
				Field Sample ID	TP-08-2020-0.0-0.16-10012020	TP-08-2020-0.16-1.0-10012020	TP-08-2020-5.0-6.0-10012020	TP-09-2020-0.0-0.16-10012020	TP-09-2020-0.16-1.0-10012020
				Start Depth (ft)	0	0.16	5	0	0.16
				End Depth (ft)	0.16	1	6	0.16	1
				Sampled	10/1/2020	10/1/2020	10/1/2020	10/1/2020	10/1/2020
				SDG	R2009205	R2009205	R2009205	R2009205	R2009205
				Lab Sample ID	R2009205-001	R2009205-002	R2009205-003	R2009205-004	R2009205-005
				Sample Type	REG	REG	REG	REG	REG
				Matrix	SOIL	SOIL	SOIL	SOIL	SOIL
Analytical Method	CAS_RN	Chemical Name	Unit	Soil Cleanup Objective (SCO) for Commercial Use(1)					
		PAHs							
SW8270	83-32-9	Acenaphthene	mg/kg	500	0.59	0.48	5.3	3.2	4.2
SW8270	208-96-8	Acenaphthylene	mg/kg	500	1.9	0.8	3.7	16	8.8
SW8270	120-12-7	Anthracene	mg/kg	500	2.3	1.6	7.4	17	21
SW8270	56-55-3	Benzo(A)Anthracene	mg/kg	5.6	8.5	5.3	21	56	76
SW8270	50-32-8	Benzo(A)Pyrene	mg/kg	1	13	8.7	41	81	110
SW8270	205-99-2	Benzo(B)Fluoranthene	mg/kg	5.6	14	8.8	45	84	130
SW8270	191-24-2	Benzo(G,H,I)perylene	mg/kg	500	10	6.7	36	54	89
SW8270	207-08-9	Benzo(K)Fluoranthene	mg/kg	56	4.8	3	13	26	33
SW8270	218-01-9	Chrysene	mg/kg	56	9.9	6.2	28	66	96
SW8270	53-70-3	Dibenzo(a,h)Anthracene	mg/kg	0.56	2.2	1.1	6.8	13	18
SW8270	132-64-9	Dibenzofuran	mg/kg	350	0.94	0.58	8.4	5	4.5
SW8270	206-44-0	Fluoranthene	mg/kg	500	17	10	49	140	180
SW8270	86-73-7	Fluorene	mg/kg	500	0.58	0.37	9.7	7.7	7.6
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	mg/kg	5.6	11	7	36	57	90
SW8270	91-20-3	Naphthalene	mg/kg	500	3.3	1.7	56	12	13
SW8270	85-01-8	Phenanthrene	mg/kg	500	8.2	6.2	32	66	84
SW8270	129-00-0	Pyrene	mg/kg	500	13	8.8	33	97	140
		Total PAHs(5)	mg/kg	500	120	77	430	800	1100

Notes:
(1) Unless otherwise noted, soil cleanup objectives from Table 375-6.8(b) in NYSDEC's "6 NYCRR PART 375 Environmental Remediation Programs," December 14, 2006.
(2) PFAS criteria are guidance levels from the NYSDEC document titled "Sampling, Analysis, and Asssessmen of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs," November 2022.
(3) Hexavalent chromium standard is presented. The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.
(4) This SCO is for the sum of endosulfan I, endosulfan II, and endosulfan sulfate.
(5) Value from NYSDEC "CP-51/Soil Cleanup Guidance", October 21, 2010.
Only detected compounds are presented
Shaded: Value exceeds Commercial SCOs

TABLE 7 - FOCUSED RI SITE 110 SOIL ANALYTICAL SUMMARY

				Location ID	TP-09-2020		TP-12-2020		TP-12-2020		TP-12-2020		TP-12-2020	
				Field Sample ID	TP-09-2020-6.5-7.0-10012020		TP-12-2020-0.0-0.16-06242021		TP-12-2020-0.0-0.16-06242021 FD		TP-12-2020-0.16-1.0-06242021		TP-12-2020-4.0-4.5-06252021	
				Start Depth (ft)	6.5		0		0		0.16		4	
				End Depth (ft)	7		0.16		0.16		1		4.5	
				Sampled	10/1/2020		6/24/2021		6/24/2021		6/24/2021		6/25/2021	
				SDG	R2009205		R2106414		R2106414		R2106414		R2106414	
				Lab Sample ID	R2009205-006		R2106414-005		R2106414-007		R2106414-006		R2106414-010	
				Sample Type	REG		REG		FD		REG		REG	
				Matrix	SOIL		SOIL		SOIL		SOIL		SOIL	
Analytical Method	CAS_RN	Chemical Name	Unit	Soil Cleanup Objective (SCO) for Commercial Use[(1)]										
E160.3	SOLID	Solids	%		76.5									
E160.3	SOLIDS	Total Solids	%				82.6		83.5		79.6		71.2	
		PFAS												
E537M	2991-50-6	n-Ethyl Perfluorooctanesulfonamidoacetic Acid (n-ETFOSAA)	mg/kg				0.0012	UJ	0.0011	UJ	0.0011	UJ	0.001	UJ
E537M	375-22-4	Perfluorobutanoic Acid (PFBA)	mg/kg				0.001	J	0.00096	J	0.00045	J	0.001	UJ
E537M	335-76-2	Perfluorodecanoic acid (PFDA)	mg/kg				0.00038	J	0.00036	J	0.00031	J	0.001	UJ
E537M	375-85-9	Perfluoroheptanoic Acid (PFHpA)	mg/kg				0.00032	J	0.0011	UJ	0.0011	UJ	0.001	UJ
E537M	355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	mg/kg				0.0012	UJ	0.0011	UJ	0.0011	UJ	0.001	UJ
E537M	375-95-1	Perfluorononanoic Acid (PFNA)	mg/kg				0.00063	J	0.00056	J	0.00043	J	0.001	UJ
E537M	1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	mg/kg	0.440[(2)]			0.0019	J	0.0017	J	0.0014	J	0.001	UJ
E537M	335-67-1	Perfluorooctanoic Acid (PFOA)	mg/kg	0.500[(2)]			0.0017	J	0.0015	J	0.0016	J	0.001	UJ
E537M	376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	mg/kg				0.0012	UJ	0.00024	J	0.00026	J	0.001	UJ
E537M	2058-94-8	Perfluoroundecanoic Acid (Pfunda)	mg/kg				0.00044	J	0.00038	J	0.00033	J	0.001	UJ
		Metals and Cyanide												
SW6010	7429-90-5	Aluminum	mg/kg		4140		2910		3020		2400		4070	
SW6010	7440-36-0	Antimony	mg/kg		1.3	J	6.6	U	6.7	U	7.4	U	8	U
SW6010	7440-38-2	Arsenic	mg/kg	16	12.3		11.1		13.2		9		10.3	
SW6010	7440-39-3	Barium	mg/kg	400	48.2		505		201		145		77.4	
SW6010	7440-41-7	Beryllium	mg/kg	590	0.484		0.649		0.676		0.677		0.636	
SW6010	7440-43-9	Cadmium	mg/kg	9.3	0.183	J	0.638		0.743		0.431	J	0.477	J
SW6010	7440-70-2	Calcium	mg/kg		9920		4160		4030		4080		3950	
SW6010	7440-47-3	Chromium[(3)]	mg/kg	400	6.4		23.7		18.2		10.6		10.2	
SW6010	7440-48-4	Cobalt	mg/kg		5.8	J	5.8		8.6		4.4	J	5	J
SW6010	7440-50-8	Copper	mg/kg	270	45		47.4		53.7		35.9		95.5	
SW6010	7439-89-6	Iron	mg/kg		20700		21900		29100		14300		21800	
SW6010	7439-92-1	Lead	mg/kg	1000	78.4		42.3		41.1		33.5		43.9	
SW6010	7439-95-4	Magnesium	mg/kg		2080		707		726		587		1130	
SW6010	7439-96-5	Manganese	mg/kg	10000	281		319		282		137		161	
SW6010	7440-02-0	Nickel	mg/kg	310	14.2		21		21.5		13.3		15.9	
SW6010	7440-09-7	Potassium	mg/kg		390		384		414		303		633	
SW6010	7782-49-2	Selenium	mg/kg	1500	0.797	J	1.6		0.821	J	1.2	U	0.874	J
SW6010	7440-22-4	Silver	mg/kg	1500	1.3	U	1.1	U	1.1	U	1.2	U	1.3	U
SW6010	7440-23-5	Sodium	mg/kg		90.2	J	67.4	J	65.9	J	78.7	J	100	J
SW6010	7440-28-0	Thallium	mg/kg		1.3	U	1.1	U	1.1	U	1.2	U	1.3	U
SW6010	7440-62-2	Vanadium	mg/kg		12.8		19.6		21		15.2		13	
SW6010	7440-66-6	Zinc	mg/kg	10000	71.1		65.6		69.8		49.6		98.4	
SW7471	7439-97-6	Mercury	mg/kg	2.8	1.5		0.161		0.136		0.159	J	0.215	
SW9012	57-12-5	Cyanide, Total	mg/kg	27	1.78		2.68		1.98		2.48		2.5	
		Pesticides												
SW8081	72-54-8	4,4'-DDD	mg/kg	92	0.011	U	0.021	U	0.021	U	0.022	U	0.024	U
SW8081	50-29-3	4,4'-DDT	mg/kg	47	0.011	U	0.021	U	0.021	U	0.022	U	0.024	U
SW8081	309-00-2	Aldrin	mg/kg	0.68	0.011	U	0.021	U	0.021	U	0.022	U	0.024	U
SW8081	319-84-6	Alpha-BHC	mg/kg	3.4	0.011	U	0.021	U	0.021	U	0.022	U	0.024	U
SW8081	319-85-7	Beta-BHC	mg/kg	3	0.011	U	0.021	U	0.021	U	0.022	U	0.024	U
SW8081	959-98-8	Endosulfan I[(4)]	mg/kg	200	0.011	U	0.021	U	0.021	U	0.022	U	0.024	U
SW8081	1031-07-8	Endosulfan Sulfate[(4)]	mg/kg	200	0.011	U	0.021	U	0.021	U	0.022	J	0.027	J
SW8081	72-20-8	Endrin	mg/kg	89	0.011	U	0.021	U	0.021	U	0.022	U	0.024	U
SW8081	7421-93-4	Endrin Aldehyde	mg/kg		0.011	U	0.021	U	0.021	U	0.022	U	0.024	U
SW8081	53494-70-5	Endrin Ketone	mg/kg		0.011	UJ	0.021	U	0.016	J	0.022	U	0.024	U
SW8081	5566-34-7	Gamma-Chlordane	mg/kg		0.011	U	0.021	U	0.021	U	0.022	U	0.024	U
SW8081	1024-57-3	Heptachlor Epoxide	mg/kg		0.011	U	0.021	U	0.021	U	0.022	U	0.024	U
SW8081	72-43-5	Methoxychlor	mg/kg		0.011	U	0.073	J	0.017	J	0.083		0.094	J

TABLE 7 - FOCUSED RI SITE 110 SOIL ANALYTICAL SUMMARY

Analytical Method	CAS_RN	Chemical Name	Unit	Soil Cleanup Objective (SCO) for Commercial Use[1]										
				Location ID	TP-09-2020		TP-12-2020		TP-12-2020		TP-12-2020		TP-12-2020	
				Field Sample ID	TP-09-2020-6.5-7.0-10012020		TP-12-2020-0.0-0.16-06242021		TP-12-2020-0.0-0.16-06242021 FD		TP-12-2020-0.16-1.0-06242021		TP-12-2020-4.0-4.5-06252021	
				Start Depth (ft)	6.5		0		0		0.16		4	
				End Depth (ft)	7		0.16		0.16		1		4.5	
				Sampled	10/1/2020		6/24/2021		6/24/2021		6/24/2021		6/25/2021	
				SDG	R2009205		R2106414		R2106414		R2106414		R2106414	
				Lab Sample ID	R2009205-006		R2106414-005		R2106414-007		R2106414-006		R2106414-010	
				Sample Type	REG		REG		FD		REG		REG	
				Matrix	SOIL		SOIL		SOIL		SOIL		SOIL	
		PCBs												
SW8082	12672-29-6	Aroclor-1248	mg/kg	1	0.042	U	0.041	U	0.041	U	0.043	U	0.047	U
SW8082	11097-69-1	Aroclor-1254	mg/kg	1	0.042	U	0.022	J	0.024	J	0.043	U	0.047	U
SW8082	11096-82-5	Aroclor-1260	mg/kg	1	0.042	U	0.041	U	0.041	U	0.043	U	0.047	U
		Total PCBs[5]		1	0.042	U	0.022		0.024		0.043	U	0.047	U
		Volatiles												
SW8260	71-55-6	1,1,1-Trichloroethane	mg/kg	500	0.013	U	0.011	U	0.011	U	0.012	U	0.012	U
SW8260	75-34-3	1,1-Dichloroethane	mg/kg	240	0.013	U	0.011	U	0.011	U	0.012	U	0.012	U
SW8260	78-93-3	2-Butanone	mg/kg	500	0.02		0.011	U	0.011	U	0.012	U	0.012	U
SW8260	67-64-1	Acetone	mg/kg	500	0.12		0.057	U	0.055	U	0.059	U	0.058	U
SW8260	71-43-2	Benzene	mg/kg	44	0.004	J	0.011	U	0.011	U	0.012	U	0.0007	J
SW8260	74-83-9	Bromomethane	mg/kg		0.013	U	0.011	U	0.011	U	0.012	U	0.012	U
SW8260	75-15-0	Carbon Disulfide	mg/kg		0.0017	J	0.00079	J	0.0011	J	0.012	U	0.012	U
SW8260	67-66-3	Chloroform	mg/kg	350	0.013	U	0.011	U	0.011	U	0.012	U	0.012	U
SW8260	74-87-3	Chloromethane	mg/kg		0.013	U	0.011	U	0.011	U	0.012	U	0.012	U
SW8260	156-59-2	cis-1,2-Dichloroethene	mg/kg	500	0.013	U	0.011	U	0.011	U	0.012	U	0.012	U
SW8260	110-82-7	Cyclohexane	mg/kg		0.00076	J	0.011	U	0.011	U	0.012	U	0.0012	J
SW8260	100-41-4	Ethylbenzene	mg/kg	390	0.0011	J	0.011	U	0.011	U	0.012	U	0.012	U
SW8260	98-82-8	Isopropylbenzene	mg/kg		0.00071	J	0.011	U	0.011	U	0.012	U	0.012	U
SW8260	XYLENES1314	m&p-Xylenes	mg/kg	500	0.01	J	0.023	U	0.022	U	0.024	U	0.023	U
SW8260	79-20-9	Methyl Acetate	mg/kg		0.013	U	0.011	U	0.011	U	0.0024	J	0.012	U
SW8260	1634-04-4	Methyl Tert-Butyl Ether	mg/kg	500	0.013	U	0.011	U	0.011	U	0.012	U	0.012	U
SW8260	108-87-2	Methylcyclohexane	mg/kg		0.0024	J	0.011	UJ	0.011	UJ	0.012	UJ	0.0022	J
SW8260	75-09-2	Methylene Chloride	mg/kg	500	0.013	U	0.011	U	0.011	U	0.012	U	0.012	U
SW8260	95-47-6	o-Xylene	mg/kg	500	0.0071	J	0.011	U	0.011	U	0.012	U	0.012	U
SW8260	100-42-5	Styrene	mg/kg		0.0013	J	0.011	U	0.011	U	0.012	U	0.012	U
SW8260	108-88-3	Toluene	mg/kg	500	0.0047	J	0.011	U	0.011	U	0.012	U	0.012	U
SW8260	1330-20-7	Total Xylenes	mg/kg	500	0.0171	J	0.023	U	0.022	U	0.024	U	0.023	U
SW8260	156-60-5	trans-1,2-Dichloroethene	mg/kg	500	0.013	U	0.011	U	0.011	U	0.012	U	0.012	U
SW8260	79-01-6	Trichloroethene	mg/kg	200	0.013	U	0.011	U	0.011	U	0.012	U	0.012	U
		Semivolatiles												
SW8270	92-52-4	1,1'-Biphenyl	mg/kg		0.32		2.5	U	0.97	U	6.2	U	14	U
SW8270	105-67-9	2,4-Dimethylphenol	mg/kg		0.33		2.5	U	0.97	U	6.2	U	14	U
SW8270	91-57-6	2-Methylnaphthalene	mg/kg		1.2		1.2	J	0.56	J	6.2	U	4.1	J
SW8270	95-48-7	2-Methylphenol	mg/kg	500	0.31		2.5	U	0.97	U	6.2	U	14	U
SW8270	34METPH	3&4-Methylphenol	mg/kg	500	1		2.5	U	0.97	U	6.2	U	14	U
SW8270	100-01-6	4-Nitroaniline	mg/kg		0.13	U	13	U	5	U	32	U	70	U
SW8270	98-86-2	Acetophenone	mg/kg		0.13	U	2.5	U	0.97	U	6.2	U	14	U
SW8270	100-52-7	Benzaldehyde	mg/kg		0.13	U	13	U	5	U	32	U	70	U
SW8270	117-81-7	bis-(2-Ethylhexyl)Phthalate	mg/kg		2.4	U	3.7	U	1.5	U	9.4	U	21	U
SW8270	86-74-8	Carbazole	mg/kg		3.6	J	2.3	J	0.82	J	5.2	J	25	
SW8270	84-66-2	Diethyl Phthalate	mg/kg		0.79	U	2.5	U	0.97	U	6.2	U	14	U
SW8270	131-11-3	Dimethyl Phthalate	mg/kg		0.67	U	2.5	U	0.97	U	6.2	U	14	U
SW8270	84-74-2	Di-n-Butyl Phthalate	mg/kg		2	U	2.5	U	0.97	U	6.2	U	14	U
SW8270	86-30-6	n-Nitrosodiphenylamine	mg/kg		0.13	U	2.5	U	0.97	U	6.2	U	14	U
SW8270	108-95-2	Phenol	mg/kg	500	0.78		2.5	U	0.97	U	6.2	U	14	U

TABLE 7 - FOCUSED RI SITE 110 SOIL ANALYTICAL SUMMARY

				Location ID	TP-09-2020		TP-12-2020		TP-12-2020		TP-12-2020		TP-12-2020	
				Field Sample ID	TP-09-2020-6.5-7.0-10012020		TP-12-2020-0.0-0.16-06242021		TP-12-2020-0.0-0.16-06242021 FD		TP-12-2020-0.16-1.0-06242021		TP-12-2020-4.0-4.5-06252021	
				Start Depth (ft)	6.5		0		0		0.16		4	
				End Depth (ft)	7		0.16		0.16		1		4.5	
				Sampled	10/1/2020		6/24/2021		6/24/2021		6/24/2021		6/25/2021	
				SDG	R2009205		R2106414		R2106414		R2106414		R2106414	
				Lab Sample ID	R2009205-006		R2106414-005		R2106414-007		R2106414-006		R2106414-010	
				Sample Type	REG		REG		FD		REG		REG	
				Matrix	SOIL		SOIL		SOIL		SOIL		SOIL	
Analytical Method	CAS_RN	Chemical Name	Unit	Soil Cleanup Objective (SCO) for Commercial Use(1)										
		PAHs												
SW8270	83-32-9	Acenaphthene	mg/kg	500	0.68		1.6	J	0.65	J	6.2	U	2.9	J
SW8270	208-96-8	Acenaphthylene	mg/kg	500	2.3		3.1		2.2		7.4		27	
SW8270	120-12-7	Anthracene	mg/kg	500	8.4		7.1	J	2.5	J	9.1		54	
SW8270	56-55-3	Benzo(A)Anthracene	mg/kg	5.6	18		17	J	8.8	J	30		66	
SW8270	50-32-8	Benzo(A)Pyrene	mg/kg	1	20		20		13		36		65	
SW8270	205-99-2	Benzo(B)Fluoranthene	mg/kg	5.6	19		24		17		42		68	
SW8270	191-24-2	Benzo(G,H,I)perylene	mg/kg	500	8		10		7.2		22		30	
SW8270	207-08-9	Benzo(K)Fluoranthene	mg/kg	56	7.3		8.3		5.8		15		27	
SW8270	218-01-9	Chrysene	mg/kg	56	16		18		10		31		62	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	mg/kg	0.56	3.6		2.8		2		5.3	J	8.9	J
SW8270	132-64-9	Dibenzofuran	mg/kg	350	2.2		1.9	J	0.53	J	1.6	J	16	
SW8270	206-44-0	Fluoranthene	mg/kg	500	28		34	J	15	J	84		180	
SW8270	86-73-7	Fluorene	mg/kg	500	3.5		3.5	J	0.46	J	3.2	J	36	
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	mg/kg	5.6	10		12		8.6		24		36	
SW8270	91-20-3	Naphthalene	mg/kg	500	2.1		1.5	J	0.91	J	1.6	J	11	J
SW8270	85-01-8	Phenanthrene	mg/kg	500	19		27	J	7	J	56		200	
SW8270	129-00-0	Pyrene	mg/kg	500	21		28	J	14	J	70		130	
		Total PAHs(5)	mg/kg	500	190		220		120		440		1000	

Notes:

(1) Unless otherwise noted, soil cleanup objectives from Table 375-6.8(b) in NYSDEC's "6 NYCRR PART 375 Environmental Remediation Programs," December 14, 2006.

(2) PFAS criteria are guidance levels from the NYSDEC document titled "Sampling, Analysis, and Asssessmen of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs," November 2022.

(3) Hexavalent chromium standard is presented. The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.

(4) This SCO is for the sum of endosulfan I, endosulfan II, and endosulfan sulfate.

(5) Value from NYSDEC "CP-51/Soil Cleanup Guidance", October 21, 2010.

Only detected compounds are presented

Shaded: Value exceeds Commercial SCOs

TABLE 7 - FOCUSED RI SITE 110 SOIL ANALYTICAL SUMMARY

				Location ID	TP-13-2020		TP-13-2020		TP-13-2020		TP-14-2020		TP-14-2020	
				Field Sample ID	TP-13-2020-0.0-0.16-06232021		TP-13-2020-0.16-1.0-06232021		TP-13-2020-4.0-5.0-06242021		TP-14-2020-0.0-0.16-06242021		TP-14-2020-0.16-1.0-06242021	
				Start Depth (ft)	0		0.16		4		0		0.16	
				End Depth (ft)	0.16		1		5		0.16		1	
				Sampled	6/23/2021		6/23/2021		6/24/2021		6/24/2021		6/24/2021	
				SDG	R2106353		R2106353		R2106353		R2106353		R2106353	
				Lab Sample ID	R2106353-002		R2106353-003		R2106353-004		R2106353-005		R2106353-006	
				Sample Type	REG		REG		REG		REG		REG	
				Matrix	SOIL		SOIL		SOIL		SOIL		SOIL	
Analytical Method	CAS_RN	Chemical Name	Unit	Soil Cleanup Objective (SCO) for Commercial Use(1)										
E160.3	SOLID	Solids	%											
E160.3	SOLIDS	Total Solids	%		73.9		80.4		67.8		73.1		77.5	
		PFAS												
E537M	2991-50-6	n-Ethyl Perfluorooctanesulfonamidoacetic Acid (n-ETFOSAA)	mg/kg											
E537M	375-22-4	Perfluorobutanoic Acid (PFBA)	mg/kg											
E537M	335-76-2	Perfluorodecanoic acid (PFDA)	mg/kg											
E537M	375-85-9	Perfluoroheptanoic Acid (PFHpA)	mg/kg											
E537M	355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	mg/kg											
E537M	375-95-1	Perfluorononanoic Acid (PFNA)	mg/kg											
E537M	1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	mg/kg	0.440(2)										
E537M	335-67-1	Perfluorooctanoic Acid (PFOA)	mg/kg	0.500(2)										
E537M	376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	mg/kg											
E537M	2058-94-8	Perfluoroundecanoic Acid (Pfunda)	mg/kg											
		Metals and Cyanide												
SW6010	7429-90-5	Aluminum	mg/kg		2880		2530		2740		2240		1920	
SW6010	7440-36-0	Antimony	mg/kg		7.7	U	6.8	U	8.7	U	7.9	U	7.3	U
SW6010	7440-38-2	Arsenic	mg/kg	16	7.9		10.7		13.2		5.2		6.2	
SW6010	7440-39-3	Barium	mg/kg	400	101		75.6		44.1		404		443	
SW6010	7440-41-7	Beryllium	mg/kg	590	0.919		0.927		0.448		0.552		0.596	
SW6010	7440-43-9	Cadmium	mg/kg	9.3	0.574	J	0.452	J	0.593	J	0.342	J	0.207	J
SW6010	7440-70-2	Calcium	mg/kg		6460		3390		22800		3110		2440	
SW6010	7440-47-3	Chromium(3)	mg/kg	400	14.4		9.2		14.7		7.6		6.5	
SW6010	7440-48-4	Cobalt	mg/kg		8.3		6.8		2.6	J	6.1	J	5.1	J
SW6010	7440-50-8	Copper	mg/kg	270	42		37.8		54.9		55.1		43.8	
SW6010	7439-89-6	Iron	mg/kg		33900		30500		16800		24300		16200	
SW6010	7439-92-1	Lead	mg/kg	1000	24.5		22.7		219		7.9		3.5	J
SW6010	7439-95-4	Magnesium	mg/kg		1120		519		12100		400		217	
SW6010	7439-96-5	Manganese	mg/kg	10000	406		374		165		51.5		22.5	
SW6010	7440-02-0	Nickel	mg/kg	310	21.2		16.7		7.8		12.8		11.9	
SW6010	7440-09-7	Potassium	mg/kg		495		314		320		327		253	
SW6010	7782-49-2	Selenium	mg/kg	1500	12.8	U	3.1		0.795	J	13.2	U	1.9	
SW6010	7440-22-4	Silver	mg/kg	1500	1.3	U	1.1	U	1.5	U	1.3	U	1.2	U
SW6010	7440-23-5	Sodium	mg/kg		184		114		96.7	J	87.8	J	82	J
SW6010	7440-28-0	Thallium	mg/kg		12.8	U	11.3	U	1.5	U	13.2	U	1.2	U
SW6010	7440-62-2	Vanadium	mg/kg		11.7		10.7		9.4		17.4		14.5	
SW6010	7440-66-6	Zinc	mg/kg	10000	43.5		30.5		117		17.3		9.4	
SW7471	7439-97-6	Mercury	mg/kg	2.8	0.064		0.07		2.6		0.056		0.029	J
SW9012	57-12-5	Cyanide, Total	mg/kg	27	1.24		1.3		3.37		1.68		1.41	
		Pesticides												
SW8081	72-54-8	4,4'-DDD	mg/kg	92	0.0048	U	0.027	U	0.08	U	0.047	U	0.0023	U
SW8081	50-29-3	4,4'-DDT	mg/kg	47	0.0048	U	0.027	U	0.08	U	0.047	U	0.0023	U
SW8081	309-00-2	Aldrin	mg/kg	0.68	0.0044	J	0.027	U	0.08	U	0.047	U	0.0023	U
SW8081	319-84-6	Alpha-BHC	mg/kg	3.4	0.0048	U	0.027	U	0.08	U	0.047	U	0.0023	U
SW8081	319-85-7	Beta-BHC	mg/kg	3	0.0048	U	0.027	U	0.08	U	0.047	U	0.0023	U
SW8081	959-98-8	Endosulfan I(4)	mg/kg	200	0.0048	U	0.027	U	0.08	U	0.047	U	0.0023	U
SW8081	1031-07-8	Endosulfan Sulfate(4)	mg/kg	200	0.0048	U	0.027	U	0.071	J	0.047	U	0.0023	U
SW8081	72-20-8	Endrin	mg/kg	89	0.0048	U	0.027	U	0.08	U	0.047	U	0.0023	U
SW8081	7421-93-4	Endrin Aldehyde	mg/kg		0.0048	U	0.027	U	0.08	U	0.047	U	0.0017	J
SW8081	53494-70-5	Endrin Ketone	mg/kg		0.038		0.027	U	0.08	U	0.047	U	0.0023	U
SW8081	5566-34-7	Gamma-Chlordane	mg/kg		0.0048	U	0.027	U	0.08	U	0.047	U	0.0023	U
SW8081	1024-57-3	Heptachlor Epoxide	mg/kg		0.0048	U	0.027	U	0.08	U	0.047	U	0.0023	U
SW8081	72-43-5	Methoxychlor	mg/kg		0.0048	U	0.027	U	0.35		0.047	U	0.0023	U

TABLE 7 - FOCUSED RI SITE 110 SOIL ANALYTICAL SUMMARY

				Location ID	TP-13-2020		TP-13-2020		TP-13-2020		TP-14-2020		TP-14-2020	
				Field Sample ID	TP-13-2020-0.0-0.16-06232021		TP-13-2020-0.16-1.0-06232021		TP-13-2020-4.0-5.0-06242021		TP-14-2020-0.0-0.16-06242021		TP-14-2020-0.16-1.0-06242021	
				Start Depth (ft)	0		0.16		4		0		0.16	
				End Depth (ft)	0.16		1		5		0.16		1	
				Sampled	6/23/2021		6/23/2021		6/24/2021		6/24/2021		6/24/2021	
				SDG	R2106353		R2106353		R2106353		R2106353		R2106353	
				Lab Sample ID	R2106353-002		R2106353-003		R2106353-004		R2106353-005		R2106353-006	
				Sample Type	REG		REG		REG		REG		REG	
				Matrix	SOIL		SOIL		SOIL		SOIL		SOIL	
Analytical Method	CAS_RN	Chemical Name	Unit	Soil Cleanup Objective (SCO) for Commercial Use[1]										
		PCBs												
SW8082	12672-29-6	Aroclor-1248	mg/kg	1	0.094	U	0.052	U	0.16	U	0.092	U	0.044	U
SW8082	11097-69-1	Aroclor-1254	mg/kg	1	0.094	U	0.052	U	0.16	U	0.092	U	0.044	U
SW8082	11096-82-5	Aroclor-1260	mg/kg	1	0.094	U	0.052	U	0.16	U	0.092	U	0.044	U
		Total PCBs[5]		1	0.094	U	0.052	U	0.16	U	0.092	U	0.044	U
		Volatiles												
SW8260	71-55-6	1,1,1-Trichloroethane	mg/kg	500	0.013	U	0.013	U	1.1	U	0.012	U	0.012	U
SW8260	75-34-3	1,1-Dichloroethane	mg/kg	240	0.013	U	0.013	U	1.1	U	0.012	U	0.012	U
SW8260	78-93-3	2-Butanone	mg/kg	500	0.013	U	0.013	U	1.1	U	0.012	U	0.012	U
SW8260	67-64-1	Acetone	mg/kg	500	0.065	U	0.064	U	5.7	U	0.062	U	0.06	U
SW8260	71-43-2	Benzene	mg/kg	44	0.013	U	0.00065	J	2		0.012	U	0.012	U
SW8260	74-83-9	Bromomethane	mg/kg		0.013	U	0.013	U	1.1	UJ	0.012	U	0.012	U
SW8260	75-15-0	Carbon Disulfide	mg/kg		0.013	U	0.013	U	1.1	U	0.012	U	0.0015	J
SW8260	67-66-3	Chloroform	mg/kg	350	0.00058	J	0.0006	J	1.1	U	0.012	U	0.00049	J
SW8260	74-87-3	Chloromethane	mg/kg		0.013	U	0.013	U	1.1	U	0.012	U	0.012	U
SW8260	156-59-2	cis-1,2-Dichloroethene	mg/kg	500	0.013	U	0.013	U	1.1	U	0.012	U	0.012	U
SW8260	110-82-7	Cyclohexane	mg/kg		0.013	U	0.0012	J	1.1	U	0.012	U	0.012	U
SW8260	100-41-4	Ethylbenzene	mg/kg	390	0.013	U	0.013	U	18		0.012	U	0.012	U
SW8260	98-82-8	Isopropylbenzene	mg/kg		0.013	U	0.013	U	5.7		0.012	U	0.012	U
SW8260	XYLENES1314	m&p-Xylenes	mg/kg	500	0.026	U	0.026	U	27		0.025	U	0.024	U
SW8260	79-20-9	Methyl Acetate	mg/kg		0.013	U	0.013	U	1.1	UJ	0.012	U	0.012	U
SW8260	1634-04-4	Methyl Tert-Butyl Ether	mg/kg	500	0.013	U	0.013	U	1.1	U	0.012	U	0.012	U
SW8260	108-87-2	Methylcyclohexane	mg/kg		0.013	UJ	0.002	J	0.67	J	0.012	UJ	0.012	UJ
SW8260	75-09-2	Methylene Chloride	mg/kg	500	0.013	U	0.013	U	1.1	U	0.012	U	0.012	U
SW8260	95-47-6	o-Xylene	mg/kg	500	0.013	U	0.013	U	12		0.012	U	0.012	U
SW8260	100-42-5	Styrene	mg/kg		0.013	U	0.013	U	1.1	U	0.012	U	0.012	U
SW8260	108-88-3	Toluene	mg/kg	500	0.013	U	0.013	U	5.5		0.012	U	0.012	U
SW8260	1330-20-7	Total Xylenes	mg/kg	500	0.026	U	0.026	U	39		0.025	U	0.024	U
SW8260	156-60-5	trans-1,2-Dichloroethene	mg/kg	500	0.013	U	0.013	U	1.1	U	0.012	U	0.012	U
SW8260	79-01-6	Trichloroethene	mg/kg	200	0.013	U	0.013	U	1.1	U	0.012	U	0.012	U
		Semivolatiles												
SW8270	92-52-4	1,1'-Biphenyl	mg/kg		2	UJ	2.2	U	470	U	0.46	UJ	0.43	U
SW8270	105-67-9	2,4-Dimethylphenol	mg/kg		0.58	J	2.2	U	470	U	0.46	UJ	0.43	U
SW8270	91-57-6	2-Methylnaphthalene	mg/kg		3.1	J	2.3		660		0.14	J	0.43	U
SW8270	95-48-7	2-Methylphenol	mg/kg	500	0.73	J	2.2	U	470	U	0.46	UJ	0.43	U
SW8270	34METPH	3&4-Methylphenol	mg/kg	500	1.5	J	0.86	J	470	U	0.46	UJ	0.43	U
SW8270	100-01-6	4-Nitroaniline	mg/kg		10	UJ	11	U	2400	U	2.4	UJ	2.2	U
SW8270	98-86-2	Acetophenone	mg/kg		2	UJ	2.2	U	470	U	0.46	UJ	0.43	U
SW8270	100-52-7	Benzaldehyde	mg/kg		10	UJ	11	U	2400	U	2.4	UJ	2.2	U
SW8270	117-81-7	bis-(2-Ethylhexyl)Phthalate	mg/kg		3	UJ	3.3	U	710	U	0.7	UJ	0.65	U
SW8270	86-74-8	Carbazole	mg/kg		0.74	J	0.68	J	470	U	0.11	J	0.43	U
SW8270	84-66-2	Diethyl Phthalate	mg/kg		2	UJ	2.2	U	470	U	0.46	UJ	0.43	U
SW8270	131-11-3	Dimethyl Phthalate	mg/kg		2	UJ	2.2	U	470	U	0.46	UJ	0.43	U
SW8270	84-74-2	Di-n-Butyl Phthalate	mg/kg		2	UJ	2.2	U	470	U	0.46	UJ	0.43	U
SW8270	86-30-6	n-Nitrosodiphenylamine	mg/kg		2	UJ	2.2	U	470	U	0.46	UJ	0.43	U
SW8270	108-95-2	Phenol	mg/kg	500	1.1	J	2.2	U	470	U	0.46	UJ	0.43	U

TABLE 7 - FOCUSED RI SITE 110 SOIL ANALYTICAL SUMMARY

				Location ID	TP-13-2020		TP-13-2020		TP-13-2020		TP-14-2020		TP-14-2020	
				Field Sample ID	TP-13-2020-0.0-0.16-06232021		TP-13-2020-0.16-1.0-06232021		TP-13-2020-4.0-5.0-06242021		TP-14-2020-0.0-0.16-06242021		TP-14-2020-0.16-1.0-06242021	
				Start Depth (ft)	0		0.16		4		0		0.16	
				End Depth (ft)	0.16		1		5		0.16		1	
				Sampled	6/23/2021		6/23/2021		6/24/2021		6/24/2021		6/24/2021	
				SDG	R2106353		R2106353		R2106353		R2106353		R2106353	
				Lab Sample ID	R2106353-002		R2106353-003		R2106353-004		R2106353-005		R2106353-006	
				Sample Type	REG		REG		REG		REG		REG	
				Matrix	SOIL		SOIL		SOIL		SOIL		SOIL	
Analytical Method	CAS_RN	Chemical Name	Unit	Soil Cleanup Objective (SCO) for Commercial Use[1]										
		PAHs												
SW8270	83-32-9	Acenaphthene	mg/kg	500	2	UJ	2.2	U	430	J	0.46	UJ	0.43	U
SW8270	208-96-8	Acenaphthylene	mg/kg	500	2.6	J	2.6		470	U	0.38	J	0.43	U
SW8270	120-12-7	Anthracene	mg/kg	500	3.5	J	2.5		150	J	0.39	J	0.43	U
SW8270	56-55-3	Benzo(A)Anthracene	mg/kg	5.6	12	J	9.1		180	J	1.6	J	0.19	J
SW8270	50-32-8	Benzo(A)Pyrene	mg/kg	1	14	J	15		170	J	2.6	J	0.27	J
SW8270	205-99-2	Benzo(B)Fluoranthene	mg/kg	5.6	16	J	19		200	J	3.1	J	0.33	J
SW8270	191-24-2	Benzo(G,H,I)perylene	mg/kg	500	7.4	J	7.3		470	U	1.6	J	0.13	J
SW8270	207-08-9	Benzo(K)Fluoranthene	mg/kg	56	5.6	J	5.7		79	J	1.1	J	0.11	J
SW8270	218-01-9	Chrysene	mg/kg	56	11	J	9.7		170	J	1.9	J	0.26	J
SW8270	53-70-3	Dibenzo(a,h)Anthracene	mg/kg	0.56	2.3	J	2.5		470	U	0.42	J	0.43	U
SW8270	132-64-9	Dibenzofuran	mg/kg	350	1.3	J	1.5	J	170	J	0.086	J	0.43	U
SW8270	206-44-0	Fluoranthene	mg/kg	500	22	J	9.5		490		2.1	J	0.25	J
SW8270	86-73-7	Fluorene	mg/kg	500	1.1	J	2.2	U	220	J	0.46	UJ	0.43	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	mg/kg	5.6	8.4	J	8.6		470	U	1.7	J	0.43	U
SW8270	91-20-3	Naphthalene	mg/kg	500	14	J	3.5	J-	8500	J-	0.28	J	0.43	UJ
SW8270	85-01-8	Phenanthrene	mg/kg	500	12	J	6.2		520		0.68	J	0.17	J
SW8270	129-00-0	Pyrene	mg/kg	500	19	J	10		330	J	2.1	J	0.21	J
		Total PAHs[5]	mg/kg	500	150		110		12000		20		1.9	

Notes:

(1) Unless otherwise noted, soil cleanup objectives from Table 375-6.8(b) in NYSDEC's "6 NYCRR PART 375 Environmental Remediation Programs," December 14, 2006.

(2) PFAS criteria are guidance levels from the NYSDEC document titled "Sampling, Analysis, and Asssessmen of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs," November 2022.

(3) Hexavalent chromium standard is presented. The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.

(4) This SCO is for the sum of endosulfan I, endosulfan II, and endosulfan sulfate.

(5) Value from NYSDEC "CP-51/Soil Cleanup Guidance", October 21, 2010.

Only detected compounds are presented

Shaded: Value exceeds Commercial SCOs

TABLE 7 - FOCUSED RI SITE 110 SOIL ANALYTICAL SUMMARY

				Location ID	TP-14-2020		TP-14-2020		TP-15-2020		TP-15-2020		TP-15-2020	
				Field Sample ID	TP-14-2020-2.5-3.0-06242021		TP-14-2020-3.25-4.0-06242021		TP-15-2020-0.0-0.16-06242021		TP-15-2020-0.16-1.0-06242021		TP-15-2020-2.0-2.5-06242021	
				Start Depth (ft)	2.5		3.25		0		0.16		2	
				End Depth (ft)	3		4		0.16		1		2.5	
				Sampled	6/24/2021		6/24/2021		6/24/2021		6/24/2021		6/24/2021	
				SDG	R2106414		R2106353		R2106414		R2106414		R2106414	
				Lab Sample ID	R2106414-001		R2106353-007		R2106414-002		R2106414-003		R2106414-004	
				Sample Type	REG		REG		REG		REG		REG	
				Matrix	SOIL		SOIL		SOIL		SOIL		SOIL	
Analytical Method	CAS_RN	Chemical Name	Unit	Soil Cleanup Objective (SCO) for Commercial Use(1)										
E160.3	SOLID	Solids	%											
E160.3	SOLIDS	Total Solids	%		72.1		47.7		43.1		62.8		72.5	
		PFAS												
E537M	2991-50-6	n-Ethyl Perfluorooctanesulfonamidoacetic Acid (n-ETFOSAA)	mg/kg											
E537M	375-22-4	Perfluorobutanoic Acid (PFBA)	mg/kg											
E537M	335-76-2	Perfluorodecanoic acid (PFDA)	mg/kg											
E537M	375-85-9	Perfluoroheptanoic Acid (PFHpA)	mg/kg											
E537M	355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	mg/kg											
E537M	375-95-1	Perfluorononanoic Acid (PFNA)	mg/kg											
E537M	1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	mg/kg	0.440(2)										
E537M	335-67-1	Perfluorooctanoic Acid (PFOA)	mg/kg	0.500(2)										
E537M	376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	mg/kg											
E537M	2058-94-8	Perfluoroundecanoic Acid (Pfunda)	mg/kg											
		Metals and Cyanide												
SW6010	7429-90-5	Aluminum	mg/kg		1360		2260	J	6490	J	4520		2660	
SW6010	7440-36-0	Antimony	mg/kg		7.9	U	3.1	J	13.4	UJ	9	U	8.3	U
SW6010	7440-38-2	Arsenic	mg/kg	16	6.2		21.9	J	10.3	J	8.4	J	9.8	
SW6010	7440-39-3	Barium	mg/kg	400	66.2		75.1	J	128	J	381	J	97.8	
SW6010	7440-41-7	Beryllium	mg/kg	590	0.196	J	0.282	J	1.5	J	0.856		0.372	J
SW6010	7440-43-9	Cadmium	mg/kg	9.3	0.209	J	0.222	J	0.669	J	0.361	J	0.345	J
SW6010	7440-70-2	Calcium	mg/kg		986		36500	J	5350	J	1810		3310	
SW6010	7440-47-3	Chromium(3)	mg/kg	400	10.8		81.1	J	18.2	J	14.7		12.9	
SW6010	7440-48-4	Cobalt	mg/kg		2.2	J	1.9	J	5.2	J	3.8	J	2.9	J
SW6010	7440-50-8	Copper	mg/kg	270	27.1		98.6	J	93.3	J	58.9	J	75.7	
SW6010	7439-89-6	Iron	mg/kg		14000		4730	J	28300	J	20300		21000	
SW6010	7439-92-1	Lead	mg/kg	1000	13.3		204	J	37.7	J	36.9		102	
SW6010	7439-95-4	Magnesium	mg/kg		147		192	J	626	J	541	J	260	
SW6010	7439-96-5	Manganese	mg/kg	10000	18.8		29	J	242	J	57.9		48.6	
SW6010	7440-02-0	Nickel	mg/kg	310	7.2		19.5	J	26.2	J	13.3		13.7	
SW6010	7440-09-7	Potassium	mg/kg		421		264	J	417	J	404		783	
SW6010	7782-49-2	Selenium	mg/kg	1500	1.3	U	12.3	J	2.2	UJ	0.946	J	1.4	U
SW6010	7440-22-4	Silver	mg/kg	1500	1.3	U	2	UJ	2.2	UJ	1.5	U	1.4	U
SW6010	7440-23-5	Sodium	mg/kg		73.1	J	115	J	170	J	84.3	J	225	
SW6010	7440-28-0	Thallium	mg/kg		1.3	U	11.2	J	2.2	UJ	1.5	U	1.4	U
SW6010	7440-62-2	Vanadium	mg/kg		15.5		46.1	J	15.4	J	20.5		18.1	
SW6010	7440-66-6	Zinc	mg/kg	10000	6.9		13.8	J	102	J	35.9		42.7	
SW7471	7439-97-6	Mercury	mg/kg	2.8	0.135		1.8	J	0.311	J	0.214		0.801	
SW9012	57-12-5	Cyanide, Total	mg/kg	27	6.61		123	J	12.5	J	13.3	J	11.8	
		Pesticides												
SW8081	72-54-8	4,4'-DDD	mg/kg	92	0.0025	U	0.0072	U	0.0051	U	0.0028	U	0.0024	U
SW8081	50-29-3	4,4'-DDT	mg/kg	47	0.0025	U	0.0072	U	0.0051	U	0.0028	U	0.016	
SW8081	309-00-2	Aldrin	mg/kg	0.68	0.0025	U	0.0072	U	0.0051	U	0.0028	U	0.0024	U
SW8081	319-84-6	Alpha-BHC	mg/kg	3.4	0.0022	J	0.0072	U	0.0051	U	0.0028	U	0.0024	U
SW8081	319-85-7	Beta-BHC	mg/kg	3	0.0025	U	0.034		0.0051	U	0.0028	U	0.0024	U
SW8081	959-98-8	Endosulfan I(4)	mg/kg	200	0.0025	U	0.0072	U	0.0051	U	0.0028	U	0.0024	U
SW8081	1031-07-8	Endosulfan Sulfate(4)	mg/kg	200	0.0025	U	0.0072	U	0.0051	U	0.0028	U	0.0024	U
SW8081	72-20-8	Endrin	mg/kg	89	0.0025	U	0.0072	U	0.0051	U	0.0028	U	0.0024	U
SW8081	7421-93-4	Endrin Aldehyde	mg/kg		0.0025	U	0.0072	U	0.0051	U	0.0028	U	0.0024	U
SW8081	53494-70-5	Endrin Ketone	mg/kg		0.0025	U	0.0072	U	0.0051	U	0.0028	U	0.0024	U
SW8081	5566-34-7	Gamma-Chlordane	mg/kg		0.0025	U	0.0072	U	0.0051	U	0.0028	U	0.0024	U
SW8081	1024-57-3	Heptachlor Epoxide	mg/kg		0.0025	U	0.0072	U	0.0051	U	0.0028	U	0.0024	U
SW8081	72-43-5	Methoxychlor	mg/kg		0.0025	U	0.034		0.0051	U	0.0028	U	0.0024	U

TABLE 7 - FOCUSED RI SITE 110 SOIL ANALYTICAL SUMMARY

				Location ID	TP-14-2020		TP-14-2020		TP-15-2020		TP-15-2020		TP-15-2020	
				Field Sample ID	TP-14-2020-2.5-3.0-06242021		TP-14-2020-3.25-4.0-06242021		TP-15-2020-0.0-0.16-06242021		TP-15-2020-0.16-1.0-06242021		TP-15-2020-2.0-2.5-06242021	
				Start Depth (ft)	2.5		3.25		0		0.16		2	
				End Depth (ft)	3		4		0.16		1		2.5	
				Sampled	6/24/2021		6/24/2021		6/24/2021		6/24/2021		6/24/2021	
				SDG	R2106414		R2106353		R2106414		R2106414		R2106414	
				Lab Sample ID	R2106414-001		R2106353-007		R2106414-002		R2106414-003		R2106414-004	
				Sample Type	REG		REG		REG		REG		REG	
				Matrix	SOIL		SOIL		SOIL		SOIL		SOIL	
Analytical Method	CAS_RN	Chemical Name	Unit	Soil Cleanup Objective (SCO) for Commercial Use[1]										
		PCBs												
SW8082	12672-29-6	Aroclor-1248	mg/kg	1	0.048	U	0.14	U	0.098	U	0.055	U	0.047	U
SW8082	11097-69-1	Aroclor-1254	mg/kg	1	0.048	U	0.14	U	0.098	U	0.055	U	0.047	U
SW8082	11096-82-5	Aroclor-1260	mg/kg	1	0.048	U	0.14	U	0.098	U	0.055	U	0.047	U
		Total PCBs[5]		1	0.048	U	0.14	U	0.098	U	0.055	U	0.047	U
		Volatiles												
SW8260	71-55-6	1,1,1-Trichloroethane	mg/kg	500	0.01	U	0.018	U	0.02	U	0.012	U	0.011	U
SW8260	75-34-3	1,1-Dichloroethane	mg/kg	240	0.01	U	0.018	U	0.02	U	0.012	U	0.011	U
SW8260	78-93-3	2-Butanone	mg/kg	500	0.01	U	0.031		0.025		0.012	U	0.011	U
SW8260	67-64-1	Acetone	mg/kg	500	0.051	U	0.1		0.34		0.075		0.037	J
SW8260	71-43-2	Benzene	mg/kg	44	0.01	U	0.024		0.02	U	0.012	U	0.00062	J
SW8260	74-83-9	Bromomethane	mg/kg		0.01	U	0.018	U	0.023		0.012	U	0.011	U
SW8260	75-15-0	Carbon Disulfide	mg/kg		0.0019	J	98		0.02	U	0.0007	J	0.011	U
SW8260	67-66-3	Chloroform	mg/kg	350	0.01	U	0.018	U	0.0011	J	0.012	U	0.011	U
SW8260	74-87-3	Chloromethane	mg/kg		0.01	U	0.018	U	0.0074	J	0.012	U	0.011	U
SW8260	156-59-2	cis-1,2-Dichloroethene	mg/kg	500	0.01	U	0.018	U	0.02	U	0.012	U	0.011	U
SW8260	110-82-7	Cyclohexane	mg/kg		0.01	U	0.0019	J	0.02	U	0.012	U	0.00084	J
SW8260	100-41-4	Ethylbenzene	mg/kg	390	0.01	U	0.018	U	0.02	U	0.012	U	0.011	U
SW8260	98-82-8	Isopropylbenzene	mg/kg		0.01	U	0.018	U	0.02	U	0.012	U	0.011	U
SW8260	XYLENES1314	m&p-Xylenes	mg/kg	500	0.021	U	0.035	U	0.039	U	0.023	U	0.023	U
SW8260	79-20-9	Methyl Acetate	mg/kg		0.01	U	0.018	U	9.7	J	0.012	U	0.011	U
SW8260	1634-04-4	Methyl Tert-Butyl Ether	mg/kg	500	0.00044	J	0.018	U	0.02	U	0.012	U	0.011	U
SW8260	108-87-2	Methylcyclohexane	mg/kg		0.01	UJ	0.0044	J	0.0025	J	0.012	UJ	0.00084	J
SW8260	75-09-2	Methylene Chloride	mg/kg	500	0.0086	J	0.018	U	0.017	J	0.012	U	0.011	U
SW8260	95-47-6	o-Xylene	mg/kg	500	0.01	U	0.018	U	0.02	U	0.012	U	0.011	U
SW8260	100-42-5	Styrene	mg/kg		0.01	U	0.018	U	0.02	U	0.012	U	0.011	U
SW8260	108-88-3	Toluene	mg/kg	500	0.01	U	0.018	U	0.02	U	0.012	U	0.011	U
SW8260	1330-20-7	Total Xylenes	mg/kg	500	0.021	U	0.035	U	0.039	U	0.023	U	0.023	U
SW8260	156-60-5	trans-1,2-Dichloroethene	mg/kg	500	0.01	U	0.018	U	0.02	U	0.012	U	0.011	U
SW8260	79-01-6	Trichloroethene	mg/kg	200	0.01	U	0.018	U	0.02	U	0.012	U	0.011	U
		Semivolatiles												
SW8270	92-52-4	1,1'-Biphenyl	mg/kg		0.79	U	0.74		1.6	U	1.3	U	0.95	U
SW8270	105-67-9	2,4-Dimethylphenol	mg/kg		0.79	U	0.52	J	1.6	U	1.3	U	0.95	U
SW8270	91-57-6	2-Methylnaphthalene	mg/kg		0.17	J	3.6		1.4	J	0.4	J	0.68	J
SW8270	95-48-7	2-Methylphenol	mg/kg	500	0.79	U	0.39	J	1.6	U	1.3	U	0.95	U
SW8270	34METPH	3&4-Methylphenol	mg/kg	500	0.79	U	1.3		1.6	U	1.3	U	0.95	U
SW8270	100-01-6	4-Nitroaniline	mg/kg		4.1	U	3.8	U	8.2	U	6.5	U	4.9	U
SW8270	98-86-2	Acetophenone	mg/kg		0.79	U	0.73	U	1.6	U	1.3	U	0.95	U
SW8270	100-52-7	Benzaldehyde	mg/kg		4.1	U	3.8	U	8.2	U	6.5	U	4.9	U
SW8270	117-81-7	bis-(2-Ethylhexyl)Phthalate	mg/kg		1.2	U	1.1	U	0.62	J	1.9	U	1.4	U
SW8270	86-74-8	Carbazole	mg/kg		0.79	U	4		1.1	J	0.26	J	0.54	J
SW8270	84-66-2	Diethyl Phthalate	mg/kg		0.79	U	0.73	U	1.6	U	1.3	U	0.95	U
SW8270	131-11-3	Dimethyl Phthalate	mg/kg		0.79	U	0.73	U	1.6	U	1.3	U	0.95	U
SW8270	84-74-2	Di-n-Butyl Phthalate	mg/kg		0.79	U	0.73	U	1.6	U	1.3	U	0.95	U
SW8270	86-30-6	n-Nitrosodiphenylamine	mg/kg		0.79	U	0.73	U	1.6	U	1.3	U	0.95	U
SW8270	108-95-2	Phenol	mg/kg	500	0.79	U	0.27	J	1.6	U	1.3	U	0.95	U

TABLE 7 - FOCUSED RI SITE 110 SOIL ANALYTICAL SUMMARY

				Location ID	TP-14-2020		TP-14-2020		TP-15-2020		TP-15-2020		TP-15-2020	
				Field Sample ID	TP-14-2020-2.5-3.0-06242021		TP-14-2020-3.25-4.0-06242021		TP-15-2020-0.0-0.16-06242021		TP-15-2020-0.16-1.0-06242021		TP-15-2020-2.0-2.5-06242021	
				Start Depth (ft)	2.5		3.25		0		0.16		2	
				End Depth (ft)	3		4		0.16		1		2.5	
				Sampled	6/24/2021		6/24/2021		6/24/2021		6/24/2021		6/24/2021	
				SDG	R2106414		R2106353		R2106414		R2106414		R2106414	
				Lab Sample ID	R2106414-001		R2106353-007		R2106414-002		R2106414-003		R2106414-004	
				Sample Type	REG		REG		REG		REG		REG	
				Matrix	SOIL		SOIL		SOIL		SOIL		SOIL	
Analytical Method	CAS_RN	Chemical Name	Unit	Soil Cleanup Objective (SCO) for Commercial Use(1)										
		PAHs												
SW8270	83-32-9	Acenaphthene	mg/kg	500	0.79	U	0.63	J	0.45	J	0.28	J	0.35	J
SW8270	208-96-8	Acenaphthylene	mg/kg	500	0.16	J	1.2		3.1		0.56	J	0.64	J
SW8270	120-12-7	Anthracene	mg/kg	500	0.24	J	2.4		3.8		0.67	J	1.1	
SW8270	56-55-3	Benzo(A)Anthracene	mg/kg	5.6	0.86		6		12		2.8		2.3	
SW8270	50-32-8	Benzo(A)Pyrene	mg/kg	1	0.95		6.1		18		4.6		2.8	
SW8270	205-99-2	Benzo(B)Fluoranthene	mg/kg	5.6	1.2		10		21		5		3.8	
SW8270	191-24-2	Benzo(G,H,I)perylene	mg/kg	500	0.58	J	3.1		11		3.1		1.8	
SW8270	207-08-9	Benzo(K)Fluoranthene	mg/kg	56	0.46	J	3.1		7.1		1.9		1.4	
SW8270	218-01-9	Chrysene	mg/kg	56	0.87		7.4		15		3.5		2.6	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	mg/kg	0.56	0.79	U	1		2.7		0.64	J	0.54	J
SW8270	132-64-9	Dibenzofuran	mg/kg	350	0.79	U	2.9		0.98	J	0.28	J	0.74	J
SW8270	206-44-0	Fluoranthene	mg/kg	500	1.4		12		21		4.6		4.5	
SW8270	86-73-7	Fluorene	mg/kg	500	0.79	U	3.4		0.59	J	1.3	U	0.77	J
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	mg/kg	5.6	0.62	J	3.8		13		3.2		2.1	
SW8270	91-20-3	Naphthalene	mg/kg	500	0.29	J	20	J-	2.6		0.78	J	4.4	
SW8270	85-01-8	Phenanthrene	mg/kg	500	0.91		8.1		8.2		2.1		3.6	
SW8270	129-00-0	Pyrene	mg/kg	500	1.1		8.4		20		4.5		3.6	
		Total PAHs(5)	mg/kg	500	9.6		100		160		39		37	

Notes:

(1) Unless otherwise noted, soil cleanup objectives from Table 375-6.8(b) in NYSDEC's "6 NYCRR PART 375 Environmental Remediation Programs," December 14, 2006.

(2) PFAS criteria are guidance levels from the NYSDEC document titled "Sampling, Analysis, and Asssessmen of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs," November 2022.

(3) Hexavalent chromium standard is presented. The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.

(4) This SCO is for the sum of endosulfan I, endosulfan II, and endosulfan sulfate.

(5) Value from NYSDEC "CP-51/Soil Cleanup Guidance", October 21, 2010.

Only detected compounds are presented

Shaded: Value exceeds Commercial SCOs

TABLE 7 - FOCUSED RI SITE 110 SOIL ANALYTICAL SUMMARY

				Location ID	TP-34-2021		TP-51-2022		TP-52-2022		TP-52-2022	
				Field Sample ID	TP-34-2021-6.0-6.5-06232021		TP-51-2022-5.5-6.5-11022022		TP-52-2022-3-4-11022022		TP-52-2022-3-4-11022022FD	
				Start Depth (ft)	6		5.5		3		3	
				End Depth (ft)	6.5		6.5		4		4	
				Sampled	6/23/2021		11/2/2022		11/2/2022		11/2/2022	
				SDG	R2106353		R2210631		R2210631		R2210631	
				Lab Sample ID	R2106353-001		R2210631-001		R2210631-002		R2210631-003	
				Sample Type	REG		REG		REG		FD	
				Matrix	SOIL		SOIL		SOIL		SOIL	
Analytical Method	CAS_RN	Chemical Name	Unit	Soil Cleanup Objective (SCO) for Commercial Use(1)								
E160.3	SOLID	Solids	%									
E160.3	SOLIDS	Total Solids	%		92		78		75		77.1	
		PFAS										
E537M	2991-50-6	n-Ethyl Perfluorooctanesulfonamidoacetic Acid (n-ETFOSAA)	mg/kg									
E537M	375-22-4	Perfluorobutanoic Acid (PFBA)	mg/kg									
E537M	335-76-2	Perfluorodecanoic acid (PFDA)	mg/kg									
E537M	375-85-9	Perfluoroheptanoic Acid (PFHpA)	mg/kg									
E537M	355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	mg/kg									
E537M	375-95-1	Perfluorononanoic Acid (PFNA)	mg/kg									
E537M	1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	mg/kg	0.440(2)								
E537M	335-67-1	Perfluorooctanoic Acid (PFOA)	mg/kg	0.500(2)								
E537M	376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	mg/kg									
E537M	2058-94-8	Perfluoroundecanoic Acid (Pfunda)	mg/kg									
		Metals and Cyanide										
SW6010	7429-90-5	Aluminum	mg/kg		1040		23400	J	1080		1130	
SW6010	7440-36-0	Antimony	mg/kg		6.4	U	7.5	UJ	2.8	J	10.9	J
SW6010	7440-38-2	Arsenic	mg/kg	16	13.5		4.1	J	14.6		12.9	
SW6010	7440-39-3	Barium	mg/kg	400	10.9		254	J	202		180	
SW6010	7440-41-7	Beryllium	mg/kg	590	0.117	J	1.33		0.14	J	0.15	J
SW6010	7440-43-9	Cadmium	mg/kg	9.3	3		0.63	U	0.21	J	0.14	J
SW6010	7440-70-2	Calcium	mg/kg		837		2750	J	27400		25500	
SW6010	7440-47-3	Chromium(3)	mg/kg	400	3.6		30.1	J	20.1		19.5	
SW6010	7440-48-4	Cobalt	mg/kg		0.948	J	15.5		1.9	J	1.4	J
SW6010	7440-50-8	Copper	mg/kg	270	8.5		26.9		76.7		66.7	
SW6010	7439-89-6	Iron	mg/kg		5840		37500		10900		8270	
SW6010	7439-92-1	Lead	mg/kg	1000	66.4		11.5		247		230	
SW6010	7439-95-4	Magnesium	mg/kg		310		7240	J	120		130	
SW6010	7439-96-5	Manganese	mg/kg	10000	25.6		254	J	29.5		26.9	
SW6010	7440-02-0	Nickel	mg/kg	310	4	J	41.9		5.3		4.8	J
SW6010	7440-09-7	Potassium	mg/kg		93.7	J	2370		600		690	
SW6010	7782-49-2	Selenium	mg/kg	1500	5.4		1.3	U	1.1	J	1.2	J
SW6010	7440-22-4	Silver	mg/kg	1500	1.1	U	1.3	U	0.8	J	0.6	J
SW6010	7440-23-5	Sodium	mg/kg		116		140		70	J	70	J
SW6010	7440-28-0	Thallium	mg/kg		5.8		1.3	U	9.4		11.8	
SW6010	7440-62-2	Vanadium	mg/kg		1.6	J	38.6		19.9		20.2	
SW6010	7440-66-6	Zinc	mg/kg	10000	90.5		81		51.3		38.9	
SW7471	7439-97-6	Mercury	mg/kg	2.8	0.082		0.032		6.5	J	3.85	J
SW9012	57-12-5	Cyanide, Total	mg/kg	27	19.2		3.2		22.1		19.1	
		Pesticides										
SW8081	72-54-8	4,4'-DDD	mg/kg	92	0.19	U						
SW8081	50-29-3	4,4'-DDT	mg/kg	47	0.19	U						
SW8081	309-00-2	Aldrin	mg/kg	0.68	0.19	U						
SW8081	319-84-6	Alpha-BHC	mg/kg	3.4	0.19	U						
SW8081	319-85-7	Beta-BHC	mg/kg	3	0.19	U						
SW8081	959-98-8	Endosulfan I(4)	mg/kg	200	0.19	U						
SW8081	1031-07-8	Endosulfan Sulfate(4)	mg/kg	200	0.19	U						
SW8081	72-20-8	Endrin	mg/kg	89	0.19	U						
SW8081	7421-93-4	Endrin Aldehyde	mg/kg		0.19	U						
SW8081	53494-70-5	Endrin Ketone	mg/kg		0.19	U						
SW8081	5566-34-7	Gamma-Chlordane	mg/kg		0.19	U						
SW8081	1024-57-3	Heptachlor Epoxide	mg/kg		0.19	U						
SW8081	72-43-5	Methoxychlor	mg/kg		0.19	U						

TABLE 7 - FOCUSED RI SITE 110 SOIL ANALYTICAL SUMMARY

				Location ID	TP-34-2021		TP-51-2022		TP-52-2022		TP-52-2022	
				Field Sample ID	TP-34-2021-6.0-6.5-06232021		TP-51-2022-5.5-6.5-11022022		TP-52-2022-3-4-11022022		TP-52-2022-3-4-11022022FD	
				Start Depth (ft)	6		5.5		3		3	
				End Depth (ft)	6.5		6.5		4		4	
				Sampled	6/23/2021		11/2/2022		11/2/2022		11/2/2022	
				SDG	R2106353		R2210631		R2210631		R2210631	
				Lab Sample ID	R2106353-001		R2210631-001		R2210631-002		R2210631-003	
				Sample Type	REG		REG		REG		FD	
				Matrix	SOIL		SOIL		SOIL		SOIL	
Analytical Method	CAS_RN	Chemical Name	Unit	Soil Cleanup Objective (SCO) for Commercial Use(1)								
		PCBs										
SW8082	12672-29-6	Aroclor-1248	mg/kg	1	0.37	U						
SW8082	11097-69-1	Aroclor-1254	mg/kg	1	0.37	U						
SW8082	11096-82-5	Aroclor-1260	mg/kg	1	0.37	U						
		Total PCBs(5)		1	0.37	U						
		Volatiles										
SW8260	71-55-6	1,1,1-Trichloroethane	mg/kg	500	13	U	0.0051	U	0.0079	U	0.0094	U
SW8260	75-34-3	1,1-Dichloroethane	mg/kg	240	13	U	0.0051	U	0.0079	U	0.0094	U
SW8260	78-93-3	2-Butanone	mg/kg	500	13	U	0.0064		0.0079	U	0.0094	U
SW8260	67-64-1	Acetone	mg/kg	500	64	U	0.068		0.04	U	0.047	U
SW8260	71-43-2	Benzene	mg/kg	44	270		0.0051	U	0.00072	J	0.0012	J
SW8260	74-83-9	Bromomethane	mg/kg		13	UJ	0.0051	U	0.0079	U	0.0094	U
SW8260	75-15-0	Carbon Disulfide	mg/kg		13	U	0.0051	U	0.0079	U	0.00067	J
SW8260	67-66-3	Chloroform	mg/kg	350	13	U	0.0051	U	0.0079	U	0.0094	U
SW8260	74-87-3	Chloromethane	mg/kg		13	U	0.0051	U	0.0079	U	0.0094	U
SW8260	156-59-2	cis-1,2-Dichloroethene	mg/kg	500	13	U	0.0051	U	0.0079	U	0.0094	U
SW8260	110-82-7	Cyclohexane	mg/kg		13	U	0.0051	U	0.0079	U	0.0094	U
SW8260	100-41-4	Ethylbenzene	mg/kg	390	19		0.0051	U	0.0079	U	0.0094	U
SW8260	98-82-8	Isopropylbenzene	mg/kg		1.1	J	0.00026	J	0.0079	U	0.0094	U
SW8260	XYLENES1314	m&p-Xylenes	mg/kg	500	330		0.01	U	0.016	U	0.019	U
SW8260	79-20-9	Methyl Acetate	mg/kg		13	UJ	0.00091	J	0.0079	U	0.0094	U
SW8260	1634-04-4	Methyl Tert-Butyl Ether	mg/kg	500	13	U	0.0051	U	0.0079	U	0.0094	U
SW8260	108-87-2	Methylcyclohexane	mg/kg		13	U	0.0051	U	0.0079	U	0.0094	U
SW8260	75-09-2	Methylene Chloride	mg/kg	500	13	U	0.0051	U	0.0079	U	0.0095	
SW8260	95-47-6	o-Xylene	mg/kg	500	91		0.0051	U	0.0079	U	0.0094	U
SW8260	100-42-5	Styrene	mg/kg		140		0.0051	U	0.0079	U	0.0094	U
SW8260	108-88-3	Toluene	mg/kg	500	290		0.0051	U	0.0079	U	0.0094	U
SW8260	1330-20-7	Total Xylenes	mg/kg	500	421		0.01	U	0.016	U	0.019	U
SW8260	156-60-5	trans-1,2-Dichloroethene	mg/kg	500	13	U	0.0051	U	0.0079	U	0.0094	U
SW8260	79-01-6	Trichloroethene	mg/kg	200	13	U	0.0051	U	0.0079	U	0.0094	U
		Semivolatiles										
SW8270	92-52-4	1,1'-Biphenyl	mg/kg		1200	J	0.57	U	4.5	U	4.4	U
SW8270	105-67-9	2,4-Dimethylphenol	mg/kg		1300	J	0.57	U	4.5	U	4.4	U
SW8270	91-57-6	2-Methylnaphthalene	mg/kg		5900		0.57	U	3.4	J	3.1	J
SW8270	95-48-7	2-Methylphenol	mg/kg	500	1100	J	0.57	U	4.5	U	4.4	U
SW8270	34METPH	3&4-Methylphenol	mg/kg	500	2700	J	0.57	U	4.5	U	4.4	U
SW8270	100-01-6	4-Nitroaniline	mg/kg		18000	U	2.9	U	23	U	22	U
SW8270	98-86-2	Acetophenone	mg/kg		3400	U	0.57	U	4.5	U	4.4	U
SW8270	100-52-7	Benzaldehyde	mg/kg		18000	U	2.9	U	23	U	22	U
SW8270	117-81-7	bis-(2-Ethylhexyl)Phthalate	mg/kg		5200	U	0.87	U	6.8	U	6.6	U
SW8270	86-74-8	Carbazole	mg/kg		3600		0.57	U	1.9	J	3.6	J
SW8270	84-66-2	Diethyl Phthalate	mg/kg		30000		0.57	U	4.5	U	4.4	U
SW8270	131-11-3	Dimethyl Phthalate	mg/kg		7700		0.57	U	4.5	U	4.4	U
SW8270	84-74-2	Di-n-Butyl Phthalate	mg/kg		610	J	0.57	U	4.5	U	4.4	U
SW8270	86-30-6	n-Nitrosodiphenylamine	mg/kg		3400	U	0.57	U	4.5	U	4.4	U
SW8270	108-95-2	Phenol	mg/kg	500	1600	J	0.57	U	4.5	U	4.4	U

TABLE 7 - FOCUSED RI SITE 110 SOIL ANALYTICAL SUMMARY

				Location ID	TP-34-2021		TP-51-2022		TP-52-2022		TP-52-2022	
				Field Sample ID	TP-34-2021-6.0-6.5-06232021		TP-51-2022-5.5-6.5-11022022		TP-52-2022-3-4-11022022		TP-52-2022-3-4-11022022FD	
				Start Depth (ft)	6		5.5		3		3	
				End Depth (ft)	6.5		6.5		4		4	
				Sampled	6/23/2021		11/2/2022		11/2/2022		11/2/2022	
				SDG	R2106353		R2210631		R2210631		R2210631	
				Lab Sample ID	R2106353-001		R2210631-001		R2210631-002		R2210631-003	
				Sample Type	REG		REG		REG		FD	
				Matrix	SOIL		SOIL		SOIL		SOIL	
Analytical Method	CAS_RN	Chemical Name	Unit	Soil Cleanup Objective (SCO) for Commercial Use[(1)]								
		PAHs										
SW8270	83-32-9	Acenaphthene	mg/kg	500	750	J	0.57	U	4.5	U	4.4	U
SW8270	208-96-8	Acenaphthylene	mg/kg	500	6400		0.57	U	4.4	J	4.5	
SW8270	120-12-7	Anthracene	mg/kg	500	5500		0.57	U	7.1		6.6	
SW8270	56-55-3	Benzo(A)Anthracene	mg/kg	5.6	4700		0.57	U	21		26	
SW8270	50-32-8	Benzo(A)Pyrene	mg/kg	1	4400		0.57	U	20		25	
SW8270	205-99-2	Benzo(B)Fluoranthene	mg/kg	5.6	4400		0.57	U	29		35	
SW8270	191-24-2	Benzo(G,H,I)perylene	mg/kg	500	1900	J	0.57	U	12		15	
SW8270	207-08-9	Benzo(K)Fluoranthene	mg/kg	56	1900	J	0.57	U	10		13	
SW8270	218-01-9	Chrysene	mg/kg	56	4300		0.57	U	21		25	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	mg/kg	0.56	3400	U	0.57	U	4	J	4.8	
SW8270	132-64-9	Dibenzofuran	mg/kg	350	4500		0.57	U	3.3	J	3.3	J
SW8270	206-44-0	Fluoranthene	mg/kg	500	13000		0.57	U	33		41	
SW8270	86-73-7	Fluorene	mg/kg	500	7300		0.57	U	2.4	J	2.7	J
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	mg/kg	5.6	2200	J	0.57	U	15		18	
SW8270	91-20-3	Naphthalene	mg/kg	500	25000	J-	0.57	U	26		26	
SW8270	85-01-8	Phenanthrene	mg/kg	500	19000		0.57	U	18		23	
SW8270	129-00-0	Pyrene	mg/kg	500	8300		0.57	U	25		31	
		Total PAHs[(5)]	mg/kg	500	110000		0.57	U	250		300	

Notes:

(1) Unless otherwise noted, soil cleanup objectives from Table 375-6.8(b) in NYSDEC's "6 NYCRR PART 375 Environmental Remediation Programs," December 14, 2006.

(2) PFAS criteria are guidance levels from the NYSDEC document titled "Sampling, Analysis, and Asssessmen of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs," November 2022.

(3) Hexavalent chromium standard is presented. The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.

(4) This SCO is for the sum of endosulfan I, endosulfan II, and endosulfan sulfate.

(5) Value from NYSDEC "CP-51/Soil Cleanup Guidance", October 21, 2010.

Only detected compounds are presented

Shaded: Value exceeds Commercial SCOs

TABLE 8 FOCUSED RI SITE 110 GROUNDWATER ANALYTICAL SUMMARY DECEMBER 2020

				Location Description	MW-04-2020		MW-05-2020		MW-06-2020		MW-07-2020	
				Location ID	MW-04-2020		MW-05-2020		MW-06-2020		MW-07-2020	
				Sample ID	MW-04-2020-12292020		MW-05-2020-12292020		MW-06-2020-12292020		MW-07-2020-12302020	
				Matrix	GW		GW		GW		GW	
				Lab Sample ID	R2012312-003		R2012312-002		R2012312-001		R2012369-001	
				Sample Date	12/29/2020		12/29/2020		12/29/2020		12/30/2020	
				Sample Type Code	REG		REG		REG		REG	
Analytical Method	CAS_RN	Chemical Name	Unit	Class GA Groundwater Quality Standard or Guidance Value[1]								
		PFAS										
E537M	375-73-5	Perfluorobutanesulfonic Acid (PFBS)	ug/l	NS	0.0046	U					0.00059	J
E537M	375-22-4	Perfluorobutanoic Acid (PFBA)	ug/l	NS	0.011						0.011	
E537M	375-85-9	Perfluoroheptanoic Acid (PFHpA)	ug/l	NS	0.0046	U					0.0024	J
E537M	1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	ug/l	0.0027[2]	0.00087	J					0.00064	J
E537M	335-67-1	Perfluorooctanoic Acid (PFOA)	ug/l	0.0067[2]	0.0035						0.0044	
E537M	2706-90-3	Perfluoropentanoic Acid (PFPeA)	ug/l	NS	0.0027	J					0.0048	
		Metals										
SW6010	7429-90-5	Aluminum	ug/l	NS	526		100	U	34.6	J	13500	
SW6010	7440-39-3	Barium	ug/l	1000	165		18.4	J	141		172	
SW6010	7440-41-7	Beryllium	ug/l	3	3	U	3	U	3	U	0.7	J
SW6010	7440-70-2	Calcium	ug/l	NS	239000		394000		143000		120000	
SW6010	7440-47-3	Chromium	ug/l	50	10	U	10	U	10	U	15.8	
SW6010	7440-48-4	Cobalt	ug/l	NS	2.2	J	8.1	J	50	U	4.9	J
SW6010	7440-50-8	Copper	ug/l	200	20	U	20	U	20	U	18.1	J
SW6010	7439-89-6	Iron	ug/l	300	17300		15900		10800		16700	
SW6010	7439-92-1	Lead	ug/l	25	50	U	50	U	50	U	20.8	J
SW6010	7439-95-4	Magnesium	ug/l	35000[2]	46000		53200		25300		26800	
SW6010	7439-96-5	Manganese	ug/l	300	2970		3240		1230		1400	
SW6010	7440-02-0	Nickel	ug/l	100	40	U	9.8	J	40	U	40	U
SW6010	7440-09-7	Potassium	ug/l	NS	5740		5760		4140		6340	
SW6010	7440-23-5	Sodium	ug/l	20000	19800		151000		73600		27700	
SW6010	7440-62-2	Vanadium	ug/l	NS	1.1	J	1.1	J	50	U	21.4	J
SW6010	7440-66-6	Zinc	ug/l	2000	10.7	J	34		20	U	66	
SW7470	7439-97-6	Mercury	ug/l	0.7	0.2	U	0.2	U	0.2	U	0.246	
		PESTICIDES										
SW8081	319-84-6	Alpha-BHC	ug/l	0.01	0.045	U	0.05	U	0.26	J	0.045	U
SW8081	5103-71-9	cis-Chlordane	ug/l	NS	0.045	U	0.05	U	0.03	J	0.045	U
		PCBS										
		Volatiles										
SW8260	71-43-2	Benzene	ug/l	1	1	U	1	U	370		1	U
SW8260	67-66-3	Chloroform	ug/l	7	1	U	1	U	6	J	1	U
SW8260	100-41-4	Ethylbenzene	ug/l	5	1	U	1	U	1700		1	U
SW8260	98-82-8	Isopropylbenzene	ug/l	5	1	U	1	U	44		1	U
SW8260	XYLENES1314	m&p-Xylenes	ug/l	5[3]	2	U	2	U	3000		2	U
SW8260	95-47-6	o-Xylene	ug/l	5	1	U	1	U	1100		1	U
SW8260	100-42-5	Styrene	ug/l	5	1	U	1	U	260		1	U
SW8260	108-88-3	Toluene	ug/l	5	1	U	1	U	1700		1	U
		Semivolatiles										
SW8270	92-52-4	1,1'-Biphenyl	ug/l	5	0.98	U	0.99	U	47		1	U
SW8270	105-67-9	2,4-Dimethylphenol	ug/l	50[2]	0.98	U	0.99	U	17		1	U
SW8270	91-57-6	2-Methylnaphthalene	ug/l	NS	0.26		0.063	J	710		0.2	U
SW8270	95-48-7	2-Methylphenol	ug/l	1[4]	0.98	U	0.99	U	5.4		1	U

TABLE 8 FOCUSED RI SITE 110 GROUNDWATER ANALYTICAL SUMMARY DECEMBER 2020

				Location Description	MW-04-2020		MW-05-2020		MW-06-2020		MW-07-2020	
				Location ID	MW-04-2020		MW-05-2020		MW-06-2020		MW-07-2020	
				Sample ID	MW-04-2020-12292020		MW-05-2020-12292020		MW-06-2020-12292020		MW-07-2020-12302020	
				Matrix	GW		GW		GW		GW	
				Lab Sample ID	R2012312-003		R2012312-002		R2012312-001		R2012369-001	
				Sample Date	12/29/2020		12/29/2020		12/29/2020		12/30/2020	
				Sample Type Code	REG		REG		REG		REG	
Analytical Method	CAS_RN	Chemical Name	Unit	Class GA Groundwater Quality Standard or Guidance Value[1]								
SW8270	34METPH	3&4-Methylphenol	ug/l	1[4]	0.98	U	0.99	U	4.7	J	1	U
SW8270	83-32-9	Acenaphthene	ug/l	20[2]	0.22		0.2	J	110		0.2	U
SW8270	208-96-8	Acenaphthylene	ug/l	NS	1		0.11	J	310		0.2	U
SW8270	98-86-2	Acetophenone	ug/l	NS	0.98	U	0.99	U	4.7	J	1	U
SW8270	120-12-7	Anthracene	ug/l	50[2]	0.36		0.077	J	7.2		0.2	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/l	0.002[2]	0.36		0.2	U	0.98	U	0.17	J
SW8270	50-32-8	Benzo(A)Pyrene	ug/l	ND	0.39		0.2	U	0.98	U	0.14	J
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/l	0.002[2]	0.38		0.2	U	0.98	U	0.15	J
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/l	NS	0.25		0.2	U	0.98	U	0.2	U
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/l	0.002[2]	0.14	J	0.2	U	0.98	U	0.2	U
SW8270	86-74-8	Carbazole	ug/l	NS	1.1		0.99	U	170		1	U
SW8270	218-01-9	Chrysene	ug/l	0.002[2]	0.34		0.2	U	0.98	U	0.13	J
SW8270	132-64-9	Dibenzofuran	ug/l	NS	0.29		0.083	J	83		0.2	U
SW8270	84-66-2	Diethyl Phthalate	ug/l	50[2]	4.9	U	5	U	25	U	0.35	J
SW8270	206-44-0	Fluoranthene	ug/l	50[2]	0.88		0.2	U	3.9		0.24	
SW8270	86-73-7	Fluorene	ug/l	50[2]	0.66		0.14	J	73		0.2	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/l	0.002[2]	0.25	J	0.2	UJ	0.98	UJ	0.2	U
SW8270	91-20-3	Naphthalene	ug/l	10[2]	6.9		1.1	U	12000	J	0.69	
SW8270	85-01-8	Phenanthrene	ug/l	50	1.5		0.2	U	35		0.2	J
SW8270	108-95-2	Phenol	ug/l	1	0.98	U	0.15	J	4.9	U	1	U
SW8270	129-00-0	Pyrene	ug/l	50[2]	0.69		0.2	U	2.3		0.2	J
SW8270-SIM	123-91-1	1,4-Dioxane	ug/l	0.35[2]	0.29						0.032	J
		Cyanide										
SW9012	57-12-5	Cyanide, Total	ug/l	200	473		5710		179		247	

Notes:

(1) Unless otherwise noted, groundwater criteria obtained from the NYSDEC document titled, "Division of Water Technical and Operational Guidance Series (TOGS) (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations," June 1998; Errata Sheet for June 1998 Edition. Criteria listed are standards unless otherwise noted.

(2) Guidance value (from TOGS 1.1.1)

(3) Applies to the individual isomer.

(4) Applies to the sum of these substances.

Only detected compounds are presented

Shaded:	Value exceeds standard or guidance value
U:	Compound not detected at provided detection limit
J:	Estimated at given value
NS:	No standard established

Honeywell PARSONS

TABLE 9 FOCUSED RI SITE 110 GROUNDWATER ANALYTICAL SUMMARY SEPTEMBER 2021

					Location Description	MW-04-2020		MW-05-2020		MW-06-2020		MW-06-2020	
					Location ID	MW-04-2020		MW-05-2020		MW-06-2020		MW-06-2020	
					Sample ID	MW-04-2020-09222021		MW-05-2020-09232021		MW-06-2020-09222021		MW-06-2020-09232021	
					Matrix	GW		GW		GW		GW	
					Lab Sample ID	R2109811-004/R2109811-005		R2110043-005/R2110043-006		R2109811-007/R2109811-008		R2110043-009	
					Sample Date	9/22/2021		9/23/2021		9/22/2021		9/23/2021	
					Sample Type Code	REG		REG		REG		REG	
Analytical Method	CAS_RN	Chemical Name	FRACTION	Unit	Class GA Groundwater Quality Standard or Guidance Value[1]								
		MNA Parameters											
Calculated	7727-37-9	Nitrogen	T	ug/l	NS	3960		10700		3760			
E351.2	KN	Total Kjeldahl Nitrogen	T	ug/l	NS	3930	J	10700		3740			
E353.2	NO3NO2N	Nitrogen, Nitrate-Nitrite	T	ug/l	10000[2]	30	J	52		50	U		
E353.2	NO2N	Nitrogen, Nitrite	T	ug/l	1000	10	U	441		10	U		
RSK175	74-82-8	Methane	T	ug/l	NS	760		5		5600			
SM2320B	ALK	Alkalinity	T	ug/l	NS	814000		117000		561000			
SW9056	16887-00-6	Chloride	T	ug/l	250000	18800		31600		25800			
SW9056	14808-79-8	Sulfate	T	ug/l	250000	108000		2650000		61600			
		Metals - Totals											
SW6010	7429-90-5	Aluminum	T	ug/l	NS	742		177		26.1	J		
SW6010	7440-38-2	Arsenic	T	ug/l	25	10	U	10	U	7.5	J		
SW6010	7440-39-3	Barium	T	ug/l	1000	199		38.2		138			
SW6010	7440-41-7	Beryllium	T	ug/l	3[3]	3	U	3	U	3	U		
SW6010	7440-43-9	Cadmium	T	ug/l	5	5	U	1.9	J	5	U		
SW6010	7440-70-2	Calcium	T	ug/l	NS	267000		575000		163000			
SW6010	7440-48-4	Cobalt	T	ug/l	NS	2.7	J	6.2	J	2.9	J		
SW6010	7439-89-6	Iron	T	ug/l	300	19300		277000		11600			
SW6010	7439-92-1	Lead	T	ug/l	25	50	U	4.1	J	50	U		
SW6010	7439-95-4	Magnesium	T	ug/l	35000[3]	49400		185000		27900			
SW6010	7439-96-5	Manganese	T	ug/l	300	3120		18400		1630			
SW6010	7440-02-0	Nickel	T	ug/l	100	40	U	21.6	J	40	U		
SW6010	7440-09-7	Potassium	T	ug/l	NS	7020		16700		5170			
SW6010	7440-23-5	Sodium	T	ug/l	20000	22800		111000		54200			
SW6010	7440-28-0	Thallium	T	ug/l	0.5[3]	10	U	10	U	10	U		
SW6010	7440-62-2	Vanadium	T	ug/l	NS	1.4	J	7.7	J	2.7	J		
SW6010	7440-66-6	Zinc	T	ug/l	2000[3]	12.9	J	140		4.7	J		
SW7470	7439-97-6	Mercury	T	ug/l	0.7	0.2	U	0.2	U	0.2	U		
		Metals - Dissolved											
SW6010	7429-90-5	Aluminum	D	ug/l	NS	35.1	J	151		100	U		
SW6010	7440-38-2	Arsenic	D	ug/l	25	6.4	J	10	U	6	J		
SW6010	7440-39-3	Barium	D	ug/l	1000	188		34.2		146			
SW6010	7440-41-7	Beryllium	D	ug/l	3[3]	3	U	0.2	J	3	U		
SW6010	7440-43-9	Cadmium	D	ug/l	5	5	U	1.8	J	5	U		
SW6010	7440-70-2	Calcium	D	ug/l	NS	258000		577000		159000			
SW6010	7440-48-4	Cobalt	D	ug/l	NS	1.9	J	14.9	J	2.4	J		
SW6010	7439-89-6	Iron	D	ug/l	300	18600		240000		10200			
SW6010	7439-92-1	Lead	D	ug/l	25	50	U	50	U	50	U		
SW6010	7439-95-4	Magnesium	D	ug/l	35000[3]	57300		172000		26600			
SW6010	7439-96-5	Manganese	D	ug/l	300	3180		18700		1570			
SW6010	7440-02-0	Nickel	D	ug/l	100	40	U	47.8		40	U		
SW6010	7440-09-7	Potassium	D	ug/l	NS	5970		16000		5180			
SW6010	7440-23-5	Sodium	D	ug/l	20000	25300		121000		59700			

TABLE 9 FOCUSED RI SITE 110 GROUNDWATER ANALYTICAL SUMMARY SEPTEMBER 2021

					Location Description	MW-04-2020		MW-05-2020		MW-06-2020		MW-06-2020	
					Location ID	MW-04-2020		MW-05-2020		MW-06-2020		MW-06-2020	
					Sample ID	MW-04-2020-09222021		MW-05-2020-09232021		MW-06-2020-09222021		MW-06-2020-09232021	
					Matrix	GW		GW		GW		GW	
					Lab Sample ID	R2109811-004/R2109811-005		R2110043-005/R2110043-006		R2109811-007/R2109811-008		R2110043-009	
					Sample Date	9/22/2021		9/23/2021		9/22/2021		9/23/2021	
					Sample Type Code	REG		REG		REG		REG	
Analytical Method	CAS_RN	Chemical Name	FRACTION	Unit	Class GA Groundwater Quality Standard or Guidance Value(1)								
SW6010	7440-28-0	Thallium	D	ug/l	0.5(3)	10	U	10	U	10	U		
SW6010	7440-62-2	Vanadium	D	ug/l	NS	0.8	J	6.2	J	2.5	J		
SW6010	7440-66-6	Zinc	D	ug/l	2000(3)	5.3	J	195		5.1	J		
SW7470	7439-97-6	Mercury	D	ug/l	0.7	0.2	U	0.2	U	0.2	U		
		PCBS - Total											
		PCBS - Dissolved											
		Volatiles											
SW8260	78-93-3	2-Butanone	T	ug/l	50	5	U	2.3	J	500	U		
SW8260	67-64-1	Acetone	T	ug/l	50	5	U	14		500	U		
SW8260	71-43-2	Benzene	T	ug/l	1	1	U	0.5	J	430			
SW8260	75-27-4	Bromodichloromethane	T	ug/l	50(3)	1	U	1	U	31	J		
SW8260	74-83-9	Bromomethane	T	ug/l	5	1	UJ	1.5	J	100	UJ		
SW8260	67-66-3	Chloroform	T	ug/l	7	1	U	1	U	70	J		
SW8260	74-87-3	Chloromethane	T	ug/l	5	1	J	1.4	U	250	J		
SW8260	100-41-4	Ethylbenzene	T	ug/l	5	1	U	1	U	1300			
SW8260	98-82-8	Isopropylbenzene	T	ug/l	5	1	U	1	U	34	J		
SW8260	XYLENES1314	m&p-Xylenes	T	ug/l	5(4)	2	U	2	U	2400			
SW8260	1634-04-4	Methyl Tert-Butyl Ether	T	ug/l	10	1	U	1	U	100	U		
SW8260	95-47-6	o-Xylene	T	ug/l	5	1	U	1	U	830			
SW8260	100-42-5	Styrene	T	ug/l	5	1	U	1	U	210			
SW8260	108-88-3	Toluene	T	ug/l	5	1	U	1	U	1600			
		Semivolatiles - Total											
SW8270	92-52-4	1,1'-Biphenyl	T	ug/l	5	0.93	U	1	U	67	J		
SW8270	91-57-6	2-Methylnaphthalene	T	ug/l	NS	0.24		0.093	J	690			
SW8270	83-32-9	Acenaphthene	T	ug/l	20(3)	0.52		7.8		120			
SW8270	208-96-8	Acenaphthylene	T	ug/l	NS	0.4		2.2		510			
SW8270	120-12-7	Anthracene	T	ug/l	50(3)	0.25		0.36		12	J		
SW8270	56-55-3	Benzo(A)Anthracene	T	ug/l	0.002(3)	0.26		0.2	U	19	U		
SW8270	50-32-8	Benzo(A)Pyrene	T	ug/l	ND	0.24		0.2	U	19	U		
SW8270	205-99-2	Benzo(B)Fluoranthene	T	ug/l	0.002(3)	0.26		0.2	U	19	U		
SW8270	191-24-2	Benzo(G,H,I)perylene	T	ug/l	NS	0.14	J	0.2	U	19	U		
SW8270	207-08-9	Benzo(K)Fluoranthene	T	ug/l	0.002(3)	0.089	J	0.2	U	19	U		
SW8270	117-81-7	bis-(2-Ethylhexyl)Phthalate	T	ug/l	5	6.3		5	U	470	U		
SW8270	86-74-8	Carbazole	T	ug/l	NS	0.79	J	2.5		270			
SW8270	218-01-9	Chrysene	T	ug/l	0.002(3)	0.18	J	0.2	U	19	U		
SW8270	132-64-9	Dibenzofuran	T	ug/l	NS	0.23		0.73		100			
SW8270	206-44-0	Fluoranthene	T	ug/l	50(3)	0.85		0.24		19	U		
SW8270	86-73-7	Fluorene	T	ug/l	50(3)	0.56		2.4		83			
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	T	ug/l	0.002(3)	0.13	J	0.2	U	19	UJ		
SW8270	91-20-3	Naphthalene	T	ug/l	10(3)	5.5		4.9		18000			
SW8270	85-01-8	Phenanthrene	T	ug/l	50	0.77		0.76		47			

TABLE 9 FOCUSED RI SITE 110 GROUNDWATER ANALYTICAL SUMMARY SEPTEMBER 2021

					Location Description	MW-04-2020		MW-05-2020		MW-06-2020		MW-06-2020	
					Location ID	MW-04-2020		MW-05-2020		MW-06-2020		MW-06-2020	
					Sample ID	MW-04-2020-09222021		MW-05-2020-09232021		MW-06-2020-09222021		MW-06-2020-09232021	
					Matrix	GW		GW		GW		GW	
					Lab Sample ID	R2109811-004/R2109811-005		R2110043-005/R2110043-006		R2109811-007/R2109811-008		R2110043-009	
					Sample Date	9/22/2021		9/23/2021		9/22/2021		9/23/2021	
					Sample Type Code	REG		REG		REG		REG	
Analytical Method	CAS_RN	Chemical Name	FRACTION	Unit	Class GA Groundwater Quality Standard or Guidance Value(1)								
SW8270	129-00-0	Pyrene	T	ug/l	50(3)	0.7		0.14	J	19	U		
		Semivolatiles - Dissolved											
SW8270	92-52-4	1,1'-Biphenyl	D	ug/l	5	0.95	U	1	U	58	J		
SW8270	91-57-6	2-Methylnaphthalene	D	ug/l	NS	0.22		0.2	U	670			
SW8270	83-32-9	Acenaphthene	D	ug/l	20(3)	0.3		0.92		150			
SW8270	208-96-8	Acenaphthylene	D	ug/l	NS	0.26		0.4		460			
SW8270	120-12-7	Anthracene	D	ug/l	50(3)	0.089	J	0.084	J	20	U		
SW8270	205-99-2	Benzo(B)Fluoranthene	D	ug/l	0.002(3)	0.19	U	0.2	U	20	U		
SW8270	117-81-7	bis-(2-Ethylhexyl)Phthalate	D	ug/l	5	4.8	U	5	U	490	U		
SW8270	86-74-8	Carbazole	D	ug/l	NS	0.95	U	1	U	240			
SW8270	132-64-9	Dibenzofuran	D	ug/l	NS	0.19	U	0.2	U	82			
SW8270	84-74-2	Di-n-Butyl Phthalate	D	ug/l	50	4.8	U	0.5	J	490	U		
SW8270	86-73-7	Fluorene	D	ug/l	50(3)	0.19	U	0.07	J	67			
SW8270	91-20-3	Naphthalene	D	ug/l	10(3)	6.4		2.1		15000			
SW8270	85-01-8	Phenanthrene	D	ug/l	50	0.19	U	0.2	U	18	J		
		Cyanide - Total											
SW9012	57-12-5	Cyanide, Total	T	ug/l	200	382		4530		182			
		Cyanide - Dissolved											
SW9012	57-12-5	Cyanide	D	ug/l	200	529		4310		181			
		TOC											
SW9060	TOC	Total Organic Carbon	T	ug/l	NS	17100		11100				20600	

(1) Unless otherwise noted, groundwater criteria obtained from the NYSDEC document titled, "Division of Water Technical and Operational Guidance Series (TOGS) (1.1.1), Ambient Water Quality Standards and Guidance Values

(2) Applies to the sum of these substances.

(3) Guidance value (from TOGS 1.1.1)

(4) Applies to the individual isomer.

Only detected compounds are presented

Shaded: Value exceeds standard or guidance value

U: Compound not detected at provided detection limit

J: Estimated at given value

NS: No standard established

TABLE 9 FOCUSED RI SITE 110 GROUNDWATER ANALYTICAL SUMMARY SEPTEMBER 2021

					Location Description	MW-07-2020		MW-08-2020		MW-16-2020		MW-16-2020	
					Location ID	MW-07-2020		MW-08-2020		MW-16-2020		MW-16-2020	
					Sample ID	MW-07-2020-09242021		MW-08-2020-09232021		MW-16-2020-09232021		MW-16-2020-09232021FD	
					Matrix	GW		GW		GW		GW	
					Lab Sample ID	R2110043-012/R2110043-013		R2110043-003/R2110043-004		R2110043-001/R2110043-002		R2110043-007/R2110043-008	
					Sample Date	9/24/2021		9/23/2021		9/23/2021		9/23/2021	
					Sample Type Code	REG		REG		REG		FD	
Analytical Method	CAS_RN	Chemical Name	FRACTION	Unit	Class GA Groundwater Quality Standard or Guidance Value[1]								
		MNA Parameters											
Calculated	7727-37-9	Nitrogen	T	ug/l	NS			860					
E351.2	KN	Total Kjeldahl Nitrogen	T	ug/l	NS			850					
E353.2	NO3NO2N	Nitrogen, Nitrate-Nitrite	T	ug/l	10000[2]			4	J				
E353.2	NO2N	Nitrogen, Nitrite	T	ug/l	1000			10	U				
RSK175	74-82-8	Methane	T	ug/l	NS			46					
SM2320B	ALK	Alkalinity	T	ug/l	NS			387000					
SW9056	16887-00-6	Chloride	T	ug/l	250000			22100					
SW9056	14808-79-8	Sulfate	T	ug/l	250000			1260000					
		Metals - Totals											
SW6010	7429-90-5	Aluminum	T	ug/l	NS	1580		24.8	J	407		262	
SW6010	7440-38-2	Arsenic	T	ug/l	25	10	U	10	U	6	J	7	J
SW6010	7440-39-3	Barium	T	ug/l	1000	118		53.4		341		362	
SW6010	7440-41-7	Beryllium	T	ug/l	3[3]	3	U	3	U	3	U	3	U
SW6010	7440-43-9	Cadmium	T	ug/l	5	5	U	5	U	5	U	5	U
SW6010	7440-70-2	Calcium	T	ug/l	NS	130000		521000		188000		190000	
SW6010	7440-48-4	Cobalt	T	ug/l	NS	1.3	J	11.7	J	2.8	J	2.8	J
SW6010	7439-89-6	Iron	T	ug/l	300	9700		1350		33000		36900	
SW6010	7439-92-1	Lead	T	ug/l	25	3.9	J	50	U	9.9	J	5.8	J
SW6010	7439-95-4	Magnesium	T	ug/l	35000[3]	24300		52200		41700		44200	
SW6010	7439-96-5	Manganese	T	ug/l	300	1490		3780		11800		8980	
SW6010	7440-02-0	Nickel	T	ug/l	100	40	U	40	U	40	U	40	U
SW6010	7440-09-7	Potassium	T	ug/l	NS	3580		7680		5700		5710	
SW6010	7440-23-5	Sodium	T	ug/l	20000	28400		41100		17800		19200	
SW6010	7440-28-0	Thallium	T	ug/l	0.5[3]	10	U	12.7		10	U	10	U
SW6010	7440-62-2	Vanadium	T	ug/l	NS	2.5	J	50	U	1.5	J	1.6	J
SW6010	7440-66-6	Zinc	T	ug/l	2000[3]	16.7	J	20	U	34		24.9	
SW7470	7439-97-6	Mercury	T	ug/l	0.7	0.2	U	0.2	U	0.101	J	0.089	J
		Metals - Dissolved											
SW6010	7429-90-5	Aluminum	D	ug/l	NS	100	U	100	U	100	U	100	U
SW6010	7440-38-2	Arsenic	D	ug/l	25	10	U	10	U	7.2	J	10	U
SW6010	7440-39-3	Barium	D	ug/l	1000	98.8		51.1		376		365	
SW6010	7440-41-7	Beryllium	D	ug/l	3[3]	3	U	3	U	3	U	3	U
SW6010	7440-43-9	Cadmium	D	ug/l	5	5	U	5	U	5	U	5	U
SW6010	7440-70-2	Calcium	D	ug/l	NS	129000		526000		193000		192000	
SW6010	7440-48-4	Cobalt	D	ug/l	NS	2.1	J	12.1	J	2.8	J	3.2	J
SW6010	7439-89-6	Iron	D	ug/l	300	5140		1470		37200		36200	
SW6010	7439-92-1	Lead	D	ug/l	25	50	U	50	U	2.2	J	50	U
SW6010	7439-95-4	Magnesium	D	ug/l	35000[3]	23700		51900		45300		44200	
SW6010	7439-96-5	Manganese	D	ug/l	300	1470		3520		9270		9550	
SW6010	7440-02-0	Nickel	D	ug/l	100	40	U	40	U	40	U	40	U
SW6010	7440-09-7	Potassium	D	ug/l	NS	3230		7850		5830		5740	
SW6010	7440-23-5	Sodium	D	ug/l	20000	29800		44100		19700		19200	

TABLE 9 FOCUSED RI SITE 110 GROUNDWATER ANALYTICAL SUMMARY SEPTEMBER 2021

					Location Description	MW-07-2020		MW-08-2020		MW-16-2020		MW-16-2020	
					Location ID	MW-07-2020		MW-08-2020		MW-16-2020		MW-16-2020	
					Sample ID	MW-07-2020-09242021		MW-08-2020-09232021		MW-16-2020-09232021		MW-16-2020-09232021FD	
					Matrix	GW		GW		GW		GW	
					Lab Sample ID	R2110043-012/R2110043-013		R2110043-003/R2110043-004		R2110043-001/R2110043-002		R2110043-007/R2110043-008	
					Sample Date	9/24/2021		9/23/2021		9/23/2021		9/23/2021	
					Sample Type Code	REG		REG		REG		FD	
Analytical Method	CAS_RN	Chemical Name	FRACTION	Unit	Class GA Groundwater Quality Standard or Guidance Value[1]								
SW6010	7440-28-0	Thallium	D	ug/l	0.5[3]	10	U	8.2	J	10	U	10	U
SW6010	7440-62-2	Vanadium	D	ug/l	NS	50	U	50	U	1	J	1.2	J
SW6010	7440-66-6	Zinc	D	ug/l	2000[3]	6.6	J	2.7	J	8.2	J	7.3	J
SW7470	7439-97-6	Mercury	D	ug/l	0.7	0.2	U	0.2	U	0.2	U	0.2	U
		PCBS - Total											
		PCBS - Dissolved											
		Volatiles											
SW8260	78-93-3	2-Butanone	T	ug/l	50	5	U	5	U	5	U	5	U
SW8260	67-64-1	Acetone	T	ug/l	50	5	U	5	U	5	U	5	U
SW8260	71-43-2	Benzene	T	ug/l	1	1	U	1	U	1	U	1	U
SW8260	75-27-4	Bromodichloromethane	T	ug/l	50[3]	1	U	1	U	1	U	1	U
SW8260	74-83-9	Bromomethane	T	ug/l	5	1.4	J	1	J	1	J	1	J
SW8260	67-66-3	Chloroform	T	ug/l	7	1	U	1	U	1	U	1	U
SW8260	74-87-3	Chloromethane	T	ug/l	5	1.5	U	1	UJ	1.2	U	1.3	U
SW8260	100-41-4	Ethylbenzene	T	ug/l	5	1	U	1	U	1	U	1	U
SW8260	98-82-8	Isopropylbenzene	T	ug/l	5	1	U	1	U	1	U	1	U
SW8260	XYLENES1314	m&p-Xylenes	T	ug/l	5[4]	2	U	2	U	2	U	2	U
SW8260	1634-04-4	Methyl Tert-Butyl Ether	T	ug/l	10	1	U	0.24	J	1	U	1	U
SW8260	95-47-6	o-Xylene	T	ug/l	5	1	U	1	U	1	U	1	U
SW8260	100-42-5	Styrene	T	ug/l	5	1	U	1	U	1	U	1	U
SW8260	108-88-3	Toluene	T	ug/l	5	1	U	1	U	1	U	1	U
		Semivolatiles - Total											
SW8270	92-52-4	1,1'-Biphenyl	T	ug/l	5	1	U	0.93	U	0.98	U	0.93	U
SW8270	91-57-6	2-Methylnaphthalene	T	ug/l	NS	0.2	U	0.19	U	0.068	J	0.085	J
SW8270	83-32-9	Acenaphthene	T	ug/l	20[3]	0.2	U	0.16	J	0.76		1.1	
SW8270	208-96-8	Acenaphthylene	T	ug/l	NS	0.2	U	0.079	J	0.4		0.55	
SW8270	120-12-7	Anthracene	T	ug/l	50[3]	0.2	U	0.11	J	0.18	J	0.32	
SW8270	56-55-3	Benzo(A)Anthracene	T	ug/l	0.002[3]	0.2	U	0.19	U	0.15	J	0.2	
SW8270	50-32-8	Benzo(A)Pyrene	T	ug/l	ND	0.2	U	0.19	U	0.12	J	0.17	J
SW8270	205-99-2	Benzo(B)Fluoranthene	T	ug/l	0.002[3]	0.2	U	0.19	U	0.14	J	0.17	J
SW8270	191-24-2	Benzo(G,H,I)perylene	T	ug/l	NS	0.2	U	0.19	U	0.2	U	0.19	U
SW8270	207-08-9	Benzo(K)Fluoranthene	T	ug/l	0.002[3]	0.2	U	0.19	U	0.2	U	0.096	J
SW8270	117-81-7	bis-(2-Ethylhexyl)Phthalate	T	ug/l	5	5.1	U	4.7	U	4.9	U	4.7	U
SW8270	86-74-8	Carbazole	T	ug/l	NS	1	U	1.3		0.43	J	0.52	J
SW8270	218-01-9	Chrysene	T	ug/l	0.002[3]	0.2	U	0.19	U	0.1	J	0.14	J
SW8270	132-64-9	Dibenzofuran	T	ug/l	NS	0.2	U	0.42		0.24		0.35	
SW8270	206-44-0	Fluoranthene	T	ug/l	50[3]	0.11	J	0.3		0.58		0.84	
SW8270	86-73-7	Fluorene	T	ug/l	50[3]	0.2	U	0.17	J	0.7		1	
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	T	ug/l	0.002[3]	0.2	U	0.19	U	0.2	UJ	0.19	U
SW8270	91-20-3	Naphthalene	T	ug/l	10[3]	0.078	J	0.19	U	1.6		1.9	
SW8270	85-01-8	Phenanthrene	T	ug/l	50	0.2	U	0.19	U	0.99		1.4	

TABLE 9 FOCUSED RI SITE 110 GROUNDWATER ANALYTICAL SUMMARY SEPTEMBER 2021

					Location Description	MW-07-2020		MW-08-2020		MW-16-2020		MW-16-2020	
					Location ID	MW-07-2020		MW-08-2020		MW-16-2020		MW-16-2020	
					Sample ID	MW-07-2020-09242021		MW-08-2020-09232021		MW-16-2020-09232021		MW-16-2020-09232021FD	
					Matrix	GW		GW		GW		GW	
					Lab Sample ID	R2110043-012/R2110043-013		R2110043-003/R2110043-004		R2110043-001/R2110043-002		R2110043-007/R2110043-008	
					Sample Date	9/24/2021		9/23/2021		9/23/2021		9/23/2021	
					Sample Type Code	REG		REG		REG		FD	
Analytical Method	CAS_RN	Chemical Name	FRACTION	Unit	Class GA Groundwater Quality Standard or Guidance Value(1)								
SW8270	129-00-0	Pyrene	T	ug/l	50(3)	0.2	U	0.18	J	0.39		0.59	
		Semivolatiles - Dissolved											
SW8270	92-52-4	1,1'-Biphenyl	D	ug/l	5	0.97	U	0.98	U	1.1	U	0.93	U
SW8270	91-57-6	2-Methylnaphthalene	D	ug/l	NS	0.19	U	0.2	U	0.22	U	0.19	U
SW8270	83-32-9	Acenaphthene	D	ug/l	20(3)	0.19	U	0.12	J	0.45		0.77	
SW8270	208-96-8	Acenaphthylene	D	ug/l	NS	0.19	U	0.058	J	0.24		0.39	
SW8270	120-12-7	Anthracene	D	ug/l	50(3)	0.19	U	0.074	J	0.22	U	0.084	J
SW8270	205-99-2	Benzo(B)Fluoranthene	D	ug/l	0.002(3)	0.19	U	0.2	U	0.22	U	0.069	J
SW8270	117-81-7	bis-(2-Ethylhexyl)Phthalate	D	ug/l	5	4.1	J	180		5.6	U	4.7	U
SW8270	86-74-8	Carbazole	D	ug/l	NS	0.97	U	1.2		1.1	U	0.38	J
SW8270	132-64-9	Dibenzofuran	D	ug/l	NS	0.19	U	0.26		0.22	U	0.14	J
SW8270	84-74-2	Di-n-Butyl Phthalate	D	ug/l	50	4.9	U	4.9	U	5.6	U	4.7	U
SW8270	86-73-7	Fluorene	D	ug/l	50(3)	0.19	U	0.18	J	0.11	J	0.57	
SW8270	91-20-3	Naphthalene	D	ug/l	10(3)	0.19	U	0.48		0.91		1.2	
SW8270	85-01-8	Phenanthrene	D	ug/l	50	0.19	U	0.2	U	0.22	U	0.23	
		Cyanide - Total											
SW9012	57-12-5	Cyanide, Total	T	ug/l	200	208		2040		557		494	
		Cyanide - Dissolved											
SW9012	57-12-5	Cyanide	D	ug/l	200	202		1940		489		457	
		TOC											
SW9060	TOC	Total Organic Carbon	T	ug/l	NS			12800					

(1) Unless otherwise noted, groundwater criteria obtained from the NYSDEC document titled, "Division of Water Technical and Operational Guidance Series (TOGS) (1.1.1), Ambient Water Quality Standards and Guidance Values

(2) Applies to the sum of these substances.

(3) Guidance value (from TOGS 1.1.1)

(4) Applies to the individual isomer.

Only detected compounds are presented

Shaded: Value exceeds standard or guidance value

U: Compound not detected at provided detection limit

J: Estimated at given value

NS: No standard established

Honeywell PARSONS

TABLE 10 PHASE II RI SITE 110 GROUNDWATER ANALYTICAL SUMMARY JANUARY 2023

					Location Description	MW-23-2022		MW-23
					Location ID	MW-23-2022		MW-23
					Sample ID	MW-23-2022-20230120		MW-23-2022-
					Matrix	GW		G
					Lab Sample ID	R2300544-001/		R230054
					Sample Date	1/20/2023		1/20/
					Sample Type Code	REG		F
Analytical Method	CAS_RN	Chemical Name	FRACTION	Unit	Class GA Groundwater Quality Standard or Guidance Value(1)			
		TOC						
SM5310B	TOC	Total Organic Carbon	T	ug/l	NS	5000		5400
		Metals - Totals						
SW6010	7429-90-5	Aluminum	T	ug/l	NS	100	U	40
SW6010	7440-39-3	Barium	T	ug/l	1000	341		339
SW6010	7440-70-2	Calcium	T	ug/l	NS	151000		149000
SW6010	7440-48-4	Cobalt	T	ug/l	NS	3	J	3
SW6010	7439-89-6	Iron	T	ug/l	300	25900		25900
SW6010	7439-95-4	Magnesium	T	ug/l	35000(2)	24200		24000
SW6010	7439-96-5	Manganese	T	ug/l	300	1130		1120
SW6010	7440-09-7	Potassium	T	ug/l	NS	4500		4400
SW6010	7440-23-5	Sodium	T	ug/l	20000	16300		16300
SW6010	7440-62-2	Vanadium	T	ug/l	NS	1	J	1
SW6010	7440-66-6	Zinc	T	ug/l	2000(2)	6	J	4
		Metals - Dissolved						
SW6010	7429-90-5	Aluminum	D	ug/l	NS	100	U	100
SW6010	7440-39-3	Barium	D	ug/l	1000	340		324
SW6010	7440-70-2	Calcium	D	ug/l	NS	149000		145000
SW6010	7440-48-4	Cobalt	D	ug/l	NS	4	J	2
SW6010	7439-89-6	Iron	D	ug/l	300	25500		24700
SW6010	7439-95-4	Magnesium	D	ug/l	35000(2)	23800		23100
SW6010	7439-96-5	Manganese	D	ug/l	300	1080		1040
SW6010	7440-09-7	Potassium	D	ug/l	NS	4400		4200
SW6010	7440-23-5	Sodium	D	ug/l	20000	16000		16200
SW6010	7440-62-2	Vanadium	D	ug/l	NS	1	J	0.9
SW6010	7440-66-6	Zinc	D	ug/l	2000(2)	3	J	3
		Volatiles						
		Semivolatiles - Total						
SW8270	56-55-3	Benzo(A)Anthracene	T	ug/l	0.002(2)	0.093	J	0.19
SW8270	205-99-2	Benzo(B)Fluoranthene	T	ug/l	0.002(2)	0.086	J	0.19
SW8270	111-44-4	bis-(2-Chloroethyl)Ether	T	ug/l	1	0.068	J	0.93
SW8270	129-00-0	Pyrene	T	ug/l	50(2)	0.074	J	0.19
		Semivolatiles - Dissolved						
SW8270	111-44-4	bis-(2-Chloroethyl)Ether	D	ug/l	1	0.93	U	0.057
		Cyanide - Total						
SW9012	57-12-5	Cyanide	NA	ug/l	200	205		208
		Cyanide - Dissolved						
SW9012	57-12-5	Cyanide	D	ug/l	200	201		206

(1) Unless otherwise noted, groundwater criteria obtained from the NYSDEC document titled, "Division of Water Technical and Operational Guidance Series (TOGS) (1.1.1), Ambient Water Quality Standards a Values and Groundwater Effluent Limitations," June 1998; Errata Sheet for June 1998 Edition. Criteria listed are standards unless otherwise noted.

(2) Guidance value (from TOGS 1.1.1)

Only detected compounds are presented

Shaded: Value exceeds standard or guidance value

U: Compound not detected at provided detection limit

J: Estimated at given value

NS: No standard established

Honeywell **PARSONS**

TABLE 10 PHASE II RI SITE 110 GROUNDWATER ANALYTICAL SUMMARY JANUARY 2023

					L6-2022 3-2022 20230120FD W 44-003/ '2023 D
Analytical Method	CAS_RN	Chemical Name	FRACTION	Unit	
		TOC			
SM5310B	TOC	Total Organic Carbon	T	ug/l	
		Metals - Totals			
SW6010	7429-90-5	Aluminum	T	ug/l	J
SW6010	7440-39-3	Barium	T	ug/l	
SW6010	7440-70-2	Calcium	T	ug/l	
SW6010	7440-48-4	Cobalt	T	ug/l	J
SW6010	7439-89-6	Iron	T	ug/l	
SW6010	7439-95-4	Magnesium	T	ug/l	
SW6010	7439-96-5	Manganese	T	ug/l	
SW6010	7440-09-7	Potassium	T	ug/l	
SW6010	7440-23-5	Sodium	T	ug/l	
SW6010	7440-62-2	Vanadium	T	ug/l	J
SW6010	7440-66-6	Zinc	T	ug/l	J
		Metals - Dissolved			
SW6010	7429-90-5	Aluminum	D	ug/l	U
SW6010	7440-39-3	Barium	D	ug/l	
SW6010	7440-70-2	Calcium	D	ug/l	
SW6010	7440-48-4	Cobalt	D	ug/l	J
SW6010	7439-89-6	Iron	D	ug/l	
SW6010	7439-95-4	Magnesium	D	ug/l	
SW6010	7439-96-5	Manganese	D	ug/l	
SW6010	7440-09-7	Potassium	D	ug/l	
SW6010	7440-23-5	Sodium	D	ug/l	
SW6010	7440-62-2	Vanadium	D	ug/l	J
SW6010	7440-66-6	Zinc	D	ug/l	J
		Volatiles			
		Semivolatiles - Total			
SW8270	56-55-3	Benzo(A)Anthracene	T	ug/l	U
SW8270	205-99-2	Benzo(B)Fluoranthene	T	ug/l	U
SW8270	111-44-4	bis-(2-Chloroethyl)Ether	T	ug/l	U
SW8270	129-00-0	Pyrene	T	ug/l	U
		Semivolatiles - Dissolved			
SW8270	111-44-4	bis-(2-Chloroethyl)Ether	D	ug/l	J
		Cyanide - Total			
SW9012	57-12-5	Cyanide	NA	ug/l	
		Cyanide - Dissolved			
SW9012	57-12-5	Cyanide	D	ug/l	

(1) Unless otherwise noted, groundwater criteria obtained from the NYSDEC document titled, "Division of Water Technical anend Guidance Values and Groundwater Effluent Limitations," June 1998; Errata Sheet for June 1998 Edition. Criteria listed are standards ur
(2) Guidance value (from TOGS 1.1.1)
Only detected compounds are presented

Shaded:	Value exceeds standard or guidance value
U:	Compound not detected at provided detection limit
J:	Estimated at given value
NS:	No standard established

TABLE 11 FOCUSED RI SITE 110 MNA SAMPLE RESULTS

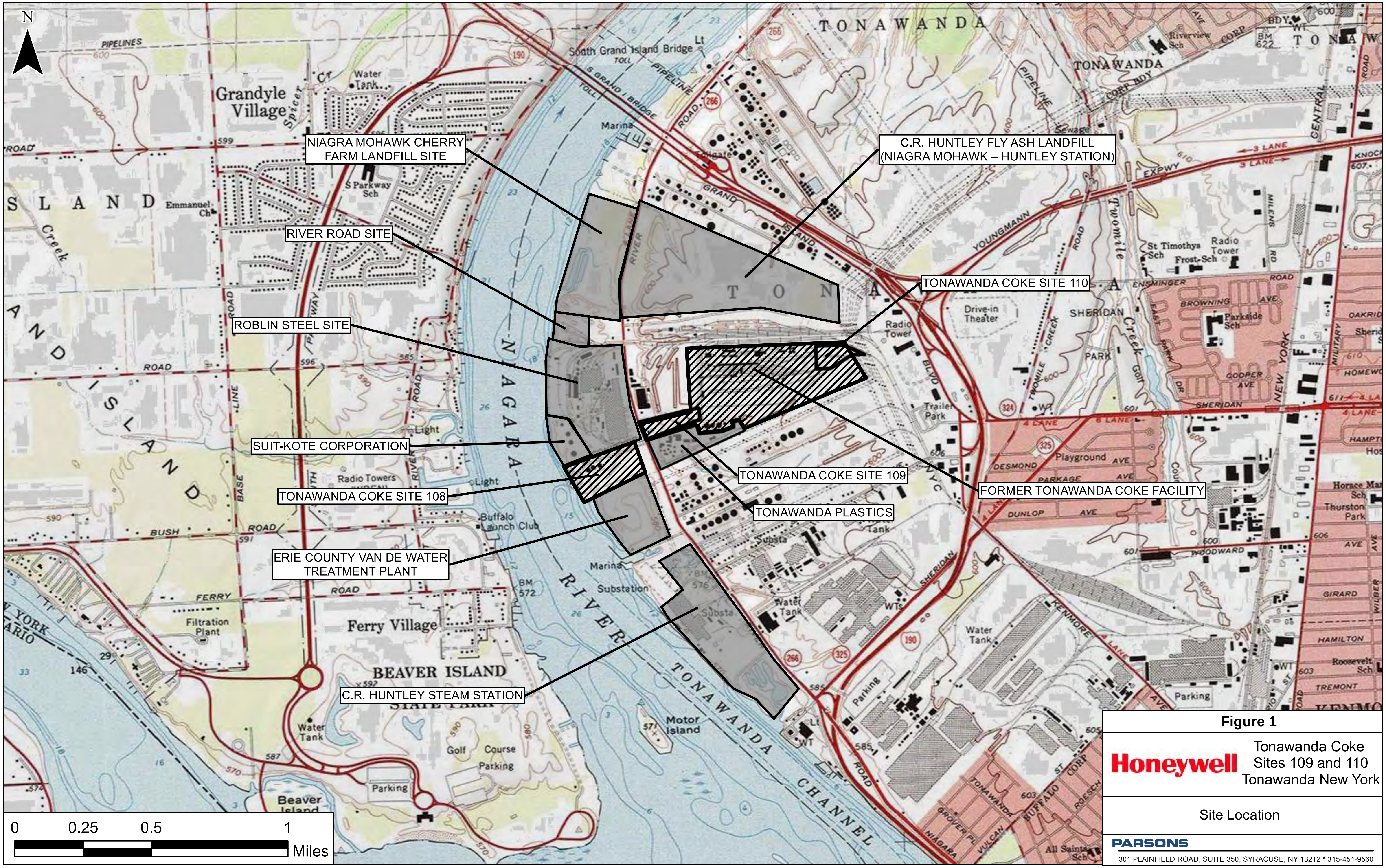
				Location ID	MW-04-2020		MW-05-2020		MW-06-2020		MW-06-2020[1]		MW-08-2020	
				Field Sample ID	MW-04-2020-09222021		MW-05-2020-09232021		MW-06-2020-09222021		MW-06-2020-09232021		MW-08-2020-09232021	
				Start Depth (ft)	5		4		4		4		1	
				End Depth (ft)	10		9		9		9		6	
				Sampled	9/22/2021		9/23/2021		9/22/2021		9/23/2021		9/23/2021	
				SDG	R2109811		R2110043		R2109811		R2110043		R2110043	
				Lab Sample ID	R2109811-004		R2110043-005		R2109811-007		R2110043-009		R2110043-003	
				Medium	Water		Water		Water		Water		Water	
				Sample Type	REG		REG		REG		REG		REG	
				Matrix	GW		GW		GW		GW		GW	
Method	Parameter Code	Parameter Name	Units	Fraction										
Calculated	NO3N	Nitrogen, Nitrate (As N)	mg/L	T	0.05	U	0.05	U	0.05	U	NA		0.05	U
Calculated	7727-37-9	Nitrogen	mg/L	T	3.96		10.7		3.76		NA		0.86	
E351.2	KN	Total Kjeldahl Nitrogen	mg/L	T	3.93	J	10.7		3.74		NA		0.85	
E353.2	NO3NO2N	Nitrogen, Nitrate-Nitrite	mg/L	T	0.03	J	0.052		0.05	U	NA		0.004	J
E353.2	NO2N	Nitrogen, Nitrite	mg/L	T	0.01	U	0.441		0.01	U	NA		0.01	U
RSK175	74-82-8	Methane	mg/L	T	0.76		0.005		5.6		NA		0.046	
SM2320B	ALK	Alkalinity	mg/L	T	814		117		561		NA		387	
SW9034	18496-25-8	Sulfide	mg/L	T	1	U	4	U	1	U	NA		1	U
SW9056	16887-00-6	Chloride	mg/L	T	18.8		31.6		25.8		NA		22.1	
SW9056	14808-79-8	Sulfate	mg/L	T	108		2650		61.6		NA		1260	
SW9060	TOC	Total Organic Carbon	mg/L	T	17.1		11.1		NA		20.6		12.8	

TABLE 12 TAR WASTE CHARACTERIZATION RESULTS

					Location ID	TP-07-2020		TP-08-2020		TP-10-2020A		TP-34-2021	
					Field Sample ID	TP-07-2020-2.5-3.5-10062020		TP-08-2020-1.5-2.0-10012020		TP-10-2020A-13.5-15.5-10052020		TP-34-2021-1.5-7.5-06232021	
					Start Depth (ft)	2.5		1.5		13.5		1.5	
					End Depth (ft)	3.5		2		15.5		7.5	
					Sampled	10/6/2020		10/1/2020		10/5/2020		6/23/2021	
					Medium	Solid		Solid		Solid		Solid	
					Sample Type	REG		REG		REG		REG	
					Matrix	S-WASTE		S-WASTE		S-WASTE		S-WASTE	
					EPA Hazardous Waste Regulatory Level								
Method	Parameter Code	Parameter Name	Units	Fraction									
		Metals and Mercury											
SW6010	7440-38-2	Arsenic	mg/kg	T	NA	6.9		NA		NA		10.6	
SW6010	7440-39-3	Barium	mg/kg	T	NA	21.5		NA		NA		20.4	
SW6010	7440-43-9	Cadmium	mg/kg	T	NA	1.3		NA		NA		2.4	
SW6010	7440-47-3	Chromium	mg/kg	T	NA	2.4		NA		NA		9.3	
SW6010	7439-92-1	Lead	mg/kg	T	NA	63.6		NA		NA		60.1	
SW6010	7782-49-2	Selenium	mg/kg	T	NA	2.4		NA		NA		3.9	
SW7471	7439-97-6	Mercury	mg/kg	T	NA	0.046		NA		NA		0.127	
		TCLP Metals and Mercury											
SW6010	7439-92-1	Lead	mg/L	TCLP	5	NA		0.033	U	0.11		NA	
		Pestcides											
		TCLP Pestcides											
		PCBs											
		Herbicides											
		TLCP Herbicides											
		Volatiles											
SW8260	71-43-2	Benzene	ug/kg	NA	NA	140000		99800		186000		34000	
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	NA	NA		41900		269000		NA	
SW8260	95-47-6	o-Xylene	ug/kg	NA	NA	NA		10300		76200		NA	
SW8260	100-42-5	Styrene	ug/kg	NA	NA	NA		5000	U	103000		NA	
SW8260	108-88-3	Toluene	ug/kg	NA	NA	NA		66300		227000		NA	
		Semivolatiles											
SW8270	95-48-7	2-Methylphenol	ug/kg	NA	NA	320000	J	NA		NA		1100000	J
SW8270	34METPH	3&4-Methylphenol	ug/kg	NA	NA	800000	J	NA		NA		2700000	
		TCLP Semivolatiles											
SW8270	95-48-7	2-Methylphenol	ug/l	TCLP	200000	NA		8540		26300		NA	
SW8270	1319-77-3MP	3,4-Methylphenol	ug/l	TCLP	200000	NA		20800		60400		NA	
SW8270	110-86-1	Pyridine	ug/l	TCLP	5000	NA		678		1360		NA	
		Waste Characteristics											
846-7.3.4.2	REAC-S	Reactive Sulfide	mg/kg	NA	Generates toxic gasses, etc.	3.1	U	6.2	U	3.1	UJ	3.2	J
E160.3	SOLID	Solids	%	NA	NA	NA		84.6		80.1		NA	
SM2540G	MOISTURE-%	Percent Moisture	%	NA	NA	NA		NA		19.2		5.6	
SM2540G	SOLIDS	Total Solids	%	NA	NA	NA		NA		80.8		94.4	
SW1010	FLASHPT	Flash Point	deg F	NA	<140	NA		>200		NA		NA	
SW1010	IGNITB	Ignitability	deg F	NA	<140	>200		NA		NA		>200	
SW1030	IGNITB	Ignitability	deg F	NA	<140	NA		NA		>200		NA	
SW9045	pH	pH	ph Units	NA	Corrosive	7.12		7.55		6.96		7.72	
SW9095	FLIQUIDS	Free Liquids	none	NA	Present	Absent		Absent		Absent		Absent	

Notes:
Only detected compounds are presented.
Regulatory levels from 40 CFR § 261.24
Waste characteristics from 40 CFR § 261.21, 261.22. and 261.23.
NA: Not applicable
J: Estimated at given value
U: Compound not detected at provided detection limit
T: Total
TCLP: Toxicity Characteristic Leaching Procedure

FIGURES



Plotted By: Sisson, Evan
Plot Date: 3/21/2022

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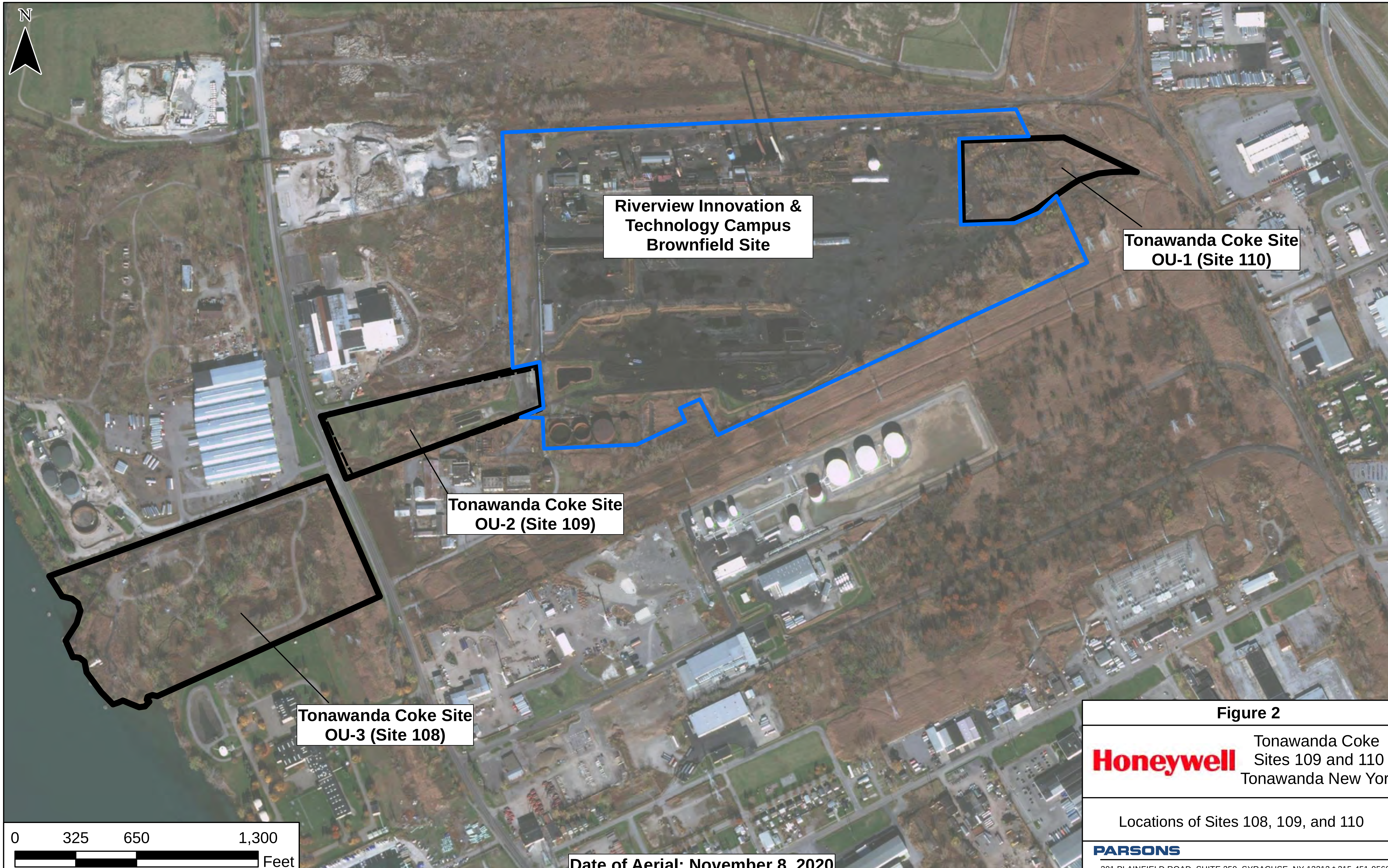

Figure 2

Honeywell

Tonawanda Coke
Sites 109 and 110
Tonawanda New York

Locations of Sites 108, 109, and 110

PARSONS

301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 * 315-451-9560

Plotted By: CS

Plot Date: 2/4/2022

Document Path: Q:\GIS\Hon_Syracuse\Tonawanda Coke\MXDs\Site 109 and 110\Tonawanda Site 109 and 110 Fig 2.mxd

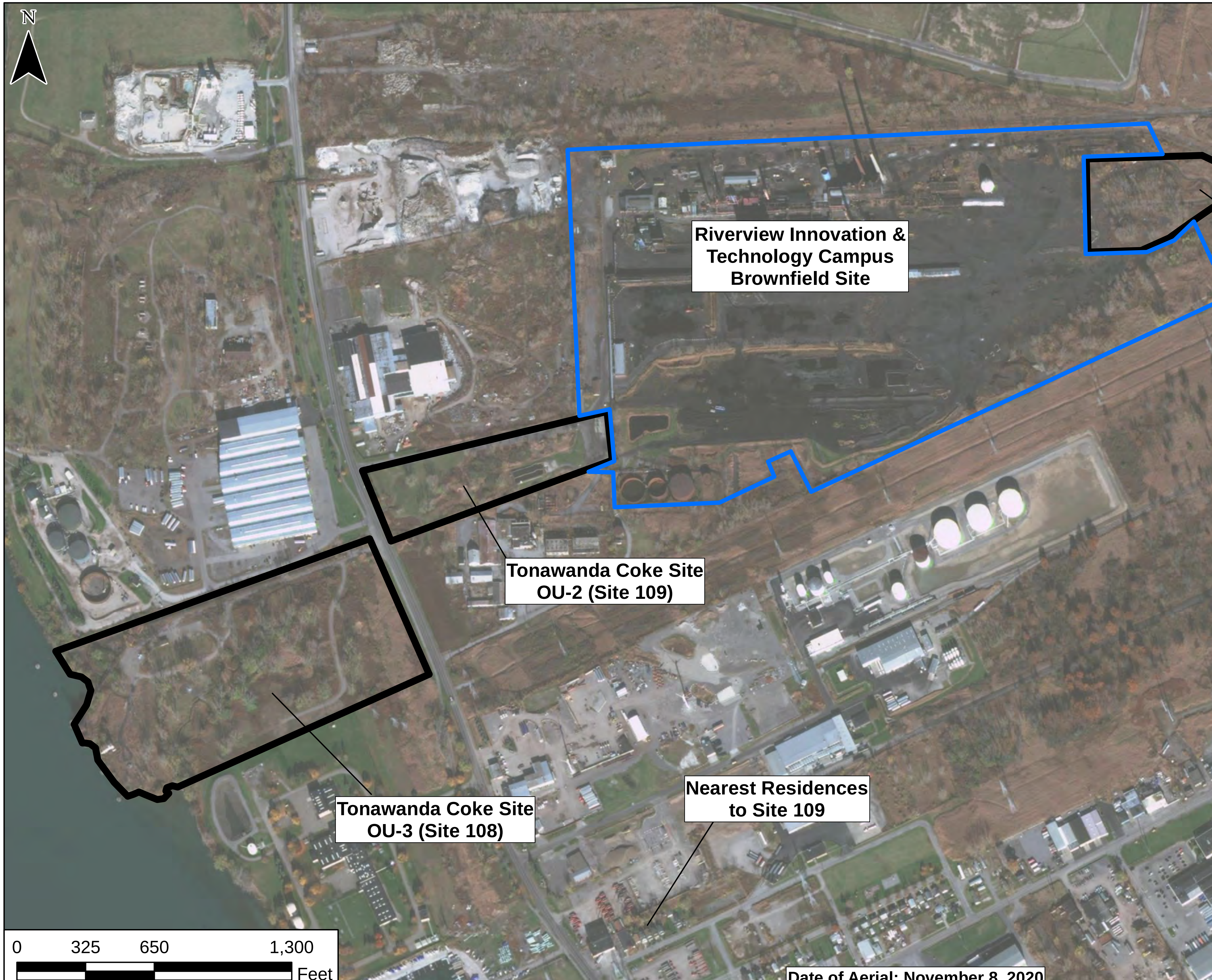

Figure 3

Honeywell

Tonawanda Coke
Sites 109 and 110
Tonawanda New York

Nearest Residential Areas

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 * 315-451-9560

Plotted By: CS
Plot Date: 3/29/2022

Document Path: Q:\GIS\Hon_Syracuse\Tonawanda Coke\MXDs\Site 109 and 110\Tonawanda Site RI Report Fig 3.mxd

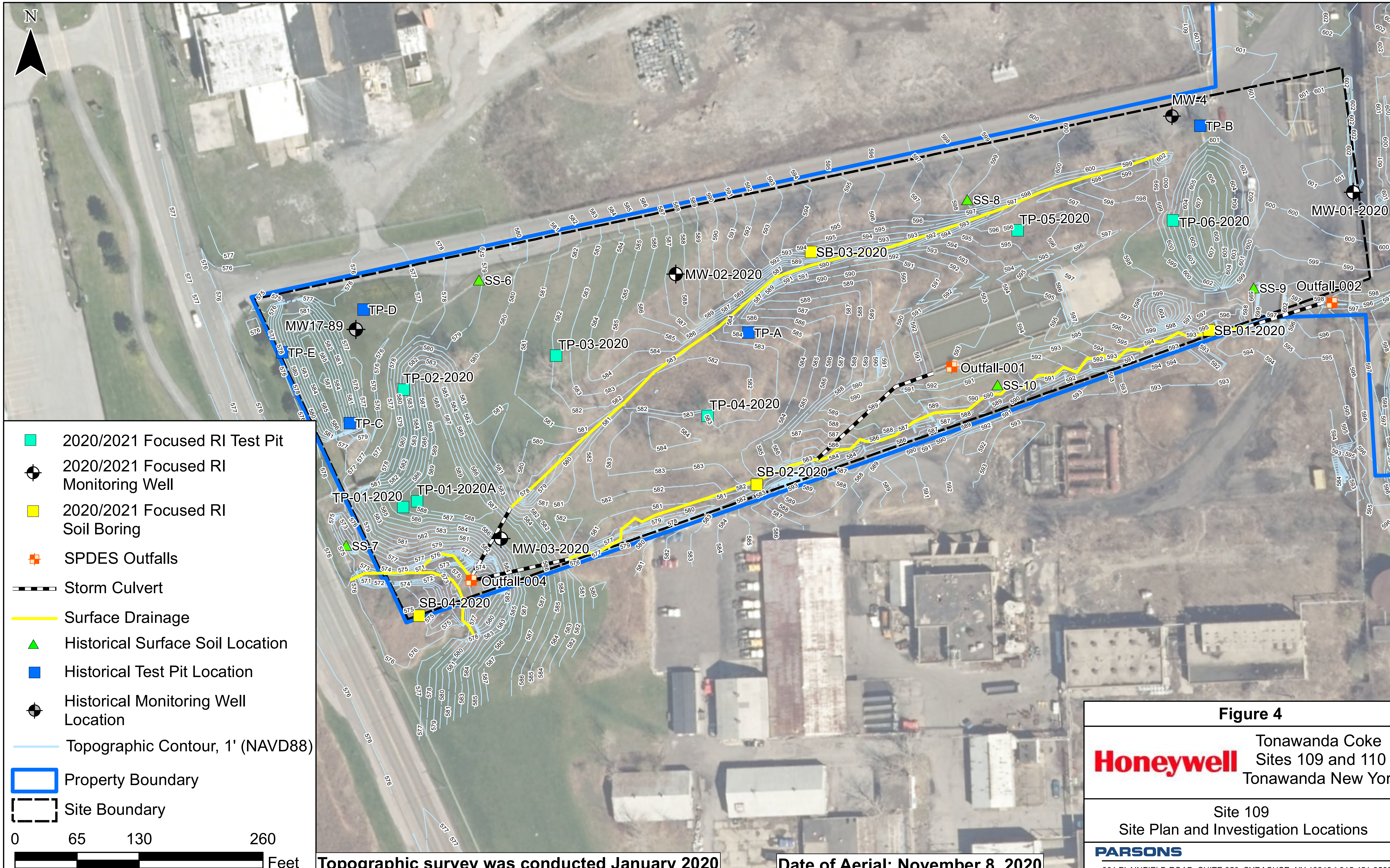

Figure 4

Honeywell

Tonawanda Coke
Sites 109 and 110
Tonawanda New York

Site 109
Site Plan and Investigation Locations

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 * 315-451-9560

Plot Date: 7/13/2023 Plotted By: CS

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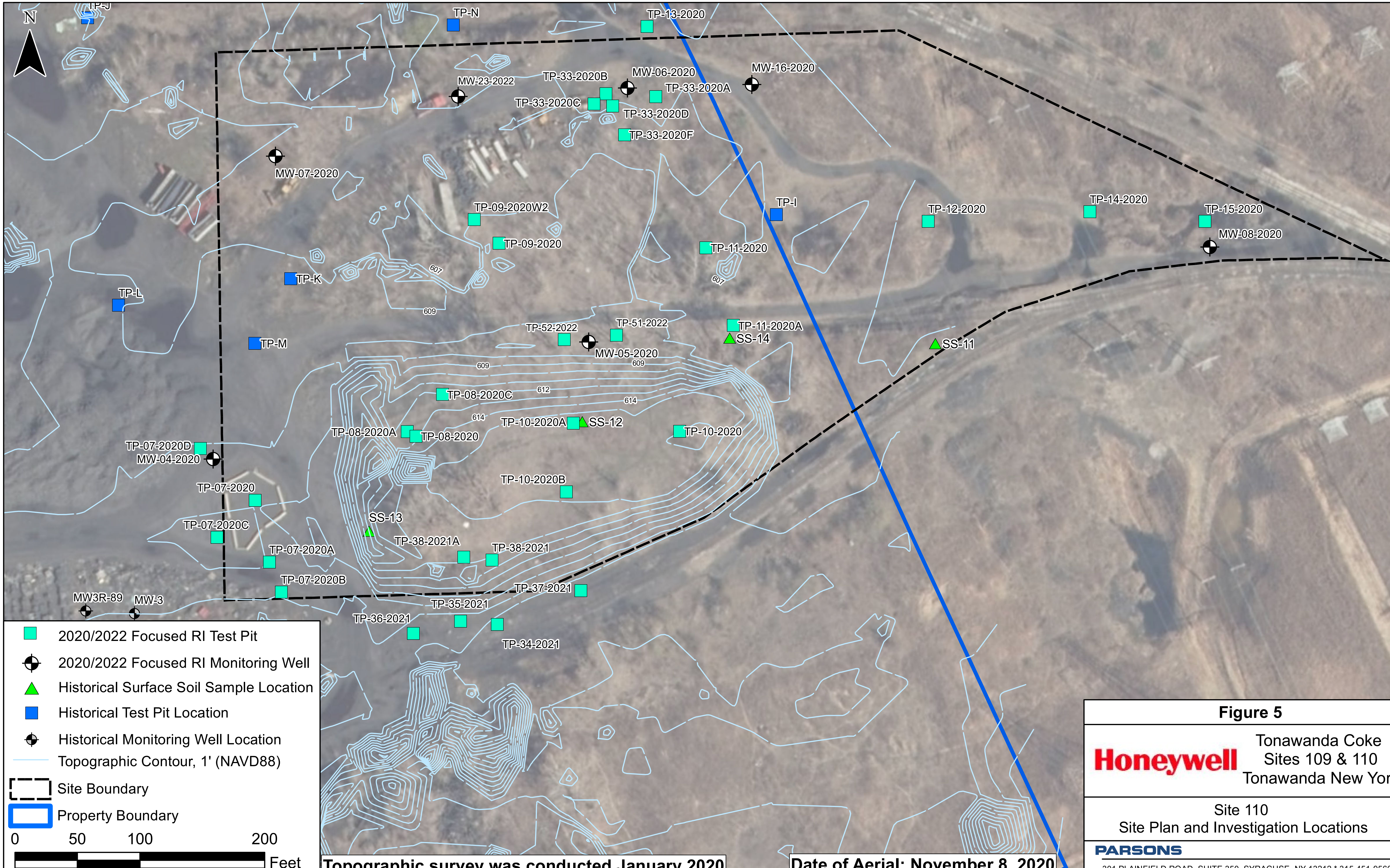

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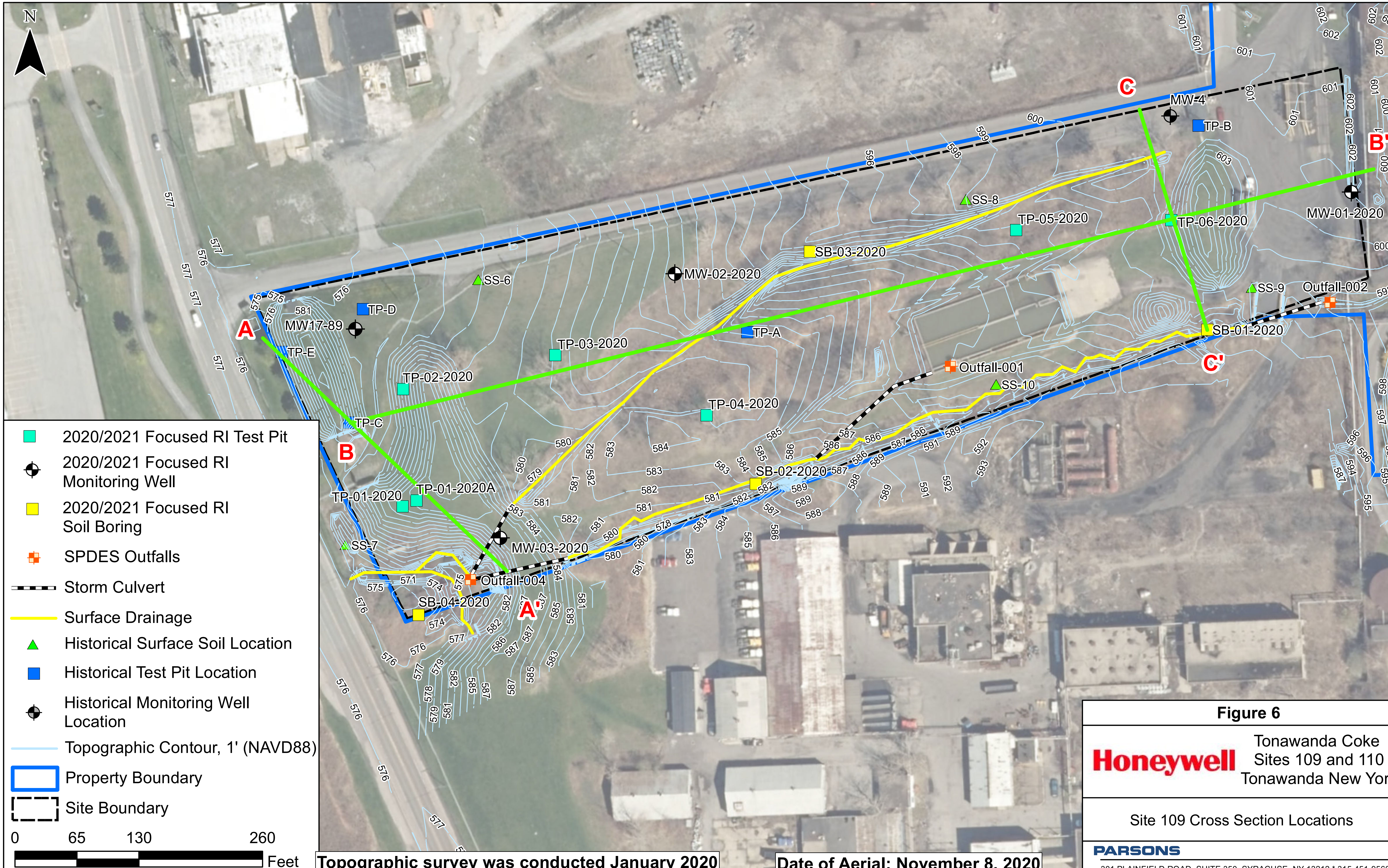

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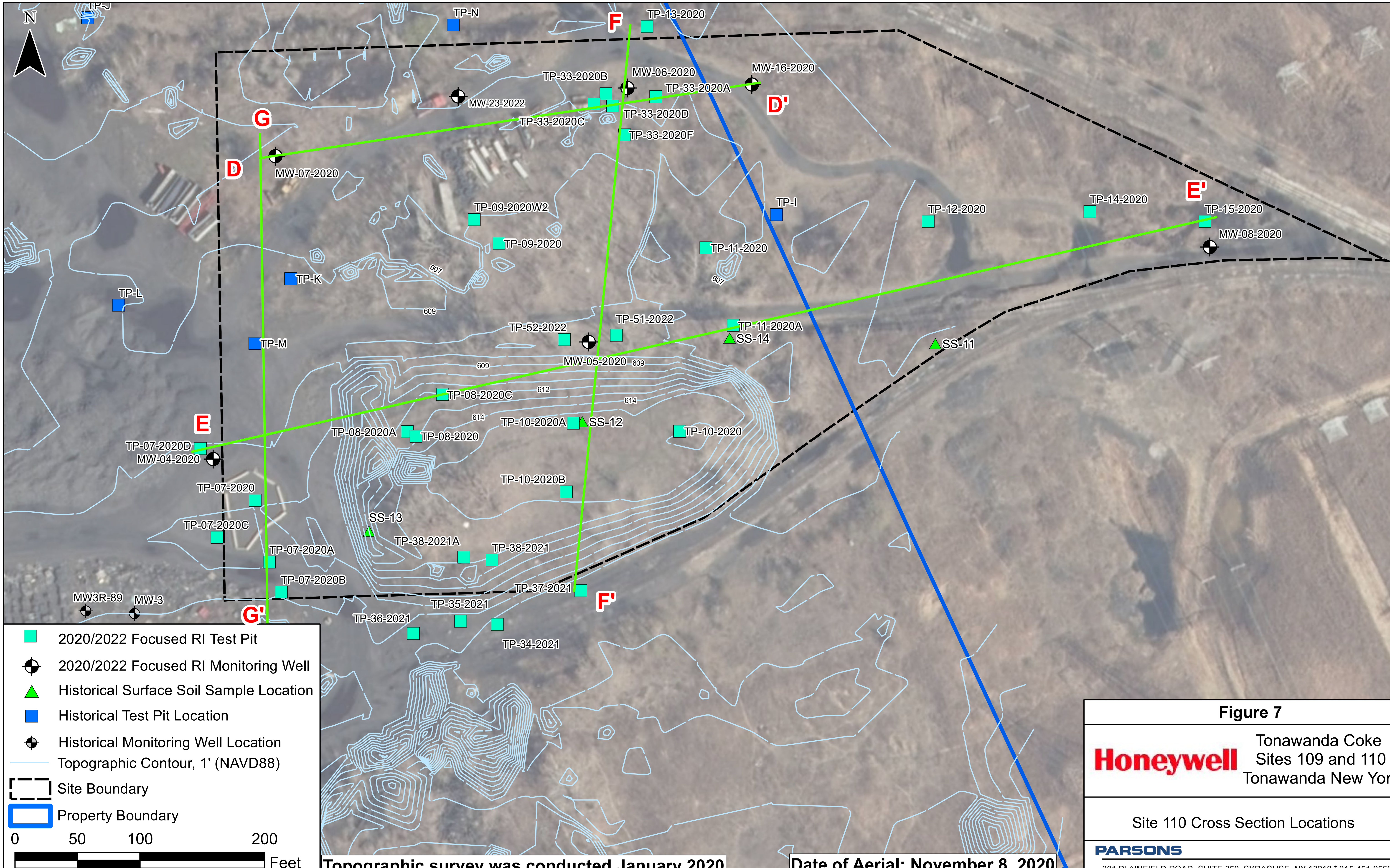


Figure 7

Honeywell

Tonawanda Coke
Sites 109 and 110
Tonawanda New York

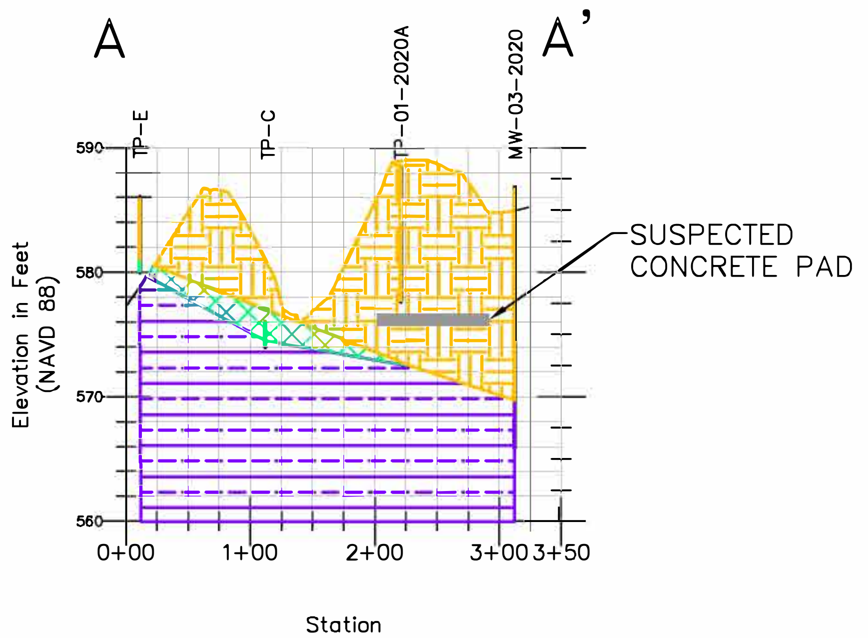
Site 110 Cross Section Locations

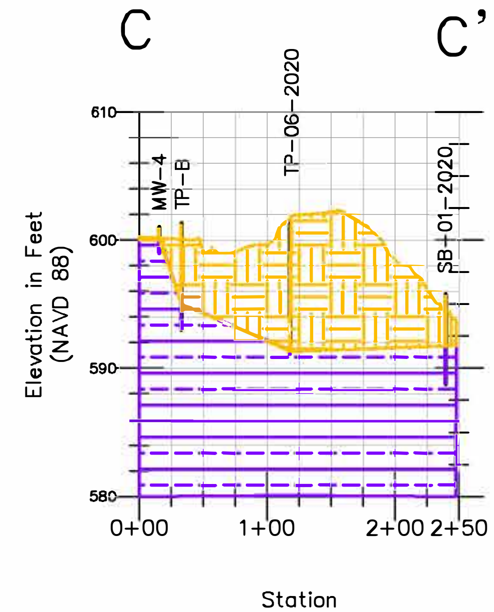
PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 * 315-451-9560

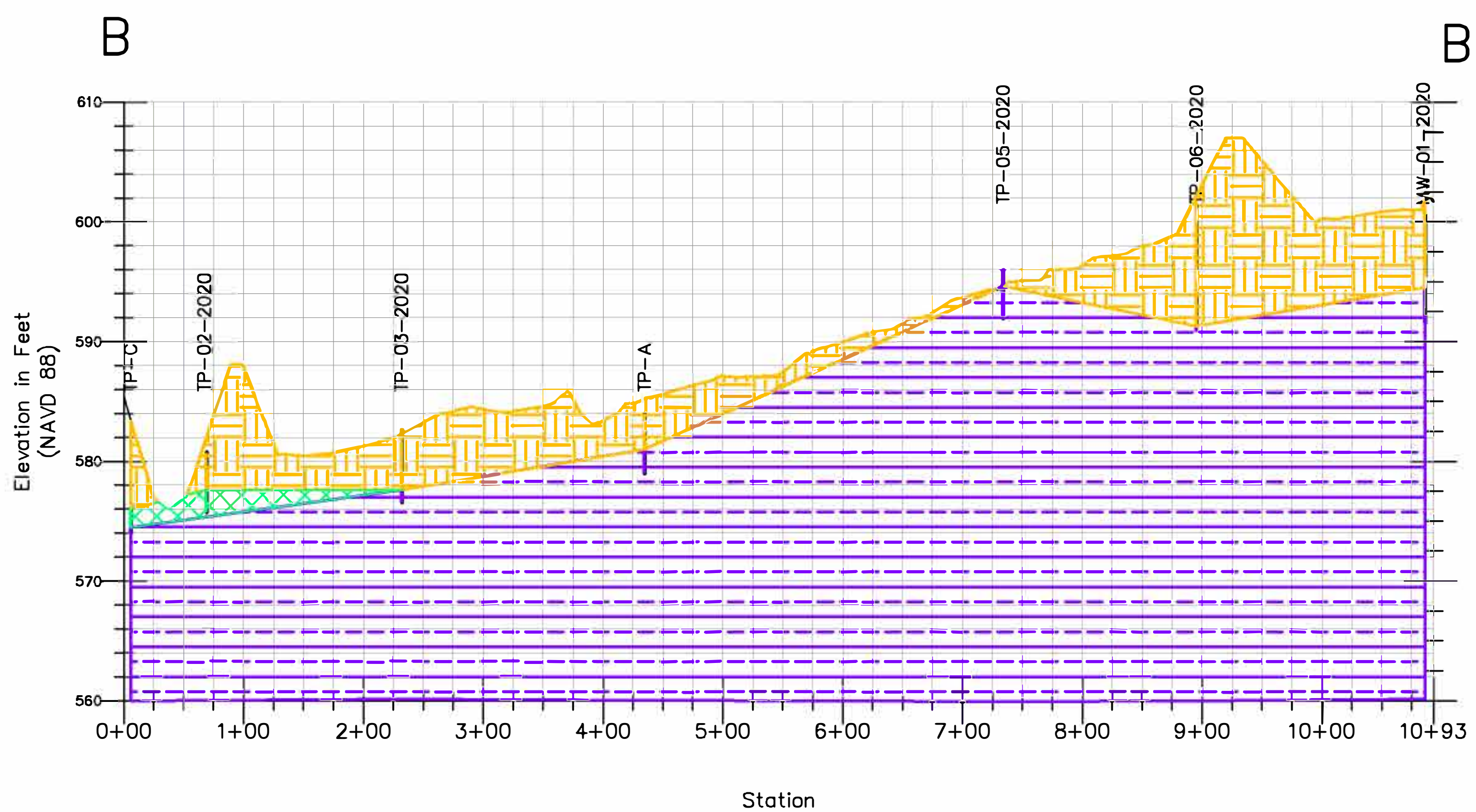
Plotted By: J. Domanski

Plot Date: 7/13/2023

Document Path: \\nysyr04fs01\PrjData\GIS\Hon_Syracuse\Tonawanda Coke\MXDs\Site 109 and 110\Rev02 - RI\Tonawanda RI Report Fig 7 110 Cross Sections_Rev2.mxd







NOTE:

1. EXISTING GRADE FROM SITE SURVEY PERFORMED JANUARY 2020.
2. DISCREPANCIES IN GROUND SURFACE AT 2020/2021 FOCUSED RI INVESTIGATION (LOCATIONS ENDING IN -2020 OR -2021) ARE DUE TO LOCATIONS BEING OFFSET SLIGHTLY FROM THE TRANSECT. DISCREPANCIES IN GROUND SURFACE AT HISTORICAL LOCATIONS ARE DUE TO LOCATIONS BEING OFFSET FROM THE TRANSECT, AS WELL AS POTENTIAL INACCURACIES IN HISTORICAL SURVEY DATA.
3. SUSPECTED CONCRETE SLAB IN A-A'. TOP OF SUSPECTED CONCRETE SLAB CONCRETE IS SHOWN AT DEPTH OF REFUSAL IN TP-01-2020. SLAB DIMENSIONS ARE APPROXIMATED FROM (1967 DRAWING) AND DO NOT NECESSARILY REPRESENT ACTUAL SLAB LOCATION AND DIMENSIONS.

LEGEND:

SD-05-2020	SAMPLE ID
———	EXISTING GRADE (NOTE 1)
	FILL
	GRAY CLAY
	REDDISH BROWN CLAY

15 0 15 30

SCALE: 1"=15'
Vertical

150 0 150 300

SCALE: 1"=150'
Horizontal

Vertical Exaggeration 10X

Figure 8

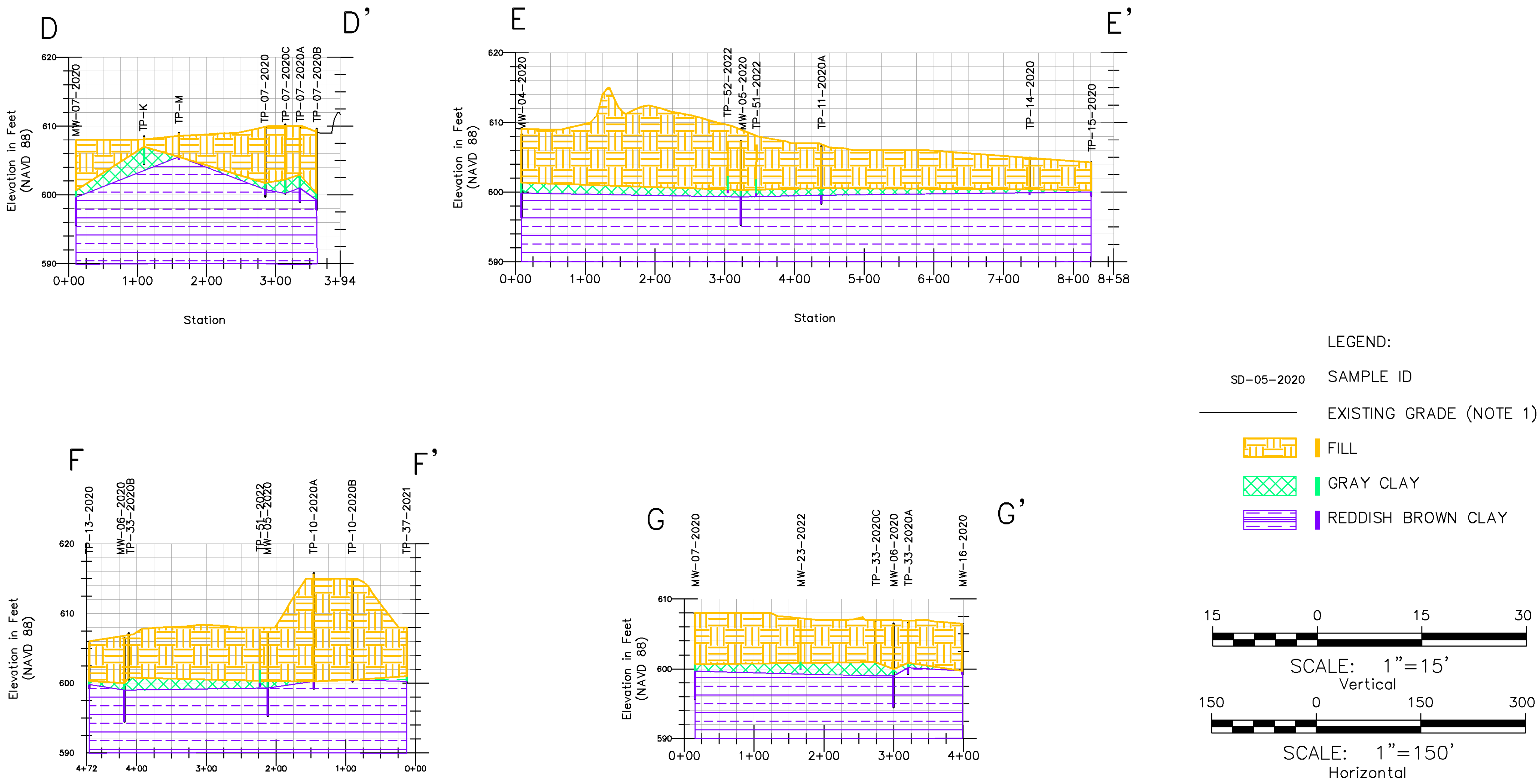
Honeywell

Tonawanda Coke
Sites 109 and 110
Tonawanda, New York

Site 109 Geologic Cross Sections

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 * 315-451-9560

FILE NAME: P:\HONEYWELL\452347 TCC SITE 109 - 110 RI\15.0 CAD\452789-SITE_PLAN_20230406.DWG
PLOT DATE: 7/13/2023 9:46 AM PLOTTED BY: RUSSO, JILL [US-US]



Vertical Exaggeration 10X

NOTE:

1. EXISTING GRADE FROM SITE SURVEY PERFORMED JANUARY 2020.

2. DISCREPANCIES IN GROUND SURFACE AT 2020/2021 FOCUSED RI INVESTIGATION (LOCATIONS ENDING IN -2020 OR -2021) ARE DUE TO LOCATIONS BEING OFFSET SLIGHTLY FROM THE TRANSECT. DISCREPANCIES IN GROUND SURFACE AT HISTORICAL LOCATIONS ARE DUE TO LOCATIONS BEING OFFSET FROM THE TRANSECT, AS WELL AS POTENTIAL INACCURACIES IN HISTORICAL SURVEY DATA.

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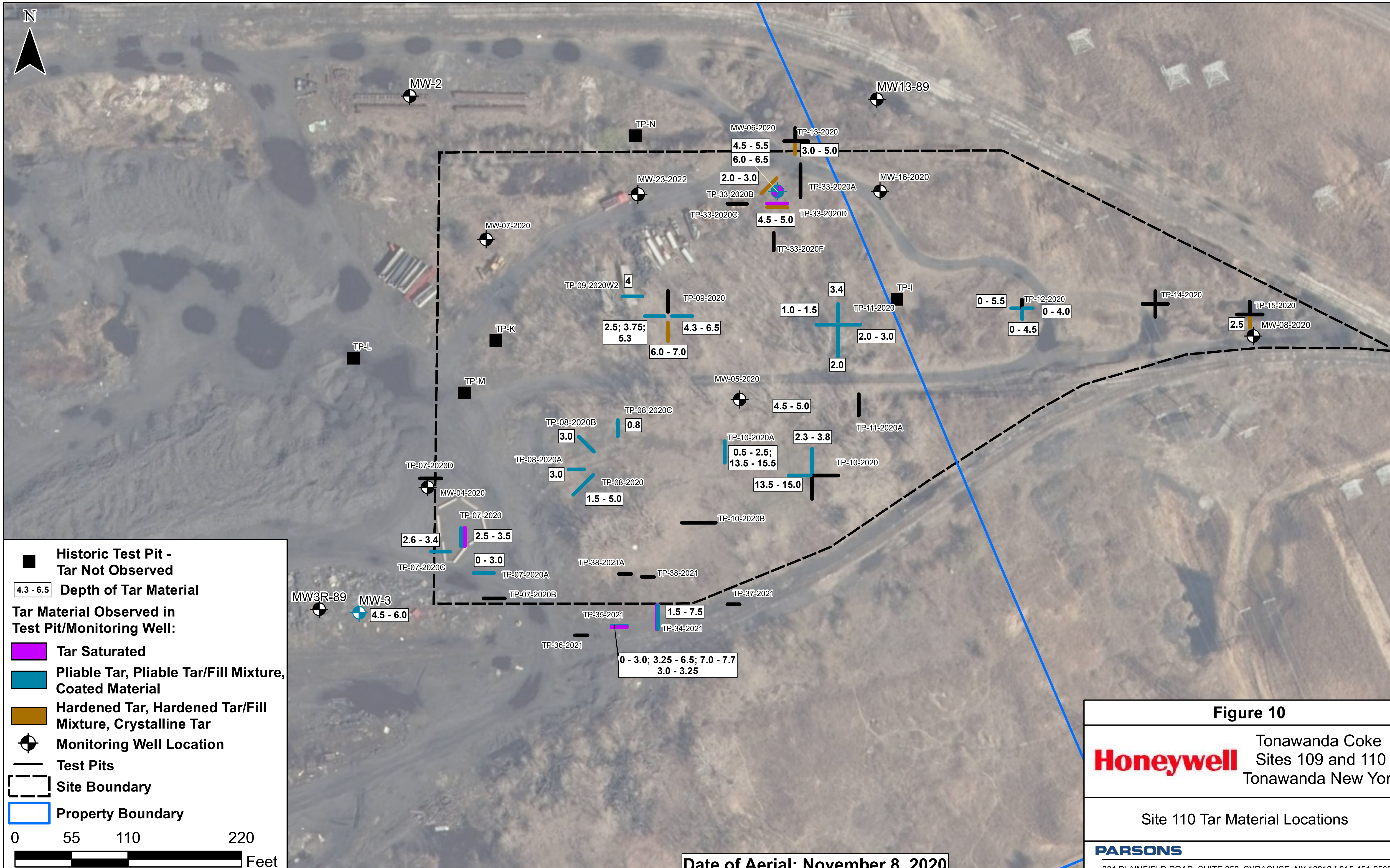
Figure 9

Honeywell

Tonawanda Coke
Sites 109 and 110
Tonawanda, New York

Site 110 Geologic Cross Sections

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 • 315-451-9560



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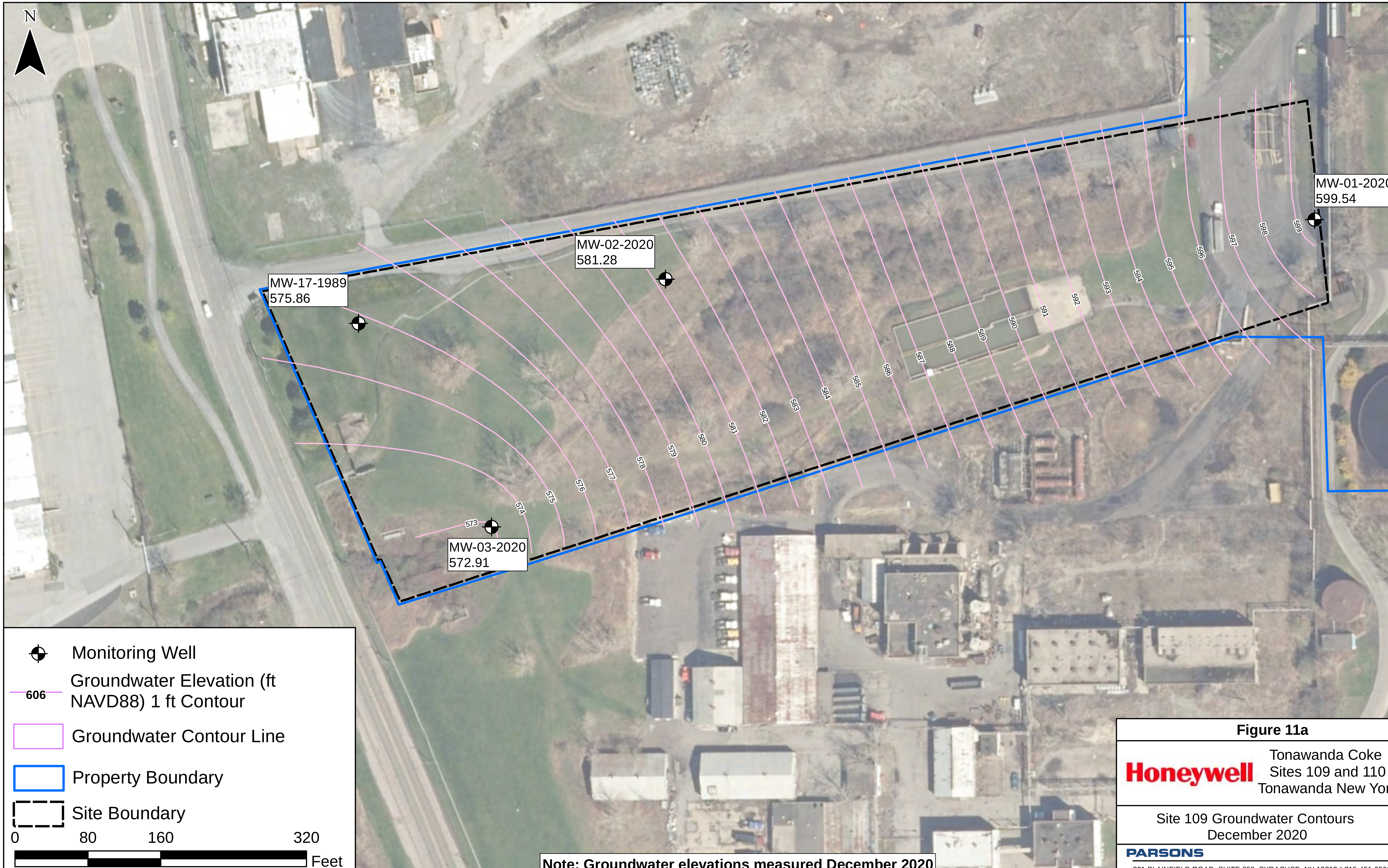

Plotted By: CS

Plot Date: 2/14/2023

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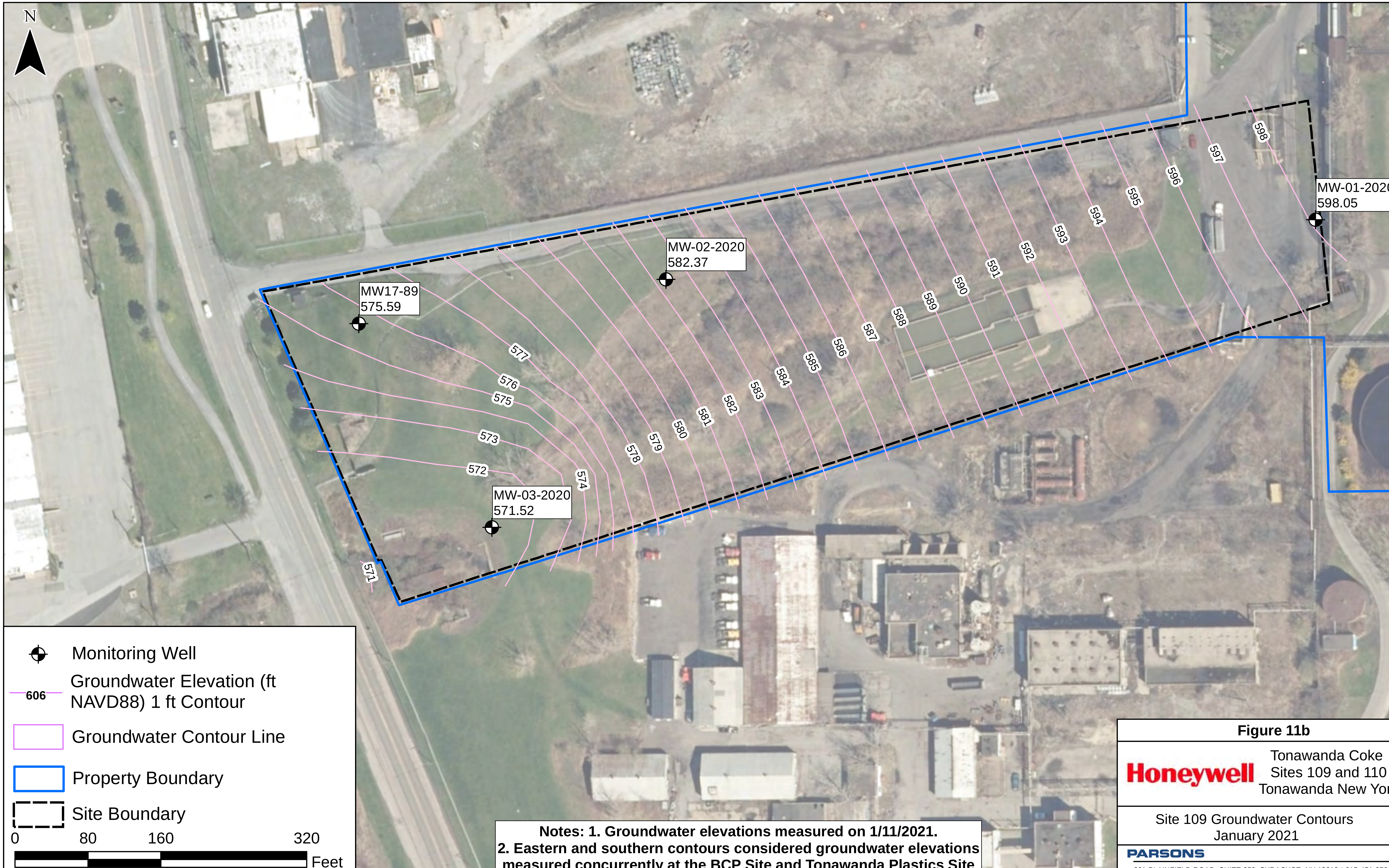


Notes: 1. Groundwater elevations measured on 1/11/2021.
2. Eastern and southern contours considered groundwater elevations measured concurrently at the BCP Site and Tonawanda Plastics Site

Figure 11b

Honeywell

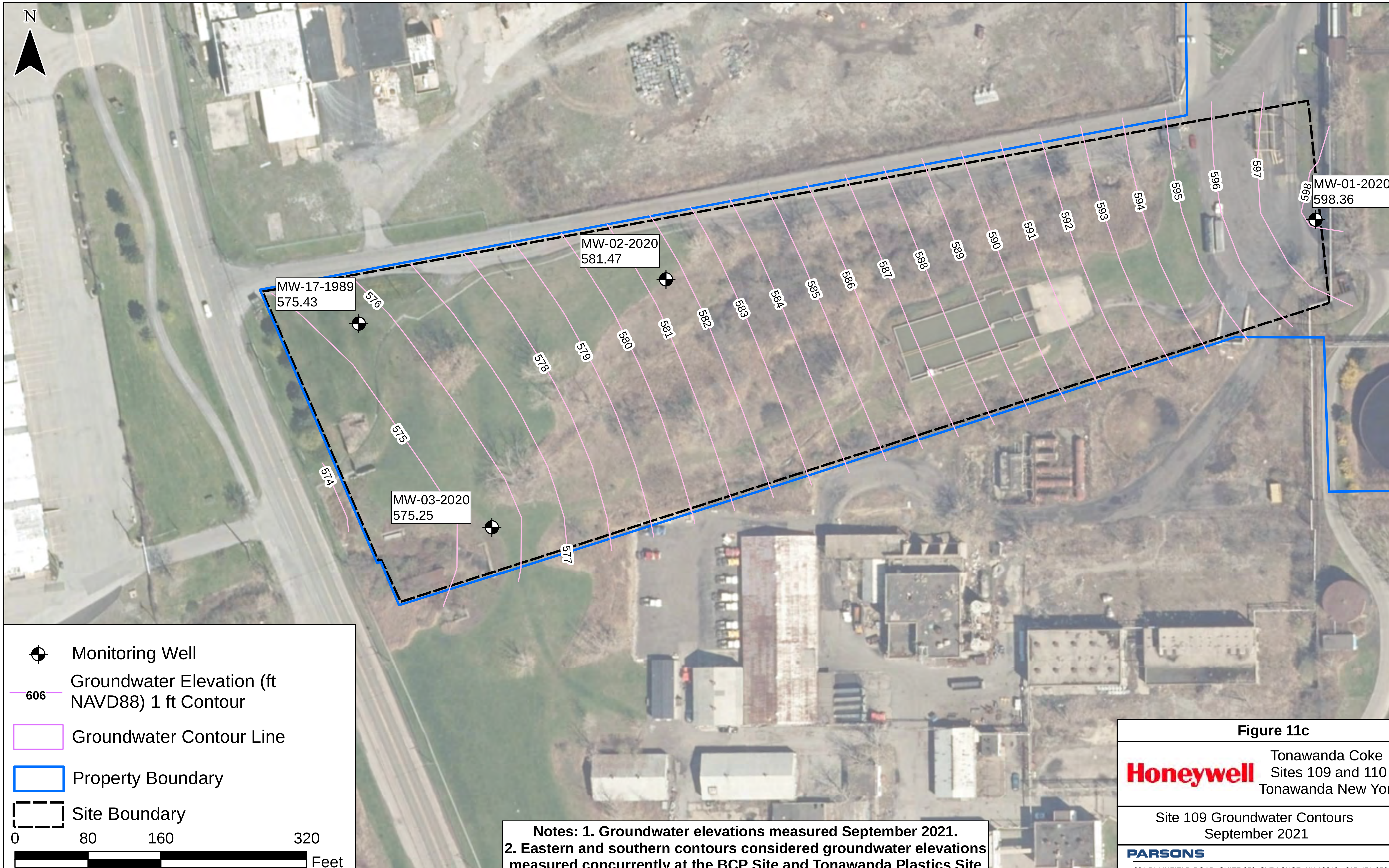
Tonawanda Coke
Sites 109 and 110
Tonawanda New York

Site 109 Groundwater Contours
January 2021

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 * 315-451-9560

Plot Date: 2/14/2023 Plotted By: CS

Document Path: Q:\GIS\Hon_Syracuse\Tonawanda Coke\MXDs\Site 109 and 110\Tonawanda Site RI Report Fig 11b.mxd



Notes: 1. Groundwater elevations measured September 2021.
2. Eastern and southern contours considered groundwater elevations measured concurrently at the BCP Site and Tonawanda Plastics Site

Figure 11c

Honeywell

Tonawanda Coke
Sites 109 and 110
Tonawanda New York

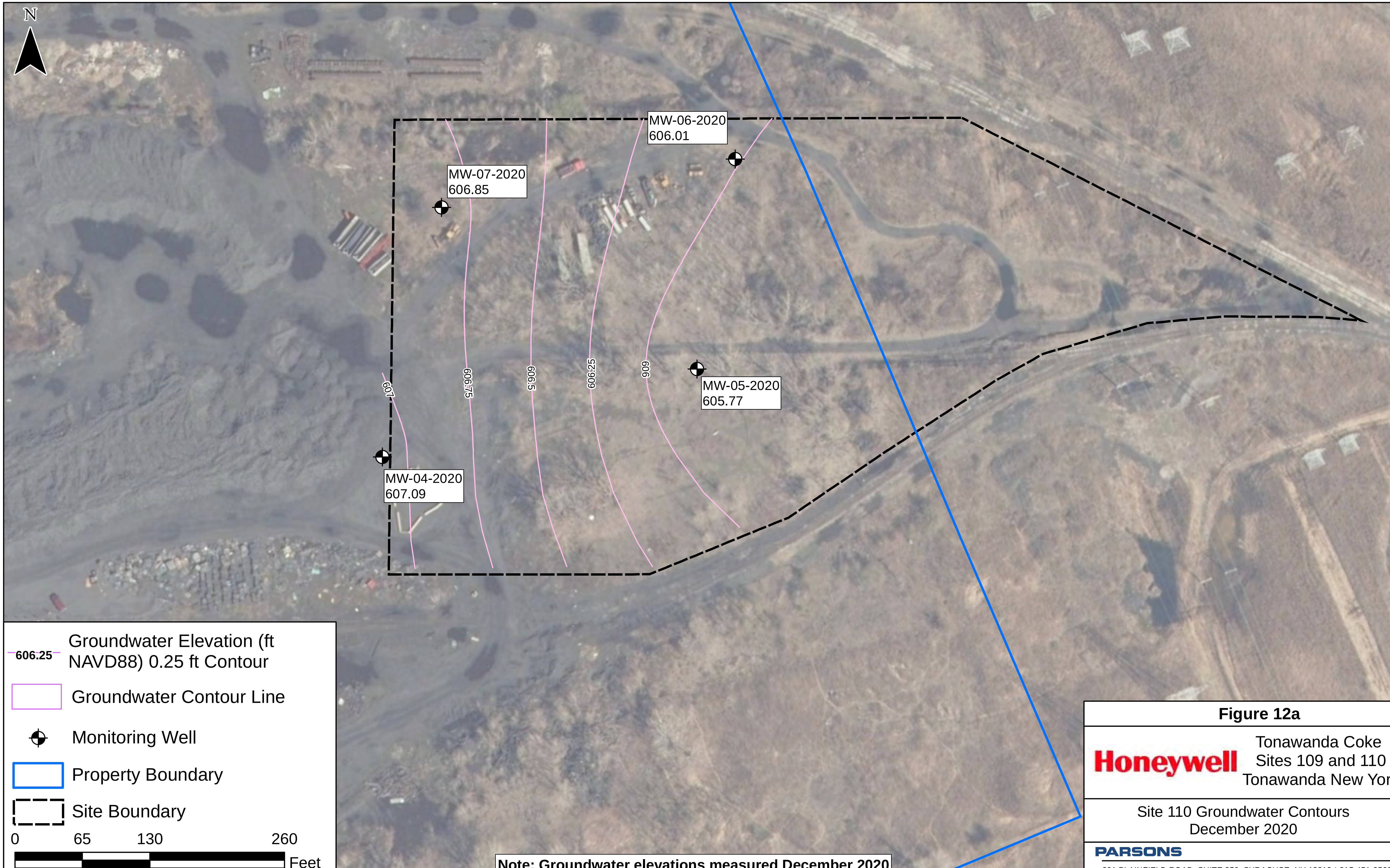
Site 109 Groundwater Contours
September 2021

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 * 315-451-9560

Plotted By: CS

Plot Date: 2/14/2023

Document Path: Q:\GIS\Hon_Syracuse\Tonawanda Coke\MXDs\Site 109 and 110\Tonawanda Site RI Report Fig 11c.mxd



Note: Groundwater elevations measured December 2020

Figure 12a

Honeywell

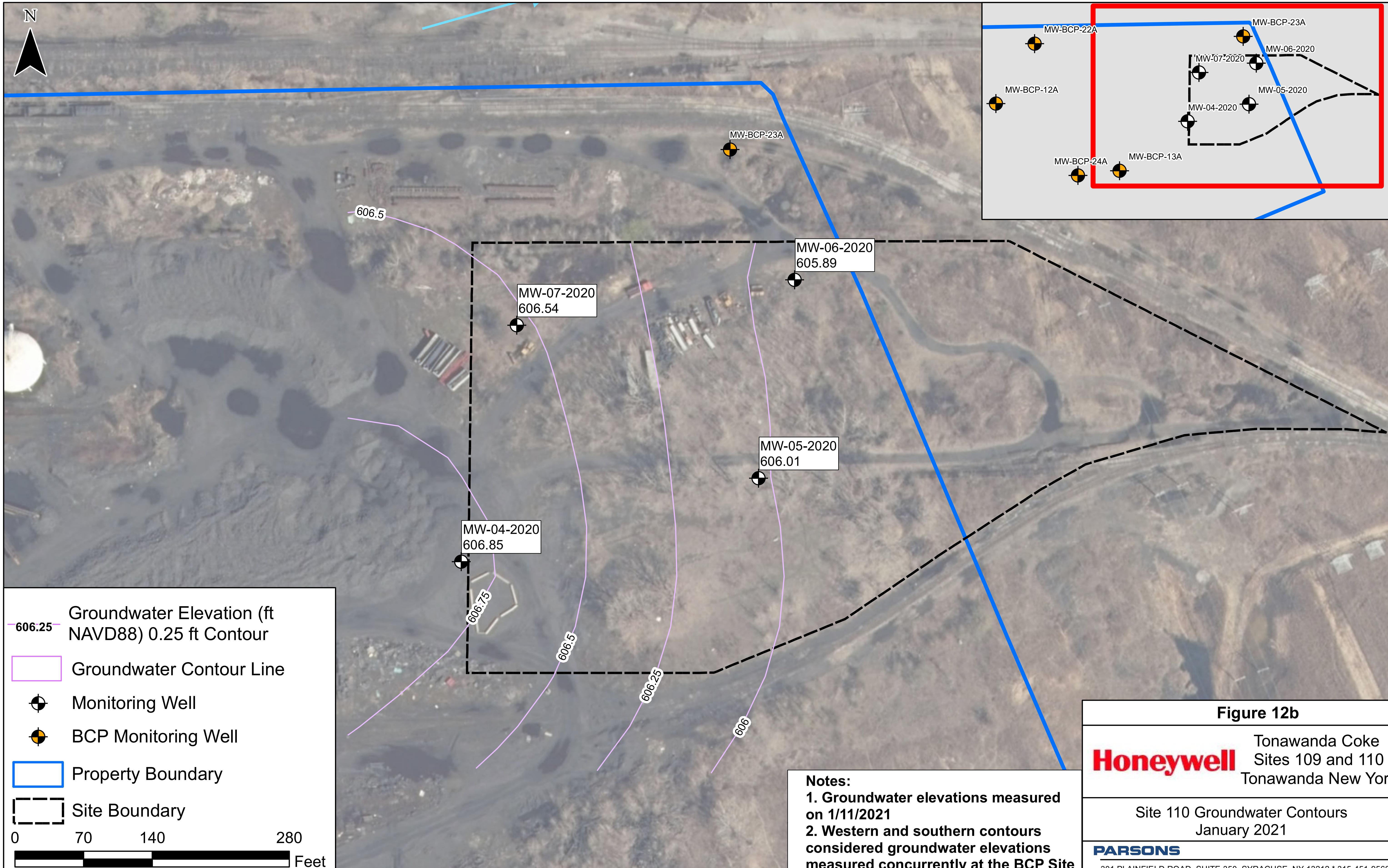
Tonawanda Coke
Sites 109 and 110
Tonawanda New York

Site 110 Groundwater Contours
December 2020

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 * 315-451-9560

Plot Date: 2/14/2023 Plotted By: CS

Document Path: Q:\GIS\Hon_Syracuse\Tonawanda Coke\MXDs\Site 109 and 110\Tonawanda Site RI Report Fig 12a.mxd



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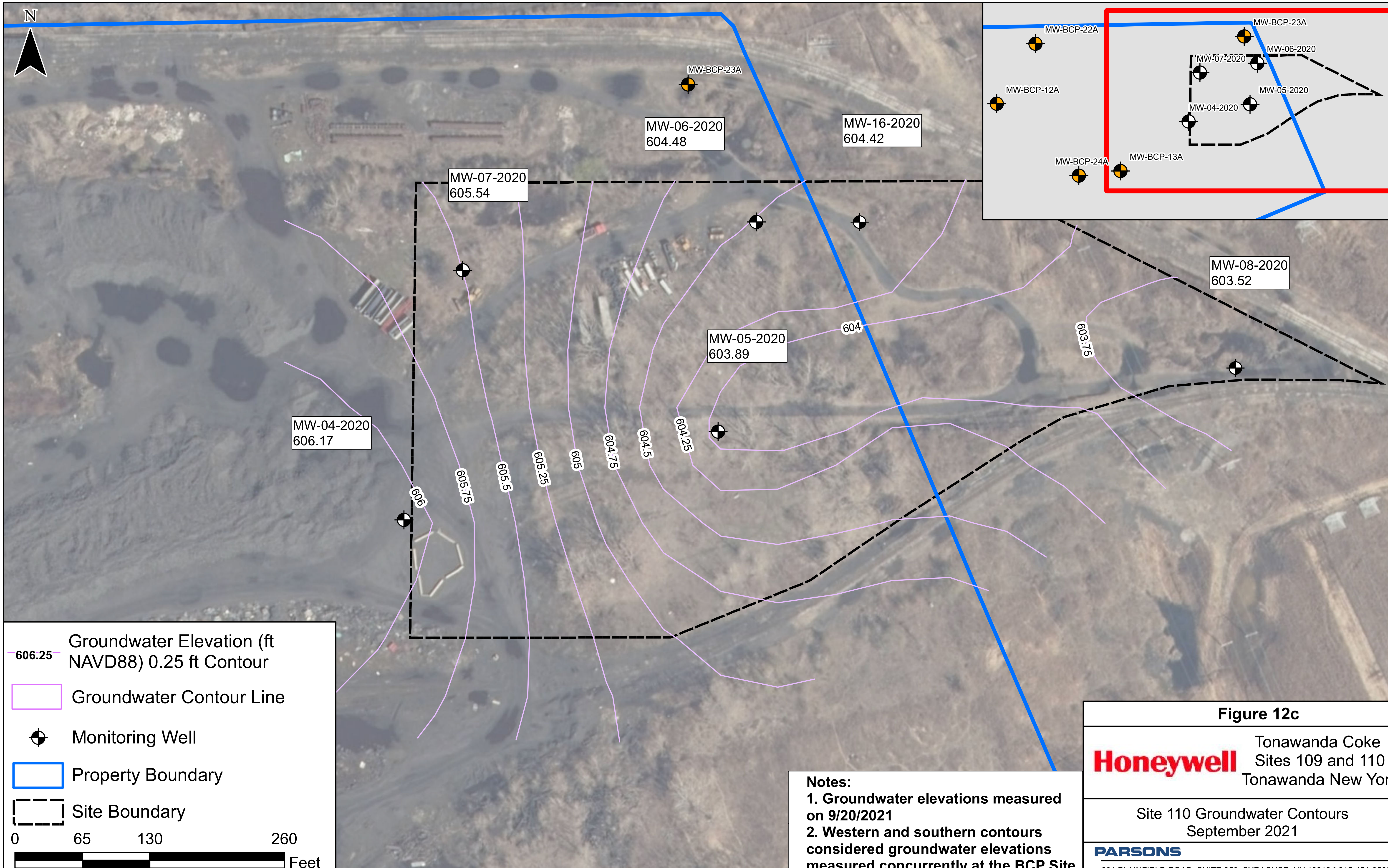

606.25 Groundwater Elevation (ft NAVD88) 0.25 ft Contour

Groundwater Contour Line

Monitoring Well

Property Boundary

Site Boundary

0 65 130 260 Feet

Notes:
1. Groundwater elevations measured on 9/20/2021
2. Western and southern contours considered groundwater elevations measured concurrently at the BCP Site

Figure 12c

Honeywell

Tonawanda Coke
Sites 109 and 110
Tonawanda New York

Site 110 Groundwater Contours
September 2021

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 12212 * 315-451-9560

Plotted By: CS
Plot Date: 4/7/2023

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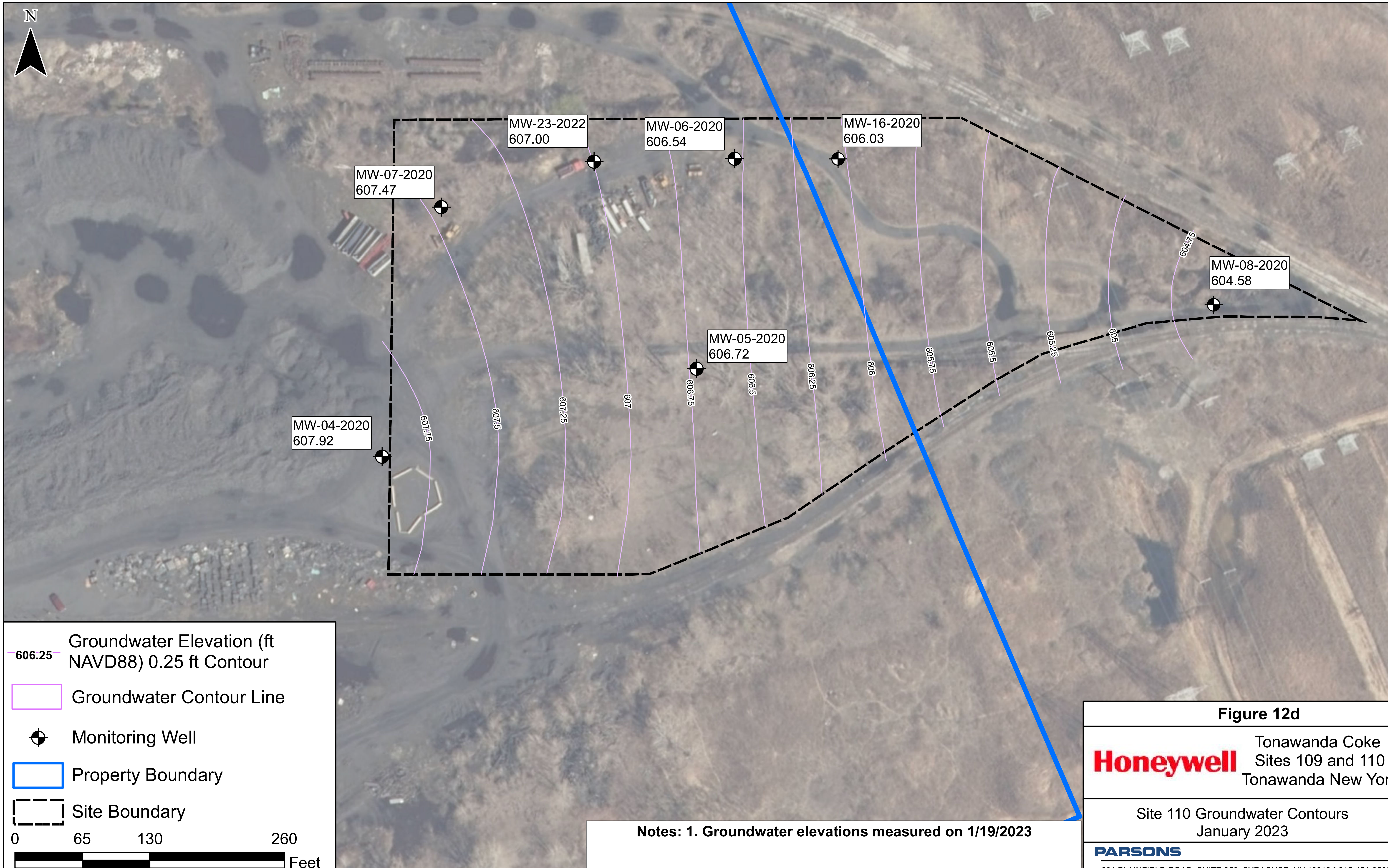

Plotted By: CS

Plot Date: 4/4/2023

Notes: 1. Groundwater elevations measured on 1/19/2023

Figure 12d

Honeywell

Tonawanda Coke
Sites 109 and 110
Tonawanda New York

Site 110 Groundwater Contours
January 2023

PARSONS

301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 * 315-451-9560

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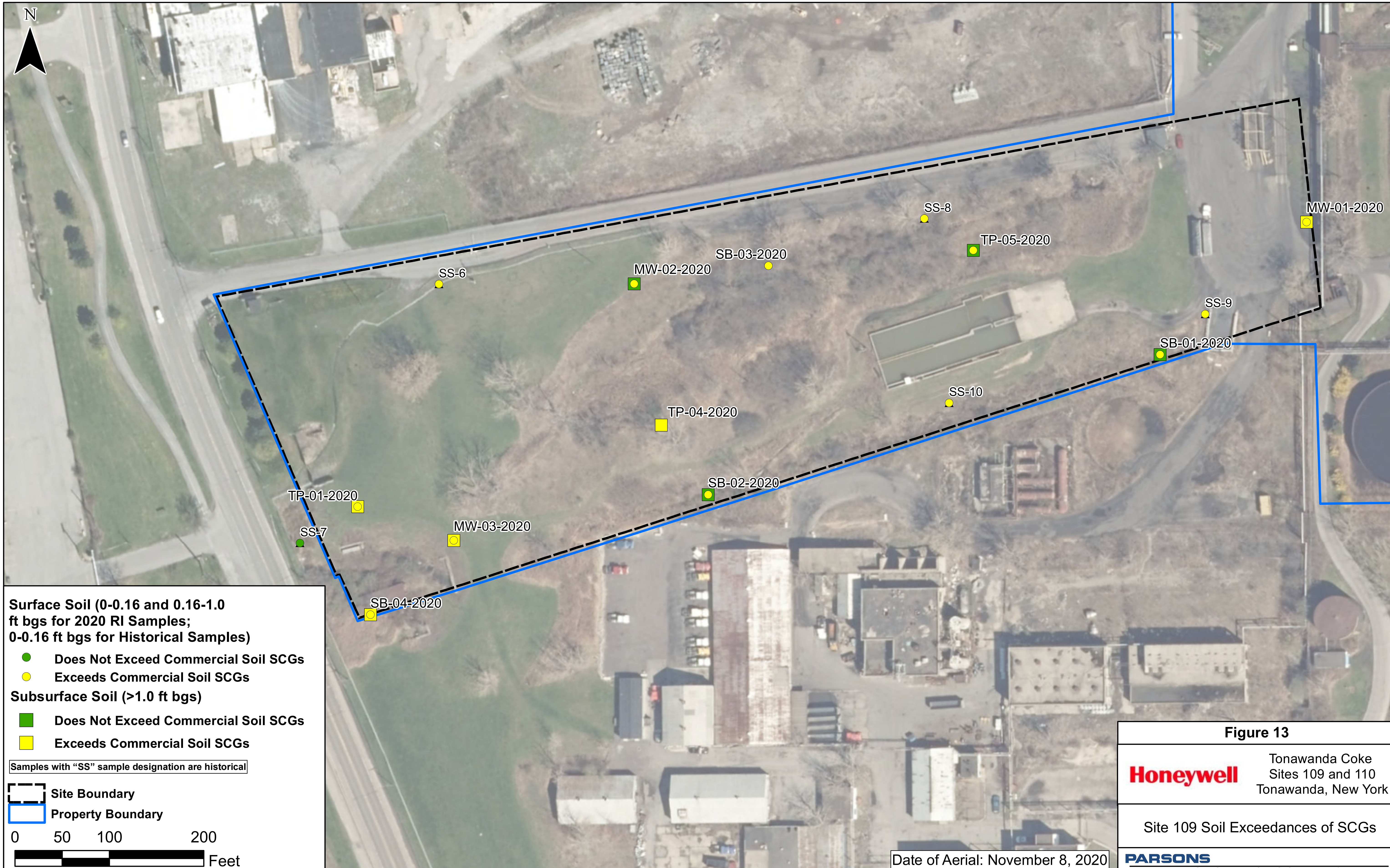

Plot Date: 10/23/2023 Plotted By: J. Domanski

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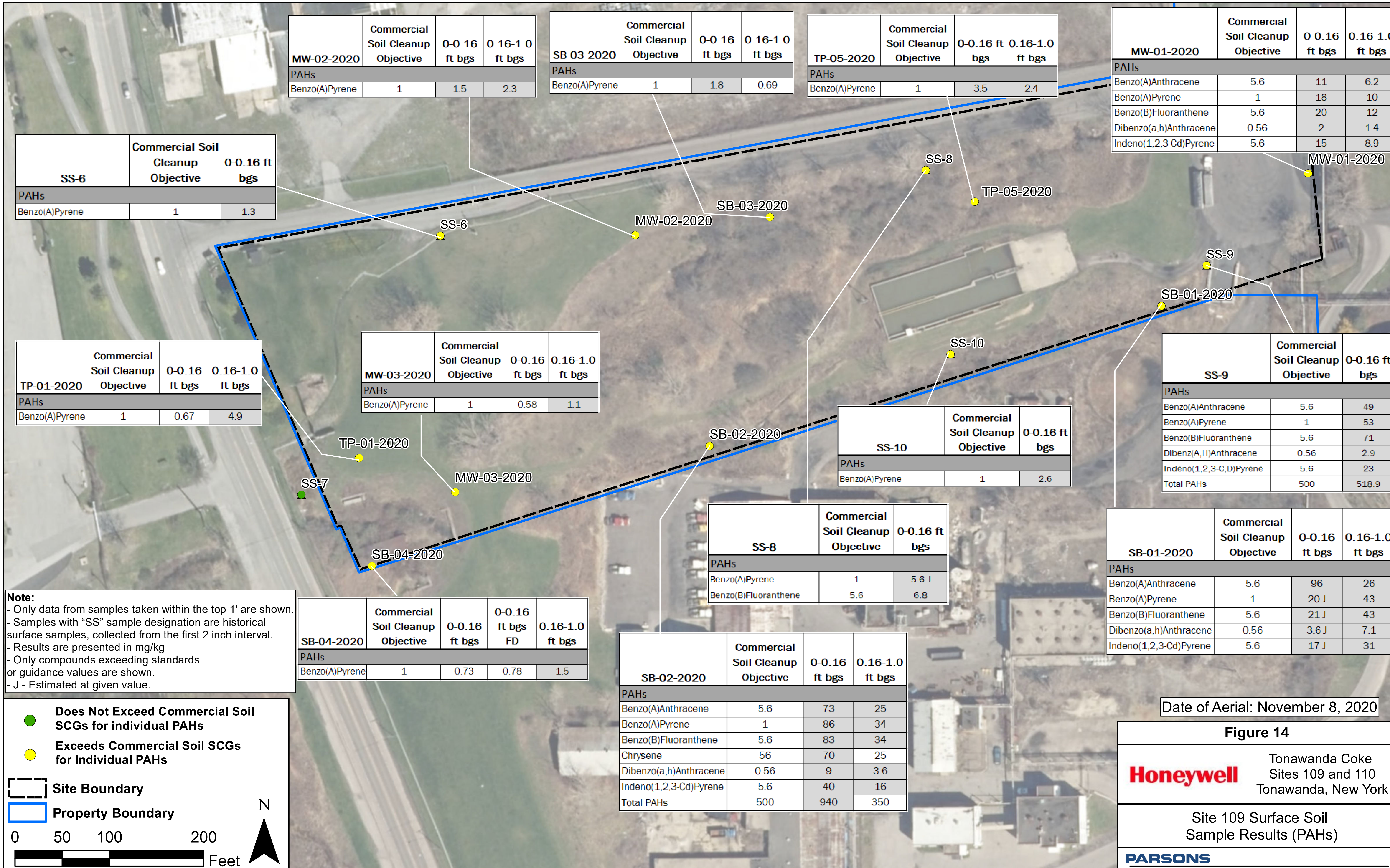


MW-02-2020	Commercial Soil Cleanup Objective	0-0.16 ft bgs	0.16-1.0 ft bgs
PAHs			
Benzo(A)Pyrene	1	1.5	2.3

SB-03-2020	Commercial Soil Cleanup Objective	0-0.16 ft bgs	0.16-1.0 ft bgs
PAHs			
Benzo(A)Pyrene	1	1.8	0.69

TP-05-2020	Commercial Soil Cleanup Objective	0-0.16 ft bgs	0.16-1.0 ft bgs
PAHs			
Benzo(A)Pyrene	1	3.5	2.4

MW-01-2020	Commercial Soil Cleanup Objective	0-0.16 ft bgs	0.16-1.0 ft bgs
PAHs			
Benzo(A)Anthracene	5.6	11	6.2
Benzo(A)Pyrene	1	18	10
Benzo(B)Fluoranthene	5.6	20	12
Dibenzo(a,h)Anthracene	0.56	2	1.4
Indeno(1,2,3-Cd)Pyrene	5.6	15	8.9

SS-6	Commercial Soil Cleanup Objective	0-0.16 ft bgs
PAHs		
Benzo(A)Pyrene	1	1.3

TP-01-2020	Commercial Soil Cleanup Objective	0-0.16 ft bgs	0.16-1.0 ft bgs
PAHs			
Benzo(A)Pyrene	1	0.67	4.9

MW-03-2020	Commercial Soil Cleanup Objective	0-0.16 ft bgs	0.16-1.0 ft bgs
PAHs			
Benzo(A)Pyrene	1	0.58	1.1

SS-9	Commercial Soil Cleanup Objective	0-0.16 ft bgs
PAHs		
Benzo(A)Anthracene	5.6	49
Benzo(A)Pyrene	1	53
Benzo(B)Fluoranthene	5.6	71
Dibenz(A,H)Anthracene	0.56	2.9
Indeno(1,2,3-C,D)Pyrene	5.6	23
Total PAHs	500	518.9

SS-10	Commercial Soil Cleanup Objective	0-0.16 ft bgs
PAHs		
Benzo(A)Pyrene	1	2.6

SS-8	Commercial Soil Cleanup Objective	0-0.16 ft bgs
PAHs		
Benzo(A)Pyrene	1	5.6 J
Benzo(B)Fluoranthene	5.6	6.8

SB-01-2020	Commercial Soil Cleanup Objective	0-0.16 ft bgs	0.16-1.0 ft bgs
PAHs			
Benzo(A)Anthracene	5.6	96	26
Benzo(A)Pyrene	1	20 J	43
Benzo(B)Fluoranthene	5.6	21 J	43
Dibenzo(a,h)Anthracene	0.56	3.6 J	7.1
Indeno(1,2,3-Cd)Pyrene	5.6	17 J	31

SB-04-2020	Commercial Soil Cleanup Objective	0-0.16 ft bgs	0-0.16 ft bgs FD	0.16-1.0 ft bgs
PAHs				
Benzo(A)Pyrene	1	0.73	0.78	1.5

SB-02-2020	Commercial Soil Cleanup Objective	0-0.16 ft bgs	0.16-1.0 ft bgs
PAHs			
Benzo(A)Anthracene	5.6	73	25
Benzo(A)Pyrene	1	86	34
Benzo(B)Fluoranthene	5.6	83	34
Chrysene	56	70	25
Dibenzo(a,h)Anthracene	0.56	9	3.6
Indeno(1,2,3-Cd)Pyrene	5.6	40	16
Total PAHs	500	940	350

Note:
- Only data from samples taken within the top 1' are shown.
- Samples with "SS" sample designation are historical surface samples, collected from the first 2 inch interval.
- Results are presented in mg/kg
- Only compounds exceeding standards or guidance values are shown.
- J - Estimated at given value.

Does Not Exceed Commercial Soil SCGs for individual PAHs

Exceeds Commercial Soil SCGs for Individual PAHs

Site Boundary

Property Boundary

Plot Date: 10/23/2023 Plotted By: J. Domanski

Figure 14

Honeywell

Tonawanda Coke
Sites 109 and 110
Tonawanda, New York

Site 109 Surface Soil
Sample Results (PAHs)

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 * 315-451-9560

Document Path: \\nysyr04fs01\PrjData\GIS\Hon_Syracuse\Tonawanda Coke\MXDs\Site 109 and 110\Rev03 - RI\Tonawanda Site 109 RI Report Fig 14 Soil PAH_Rev3.mxd

MW-01-2020	Commercial Soil Cleanup Objective	3.0-4.0 ft bgs
PAHs		
Benzo(A)Pyrene	1	9.3
Benzo(B)Fluoranthene	5.6	9.4
Dibenzo(a,h)Anthracene	0.56	1.3
Indeno(1,2,3-Cd)Pyrene	5.6	7.5

TP-01-2020	Commercial Soil Cleanup Objective	2.0-3.0 ft bgs	10.0-10.6 ft bgs
PAHs			
Benzo(A)Anthracene	5.6	0.53	7.5
Benzo(A)Pyrene	1	0.73	9.2
Benzo(B)Fluoranthene	5.6	0.84	9.3
Dibenzo(a,h)Anthracene	0.56	0.11	0.91
Indeno(1,2,3-Cd)Pyrene	5.6	0.45	6.2

TP-04-2020	Commercial Soil Cleanup Objective	2.5-3.0 ft bgs
PAHs		
Benzo(A)Pyrene	1	4.3

MW-03-2020	Commercial Soil Cleanup Objective	8.0-10.0 ft bgs
PAHs		
Benzo(A)Pyrene	1	1.7

SB-04-2020	Commercial Soil Cleanup Objective	3.0-4.0 ft bgs
PAHs		
Benzo(A)Pyrene	1	2.1

Note:
- Only data from samples taken below the top 1' are shown.
- Results are presented in mg/kg
- Only compounds exceeding standards or guidance values are shown.
- J - Estimated at given value.

Does Not Exceed Commercial Soil SCGs for Individual PAHs

Exceeds Commercial Soil SCGs for Individual PAHs

Site Boundary

Property Boundary

Figure 15

Honeywell

Tonawanda Coke
Sites 109 and 110
Tonawanda, New York

Site 109 Subsurface Soil Sample Results (PAHs)

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 * 315-451-9560

Plot Date: 10/19/2023 Plotted By: J. Domanski

Document Path: \\nysyr04fs01\PrjData\GIS\Hon_Syracuse\Tonawanda Coke\MXDs\Site 109 and 110\Rev03 - RI\Tonawanda Site 109 RI Report Fig 15 Subsurface PAH_Rev3.mxd

Plotted By: CS

Plot Date: 8/30/2023

Figure 16

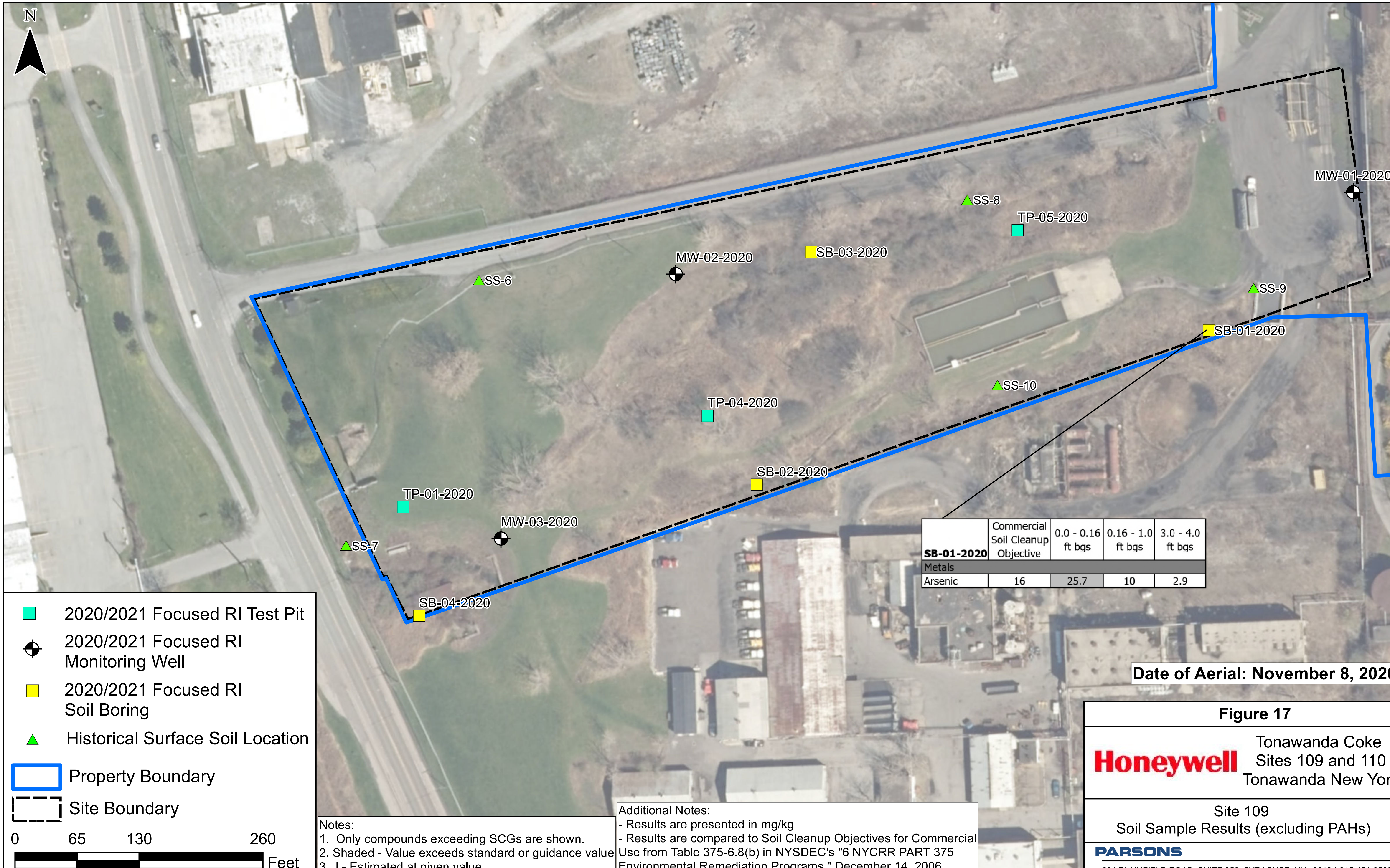
Honeywell

Tonawanda Coke
Sites 109 and 110
Tonawanda, New York

Site 109 Total PAH SCG Exceedances

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 * 315-451-9560

Document Path: \\nysyr04fs01\PrjData\GIS\Hon_Syracuse\Tonawanda Coke\MXDs\Site 109 and 110\Rev03 - RI\Tonawanda Site 109 RI Report Fig 16 Total PAH_Rev3.mxd



SB-01-2020	Commercial Soil Cleanup Objective	0.0 - 0.16 ft bgs	0.16 - 1.0 ft bgs	3.0 - 4.0 ft bgs
Metals				
Arsenic	16	25.7	10	2.9

Notes:
1. Only compounds exceeding SCGs are shown.
2. Shaded - Value exceeds standard or guidance value
3. J - Estimated at given value

Additional Notes:
- Results are presented in mg/kg
- Results are compared to Soil Cleanup Objectives for Commercial Use from Table 375-6.8(b) in NYSDEC's "6 NYCRR PART 375 Environmental Remediation Programs," December 14, 2006.

Figure 17

Honeywell

Tonawanda Coke
Sites 109 and 110
Tonawanda New York

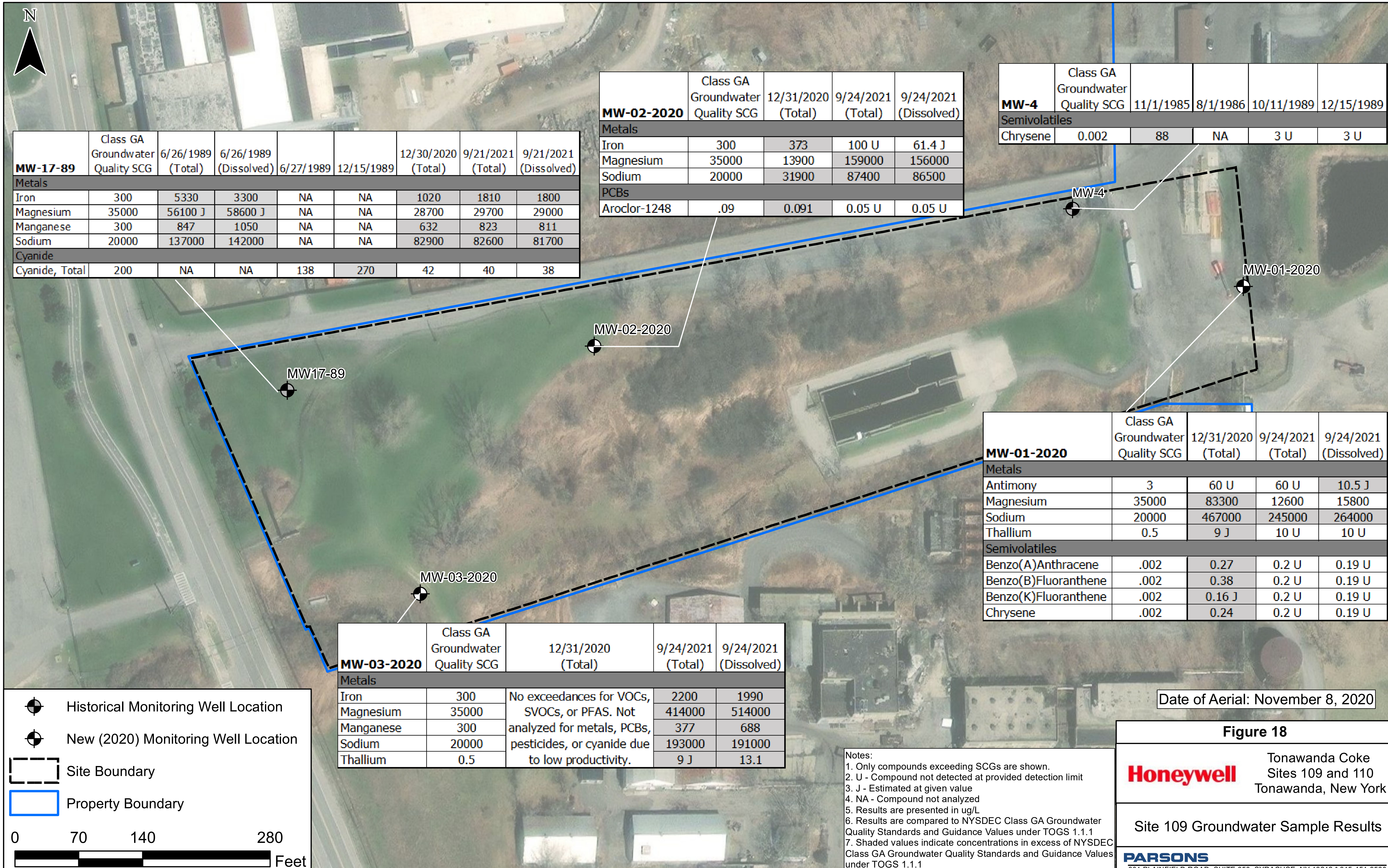
Site 109
Soil Sample Results (excluding PAHs)

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 * 315-451-9560

Plotted By: J. Domanski

Plot Date: 10/23/2023

Document Path: \\nysyr04fs01\PrjData\GIS\Hon_Syracuse\Tonawanda Coke\MXDs\Site 109 and 110\Rev03 - RI\Tonawanda Site 109 RI Report Fig 17 Soil Samples_Rev3.mxd



MW-17-89	Class GA Groundwater Quality SCG	6/26/1989 (Total)	6/26/1989 (Dissolved)	6/27/1989	12/15/1989	12/30/2020 (Total)	9/21/2021 (Total)	9/21/2021 (Dissolved)
Metals								
Iron	300	5330	3300	NA	NA	1020	1810	1800
Magnesium	35000	56100 J	58600 J	NA	NA	28700	29700	29000
Manganese	300	847	1050	NA	NA	632	823	811
Sodium	20000	137000	142000	NA	NA	82900	82600	81700
Cyanide								
Cyanide, Total	200	NA	NA	138	270	42	40	38

MW-02-2020	Class GA Groundwater Quality SCG	12/31/2020 (Total)	9/24/2021 (Total)	9/24/2021 (Dissolved)
Metals				
Iron	300	373	100 U	61.4 J
Magnesium	35000	13900	159000	156000
Sodium	20000	31900	87400	86500
PCBs				
Aroclor-1248	.09	0.091	0.05 U	0.05 U

MW-4	Class GA Groundwater Quality SCG	11/1/1985	8/1/1986	10/11/1989	12/15/1989
Semivolatiles					
Chrysene	0.002	88	NA	3 U	3 U

MW-01-2020	Class GA Groundwater Quality SCG	12/31/2020 (Total)	9/24/2021 (Total)	9/24/2021 (Dissolved)
Metals				
Antimony	3	60 U	60 U	10.5 J
Magnesium	35000	83300	12600	15800
Sodium	20000	467000	245000	264000
Thallium	0.5	9 J	10 U	10 U
Semivolatiles				
Benzo(A)Anthracene	.002	0.27	0.2 U	0.19 U
Benzo(B)Fluoranthene	.002	0.38	0.2 U	0.19 U
Benzo(K)Fluoranthene	.002	0.16 J	0.2 U	0.19 U
Chrysene	.002	0.24	0.2 U	0.19 U

MW-03-2020	Class GA Groundwater Quality SCG	12/31/2020 (Total)	9/24/2021 (Total)	9/24/2021 (Dissolved)
Metals				
Iron	300	No exceedances for VOCs, SVOCs, or PFAS. Not analyzed for metals, PCBs, pesticides, or cyanide due to low productivity.	2200	1990
Magnesium	35000		414000	514000
Manganese	300		377	688
Sodium	20000		193000	191000
Thallium	0.5		9 J	13.1

Notes:
1. Only compounds exceeding SCGs are shown.
2. U - Compound not detected at provided detection limit
3. J - Estimated at given value
4. NA - Compound not analyzed
5. Results are presented in ug/L
6. Results are compared to NYSDEC Class GA Groundwater Quality Standards and Guidance Values under TOGS 1.1.1
7. Shaded values indicate concentrations in excess of NYSDEC Class GA Groundwater Quality Standards and Guidance Values under TOGS 1.1.1

Figure 18

Honeywell

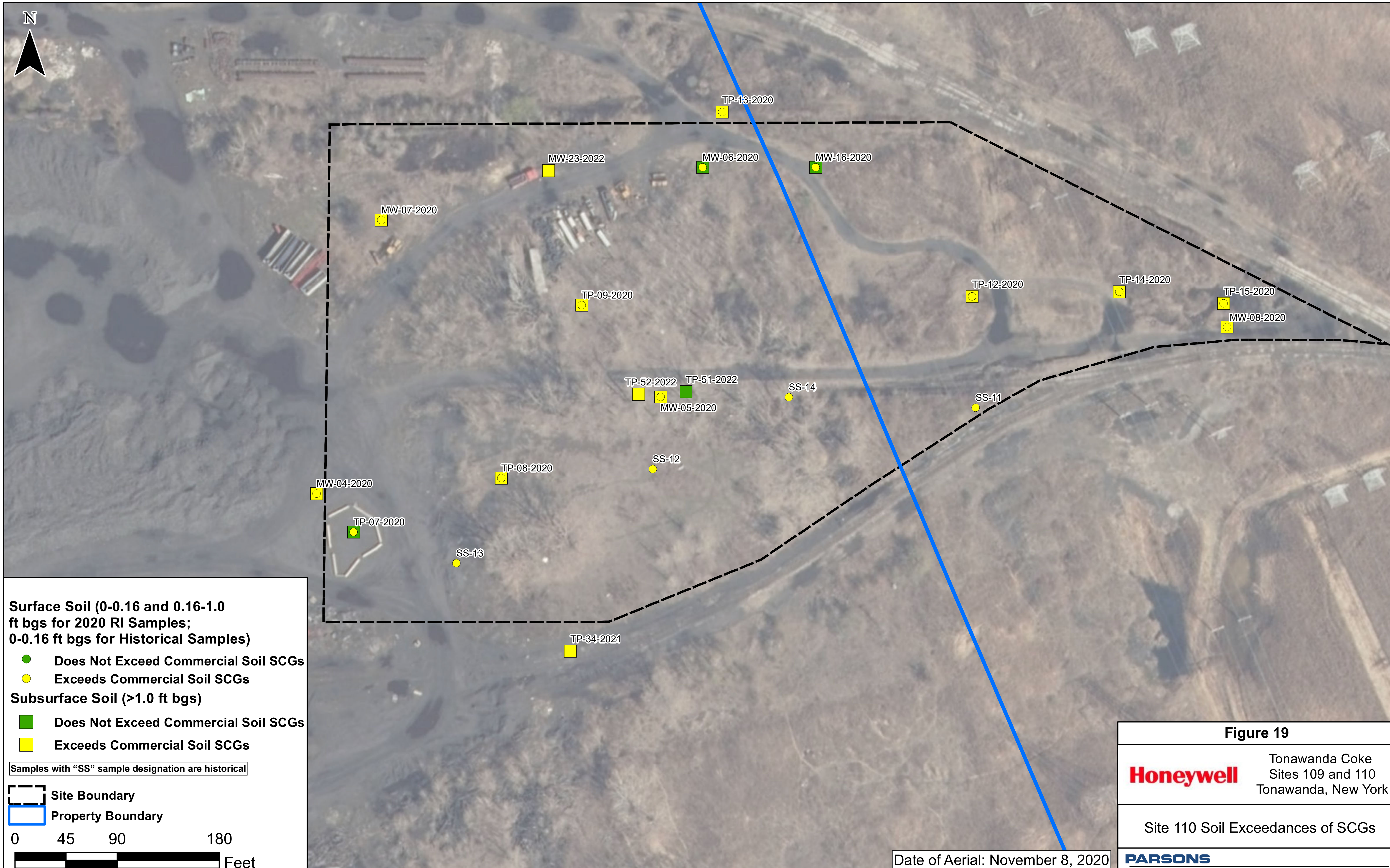
Tonawanda Coke
Sites 109 and 110
Tonawanda, New York

Site 109 Groundwater Sample Results

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 * 315-451-9560

Plot Date: 8/31/2023 Plotted By: J. Domanski

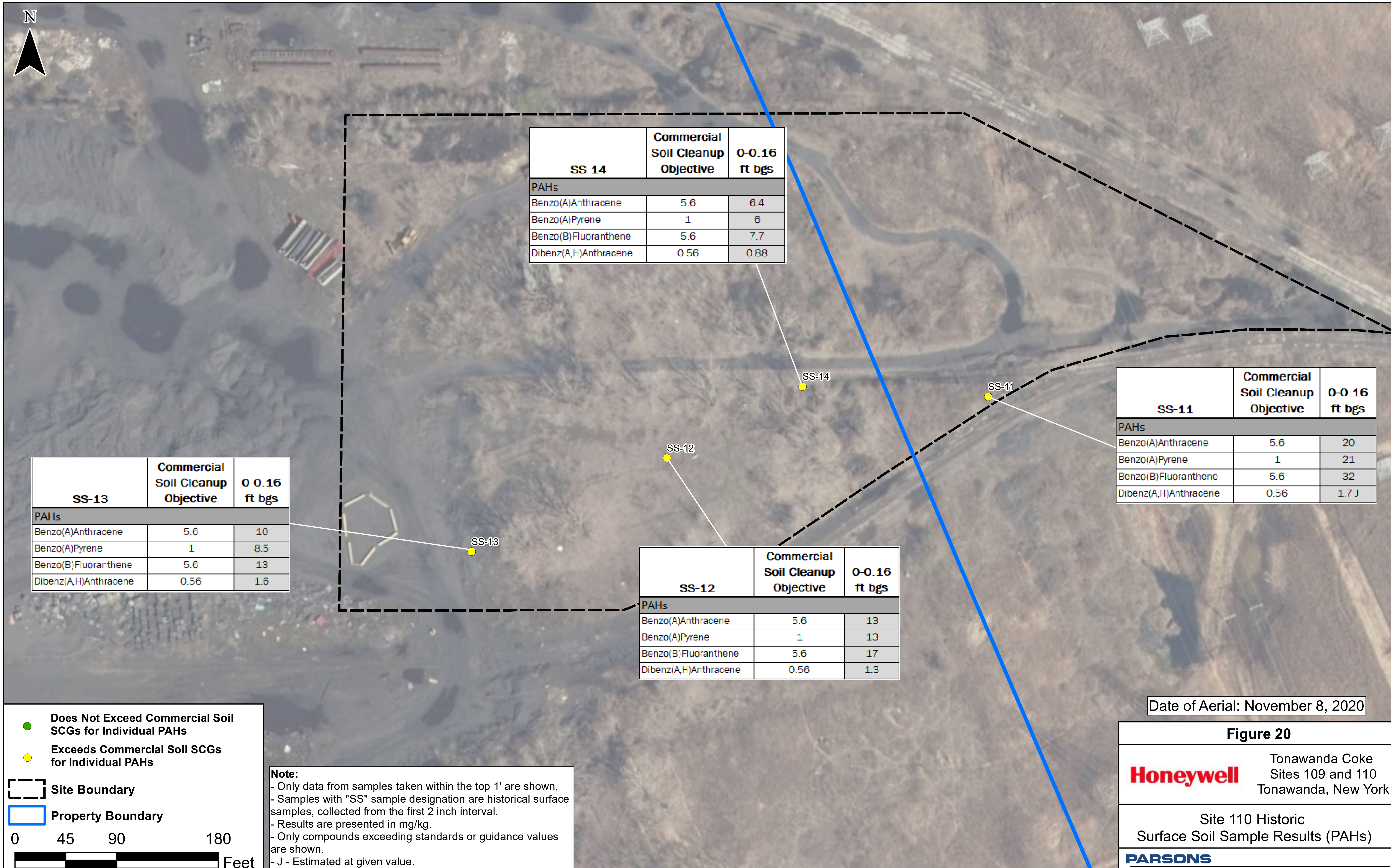
Document Path: \\nysyr04fs01\PrjData\GIS\Hon_Syracuse\Tonawanda Coke\MXDs\Site 109 and 110\Rev03 - RI\Tonawanda Site 109 RI Report Fig 18 GW Results_Rev3.mxd



Plot Date: 8/31/2023 Plotted By: J. Domanski

Document Path: \\nysyr04fs01\PrjData\GIS\Hon_Syracuse\Tonawanda Coke\MXDs\Site 109 and 110\Rev03 - RI\Tonawanda Site 110 RI Report Fig 19 Soil Exceedances_Rev3.mxd

Plot Date: 10/20/2023 Plotted By: J. Domanski



SS-14	Commercial Soil Cleanup Objective	0-0.16 ft bgs
PAHs		
Benzo(A)Anthracene	5.6	6.4
Benzo(A)Pyrene	1	6
Benzo(B)Fluoranthene	5.6	7.7
Dibenz(A,H)Anthracene	0.56	0.88

SS-11	Commercial Soil Cleanup Objective	0-0.16 ft bgs
PAHs		
Benzo(A)Anthracene	5.6	20
Benzo(A)Pyrene	1	21
Benzo(B)Fluoranthene	5.6	32
Dibenz(A,H)Anthracene	0.56	1.7 J

SS-13	Commercial Soil Cleanup Objective	0-0.16 ft bgs
PAHs		
Benzo(A)Anthracene	5.6	10
Benzo(A)Pyrene	1	8.5
Benzo(B)Fluoranthene	5.6	13
Dibenz(A,H)Anthracene	0.56	1.6

SS-12	Commercial Soil Cleanup Objective	0-0.16 ft bgs
PAHs		
Benzo(A)Anthracene	5.6	13
Benzo(A)Pyrene	1	13
Benzo(B)Fluoranthene	5.6	17
Dibenz(A,H)Anthracene	0.56	1.3

Does Not Exceed Commercial Soil SCGs for Individual PAHs

Exceeds Commercial Soil SCGs for Individual PAHs

Site Boundary

Property Boundary

0 45 90 180 Feet

Note:
- Only data from samples taken within the top 1' are shown,
- Samples with "SS" sample designation are historical surface samples, collected from the first 2 inch interval.
- Results are presented in mg/kg.
- Only compounds exceeding standards or guidance values are shown.
- J - Estimated at given value.

Figure 20

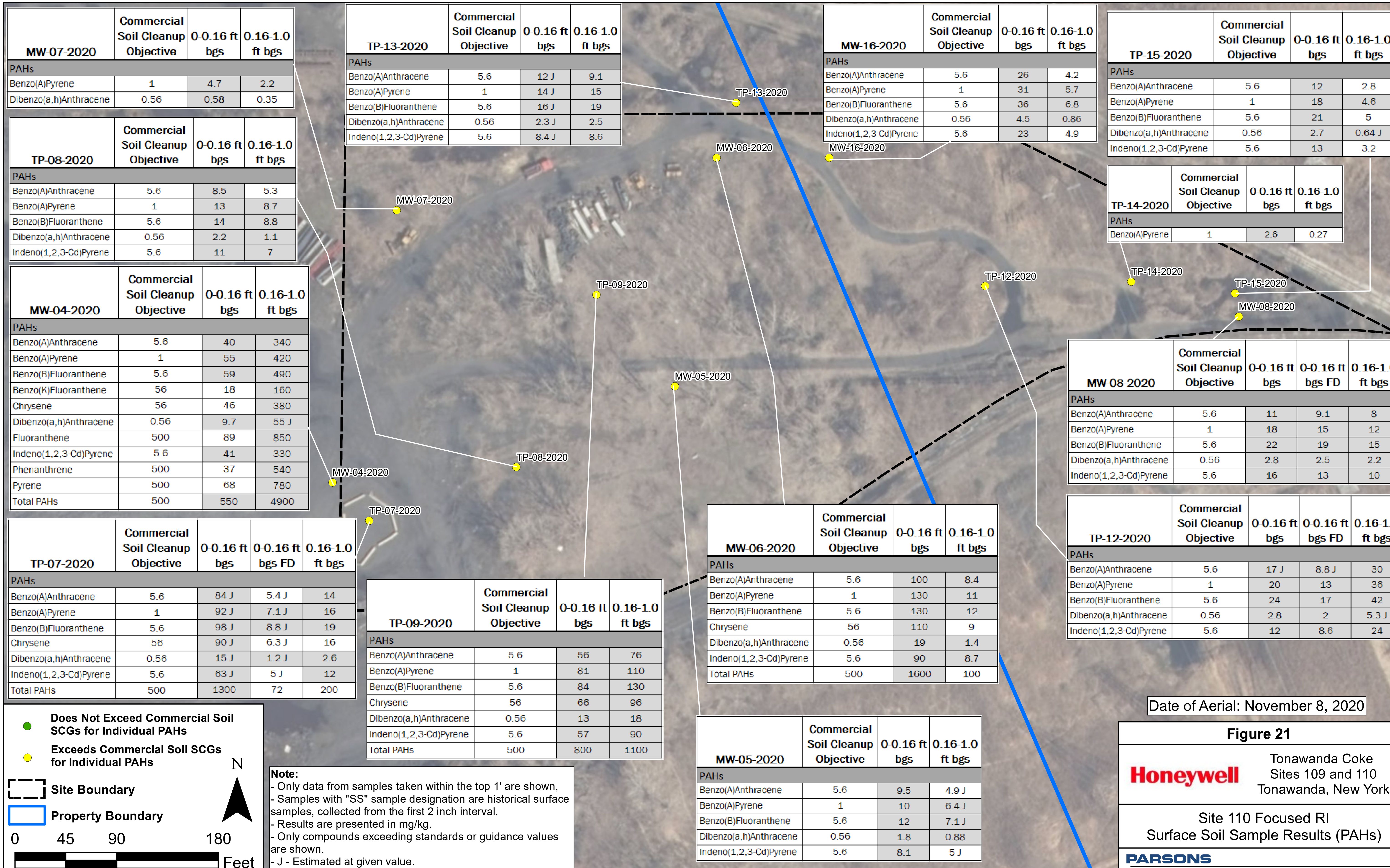
Honeywell

Tonawanda Coke
Sites 109 and 110
Tonawanda, New York

Site 110 Historic
Surface Soil Sample Results (PAHs)

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 * 315-451-9560

Document Path: \\nysyr04fs01\PrjData\GIS\Hon_Syracuse\Tonawanda Coke\MXDs\Site 109 and 110\Rev03 - RI\Tonawanda Site 110 RI Report Fig 20 Historic Soil PAH_Rev3.mxd



MW-07-2020	Commercial Soil Cleanup Objective	0-0.16 ft bgs	0.16-1.0 ft bgs
PAHs			
Benzo(A)Pyrene	1	4.7	2.2
Dibenzo(a,h)Anthracene	0.56	0.58	0.35

TP-13-2020	Commercial Soil Cleanup Objective	0-0.16 ft bgs	0.16-1.0 ft bgs
PAHs			
Benzo(A)Anthracene	5.6	12 J	9.1
Benzo(A)Pyrene	1	14 J	15
Benzo(B)Fluoranthene	5.6	16 J	19
Dibenzo(a,h)Anthracene	0.56	2.3 J	2.5
Indeno(1,2,3-Cd)Pyrene	5.6	8.4 J	8.6

MW-16-2020	Commercial Soil Cleanup Objective	0-0.16 ft bgs	0.16-1.0 ft bgs
PAHs			
Benzo(A)Anthracene	5.6	26	4.2
Benzo(A)Pyrene	1	31	5.7
Benzo(B)Fluoranthene	5.6	36	6.8
Dibenzo(a,h)Anthracene	0.56	4.5	0.86
Indeno(1,2,3-Cd)Pyrene	5.6	23	4.9

TP-15-2020	Commercial Soil Cleanup Objective	0-0.16 ft bgs	0.16-1.0 ft bgs
PAHs			
Benzo(A)Anthracene	5.6	12	2.8
Benzo(A)Pyrene	1	18	4.6
Benzo(B)Fluoranthene	5.6	21	5
Dibenzo(a,h)Anthracene	0.56	2.7	0.64 J
Indeno(1,2,3-Cd)Pyrene	5.6	13	3.2

TP-08-2020	Commercial Soil Cleanup Objective	0-0.16 ft bgs	0.16-1.0 ft bgs
PAHs			
Benzo(A)Anthracene	5.6	8.5	5.3
Benzo(A)Pyrene	1	13	8.7
Benzo(B)Fluoranthene	5.6	14	8.8
Dibenzo(a,h)Anthracene	0.56	2.2	1.1
Indeno(1,2,3-Cd)Pyrene	5.6	11	7

TP-14-2020	Commercial Soil Cleanup Objective	0-0.16 ft bgs	0.16-1.0 ft bgs
PAHs			
Benzo(A)Pyrene	1	2.6	0.27

MW-04-2020	Commercial Soil Cleanup Objective	0-0.16 ft bgs	0.16-1.0 ft bgs
PAHs			
Benzo(A)Anthracene	5.6	40	340
Benzo(A)Pyrene	1	55	420
Benzo(B)Fluoranthene	5.6	59	490
Benzo(K)Fluoranthene	56	18	160
Chrysene	56	46	380
Dibenzo(a,h)Anthracene	0.56	9.7	55 J
Fluoranthene	500	89	850
Indeno(1,2,3-Cd)Pyrene	5.6	41	330
Phenanthrene	500	37	540
Pyrene	500	68	780
Total PAHs	500	550	4900

MW-08-2020	Commercial Soil Cleanup Objective	0-0.16 ft bgs	0-0.16 ft bgs FD	0.16-1.0 ft bgs
PAHs				
Benzo(A)Anthracene	5.6	11	9.1	8
Benzo(A)Pyrene	1	18	15	12
Benzo(B)Fluoranthene	5.6	22	19	15
Dibenzo(a,h)Anthracene	0.56	2.8	2.5	2.2
Indeno(1,2,3-Cd)Pyrene	5.6	16	13	10

MW-06-2020	Commercial Soil Cleanup Objective	0-0.16 ft bgs	0.16-1.0 ft bgs
PAHs			
Benzo(A)Anthracene	5.6	100	8.4
Benzo(A)Pyrene	1	130	11
Benzo(B)Fluoranthene	5.6	130	12
Chrysene	56	110	9
Dibenzo(a,h)Anthracene	0.56	19	1.4
Indeno(1,2,3-Cd)Pyrene	5.6	90	8.7
Total PAHs	500	1600	100

TP-12-2020	Commercial Soil Cleanup Objective	0-0.16 ft bgs	0-0.16 ft bgs FD	0.16-1.0 ft bgs
PAHs				
Benzo(A)Anthracene	5.6	17 J	8.8 J	30
Benzo(A)Pyrene	1	20	13	36
Benzo(B)Fluoranthene	5.6	24	17	42
Dibenzo(a,h)Anthracene	0.56	2.8	2	5.3 J
Indeno(1,2,3-Cd)Pyrene	5.6	12	8.6	24

TP-07-2020	Commercial Soil Cleanup Objective	0-0.16 ft bgs	0-0.16 ft bgs FD	0.16-1.0 ft bgs
PAHs				
Benzo(A)Anthracene	5.6	84 J	5.4 J	14
Benzo(A)Pyrene	1	92 J	7.1 J	16
Benzo(B)Fluoranthene	5.6	98 J	8.8 J	19
Chrysene	56	90 J	6.3 J	16
Dibenzo(a,h)Anthracene	0.56	15 J	1.2 J	2.6
Indeno(1,2,3-Cd)Pyrene	5.6	63 J	5 J	12
Total PAHs	500	1300	72	200

TP-09-2020	Commercial Soil Cleanup Objective	0-0.16 ft bgs	0.16-1.0 ft bgs
PAHs			
Benzo(A)Anthracene	5.6	56	76
Benzo(A)Pyrene	1	81	110
Benzo(B)Fluoranthene	5.6	84	130
Chrysene	56	66	96
Dibenzo(a,h)Anthracene	0.56	13	18
Indeno(1,2,3-Cd)Pyrene	5.6	57	90
Total PAHs	500	800	1100

MW-05-2020	Commercial Soil Cleanup Objective	0-0.16 ft bgs	0.16-1.0 ft bgs
PAHs			
Benzo(A)Anthracene	5.6	9.5	4.9 J
Benzo(A)Pyrene	1	10	6.4 J
Benzo(B)Fluoranthene	5.6	12	7.1 J
Dibenzo(a,h)Anthracene	0.56	1.8	0.88
Indeno(1,2,3-Cd)Pyrene	5.6	8.1	5 J

Does Not Exceed Commercial Soil SCGs for Individual PAHs

Exceeds Commercial Soil SCGs for Individual PAHs

Site Boundary

Property Boundary

N

0 45 90 180 Feet

Note:
- Only data from samples taken within the top 1' are shown.
- Samples with "SS" sample designation are historical surface samples, collected from the first 2 inch interval.
- Results are presented in mg/kg.
- Only compounds exceeding standards or guidance values are shown.
- J - Estimated at given value.

Figure 21

Honeywell

Tonawanda Coke
Sites 109 and 110
Tonawanda, New York

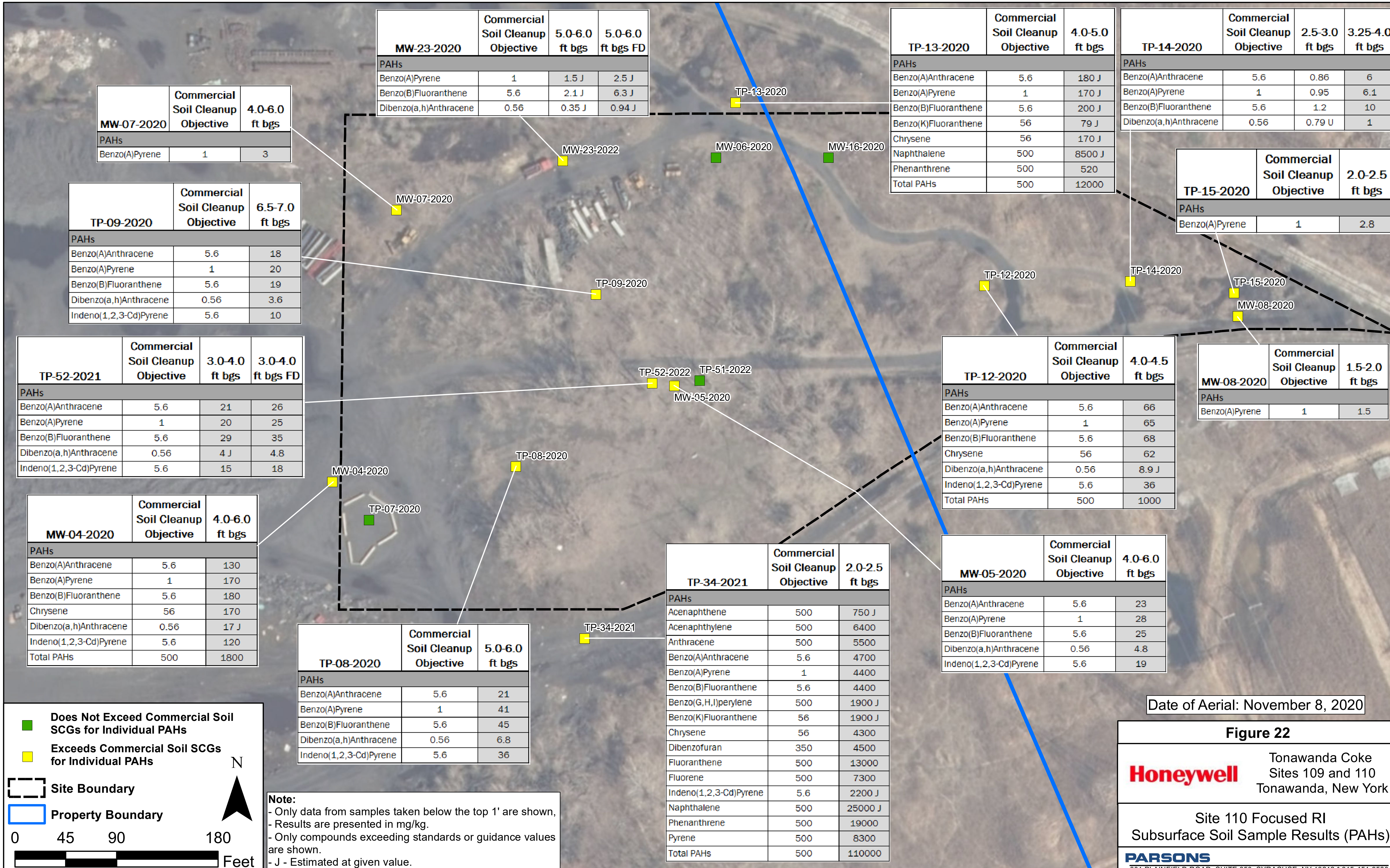
Site 110 Focused RI
Surface Soil Sample Results (PAHs)

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 * 315-451-9560

Plotted By: J. Domanski

Plot Date: 10/23/2023

Document Path: \\nysyr04fs01\PrjData\GIS\Hon_Syracuse\Tonawanda Coke\MXDs\Site 109 and 110\Rev03 - RI\Tonawanda Site 110 RI Report Fig 21 Soil PAH_Rev3.mxd



MW-23-2020	Commercial Soil Cleanup Objective	5.0-6.0 ft bgs	5.0-6.0 ft bgs FD
PAHs			
Benzo(A)Pyrene	1	1.5 J	2.5 J
Benzo(B)Fluoranthene	5.6	2.1 J	6.3 J
Dibenzo(a,h)Anthracene	0.56	0.35 J	0.94 J

MW-07-2020	Commercial Soil Cleanup Objective	4.0-6.0 ft bgs
PAHs		
Benzo(A)Pyrene	1	3

TP-09-2020	Commercial Soil Cleanup Objective	6.5-7.0 ft bgs
PAHs		
Benzo(A)Anthracene	5.6	18
Benzo(A)Pyrene	1	20
Benzo(B)Fluoranthene	5.6	19
Dibenzo(a,h)Anthracene	0.56	3.6
Indeno(1,2,3-Cd)Pyrene	5.6	10

TP-52-2021	Commercial Soil Cleanup Objective	3.0-4.0 ft bgs	3.0-4.0 ft bgs FD
PAHs			
Benzo(A)Anthracene	5.6	21	26
Benzo(A)Pyrene	1	20	25
Benzo(B)Fluoranthene	5.6	29	35
Dibenzo(a,h)Anthracene	0.56	4 J	4.8
Indeno(1,2,3-Cd)Pyrene	5.6	15	18

MW-04-2020	Commercial Soil Cleanup Objective	4.0-6.0 ft bgs
PAHs		
Benzo(A)Anthracene	5.6	130
Benzo(A)Pyrene	1	170
Benzo(B)Fluoranthene	5.6	180
Chrysene	56	170
Dibenzo(a,h)Anthracene	0.56	17 J
Indeno(1,2,3-Cd)Pyrene	5.6	120
Total PAHs	500	1800

TP-08-2020	Commercial Soil Cleanup Objective	5.0-6.0 ft bgs
PAHs		
Benzo(A)Anthracene	5.6	21
Benzo(A)Pyrene	1	41
Benzo(B)Fluoranthene	5.6	45
Dibenzo(a,h)Anthracene	0.56	6.8
Indeno(1,2,3-Cd)Pyrene	5.6	36

TP-34-2021	Commercial Soil Cleanup Objective	2.0-2.5 ft bgs
PAHs		
Acenaphthene	500	750 J
Acenaphthylene	500	6400
Anthracene	500	5500
Benzo(A)Anthracene	5.6	4700
Benzo(A)Pyrene	1	4400
Benzo(B)Fluoranthene	5.6	4400
Benzo(G,H,I)perylene	500	1900 J
Benzo(K)Fluoranthene	56	1900 J
Chrysene	56	4300
Dibenzofuran	350	4500
Fluoranthene	500	13000
Fluorene	500	7300
Indeno(1,2,3-Cd)Pyrene	5.6	2200 J
Naphthalene	500	25000 J
Phenanthrene	500	19000
Pyrene	500	8300
Total PAHs	500	110000

TP-13-2020	Commercial Soil Cleanup Objective	4.0-5.0 ft bgs
PAHs		
Benzo(A)Anthracene	5.6	180 J
Benzo(A)Pyrene	1	170 J
Benzo(B)Fluoranthene	5.6	200 J
Benzo(K)Fluoranthene	56	79 J
Chrysene	56	170 J
Naphthalene	500	8500 J
Phenanthrene	500	520
Total PAHs	500	12000

TP-14-2020	Commercial Soil Cleanup Objective	2.5-3.0 ft bgs	3.25-4.0 ft bgs
PAHs			
Benzo(A)Anthracene	5.6	0.86	6
Benzo(A)Pyrene	1	0.95	6.1
Benzo(B)Fluoranthene	5.6	1.2	10
Dibenzo(a,h)Anthracene	0.56	0.79 U	1

TP-15-2020	Commercial Soil Cleanup Objective	2.0-2.5 ft bgs
PAHs		
Benzo(A)Pyrene	1	2.8

TP-12-2020	Commercial Soil Cleanup Objective	4.0-4.5 ft bgs
PAHs		
Benzo(A)Anthracene	5.6	66
Benzo(A)Pyrene	1	65
Benzo(B)Fluoranthene	5.6	68
Chrysene	56	62
Dibenzo(a,h)Anthracene	0.56	8.9 J
Indeno(1,2,3-Cd)Pyrene	5.6	36
Total PAHs	500	1000

MW-08-2020	Commercial Soil Cleanup Objective	1.5-2.0 ft bgs
PAHs		
Benzo(A)Pyrene	1	1.5

MW-05-2020	Commercial Soil Cleanup Objective	4.0-6.0 ft bgs
PAHs		
Benzo(A)Anthracene	5.6	23
Benzo(A)Pyrene	1	28
Benzo(B)Fluoranthene	5.6	25
Dibenzo(a,h)Anthracene	0.56	4.8
Indeno(1,2,3-Cd)Pyrene	5.6	19

Does Not Exceed Commercial Soil SCGs for Individual PAHs

Exceeds Commercial Soil SCGs for Individual PAHs

Site Boundary

Property Boundary

N

0 45 90 180 Feet

Note:
- Only data from samples taken below the top 1' are shown.
- Results are presented in mg/kg.
- Only compounds exceeding standards or guidance values are shown.
- J - Estimated at given value.

Date of Aerial: November 8, 2020

Figure 22

Honeywell

Tonawanda Coke Sites 109 and 110 Tonawanda, New York

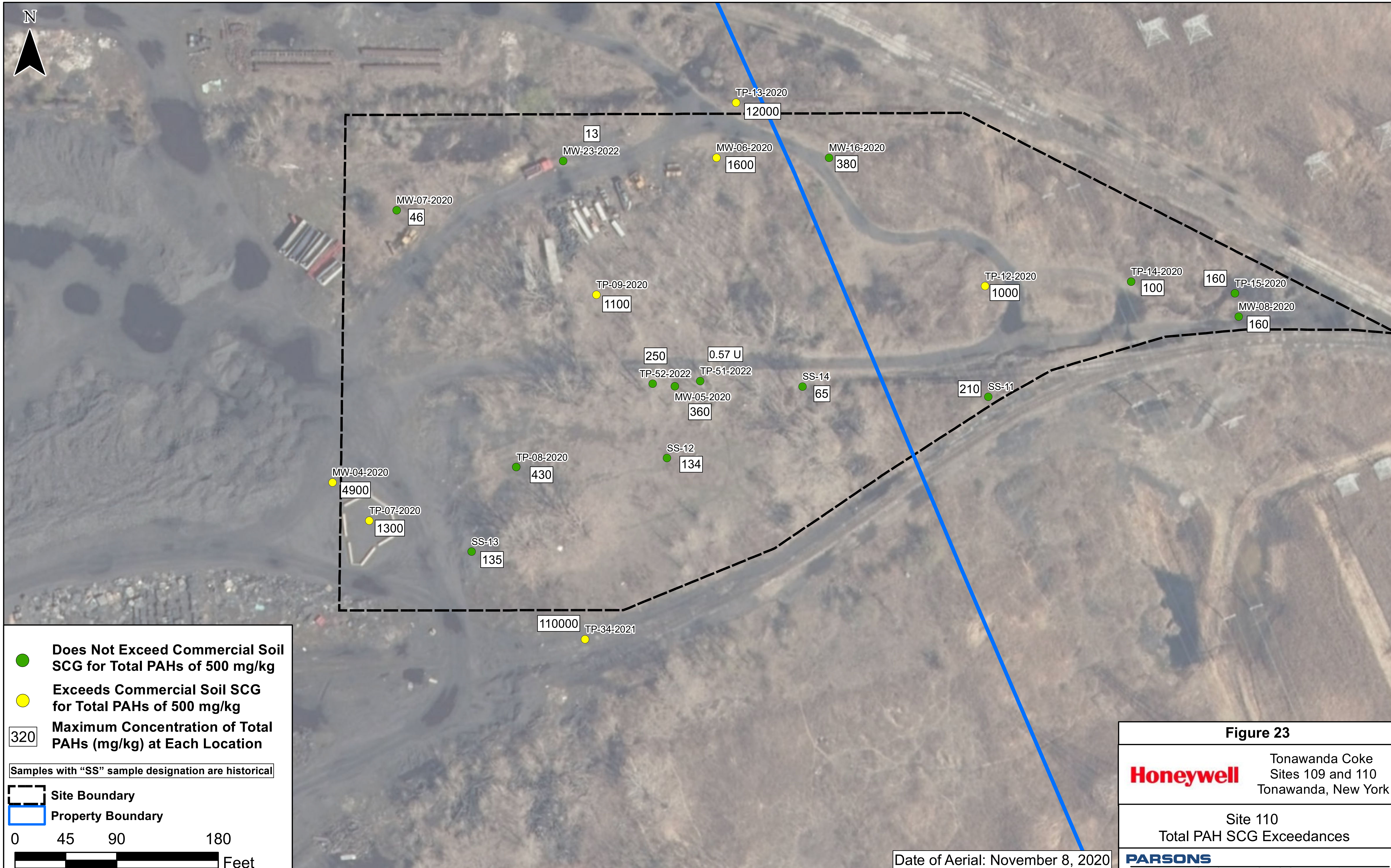
Site 110 Focused RI Subsurface Soil Sample Results (PAHs)

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 * 315-451-9560

Plotted By: J. Domanski

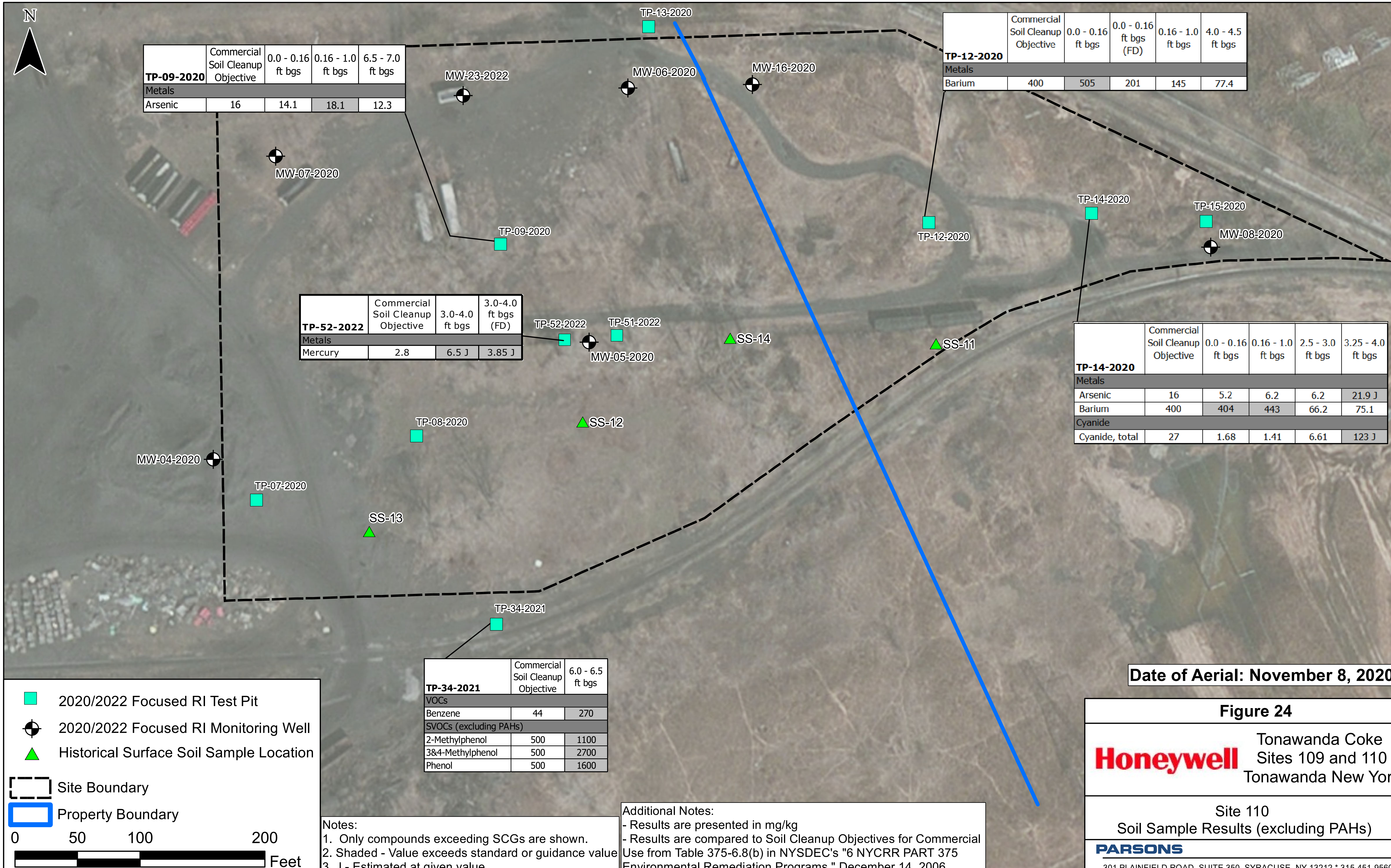
Plot Date: 10/24/2023

Document Path: \\nysyr04fs01\PrjData\GIS\Hon_Syracuse\Tonawanda Coke\MXDs\Site 109 and 110\Rev03 - RI\Tonawanda Site 110 RI Report Fig 22 Subsurface PAH_Rev3.mxd



Plot Date: 10/23/2023 Plotted By: CS

Document Path: \\nysyr04fs01\PrjData\GIS\Hon_Syracuse\Tonawanda Coke\MXDs\Site 109 and 110\Rev03 - RI\Tonawanda Site 110 RI Report Fig 23 PAH Exceedances_Rev3.mxd



TP-09-2020	Commercial Soil Cleanup Objective	0.0 - 0.16 ft bgs	0.16 - 1.0 ft bgs	6.5 - 7.0 ft bgs
Metals				
Arsenic	16	14.1	18.1	12.3

TP-12-2020	Commercial Soil Cleanup Objective	0.0 - 0.16 ft bgs	0.0 - 0.16 ft bgs (FD)	0.16 - 1.0 ft bgs	4.0 - 4.5 ft bgs
Metals					
Barium	400	505	201	145	77.4

TP-52-2022	Commercial Soil Cleanup Objective	3.0-4.0 ft bgs	3.0-4.0 ft bgs (FD)
Metals			
Mercury	2.8	6.5 J	3.85 J

TP-14-2020	Commercial Soil Cleanup Objective	0.0 - 0.16 ft bgs	0.16 - 1.0 ft bgs	2.5 - 3.0 ft bgs	3.25 - 4.0 ft bgs
Metals					
Arsenic	16	5.2	6.2	6.2	21.9 J
Barium	400	404	443	66.2	75.1
Cyanide					
Cyanide, total	27	1.68	1.41	6.61	123 J

TP-34-2021	Commercial Soil Cleanup Objective	6.0 - 6.5 ft bgs
VOCs		
Benzene	44	270
SVOCs (excluding PAHs)		
2-Methylphenol	500	1100
3&4-Methylphenol	500	2700
Phenol	500	1600

- 2020/2022 Focused RI Test Pit
- 2020/2022 Focused RI Monitoring Well
- Historical Surface Soil Sample Location
- Site Boundary
- Property Boundary

0 50 100 200 Feet

Notes:
1. Only compounds exceeding SCGs are shown.
2. Shaded - Value exceeds standard or guidance value
3. J - Estimated at given value

Additional Notes:
- Results are presented in mg/kg
- Results are compared to Soil Cleanup Objectives for Commercial Use from Table 375-6.8(b) in NYSDEC's "6 NYCRR PART 375 Environmental Remediation Programs," December 14, 2006.

Figure 24

Honeywell

Tonawanda Coke Sites 109 and 110 Tonawanda New York

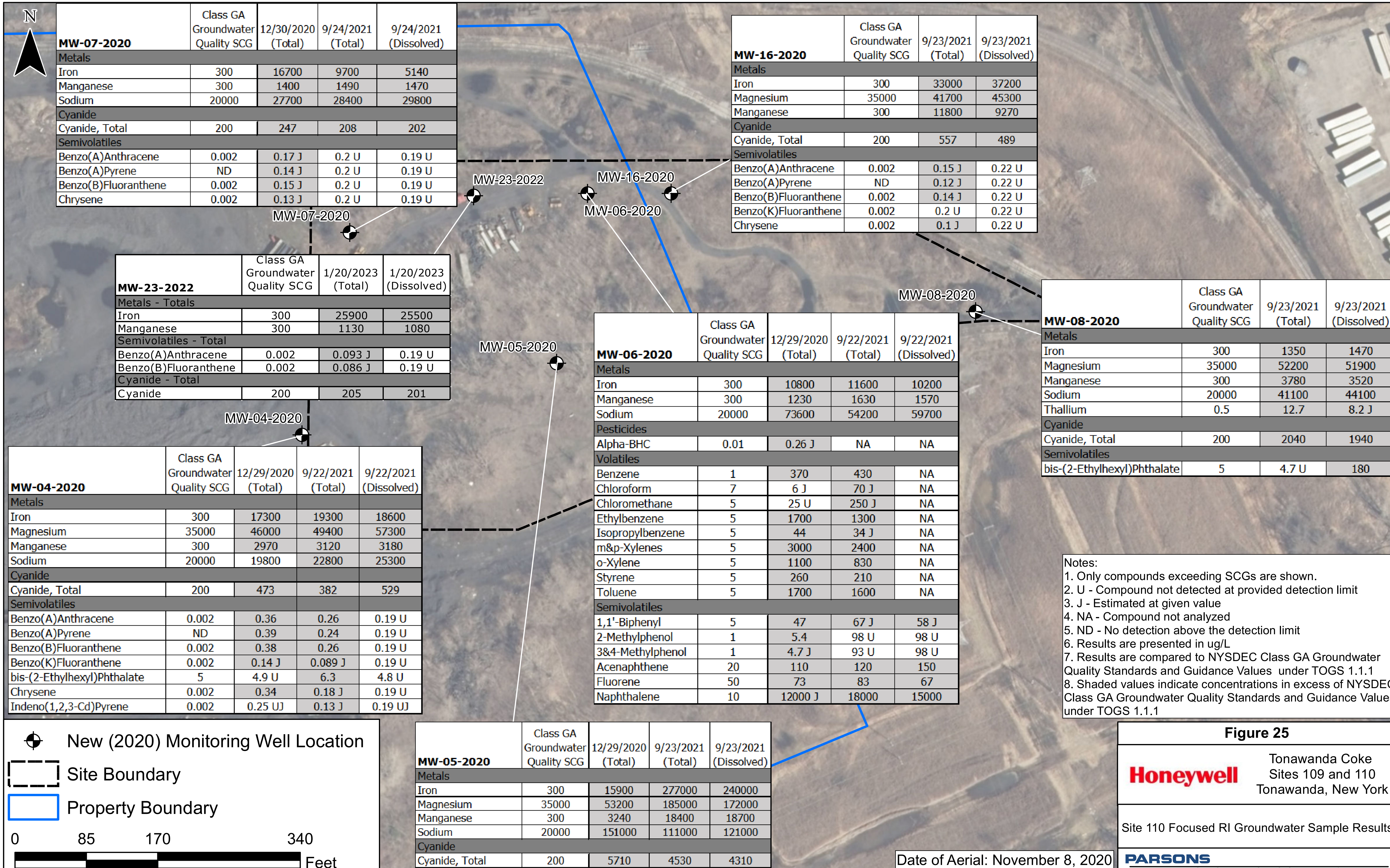
Site 110
Soil Sample Results (excluding PAHs)

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 * 315-451-9560

Plotted By: J. Domanski

Plot Date: 8/31/2023

Document Path: \\nysyr04fs01\PrjData\GIS\Hon_Syracuse\Tonawanda Coke\MXDs\Site 109 and 110\Rev03 - RI\Tonawanda Site 110 RI Report Fig 24 Soil Samples_Rev3.mxd



MW-07-2020	Class GA Groundwater Quality SCG	12/30/2020 (Total)	9/24/2021 (Total)	9/24/2021 (Dissolved)
Metals				
Iron	300	16700	9700	5140
Manganese	300	1400	1490	1470
Sodium	20000	27700	28400	29800
Cyanide				
Cyanide, Total	200	247	208	202
Semivolatiles				
Benzo(A)Anthracene	0.002	0.17 J	0.2 U	0.19 U
Benzo(A)Pyrene	ND	0.14 J	0.2 U	0.19 U
Benzo(B)Fluoranthene	0.002	0.15 J	0.2 U	0.19 U
Chrysene	0.002	0.13 J	0.2 U	0.19 U

MW-16-2020	Class GA Groundwater Quality SCG	9/23/2021 (Total)	9/23/2021 (Dissolved)
Metals			
Iron	300	33000	37200
Magnesium	35000	41700	45300
Manganese	300	11800	9270
Cyanide			
Cyanide, Total	200	557	489
Semivolatiles			
Benzo(A)Anthracene	0.002	0.15 J	0.22 U
Benzo(A)Pyrene	ND	0.12 J	0.22 U
Benzo(B)Fluoranthene	0.002	0.14 J	0.22 U
Benzo(K)Fluoranthene	0.002	0.2 U	0.22 U
Chrysene	0.002	0.1 J	0.22 U

MW-23-2022	Class GA Groundwater Quality SCG	1/20/2023 (Total)	1/20/2023 (Dissolved)
Metals - Totals			
Iron	300	25900	25500
Manganese	300	1130	1080
Semivolatiles - Total			
Benzo(A)Anthracene	0.002	0.093 J	0.19 U
Benzo(B)Fluoranthene	0.002	0.086 J	0.19 U
Cyanide - Total			
Cyanide	200	205	201

MW-08-2020	Class GA Groundwater Quality SCG	9/23/2021 (Total)	9/23/2021 (Dissolved)
Metals			
Iron	300	1350	1470
Magnesium	35000	52200	51900
Manganese	300	3780	3520
Sodium	20000	41100	44100
Thallium	0.5	12.7	8.2 J
Cyanide			
Cyanide, Total	200	2040	1940
Semivolatiles			
bis-(2-Ethylhexyl)Phthalate	5	4.7 U	180

MW-06-2020	Class GA Groundwater Quality SCG	12/29/2020 (Total)	9/22/2021 (Total)	9/22/2021 (Dissolved)
Metals				
Iron	300	10800	11600	10200
Manganese	300	1230	1630	1570
Sodium	20000	73600	54200	59700
Pesticides				
Alpha-BHC	0.01	0.26 J	NA	NA
Volatiles				
Benzene	1	370	430	NA
Chloroform	7	6 J	70 J	NA
Chloromethane	5	25 U	250 J	NA
Ethylbenzene	5	1700	1300	NA
Isopropylbenzene	5	44	34 J	NA
m&p-Xylenes	5	3000	2400	NA
o-Xylene	5	1100	830	NA
Styrene	5	260	210	NA
Toluene	5	1700	1600	NA
Semivolatiles				
1,1'-Biphenyl	5	47	67 J	58 J
2-Methylphenol	1	5.4	98 U	98 U
3&4-Methylphenol	1	4.7 J	93 U	98 U
Acenaphthene	20	110	120	150
Fluorene	50	73	83	67
Naphthalene	10	12000 J	18000	15000

MW-04-2020	Class GA Groundwater Quality SCG	12/29/2020 (Total)	9/22/2021 (Total)	9/22/2021 (Dissolved)
Metals				
Iron	300	17300	19300	18600
Magnesium	35000	46000	49400	57300
Manganese	300	2970	3120	3180
Sodium	20000	19800	22800	25300
Cyanide				
Cyanide, Total	200	473	382	529
Semivolatiles				
Benzo(A)Anthracene	0.002	0.36	0.26	0.19 U
Benzo(A)Pyrene	ND	0.39	0.24	0.19 U
Benzo(B)Fluoranthene	0.002	0.38	0.26	0.19 U
Benzo(K)Fluoranthene	0.002	0.14 J	0.089 J	0.19 U
bis-(2-Ethylhexyl)Phthalate	5	4.9 U	6.3	4.8 U
Chrysene	0.002	0.34	0.18 J	0.19 U
Indeno(1,2,3-Cd)Pyrene	0.002	0.25 UJ	0.13 J	0.19 UJ

MW-05-2020	Class GA Groundwater Quality SCG	12/29/2020 (Total)	9/23/2021 (Total)	9/23/2021 (Dissolved)
Metals				
Iron	300	15900	277000	240000
Magnesium	35000	53200	185000	172000
Manganese	300	3240	18400	18700
Sodium	20000	151000	111000	121000
Cyanide				
Cyanide, Total	200	5710	4530	4310

Notes:
1. Only compounds exceeding SCGs are shown.
2. U - Compound not detected at provided detection limit
3. J - Estimated at given value
4. NA - Compound not analyzed
5. ND - No detection above the detection limit
6. Results are presented in ug/L
7. Results are compared to NYSDEC Class GA Groundwater Quality Standards and Guidance Values under TOGS 1.1.1
8. Shaded values indicate concentrations in excess of NYSDEC Class GA Groundwater Quality Standards and Guidance Values under TOGS 1.1.1

New (2020) Monitoring Well Location
Site Boundary
Property Boundary

0 85 170 340 Feet

Date of Aerial: November 8, 2020

Figure 25

Honeywell

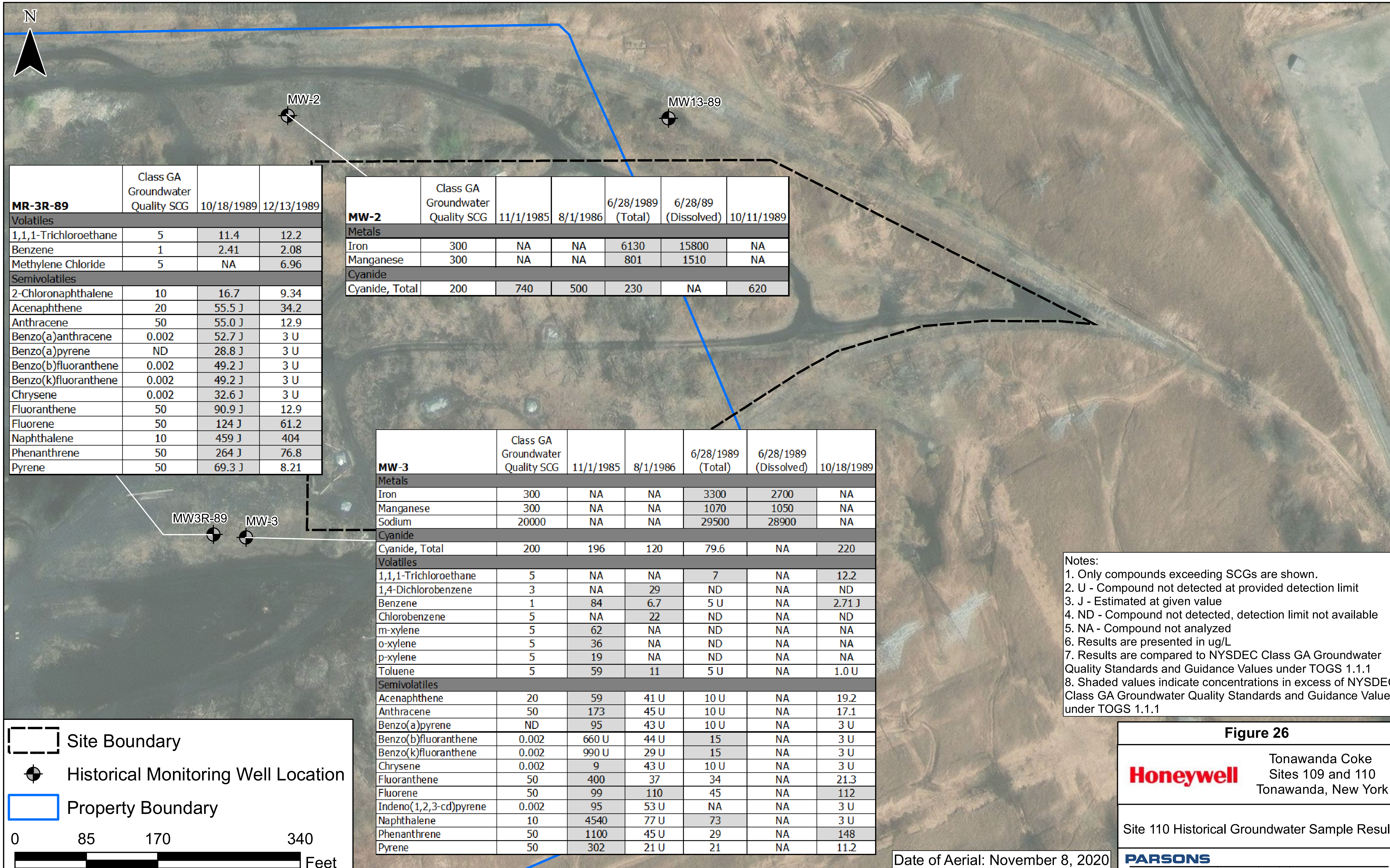
Tonawanda Coke
Sites 109 and 110
Tonawanda, New York

Site 110 Focused RI Groundwater Sample Results

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 * 315-451-9560

Plot Date: 8/31/2023 Plotted By: J. Domanski

Document Path: \\nysyr04fs01\PrjData\GIS\Hon_Syracuse\Tonawanda Coke\MXDs\Site 109 and 110\Rev03 - RI\Tonawanda Site 110 RI Report Fig 25 GW Samples_Rev3.mxd



MR-3R-89	Class GA Groundwater Quality SCG	10/18/1989	12/13/1989
Volatiles			
1,1,1-Trichloroethane	5	11.4	12.2
Benzene	1	2.41	2.08
Methylene Chloride	5	NA	6.96
Semivolatiles			
2-Chloronaphthalene	10	16.7	9.34
Acenaphthene	20	55.5 J	34.2
Anthracene	50	55.0 J	12.9
Benzo(a)anthracene	0.002	52.7 J	3 U
Benzo(a)pyrene	ND	28.8 J	3 U
Benzo(b)fluoranthene	0.002	49.2 J	3 U
Benzo(k)fluoranthene	0.002	49.2 J	3 U
Chrysene	0.002	32.6 J	3 U
Fluoranthene	50	90.9 J	12.9
Fluorene	50	124 J	61.2
Naphthalene	10	459 J	404
Phenanthrene	50	264 J	76.8
Pyrene	50	69.3 J	8.21

MW-2	Class GA Groundwater Quality SCG	11/1/1985	8/1/1986	6/28/1989 (Total)	6/28/89 (Dissolved)	10/11/1989
Metals						
Iron	300	NA	NA	6130	15800	NA
Manganese	300	NA	NA	801	1510	NA
Cyanide						
Cyanide, Total	200	740	500	230	NA	620

MW-3	Class GA Groundwater Quality SCG	11/1/1985	8/1/1986	6/28/1989 (Total)	6/28/1989 (Dissolved)	10/18/1989
Metals						
Iron	300	NA	NA	3300	2700	NA
Manganese	300	NA	NA	1070	1050	NA
Sodium	20000	NA	NA	29500	28900	NA
Cyanide						
Cyanide, Total	200	196	120	79.6	NA	220
Volatiles						
1,1,1-Trichloroethane	5	NA	NA	7	NA	12.2
1,4-Dichlorobenzene	3	NA	29	ND	NA	ND
Benzene	1	84	6.7	5 U	NA	2.71 J
Chlorobenzene	5	NA	22	ND	NA	ND
m-xylene	5	62	NA	ND	NA	NA
o-xylene	5	36	NA	ND	NA	NA
p-xylene	5	19	NA	ND	NA	NA
Toluene	5	59	11	5 U	NA	1.0 U
Semivolatiles						
Acenaphthene	20	59	41 U	10 U	NA	19.2
Anthracene	50	173	45 U	10 U	NA	17.1
Benzo(a)pyrene	ND	95	43 U	10 U	NA	3 U
Benzo(b)fluoranthene	0.002	660 U	44 U	15	NA	3 U
Benzo(k)fluoranthene	0.002	990 U	29 U	15	NA	3 U
Chrysene	0.002	9	43 U	10 U	NA	3 U
Fluoranthene	50	400	37	34	NA	21.3
Fluorene	50	99	110	45	NA	112
Indeno(1,2,3-cd)pyrene	0.002	95	53 U	NA	NA	3 U
Naphthalene	10	4540	77 U	73	NA	3 U
Phenanthrene	50	1100	45 U	29	NA	148
Pyrene	50	302	21 U	21	NA	11.2

Notes:
1. Only compounds exceeding SCGs are shown.
2. U - Compound not detected at provided detection limit
3. J - Estimated at given value
4. ND - Compound not detected, detection limit not available
5. NA - Compound not analyzed
6. Results are presented in ug/L
7. Results are compared to NYSDEC Class GA Groundwater Quality Standards and Guidance Values under TOGS 1.1.1
8. Shaded values indicate concentrations in excess of NYSDEC Class GA Groundwater Quality Standards and Guidance Values under TOGS 1.1.1

Figure 26

Honeywell

Tonawanda Coke
Sites 109 and 110
Tonawanda, New York

Site 110 Historical Groundwater Sample Results

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 * 315-451-9560

Plotted By: J. Domanski

Plot Date: 8/31/2023

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Primary Sources and Release Mechanisms		Secondary Sources	Exposure Media	Exposure Routes	Human Receptors - Current Use		Human Receptors - Future Use		
					Site Workers	Off-Site Workers	Site Workers	Office Employees	Off-Site Workers
On-Site Impacted Soil/Fill	Leaching	Groundwater	Groundwater	Incidental Ingestion	✓	✓[1]	✓	---	✓[1]
				Direct Contact	✓	✓[1]	✓	---	✓[1]
				Vapor Intrusion	---	---	---	✓[1]	---
	Volatilization / Fugitive Dust	Air	Air	Inhalation	✓[2]	---	✓[2]	✓[2]	---
	Erosion / Runoff via Drainage Ditch and Overland Runoff during Storm Events	On-Site Soil; On-Site Ditch Soil	Surface Soil (0-1 ft bgs)	Incidental Ingestion	✓	---	✓	---	---
				Direct Contact	✓	---	✓	---	---
			Subsurface Soil (>1 ft bgs)	Incidental Ingestion	✓	---	✓	---	---
				Direct Contact	✓	---	✓	---	---

✓ = Complete or potentially complete human health exposure pathway

--- = Exposure pathway not complete for the indicated receptor

Notes:

bgs - below ground surface

⟶ = Direct Pathway

Groundwater is not currently used at the site or at adjacent offsite areas due to extensive urban development and environmental easements, and is not anticipated to be used in the future. For these reasons, a drinking water pathway was not identified as a current or future exposure pathway.

1 Exposures for off-site workers applicable to Site 110 only

2 Potential exposures due to volatilization applicable to Site 110 only

Figure 27

Honeywell

Tonawanda Coke
Sites 109 and 110
Tonawanda, New York

Qualitative Human Health Exposure Assessment

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 * 315-451-9560