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SITE CHARACTERIZATION REPORT

Corning Study Area – Offsite OU5

NYSDEC Site No. 851046

March 2017

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New York State Department of
Environmental Conservation
Region 8
Avon, New York

Site Characterization Report

Corning Study Area – Offsite OU5
Corning, New York
Site # 851046

Work Assignment # D-007618-32

March 2017

I, Andrew Vitolins, certify that I am currently a Qualified Environmental Professional as defined in 6 NYCRR Part 375 and that this Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10) and that all activities were performed in full accordance with the DER approved work plan and any DER approved modifications.

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CONTENTS

FIGURES

TABLES

APPENDICES

ACRONYMS AND ABBREVIATIONS

ASP	Analytical Services Protocol
CAMP	Community Air Monitoring Plan
DUSR	Data Usability Summary Report
EMI	electromagnetic induction
FEMA	Federal Emergency Management Agency
Ft amsl	feet above mean sea level
Ft bgs	feet below ground surface
GPR	ground penetrating radar
GPS	global positioning system
HASP	Health and Safety Plan
IDW	investigative derived waste
In bgs	inches below ground surface
NYSDEC	New York State Department of Environmental Conservation
OU	Operable Unit
PCB	polychlorinated biphenyl
PID	Photoionization Detector
PVC	polyvinyl chloride
QA	Quality Assurance
QC	Quality Control
RCRA	Resource Conservation and Recovery Act
ROW	Right-of-way
SCO	soil cleanup objectives
SOP	standard operating procedure
SVOC	semi-volatile organic compound
TCLP	Toxicity characteristic leaching procedure
Target Fill	Includes; glass, ash, brick, slag, etc.
USGS	U.S. Geological Survey
VOC	volatile organic compound

EXECUTIVE SUMMARY

This report presents the findings of a Site Characterization conducted at the Corning Study Area Offsite Expansion (Expansion Area) Operable Unit 5 (OU5) associated with the New York State Department of Environmental Conservation [NYSDEC] site No. 851046. OU5 contains 108 residential tax parcels (parcels) north of East Pulteney Street and west of Pyrex Street in the City of Corning, New York. The Site Characterization included a geophysical survey of the OU5 site, excavation of test pits, drilling of soil borings, and collection and analysis of surface, subsurface, and garden soil samples to assess environmental conditions in OU5.

Samples were visually inspected to characterize the soil and assess the presence of target fill, which includes a number of by-products from the glass making process or demolition materials from glass furnaces, mainly consisting of ash, brick, glass, slag, and foundry sand. Soil boring locations were selected based on the presence of visible target fill, spatial representation, and utility and fill information from property owner interviews. Each soil sample selected for laboratory analysis was analyzed for TAL metals. If target fill was observed, soil samples were also analyzed for TCLP metals and TAL semi-volatile organic compounds (SVOCs).

Target fill, consisting of ash, brick, glass, and slag, was observed at 80 of the 108 properties in OU5. The target fill was thickest (up to 7 feet) in two areas of OU5: near the I-86 corridor at the north end of OU5 and to the southwest of the intersection of E. Pulteney Street and Pyrex St. The first area, along the northernmost portion of OU5, consists of parcels on High Street, Earl Street, and Clara Street to the south of the I-86 corridor. The second area consists of the parcels on Pyrex Street, South Place, Center Way, and East Pulteney Street. Layers of target fill were thickest around the East Pulteney and Pyrex Street intersection and tapered out heading south to properties on the south side of South Place.

Metals and SVOC concentrations exceeding 6NYCRR Part 375 residential use soil cleanup objectives (SCOs) were present in soil samples from the ground surface to the maximum soil boring depth of 16 feet below ground surface (bgs). However, most SCO exceedances were in soil collected from less than four feet bgs. The SCO exceedances are generally biased to soil samples collected from areas where more extensive target fill was observed, but were spread throughout OU5 at all sampled depth intervals.

Based on visual observations and laboratory results, human exposure to target fill and/or soil with concentrations greater than residential SCOs is possible during digging or excavation activities at most of the properties at OU5.

1 INTRODUCTION

On behalf of the New York State Department of Environmental Conservation (NYSDEC), Arcadis CE, Inc. (Arcadis) has prepared this Site Characterization Report (Report) to summarize investigation activities at the Corning Study Area (NYSDEC Site No. 851046) Offsite Expansion (Expansion Area) Operable Unit (OU) 5 (OU5). OU5 contains 108 residential properties located east of Center Way, north of East Pulteney Street and west of Pyrex Street in the City of Corning, Steuben County, New York (Figure 1). The Site Characterization was conducted under NYSDEC State Superfund Standby Contract Work Assignment No. D007618-32 in accordance with the approved Corning Study Area – Offsite OU5 Work Plan (Arcadis 2015). The objective of the Site Characterization was to evaluate and quantify the nature and extent of ash, brick, slag, and glass (target fill), metals, and semi-volatile organic compounds (SVOCs) in soil at OU5. Target fill includes a number of by-products from the glass making process or demolition materials from glass furnaces, mainly consisting of ash, brick, glass, slag, and foundry sand.

1.1 Study Area History

The City has a long history of manufacturing, particularly in brick and glassmaking. The most enduring glassmaking enterprise is Corning Incorporated (Corning), whose history dates back to 1868 when the Corning Flint Glass Works was established in Corning, New York (Weston 2014).

Based on title search of property deeds, the Study Area is located on a portion of lands previously owned by Corning Homes Inc. The deeds for these properties contained a condition that allowed Corning Glass Works to maintain structures, buildings, and “ash dumps as now located” [on the properties]. In 1937, Corning Homes, Inc. sold portions of the properties with the same conditional language included, which has never been extinguished (Weston 2014). Therefore, the original site No. 851046 Study Area was established as the boundary of the 1937 deed, which is bounded by Pyrex Street on the west, East Pulteney Street on the north, Post Creek on the east and the Chemung River on the southern border. The Study Area was expanded to include the area shown on Figure 1. The current property uses and zoning in the Study Area include residential and community services. The Study Area has been divided in to five OUs. OU1 through OU4 are to the south and east of Pyrex and East Pulteney. OU5 which is the focus of this Site Characterization Report is located to the north and west of OU1 through OU4 (Figure 1).

1.2 Site Description

The OU5 site is bounded by Interstate-86 to the north, Pyrex Street and I-86 to the east, Center Way (NYS Route 414) to the west, and the Guthrie Corning Medical Facility (130 Center Way) and East Pulteney Street to the south. OU5 includes 108 tax parcels and two berms located on the City of Corning Right of Way (ROW) along Center Way and on the NYS DOT ROW along Interstate 86. The boundaries of the OU5 site are shown on Figure 2.

1.2.1 Land Use and Ecology

Study Areas OU1 through OU4 consist of approximately 180 acres of land located on the eastern side of the City of Corning, New York along the northern bank of the Chemung River, northwest of the confluence with Post Creek shown on Figure 1. OU5 is approximately 30 acres in size and located to the northwest of OU1 through OU4. The properties within OU5 are zoned as low-density residential (R1). No industrial or commercial facilities are located within OU5. OU5 is a residential area that consists of 108 individual parcels. Of these parcels, 101 include single family residences, six include multi-family residences or apartments, one is a large garden, and one is vacant land. The ground surface within OU5 is composed of residential buildings, asphalt paved driveways and streets, concrete sidewalks, lawns, gardens, and vegetated areas. Two grass and vegetation covered berms are located along the northern and western boundaries of OU5.

The ecological setting of much of OU5 is composed of a terrestrial and ecological community created and maintained by residential activities and has been modified by human influence. The changes to OU5 were modified to such a degree that the physical conformation of the substrate and the biological composition of the residential community is substantially different from the character of the substrate or community as it existed prior to human influence. The ground cover is primarily mowed lawns with trees and other plants within many of the residential parcels in the Study Area (Weston 2014).

1.2.2 Topography and Drainage

OU5 is relatively flat with a slight downward gradient to the south toward the Chemung River. The Corning, New York 1976 U.S. Geological Service (USGS) 7.5-minute topographic quadrangle map indicates that OU5 generally ranges in elevation from 934 feet to 940 feet above mean sea level (ft amsl) although the berms on the northern and western edges of OU5 are higher in elevation.

Surface water within OU5 is collected in storm water drains and generally flows south or east toward the Chemung River. Surface water from the confluence of Post Creek and the Chemung River flows southward to where it ultimately joins the Susquehanna River. Due to the proximity of the Chemung River and Post Creek, a portion of OU5 at the eastern edge boundary (Figure 1), specifically, the flood control area, is located within both the Federal Emergency Management Agency (FEMA) 100-year and 500-year flood zones (FEMA, 2002).

1.2.3 Geology and Hydrogeology

OU5 is located in the Chemung River valley, and is predominately underlain by sand and gravel deposits of glaciofluvial origin, and more recent alluvial silts and fine sand deposits. In the vicinity of OU5, a low permeability, lacustrine silt and clay layer (approximately 10 feet thick) appears to be present about 30 feet below ground surface (ft bgs). The river valley deposits are on the order of 80-100 feet thick in the vicinity of the Study Area based on published information. These river valley deposits are underlain by low permeability shale/siltstone bedrock (Weston 2014).

1.3 Previous Investigations

Previous investigations have been conducted at the Corning-Painted Post High School, Study Area OU1, and at OU5. These investigations are summarized below.

1.3.1 Corning-Painted Post High School Investigation

The NYSDEC conducted sampling activities following the discovery of target fill during construction work at the high school in 2012 through 2014. The investigation results identified several contaminates at elevated levels. Approximately 22 percent of excavated soil contained characteristically hazardous levels of lead and/or cadmium as determined by the Toxicity Characteristic Leaching Procedure (TCLP). Excavated fill soils were described as containing ash, brick, glass, and debris. At the end of the 2014 construction season, removal and excavation of fill material was largely complete, and approximately 8,332 tons of soil had been disposed of as hazardous waste and 28,785 tons of soil had been disposed of as non-hazardous waste (NYSDEC May 2015).

The concentrations of several metals and PCBs exceed the Part 375 unrestricted use soil cleanup objectives (SCOs) in some of the excavated fill soils. Maximum concentrations of these contaminants are listed below.

Contaminants	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Silver	Selenium	Total PCBs
Concentrations (mg/kg)	550	13,000	100	58	20,000	2.6	4.3	30	0.87

Of the 214 samples analyzed for total RCRA 8 Metals, concentrations equaled or exceeded the residential use SCOs in 101 samples for arsenic, 17 samples for barium, 101 samples for cadmium, 1 sample for chromium, 77 samples for lead, and 15 samples for mercury.

Based on groundwater sampling conducted in September 2013, the water quality of the school's irrigation well, which is only used to water athletic fields as needed in dry weather, was not impacted by the fill. An adjacent public water supply well was sampled in June 2013. Contaminants were not detected at levels of concern either in this sampling event in previous routine sampling required of public water supplies. However, a more comprehensive evaluation of groundwater is being undertaken by Corning to ensure that impacts can be ruled out. The area is served by public water and no private potable water supplies are known in this area.

1.3.2 Study Area OU1-OU4 Investigation

Following the discovery of contaminated fill material during the Coring-Painted Post High School construction, Corning agreed to conduct an investigation in Study Area OU1-OU4 under a Consent Order with the NYSDEC. Study Area OU1 is a neighborhood adjacent to, and to the southeast of, OU5. The Study Area OU1-OU4 investigation included an initial records search followed by additional sampling of

soil and groundwater at the Corning-Painted Post High School property, related neighboring study areas, public rights-of-way, and some residential and other privately owned properties in the area where the fill was believed to be present. The investigation began in 2014 with sampling events conducted by Weston Solutions Inc. (Weston) on behalf of Corning through the end of 2015. Based on the Study Area OU1-OU4 investigation results, the primary contaminants of concern are metals including arsenic, barium, cadmium, lead, chromium, mercury, and select SVOCs. The characterization work in Study Area OU1 identified the presence of target fill at the boundaries of Study Area OU1 at East Pulteney Street and Pyrex Street near the intersection with Houghton Circle, shown in Figure 1.

1.3.3 NYSDEC Sampling

The investigation summarized in this subsection is from the May 2015 Site Characterization Preliminary Scope-of-Work (NYSDEC May 2015). In 2014, NYSDEC collected surface samples at 13 select properties in OU5 with the property owner's consent. Preliminary shallow evaluation work completed in 2014 by NYSDEC identified the presence of a layer of target fill with soil concentrations exceeding Part 375 Soil Cleanup Objectives for Protection of Public Health for Residential Use (Residential SCOs) at a residential property in OU5. One soil sample was collected on August 28, 2014 from a depth of approximately 12 to 24 inches below grade at a shallow soil evaluation location adjacent to the northwest portion of the house. Soils were evaluated to depth of approximately 24 inches bgs and a layer of fill containing ash, brick, and glass was noted from approximately 12 to 24 inches bgs. Arsenic, barium, and lead were detected at concentrations greater than Residential SCOs in samples collected from this layer.

Shallow soils were investigated at twelve additional residential properties in OU5. None of the preliminary shallow soil samples collected by NYSDEC from these properties contained metals at concentrations greater than the TCLP thresholds for hazardous waste. Although no layer of target fill was observed at these 12 properties, trace glass pieces and/or ash were identified within typically loamy soils at four of these properties. The analytical results of soil samples collected from three of these properties exceeded the Residential SCOs as described below.

- One soil sample was collected on August 28, 2014 from a depth of approximately 12 to 24 inches below grade at one of three shallow soil evaluation locations in the back yard. Soils were evaluated to depth of approximately 24 inches below grade and glass chunks of various size and color were noted among predominantly silty sand soil at each of the three locations. Arsenic, barium, cadmium, and lead were detected at levels greater than Residential SCOs.
- One soil sample was collected on September 15, 2014 from a depth of approximately 12 to 24 inches below grade at one of three shallow soil evaluation locations in the back yard. Soils were evaluated to depth of approximately 24 inches below grade and predominantly silty sand soils were noted at each of the three locations. The location where the soil sample was collected for laboratory analysis also contained ash and some small pieces of glass. No analytes were detected at concentrations greater than Residential SCOs.
- One soil sample was collected on September 15, 2014 from a depth of approximately 6 to 18 inches below grade at one shallow soil evaluation location in the front yard. Soils were evaluated to depth of

approximately 18 inches below grade and predominantly silty sand soils with ash were noted in the interval that was sampled. Arsenic was detected at a concentration greater than the Residential SCO.

- Two soil samples were collected on December 17, 2014 from a depth of approximately 12 inches below grade at two shallow soil evaluation locations in the back yard; one in a vegetable garden and one in the lawn area. Both locations were evaluated to a depth of approximately 12 inches below the ground surface and pieces of glass were noted in soil from depths of approximately 6 to 12 inches. Arsenic, cadmium, and mercury were detected at concentrations greater than Residential SCOs in the sample from the garden. No analytes were detected at concentrations greater than Residential SCOs in the sample from the yard.

Shallow soil evaluation activities at the remaining eight residential properties did not identify the presence of target fill. Soil samples were generally not collected for laboratory analysis from these properties, with the exception of one soil sample collected from a large vegetable garden at a depth of approximately 12 inches below grade. No metals were detected at concentrations greater than Residential SCOs in this garden soil sample (NYSDEC May 2015).

During the investigation described above, NYSDEC was notified of the presence of glass in soil by the owners of 14 additional residential properties in OU5, which prompted the Site Characterization activities described herein.

2 SITE CHARACTERIZATION

The Site Characterization activities at the OU5 site have been conducted within the City of Corning (City) right-of-ways, NYS DOT I-86 right-of-ways, and on residential properties where individual owners have provided written consent granting access. The parcels where owners have granted access to date, the right-of-way borings, and test pit excavations are shown on Figure 4. A total of 108 residential parcels are located within OU5. Property owners granted access to 104 parcels by providing written permission for the investigation activities.

At times, minor adjustments were made to the sampling procedures based on circumstances encountered at specific properties or specific sampling locations. Some field adjustments or the addition of sampling locations that did not affect the project objectives were discussed verbally with the NYSDEC and confirmed by subsequent email and/or documented in the field notes. Deviations from the work plan are detailed in Section 2.6.

The sampling and excavation locations were recorded using a global positioning system (GPS) device with sub-meter accuracy. A Community Air Monitoring Plan (CAMP) was implemented during ground intrusive activities to provide a measure of protection for the downwind community and residents from potential airborne particulate or contaminant releases.

2.1 Preliminary Activities

Prior to the start of field activities, a list of local, State, and Federal elected officials, media outlets, property owners, tenant names, and addresses for properties within OU5 was prepared. A NYSDEC fact sheet was sent to the contact list. A letter to property owners, which accompanied the fact sheet, requested access to the property, asked permission to collect soil samples, and asked if the resident/owner had knowledge of ash, brick, or glass fill on their property. Arcadis compiled and summarized the responses from the residents/owners on behalf of NYSDEC and prepared the Corning Study Area – Offsite OU5 Work Plan (Arcadis 2015).

Arcadis or its subcontractors applied for and received the necessary permits for conducting the subsurface investigation work on public property. Authorization granting access and permits were obtained from the City of Corning and NYS DOT, as applicable, for the work performed in public right-of-ways (ROWs).

Prior to mobilization, available and relevant historical documents including the Work Plan and addenda for the Study Area investigation, and utility maps were reviewed. The Site Characterization field activities were conducted in accordance with a site-specific Health and Safety Plan (HASP) and Community Air Monitoring Plan (CAMP).

2.2 Geophysical Survey

A geophysical survey of each parcel or area near proposed ROW borings or test pits was conducted by Diversified Geophysics, Inc. prior to initiating intrusive activities. Electromagnetic induction (EMI) and ground penetrating radar (GPR) methods were used to locate sub-surface anomalies and subsurface

utilities in the proposed excavation and drilling areas. Electric, gas, sewer, water, and cable utilities were identified at each private residence, as well as utilities near ROW borings and test pits. Dig Safe New York was notified with sufficient lead time before subsurface work was conducted in ROW and individual parcels. Many residential homes had above ground electric, telephone, and cable lines which were noted when present. The location of the identified buried utility lines were marked in the field with color corresponding paint markings and on an aerial photograph for each parcel. Diversified Geophysics, Inc. provided their data and a letter report with photographs and interpretations of observed anomalies and detected utilities.

A utility clearance policy was developed to minimize the risk for a utility strike during excavation or boring activities. The geophysical survey reports were reviewed prior to advancing soil borings or excavating test pits. In addition, Arcadis field staff completed a visual inspection and considered potential hazards before selecting soil boring locations. This policy required three reliable lines of evidence that underground utilities were not present prior to ground intrusive work. The lines of evidence used included a call to Dig Safe NY for a public utility mark out, a geophysical survey, homeowner interviews, hand clearing, and existing utility maps. Due to the higher risk of utilities present in the City ROW, it was decided that borings in the ROW would require clearing with a hand auger to a depth of five feet below grade before borings could be advanced.

2.3 Soil Sampling Activities

Prior to initiating soil boring and sampling activities at each parcel, CAMP equipment was setup by the drilling or excavation subcontractor. A particulate meter and photoionization detector (PID) were used to monitor and record particulate material (PM10) and airborne VOC concentrations. CAMP measurements were recorded at fifteen (15) minute intervals from both downwind and upwind locations. Background ambient readings were recorded prior to ground intrusive work being conducted for a baseline comparison.

Soil samples were collected from test pits, borings, surface soil, and gardens. The soil borings were advanced, test pits were excavated, and soil samples were collected to delineate target fill and soil with concentrations of metals and SVOCs at concentrations greater than Residential SCOs. Soils were classified through visual observations of general color, grain size, consistency, and moisture content. Each sample was screened with a PID to evaluate the presence of VOCs. Test pit information was included on a log, which included location, a test pit ID, soil descriptions and a hand drawn cross section including soil types, fill layers, and sample locations. Information recorded on soil boring and sampling logs included location, a boring ID, soil descriptions, depth of fill, composition of fill, and sample locations.

Non-disposal sample collection equipment was decontaminated between the collection of each sample and the advancement of each boring. The excavator bucket, Macro-Core®, and tooling was scrubbed with a phosphate-free detergent and rinsed after each test pit or boring location. Sampling tools and hardware (shovel, steel spoon, steel paint scraper) were decontaminated between processing and collecting samples from each location. The process of containerizing and storing the decontamination fluids is detailed in Section 2.5.

2.3.1 Test Pit Excavation

The test pits where excavated in accordance with work plan and any deviations from the work plan are noted in section 2.7 of the Report. Seven test pits were excavated on City of Corning ROW property,

either in the roadway or in treed lawns in the city right of way. Test pit locations are shown on Figure 4. Test pits were excavated to an approximate depth of eight feet below grade to provide a comprehensive vertical and horizontal visual detail of subsurface formations and presence of target fill. During the excavations, soil removed from the test pits was placed on poly sheeting and was screened for VOCs with a PID. Soil was sampled directly from the excavator bucket with a stainless-steel spoon, visually inspected for indications of target fill or other buried debris, and containerized in laboratory provided sampling glassware. The test pit excavations were photo-documented and physical descriptions of subsurface conditions were recorded on field log sheets. These logs are provided in Appendix A.

Several soil samples from each of the seven test pits were collected from varying depths and locations depending on the presence and location of target fill. Samples not containing target fill were analyzed for TAL metals by USEPA Methods 6010C and 7471B. Samples containing target fill or collected from soil directly below target fill were analysed for the TAL metals, TCLP metals by USEPA Methods 6010C and 7470A, and TAL SVOCs by USEPA Method 8270D.

Native soils not exhibiting evidence of target fill were staged on polyethylene sheeting adjacent to each test pit. Excavated soils showing evidence of target fill were loaded directly into a polyethylene (poly) plastic-lined trailer. The material was then transported to an approved waste storage area on City of Corning owned property to be loaded into a poly plastic lined roll off dumpster. Excavated soil without target fill was used to backfill the test pits. If needed, washed No. 2 stone was used to bring the test pits to existing grade. Final restoration of the test pits is described in Section 2.6.

2.3.2 Soil Borings

Residential parcel and City ROW soil borings were advanced using direct-push drilling methods with a track mounted Geoprobe® rig. The target termination depth for the soil borings was either eight feet or sixteen feet bgs. The first two borings advanced at each parcel were terminated at a depth of sixteen feet bgs and additional borings were typically terminated at a depth of eight feet bgs. Soil boring locations are shown on Figure 4.

Four-foot long soil cores were collected continuously from ground surface to the target depth of each boring with a Macro-Core® sampler. Upon retrieval, the acetate liner inside the Macro-Core® was cut open and staged for processing. The soil cores were visually inspected for target fill at the terminating depth, if target fill was observed an additional four-foot interval was advanced at that location. The soil was screened using a PID, visually inspected for indications of target fill and buried debris, photographed, and logged. Soil boring logs are presented in Appendix A. Subsurface information obtained from soil borings is provided in Table 1 and the analytical data is provided in Appendix B.

For ROW soil borings not impacted by target fill, samples were collected from zero to two feet below ground surface and at the one or two foot lower limit of the boring interval. For ROW soil borings that were impacted by target fill, soil samples were collected from above the target fill, within the layer of target fill (every five feet), and in the first interval below the target fill.

For residential parcel soil borings not impacted by target fill, samples were collected from zero to two feet bgs, two to four feet bgs and from one to two foot interval above the boring termination depth. For residential parcel soil borings where target fill was encountered, soil samples were collected from the soil

above the target fill, within the layer of target fill (every two feet), and in the first interval below the target fill.

Samples collected in a visually clean boring, or from a layer of soil above target fill, were analyzed only for TAL Metals. Soil samples collected within the target fill layer, or just below the target fill layer, were analyzed for TAL Metals, TCLP Metals, and TAL SVOCs.

Target fill material removed from soil borings was considered investigation-derived waste (IDW) and containerized in UN-approved 55-gallon drums and stored at a temporarily approved location (City Department of Public Works yard) until sampled for disposal. Further detail on the management of IDW is provided in Section 2.5.

2.3.2.1 Right-of-Way Soil Borings

Fourteen borings were advanced in the City of Corning ROW to provide an initial indication of the extent of target fill across OU5. These borings were advanced in front of residential parcels where owners initially did not provide the NYSDEC access to their property. The ROW borings were typically located a few feet from the edge of the roadway and drilled to a depth of 16 feet below grade (Figure 4).

Additionally, ten borings were advanced along the berm that parallels Center Way on the west side of OU5. The borings were spaced between the I-86 eastbound onramp at the northern end, to the Guthrie Corning Medical Facility located at the southern end of the berm. Borings were placed along the top of the berm to evaluate if the observed target fill in adjacent parcels extends into the berm.

Eleven borings were also advanced on top of or along the toe of the berm that borders the northern edge of OU5 between the residential neighborhood and Interstate 86. These berm borings were located between Center Way at the western end and East Pulteney Street on the eastern end. A portion of the berm was not safely accessible by the Geoprobe® rig, due to the steep slope or the number of large growth trees blocking the desired path. The on-site NYSDEC representative and the NYSDEC project manager agreed that the drilling rig could not safely ascend the berm, and that the proposed borings would not be drilled at this time. Due to the restrictive physical conditions of steep slopes and large trees blocking access, some borings were installed on the berm when conditions were favorable, while other borings were installed at the toe of the berm. The borings advanced on the berm followed the same procedure used on other ROW borings and followed the same methodology for collecting and processing subsurface samples.

2.3.2.2 Residential Soil Borings

Two to six soil borings were advanced at each of 104 residential parcels using direct-push drilling methods (Figure 4). At each boring, continuous soil samples were collected in four-foot intervals from ground surface to the final depth. Soil samples for laboratory analysis were selected using the methodology described in Section 2.3.2.

Soil boring locations were based on available data from previous borings, observations of target fill, location of utilities, and physical access for the drilling rig. Typically one boring was advanced in the front yard and a second boring was advanced in the back yard of each parcel. The first boring advanced in the front yard and the back yard at each parcel were terminated at a depth of sixteen feet. In consultation with NYSDEC, additional borings were advanced to further delineate the extent of target fill. Soil boring

locations were biased towards areas where homeowners provided any additional information regarding where target fill was historically observed. The drilling of additional borings was authorized by the on-site NYSDEC field representative. The decision was made taking into account the size of the parcel, if target fill was observed, and adjacent borings or target fill on neighbouring parcels. If target fill was observed in a boring, additional borings were advanced to horizontally delineate the extent of the target fill. These delineation borings were typically advanced to a depth of eight feet bgs unless there was evidence of target fill at or below eight feet bgs. If target fill was not observed in delineation borings, one sample was collected from the interval of zero to two feet bgs. When target fill was observed in the delineation borings, samples were collected from the target soil in two foot intervals for the complete set of analysis.

After the sampling was complete at each boring, cuttings not exhibiting evidence of a layer of target fill were backfilled into the hole in the same order they were removed. Target fill material removed from soil borings was containerized in UN-approved 55-gallon drums and characterized for subsequent disposal at a permitted landfill. Investigation-derived waste was temporarily stored at an approved location (City Department of Public Works yard). The ground surface at each boring location was restored with top soil and grass seed.

2.3.3 Surface and Garden Samples

Up to four surface soil samples were collected from just below sod or mulch at each residential parcel (Figure 4). The approximate depth of the surface samples was two to four inches below ground surface. Locations of the surface samples collected from each parcel were selected based on areas of potential for human exposure to target fill, spatial distribution within the individual parcel, any worn areas of grass where significant soil was exposed, and after review of sample locations from adjacent parcels.

Samples were collected using a shovel to cut and remove the sod and a stainless steel spoon to scrape and retrieve the soil for collection. Surface samples observed to contain target fill were analyzed for TAL metals, TCLP metals, and TAL SVOCs while samples not observed to contain target fill were analyzed for TAL metals.

Surface soil samples were also collected from vegetable gardens and near edible plants, where present. However, soil from flower beds, raised bed gardens, and potted plant gardens were not sampled. Garden samples were collected using a two foot long Macro-Core® sampler hammered by hand to a depth of twelve inches and composited as follows:

- One composite sample was sent for laboratory analysis for a garden size of fifty square feet or less.
- Two composite samples were collected for an area of fifty to five hundred square feet.
- Three composite samples were collected for an area of five hundred to two thousand square feet.

Each composite sample was made up of five to seven evenly spaced Macro-Core® collection points. In accordance with the work plan, due to the size a large garden located on Clara Street was split into eight equally measured sections. One composite sample from each section was collected and submitted for laboratory analysis. Garden soil samples were analyzed for TAL metals when no target fill was observed. Samples were analyzed for TAL Metals, TCLP Metals, and TAL SVOCs when target fill was observed. Analytical data is provided in Appendix B. Surface and garden samples were described, characterized, photographed, and logged following the same procedure described in Section 2.3.2 for soil borings.

2.4 GPS Survey and Mapping

Locations of test pits, residential borings, ROW borings, surface samples, and garden samples were recorded using a global positioning system (GPS) device with sub-meter accuracy following the completion of each boring or sampling location. The GPS data collected was used for the preparation of site maps showing the sample locations on each parcel. The location of each sample or soil boring was also handwritten on aerial maps at the time of sample collection.

2.5 Investigation-Derived Waste (IDW)

Target fill (ash, brick, glass, and slag) and soils mixed with target fill observed in soil borings or surface samples were temporarily containerized on-site in sealed five gallon buckets. Decontamination rinse water was containerized in separate sealed five gallon buckets. The five gallon buckets were routinely emptied into UN-approved fifty-five gallon drums for storage while awaiting off-site disposal. During the excavation of test pits, observed target fill was loaded into a lined trailer and transported to roll-off dumpsters for storage until picked up for off-site disposal. The full roll-off dumpsters and 55-gallon drums were temporarily stored at a City of Corning Department of Public Works yard.

IDW samples were collected for waste characterization purposes. The IDW was profiled as non-hazardous and was disposed of in accordance with federal, state, and local regulations. The roll-off dumpsters were transported off-site on September 25, 2015 and the drums were transported off-site on December 23, 2015. Waste disposal manifests are provided in Appendix C.

2.6 Restoration Following Investigation

Following the completion of sample collection at each of the test pits, the excavation contractor backfilled the test pits with excavated soil visually free of target fill and washed No. 2 stone as needed. The test pits were backfilled and compacted in lifts. Following backfilling activities, the test pits in city streets were leveled with stone awaiting asphalt replacement. The City of Corning finished the street restoration by replacing the asphalt. The test pits excavated in grass areas were brought to surface with soil, graded, and completed with grass seed.

After the boring samples were completed, removed soils not exhibiting evidence of a layer of target fill was backfilled into the borehole and compacted using a metal rod. If needed, the boring was brought to grade with hydrated bentonite chips. The ground surface at each boring location was restored to match the original surface condition, which typically involved the application of top soil and grass seed. Surface sample locations were restored by replacing the sampled soil with clean top soil and repositioning the removed sod or mulch. Garden sample locations were restored with clean native soil or top soil.

2.7 Work Plan Deviations

Occasionally, the sampling methodologies were adjusted in the field based upon a variety of factors, including field conditions and access limitations. The on-site NYSDEC representative and NYSDEC project management team were notified and involved in the decision making process with regards to the changes or deviations from the approved Work Plan. NYSDEC approval was obtained prior to implementation of these changes from the approved Work Plan.

When necessary, soil borings were terminated at depths shallower than sixteen feet bgs due to Geoprobe® refusal. When refusal was encountered before the target depth, the drilling operator advanced another boring off-set a few feet from the original location in an attempt to reach the desired depth of sixteen feet. In some situations, an off-set boring was not advanced per review of refusal depth, or lack of target fill in adjacent borings, and information from nearby borings previously completed. Changes in final soil boring depth and the location and depth of additional borings were noted in the boring logs and field note books.

During the investigation, the drilling contractor lost several Macro-Core® samplers, acetate liners, and tooling where sub-surface conditions prevented complete recovery of the sampler. These items were abandoned in place. This occurred in rocky soil formations often at depths between twelve and sixteen feet bgs. Due to the loss of drilling hardware, a change in drilling protocol was approved by the NYSDEC project manager. Where sub-surface conditions made it difficult to advance borings beyond twelve feet bgs in visually clean soils, the boring was terminated at twelve feet bgs as a precaution.

In a few situations, more than the planned two to six borings were advanced on a single parcel. As requested by NYSDEC, additional delineation borings were used to define the extent of target fill layers observed at the parcel or neighboring parcels. These additional borings were advanced to fill in data gaps, delineate target fill, or provide additional information near the boundary of a parcel where access was not granted.

Soil borings along Center Way berm and Interstate 86 berm were added to the scope of the Site Characterization to further delineate the extent of target fill.

3 DATA VALIDATION

In accordance with the Work Plan, laboratory analytical data produced during the Site Characterization was validated by a third-party data validator in accordance with DER-10 Appendix 2B Data Usability Summary Report requirements. Quality assurance/quality control (QA/QC) samples (duplicate, matrix spike, matrix spike duplicate, and field blank samples) were collected to support the data validation activities. Groups of samples were split up into numbered sample delivery groups (SDG-1, SDG-2, etc.). A matrix spike/matrix spike duplicate (MS/MSD), duplicate soil sample, and a field blank were analyzed in each sample delivery group. The field blank was collected from running distilled water over the decontaminated sampling tools or equipment.

The Data Usability Summary Reports (DUSRs) are included in Appendix D. Sample processing was conducted in compliance with the analytical protocol requirements and quality criteria. In general, the laboratory reported results were usable as reported or with minor qualification with a few exceptions as discussed in the DUSRs.

4 NATURE AND EXTENT OF CONTAMINANTS

4.1 Field & Subsurface Observations

OU5 is comprised of privately owned lots with residential buildings, grass lawns and gardens. Additionally, asphalt paved roads, driveways, and concrete sidewalks traverse OU5. Landscaped earthen berms, covered with grass, trees, and shrubs line the northern and western boundaries of OU5. OU5, except for the berms, is generally flat with a slight slope toward the Chemung River to the south.

As shown in the soil boring logs in Appendix A, overburden materials observed during the Site Characterization were generally composed of sandy silt and silty sand overlying sand and gravel river/flood plain deposits. Few clay and silt stratum were observed above the sand and gravel. Target fill was identified in many of the borings directly below the sandy silt and above the sand and gravel. Bedrock was not encountered during the Site Characterization. Six cross sections have been prepared to illustrate the subsurface conditions and extent of target fill at OU5. Cross sections are provided in Appendix E.

4.2 Target Fill Observations

The composition of target fill observed at each parcel varied slightly. However, the most commonly observed materials in the target fill were glass fragments of various color, ash, slag pieces of varying size, and brick fragments. Other items observed in the target fill included ceramics, metal fragments, plastic fragments, and wooden lumber. Target fill was often observed in layers of different materials.

Six cross sections were prepared to aid in assessing the vertical and horizontal extent of target fill across OU5. The cross-sections and overview map are included in Appendix E. Areas of target fill are shown on Figure 5. There were 50 parcels observed to contain layers of target fill greater than one inch, while there were 30 additional parcels with trace amounts of target fill observed. Target fill was not observed at 24 parcels. Property owners of four parcels did not provide access for investigation activities.

There were two areas where layers of target fill up to 7 feet thick were observed. The first area, containing 20 parcels, is bounded by Pyrex Street, South Place, Center Way, and East Pulteney Street. Layers were thickest around the East Pulteney and Pyrex Street intersection and tapered out to the south toward the Guthrie Medical Center. Target fill was observed at all twenty parcels. All but one of these parcels had target fill layers greater than one inch. The second area is located at the north end of OU5 adjacent to the I-86 corridor between Center Way and James Street. Layers of target fill were observed to be the thickest and most prevalent in the four to six parcels closest to the I-86 corridor. Target fill layers greater than one inch thick were observed at approximately half of the parcels between Center Way and James Street. Target fill was sporadically observed at the remaining parcels in OU5 outside of the two areas described above.

4.3 Analytical Results

Analytical laboratory data packages for samples collected during the Site Characterization are provided in Appendix F. Laboratory analytical results are summarized in Tables 3 through 6. These tables show exceedances of specific contaminants categorized by location, parcel IDs, depth bgs, and analyte. A summary of the number of samples with concentrations exceeding the respective Residential SCOs and TCLP regulatory standards is also provided in these tables.

Concentrations exceeding Residential SCOs for metals and SVOCs and the TCLP regulatory values are noted by location and sample depth interval in Table 3. Residential SCO and TCLP exceedances were listed in relation to individual parcels and property addresses. Borings where layers of fill or trace amounts of target fill were observed are presented by color in Table 4. As shown in Table 4, metals and/or SVOC concentrations exceeding Residential SCOs were detected in soil samples from 56 of the 80 parcels where any amount of target fill was observed and from 7 of 24 parcels where target fill was not observed. Most of these seven parcels bordered a property with observed trace fill or target fill.

As discussed above in section 4.2 the two main areas of observed fill also had a higher concentration of parcels with at least one Residential SCO exceedance. The parcels bounded by East Pulteney street and North Place had the largest number of parcels with exceedances from the 0-2' bgs, 2-4'bgs, and the greater than 4' bgs sample intervals. The second area in the northwest section of OU5 adjacent to the I-86 corridor had a large number of parcels with exceedances from the 2-4' bgs sample interval with sporadic Residential SCO exceedances throughout the remaining intervals and OU5 site.

The number of properties with SVOC and metal results that were greater than Residential SCOs or TCLP regulatory values by depth interval and analyte are summarized in Table 5. The number of properties and samples where SVOCs and metals concentrations exceeded Residential SCOs and TCLP regulatory values are summarized in Table 6. SVOCs that most frequently exceeded Residential SCOs were benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-c,d)pyrene. Metals that most frequently exceeded Residential SCOs were arsenic, barium, cadmium, chromium, lead, and mercury.

Horizontal and vertical distribution of metals and/or SVOC concentrations exceeding Residential SCOs are presented on Figures 6 through 9. The figures show a consistent grouping of properties with exceedances across the different sample depth intervals. A majority of soil samples with concentrations greater than Residential SCOs are from ground surface to four feet bgs. There are 35 parcels and 2 ROW locations where surface soil and garden soil sample concentrations exceed Residential SCOs (Figure 6). The 0-2' bgs sample interval (35 parcels and 7 ROW locations) and the 2-4' bgs sample interval (33 parcels and 8 ROW locations) had a similar number of parcels with at least one sample exceeding Residential SCOs (Figures 7 and 8). The greater than 4' bgs sample interval (28 parcels and 7 ROW locations) had the least number of parcels with a Residential SCO exceedance (Figure 9). There were only four parcels that has at least one Residential SCO exceedance in all four depth intervals.

Soil samples with metals concentrations exceeding corresponding TCLP regulatory values were collected from only 11 parcels (Table 4). Seven of these parcels are located in the northern part of the site adjacent to the I-86 corridor. As shown on Table 5 the 2-4' bgs depth interval has the most TCLP exceedances. Metals that most frequently exceeded TCLP regulations were cadmium and lead (Table 6).

The analytical data for samples collected from the Center Way borings, City of Corning ROW borings and test pits, and State ROW I-86 borings are provided in Appendices I and J. In general, the analytical data and observations of target fill for the ROW test pits (ROW-T1 through T7) and the ROW borings along Center Way (CEN-B2 through B13), I86 corridor (I86-B1 through B3 and I86-B13) and within the residential area (ROW-B1 through B14) are consistent with results from the adjacent parcels in those areas.

5 CONCLUSIONS

Layers of glass, ash, slag, and brick fill were observed in varying thicknesses throughout most of OU5. Two main areas of OU5, described in Section 4.2 as the parcels located to the southwest of the East Pulteney Street and Pyrex Street intersection and the parcels along the I-86 corridor at the north end of OU5, contained the thickest layers of the target fill. Exceedances of Residential SCOs for SVOCs and several heavy metals were detected in soil sampled from the ground surface to depths up to sixteen feet bgs. The highest concentrations of SVOCs and metals coincided with the areas of extensive fill. Assessment of visual observations and laboratory results suggests that human exposure to target fill and/or soil with concentrations greater than residential SCOs is possible during digging or excavation activities at most of the properties in OU5.

6 REFERENCES

ARCADIS 2015. Site Characterization Work Plan, Corning, New York.

FEMA 2002. Federal Emergency Management Agency, Firm Flood Insurance Rate Map, City of Corning, New York. 2002.

NYSDEC 2010. Draft DER-10 Technical Guidance for Site Investigation and Remediation. May 2010.

NYSDEC 2015 Preliminary Scope-of-Work Site Characterization Study Area 851045 OU5. Corning NY. May 2015.

NYSDEC 2015. Study Area – NYSDEC/NYSDOH Questions and Answers Fact Sheet, Corning NY. March 2015.

NYSDEC 2015. Work Assignment Approval Letter No. D007618-32. Corning NY. August 2015.

Weston 2014. Study Area Characterization Work Plan, Corning NY.

FIGURES

0 200 400 800 1,200 1,600 Feet

Legend

- Study Area - Operable Units 1 through 4
- Operable Unit 5 Expansion Area - Approximate Boundary

N

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
CORNING SITE #851046
OPERABLE UNIT 5 - EXPANSION AREA

SITE CHARACTERIZATION

SITE LOCATION

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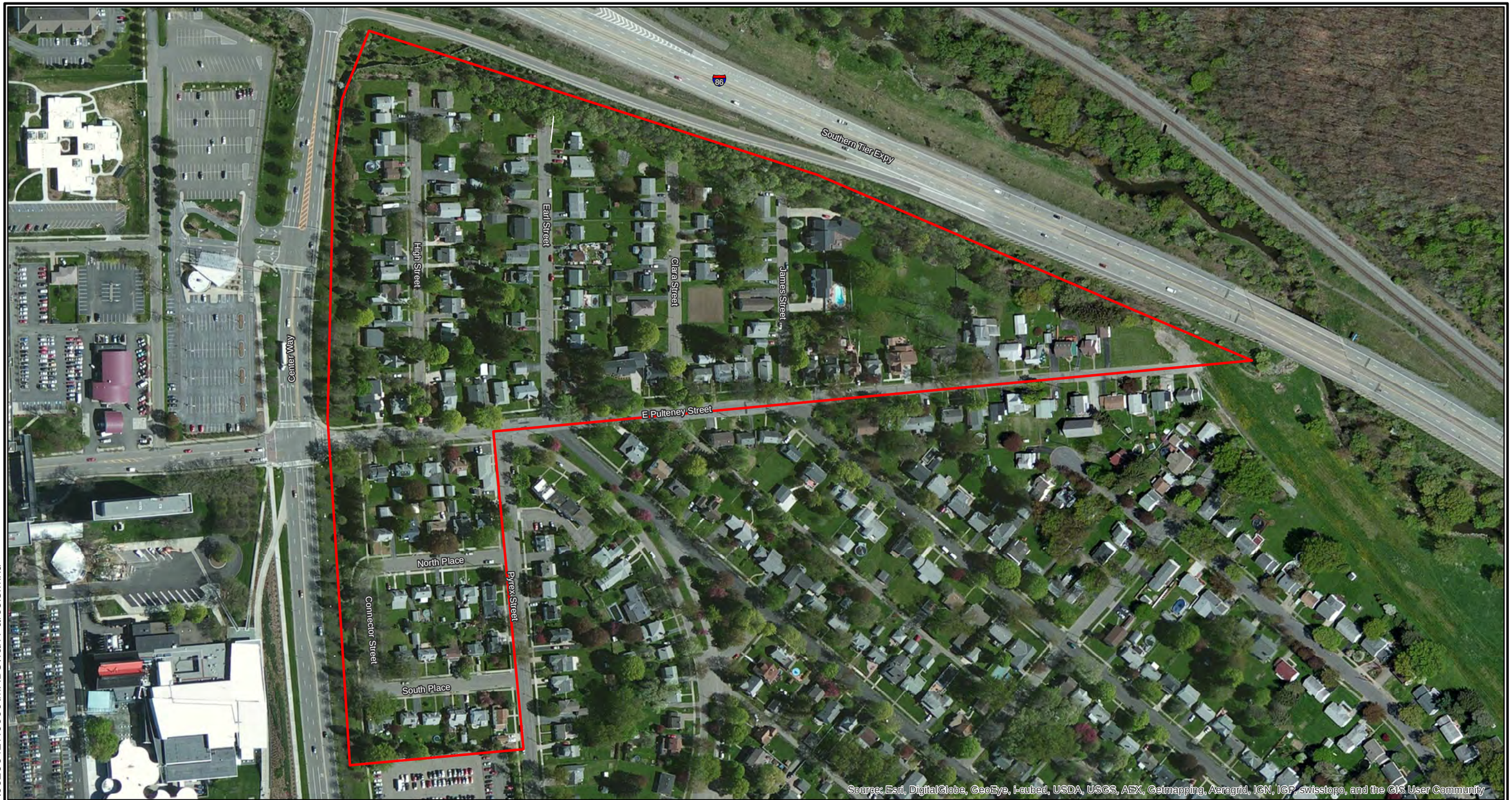
FIGURE 1

Path: G:\GISMOD\00266427.0000\MXDs\Site Location.mxd Date Saved: 4/28/2016 12:21:19 PM



0 250 500 1,000 1,500 Feet

N

Legend

Operable Unit 5 Expansion Area - Approximate Boundary

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
CORNING SITE #851046
OPERABLE UNIT 5 - EXPANSION AREA

SITE CHARACTERIZATION

APPROXIMATE SITE BOUNDARY
OPERABLE UNIT 5
EXPANSION AREA

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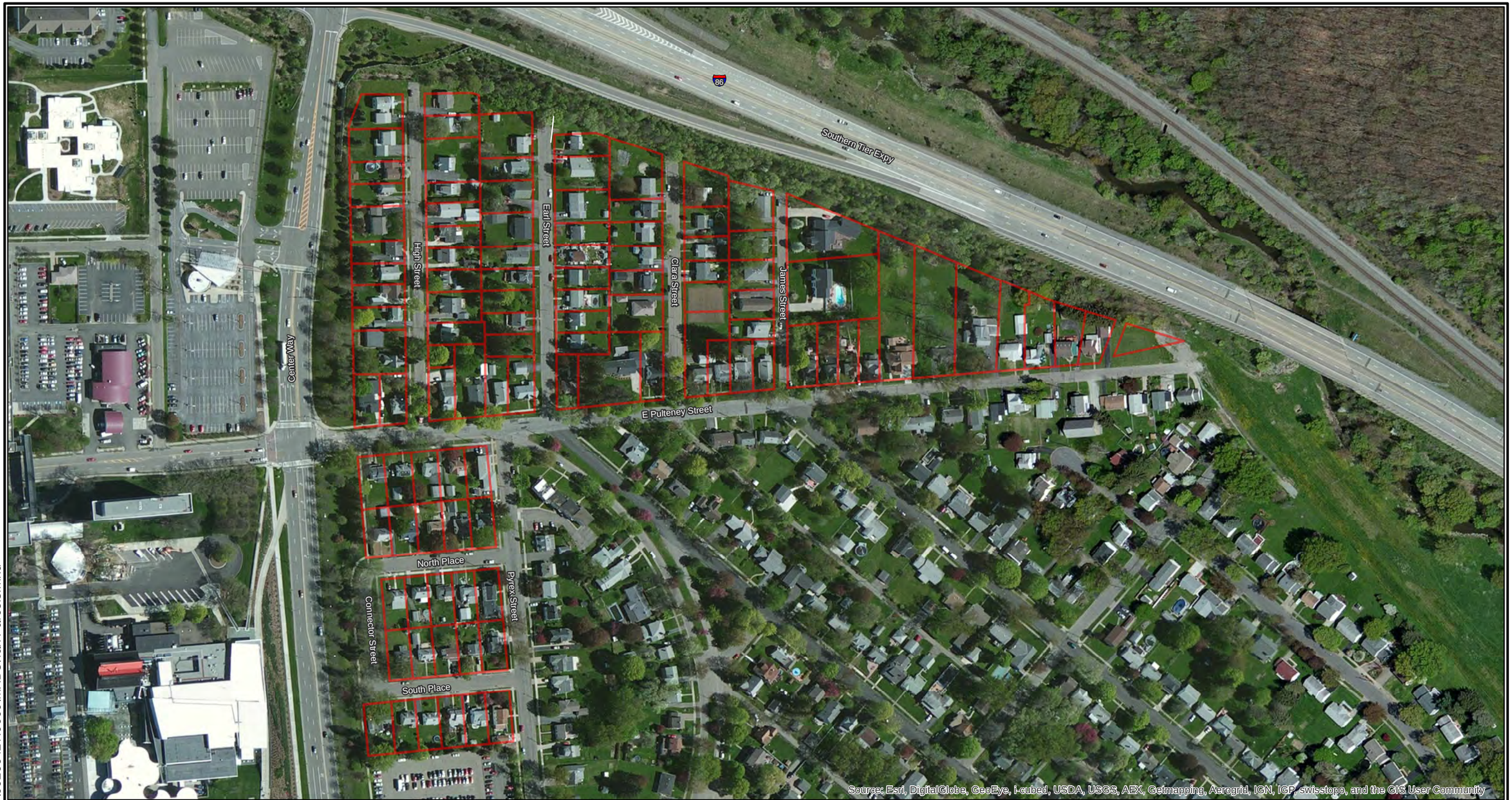
FIGURE
2

Document Path: G:\GISMOD\00266427.0000\MXDs\Tax Parcels.mxd



0 250 500 1,000 1,500 Feet

Legend

Tax Parcel Boundary

N

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
CORNING SITE #851046
OPERABLE UNIT 5 - EXPANSION AREA

SITE CHARACTERIZATION

TAX PARCEL BOUNDARIES

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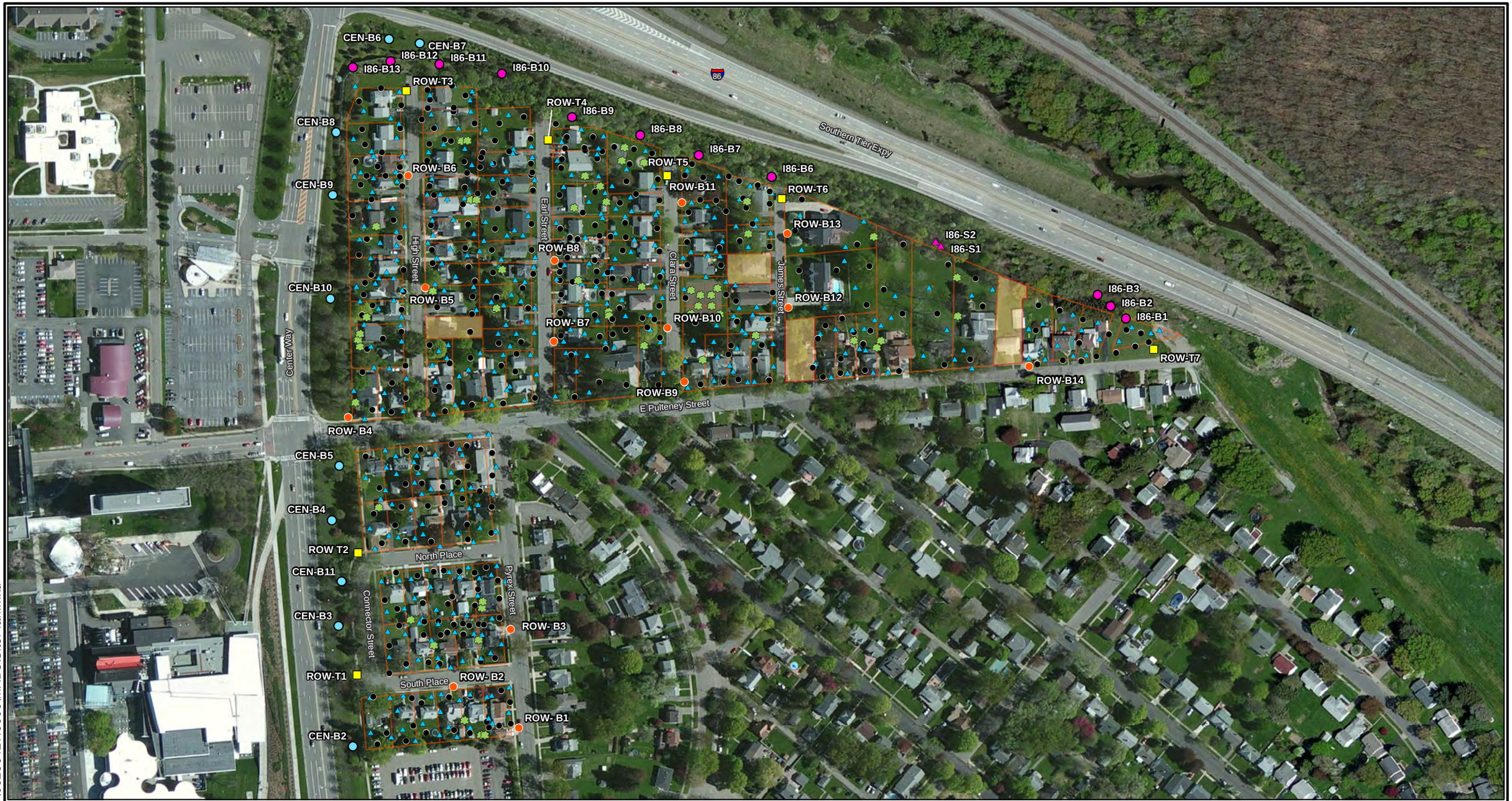
FIGURE
3

Document Path: G:\GISMOD\00266427.0000\MXDs\Tax Parcels.mxd



Document Path: G:\GISMOD\00266427.0000\MXDs\SitePlan.mxd

0 250 500 1,000 1,500 Feet

Legend

- Subsurface Soil Sample
- Garden Soil Sample
- Surface Soil Sample
- Right of Way Soil Boring
- Right of Way Test Pit
- Center Way Berm Boring
- I-86 Corridor Soil Boring
- Composite Soil Sample
- Property Completed
- No Response/No Access to Property

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
CORNING SITE #851046
OPERABLE UNIT 5 - EXPANSION AREA

SITE CHARACTERIZATION

SAMPLING LOCATIONS

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FIGURE 4

0 250 500 1,000 1,500 Feet

Legend

- No Fill Identified
- Trace Fill
- Target Fill layer >1"
- No Response/No Access to Property

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
CORNING SITE #851046
OPERABLE UNIT 5 - EXPANSION AREA

SITE CHARACTERIZATION

PRESENCE OF FILL BY PROPERTY

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FIGURE
5

Document Path: G:\GISMOD\00266427.0000\MXDs\Fill By Property.mxd

0 250 500 1,000 1,500 Feet

Legend

Exceedances of RSCOs in Surface Soil and/or Garden Soil Sample

- Yes
- No
- No Access to Property

Surface Soil Sample

- Yes

Notes:
For Boring Locations: A "No" symbol is returned for locations with either "no exceedance" or "no sample collected" at that particular depth.
Exceedances represent data greater than the Residential Soil Cleanup Objectives (RSCOs)

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
CORNING SITE #851046
OPERABLE UNIT 5 - EXPANSION AREA

SITE CHARACTERIZATION

EXCEEDANCES OF RSCOs IN SURFACE SOIL AND/OR GARDEN SOIL SAMPLES

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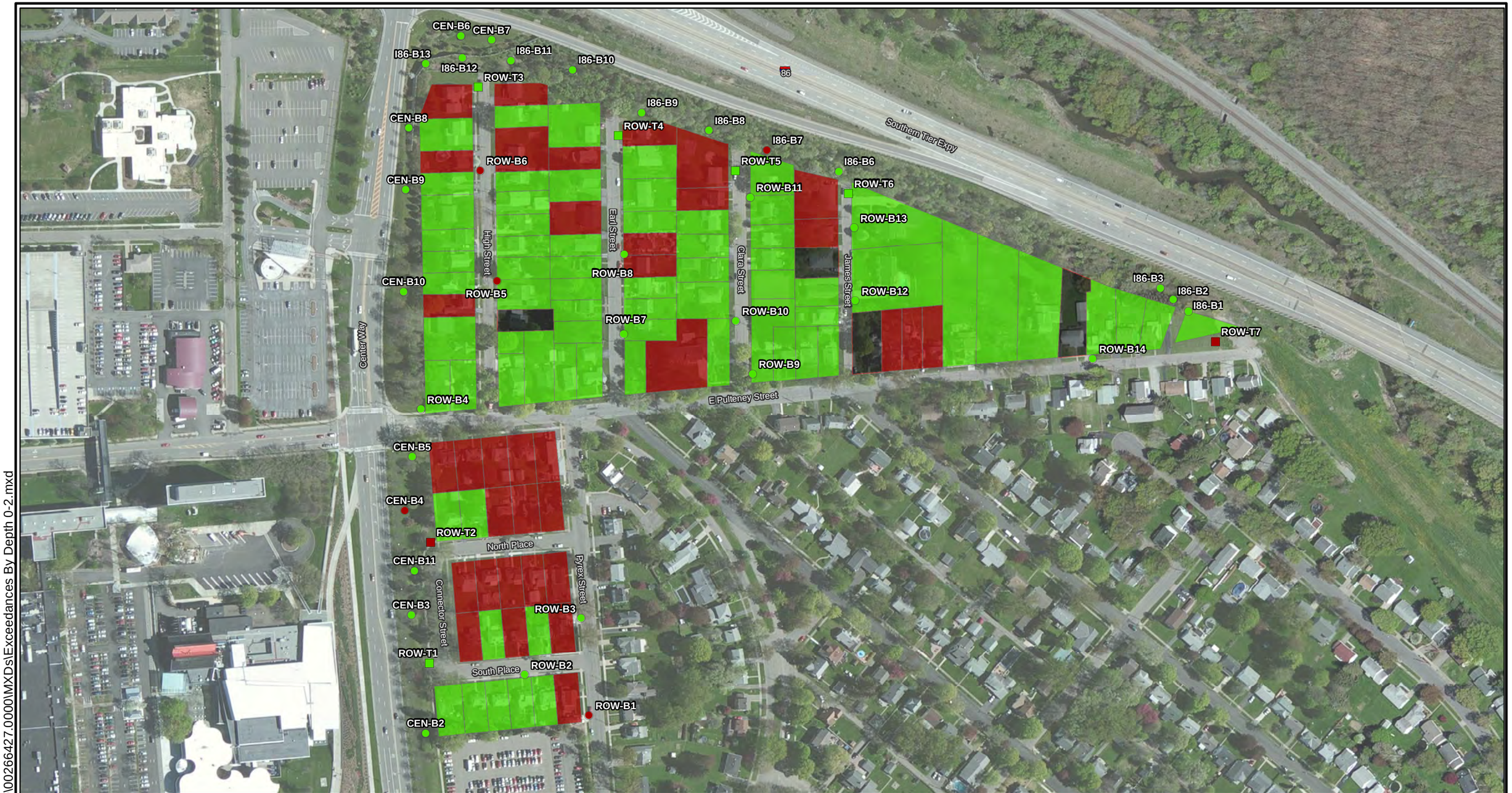
FIGURE
6

Document Path: G:\GISMOD\00266427.0000\MXDs\Exceedances By Depth Surface.mxd



Document Path: G:\GISMOD\00266427.0000\MXDs\Exceedances By Depth 0-2.mxd

0 250 500 1,000 1,500 Feet

Legend
Exceedances of RSCOs in 0-2 Feet Interval Below Ground Surface (BGS) Soil Sample

	Soil Boring	Test Pit
No	No	No
Yes	Yes	Yes
No Access to Property		

Notes:
For Boring Locations: A "No" symbol is returned for locations with either "no exceedance" or "no sample collected" at that particular depth.
Exceedances represent data greater than the Residential Soil Cleanup Objectives (RSCOs)

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
CORNING SITE #851046
OPERABLE UNIT 5 - EXPANSION AREA
SITE CHARACTERIZATION

EXCEEDANCES OF RSCOs IN 0-2 FEET BGS SOIL SAMPLES

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FIGURE
7

Document Path: G:\GISMOD\00266427.0000\MXDs\Exceedances By Depth 2-4.mxd

CEN-B6
CEN-B7
I86-B11
I86-B13
I86-B12
I86-B10
ROW-T3
I86-B9
CEN-B8
ROW-T4
I86-B8
I86-B7
ROW-T5
I86-B6
ROW-B6
CEN-B9
ROW-B11
ROW-T6
ROW-B13
ROW-B8
ROW-B5
CEN-B10
I86-B3
I86-B2
I86-B1
ROW-B12
ROW-B10
ROW-T7
ROW-B7
ROW-B14
ROW-B9
ROW-B4
CEN-B5
CEN-B4
ROW-T2
CEN-B11
CEN-B3
ROW-B3
ROW-T1
ROW-B2
ROW-B1
CEN-B2
I86
Southern Tier Expy
High Street
Earl Street
Clara Street
James Street
Center Way
E Pulteney Street
North Place
Pyrex Street
Connector Street
South Place

0 250 500 1,000 1,500 Feet

Legend
Exceedances of RSCOs in 2-4 Feet Below Ground Surface (BGS) Soil Sample

	Soil Boring	Test Pit
Yes	No	Yes
No	Yes	No
No Access to Property		

Notes:
For Boring Locations: A "No" symbol is returned for locations with either "no exceedance" or "no sample collected" at that particular depth.
Exceedances represent data greater than the Residential Soil Cleanup Objectives (RSCOs)

N

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
CORNING SITE #851046
OPERABLE UNIT 5 - EXPANSION AREA
SITE CHARACTERIZATION

EXCEEDANCES OF RSCOs IN 2-4 FEET BGS SOIL SAMPLES

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FIGURE
8

0 250 500 1,000 1,500 Feet

Document Path: G:\GISMOD\00266427.0000\MXDs\Exceedances By Depth 4+.mxd

Legend
Exceedances of RSCOs in 4+ Feet Below Ground Surface (BGS) Soil Sample

	Soil Boring	Test Pit
Yes		
No	No	No
No Access to Property	Yes	Yes

Notes:
For Boring Locations: A "No" symbol is returned for locations with either "no exceedance" or "no sample collected" at that particular depth.
Exceedances represent data greater than the Residential Soil Cleanup Objectives (RSCOs)

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
CORNING SITE #851046
OPERABLE UNIT 5 - EXPANSION AREA
SITE CHARACTERIZATION

EXCEEDANCES OF RSCOs IN 4+ FEET BGS SOIL SAMPLES

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FIGURE
9

TABLES

Table 1. Summary of Fill in Soil Borings
Corning Study Area - Offsite OU5, Corning, New York

Parcel ID #	Boring ID	Target Fill Present (Yes/No)	Trace Fill Present (Yes/No)	Top of Fill Interval (Inches Below Ground)	Bottom of Fill Interval (Inches Below Ground)	Thickness of Fill (Inches)	Description of Target/Trace Fill Present
001	001-B1	No	No	--	--	--	--
	001-B2	No	No	--	--	--	--
	001-B3	Yes	--	8	14	6	Slag.
		Yes	--	38	60	22	Glass, furnace brick, foundry sand.
	001-B4	No	No	--	--	--	--
	001-B5	Yes	--	18	21	3	Glass, concrete.
		Yes	--	36	40	4	Glass, white sand.
		Yes	--	74	79	5	Ash, slag mixed in with soil
002	002-B1	Yes	--	10.5	48	37.5	Ash, slag, brick.
	002-B2	Yes	--	8.7	35	26.3	Black ash, slag, glass.
	002-B3	Yes	--	9	23	14	Black ash, slag, brick, glass.
003	003-B1	No	No	--	--	--	--
	003-B2	No	Yes	9	10	1	Gray brick, slag.
	003-B3	Yes	--	12	24	12	Ash, glass, slag mixed in with soil
		Yes	--	31.5	39	7.5	Glass, ash.
	003-B4	No	No	--	--	--	--
	003-B5	No	Yes	12	12.1	0.1	Coal.
		No	Yes	45.5	45.6	0.1	Brick.
		Yes	--	48	72	24	Brick, glass, slag, ash, concrete mixed in with soil
	003-B6	Yes	--	0	7.8	7.8	Ash, coal.
004	004-B1	No	No	--	--	--	--
	004-B2	No	No	--	--	--	--
005	005-B1	No	No	--	--	--	--
	005-B2	No	Yes	4	4.1	0.1	Slag.
		No	Yes	12	12.1	0.1	Ash.
	005-B3	No	Yes	9	9.1	0.1	Coal, ash.
006	006-B1	No	No	--	--	--	--
	006-B2	No	No	--	--	--	--
	006-B3	No	No	--	--	--	--
	006-B4	No	Yes	23.5	24.5	1	Glass, ash.
007	007-B1	No	Yes	11	11.1	0.1	Furnace brick.
	007-B1	Yes	--	30.4	33.6	3.2	Ash, slag.
	007-B2	No	No	--	--	--	--
	007-B3	No	No	--	--	--	--
	007-B4	No	No	--	--	--	--
	007-B5	No	No	--	--	--	--
008	008-B1	No	Yes	8	8.1	0.1	Brick, slag.
	008-B2	No	No	--	--	--	--
	008-B3	No	Yes	15.6	15.7	0.1	Glass.
		No	Yes	21	21.1	0.1	Brick.
	008-B4	Yes	--	6	17	11	Ash, slag mixed in with soil
	008-B5	No	Yes	5.5	8	2.5	Brick, ash.
009	009-B1	Yes	--	18.5	35	16.5	Glass, ash, sand, slag.
	009-B2	No	No	--	--	--	--
	009-B3	No	Yes	6	6.1	0.1	Coal.
	009-B4	No	Yes	3	3.1	0.1	Coal, slag.
		Yes	--	11	14	3	Glass, slag, ash.
		Yes	--	27.2	30.5	3.3	Coal, slag.
010	010-B1	No	Yes	12	19	7	Trace amounts of slag and coal.
	010-B2	No	No	--	--	--	--
011	011-B1	No	No	--	--	--	--
	011-B2	No	No	--	--	--	--
	011-B3	No	No	--	--	--	--
012	012-B1	Yes	--	4	10	6	Ash, slag.
	012-B2	Yes	--	5	7	2	Glass, slag.
	012-B3	No	No	--	--	--	--
	012-B4	No	No	--	--	--	--
013	013-B1	No	No	--	--	--	--
	013-B2	No	No	--	--	--	--
014	014-B1	No	No	--	--	--	--
	014-B2	No	No	--	--	--	--
015	015-B1	No	No	--	--	--	--
	015-B2	No	No	--	--	--	--
016	016-B1	Yes	--	21.6	66	44.4	Ash, coal, glass fragments some layers mixed with soil.
	016-B2	yes	--	6.5	7.8	1.3	Coal.
		Yes	--	41.5	50	8.5	Glass, ash.
	016-B3	Yes	--	32.5	62.5	30	Glass, white sand, red and pink fiberous material.
	016-B4	Yes	--	28.8	54	25.2	Glass, sand, brick.
	016-B5	Yes	--	3.0	4.5	1.5	
		Yes	--	36.4	39.2	2.8	Coal, slag.
017	017-B1	No	Yes	9	9.1	0.1	Brick.
		No	Yes	18	18.1	0.1	
		Yes	--	24	48	24	Glass, brick, slag, ash some layers mixed with soil.
	017-B2	Yes	--	22	55.5	33.5	Ash, slag mixed in with soil.
	017-B3	No	No	--	--	--	--
	017-B4	No	No	--	--	--	--
	017-B5	Yes	--	8	24	16	Ash, slag, glass.
018	018-B1	No	No	--	--	--	--
	018-B2	No	No	--	--	--	--
	018-B3	No	No	--	--	--	--

Table 1. Summary of Fill in Soil Borings
Corning Study Area - Offsite OU5, Corning, New York

Parcel ID #	Boring ID	Target Fill Present (Yes/No)	Trace Fill Present (Yes/No)	Top of Fill Interval (Inches Below Ground)	Bottom of Fill Interval (Inches Below Ground)	Thickness of Fill (Inches)	Description of Target/Trace Fill Present
019	019-B1	Yes	--	15.4	81.6	66.2	Ash, slag, glass.
	019-B2	Yes	--	14	100	86	Black ash, slag, brick, glass.
	019-B3	Yes	--	11.4	62	50.6	Ash, slag, glass.
020	020-B1	No	No	--	--	--	--
	020-B2	No	No	--	--	--	--
	020-B3	No	Yes	14.5	15.5	1	Charcoal.
021	021-B1	Yes	--	7.4	51	43.6	Grey and black ash and slag, glass.
	021-B2	Yes	--	9.6	96	86.4	Ash, slag, glass, brick mixed in with soil.
	021-B3	Yes	--	12.6	32.8	20.2	
		Yes	--	40.4	81.4	41	Black and grey ash, slag, glass.
022	022-B1	No	No	--	--	--	--
	022-B2	No	No	--	--	--	--
	022-B3	Yes	--	12	24	12	slag glass mixed in with soil.
	022-B4	Yes	--	12	24	12	Ash, slag.
023	023-B1	No	Yes	17.5	17.6	0.1	Coal
	023-B2	No	Yes	32	32.1	0.1	ash
		Yes	--	10	12	2	coal and white furnace brick.
		Yes	--	14	23	9	Coal mixed in with soil
	023-B3	No	Yes	7	7.5	0.5	Slag, coal.
		No	Yes	20	20.5	0.5	Coal.
024	024-B1	Yes	--	6.4	62	55.6	Black ash and slag, glass, brick.
	024-B2	Yes	--	15	45	30	Ash, glass, slag, brick.
	024-B3	Yes	--	6	18.5	12.5	Ash, slag.
	024-B4	Yes	--	8	37.5	29.5	Ash, slag, glass.
025	025-B1	No	No	--	--	--	--
	025-B2	No	No	--	--	--	--
	025-B3	No	No	--	--	--	--
026	026-B1	No	No	--	--	--	--
	026-B2	No	No	--	--	--	--
027	027-B1	Yes	--	9.2	32.5	23.3	Asphalt, brick, ash, slag mixed in with soil.
	027-B2	Yes	--	9.3	35	25.7	Ash, slag, coal mixed in with soil.
	027-B3	Yes	--	9	37.5	28.5	Slag, coal, brick.
	027-B4	Yes	--	15.3	90.5	75.2	Glass, ash, foundry sand, wood, furnace brick coal, 'rubber gasket'.
	027-B5	Yes	--	6	50	44	Ash, slag, sand.
	027-B6	Yes	--	6	28.5	22.5	Ash, slag, coal.
	027-B7	No	Yes	11.5	15	3.5	Trace amounts of coal, ash.
028	028-B1	No	No	--	--	--	--
	028-B2	No	No	--	--	--	--
	028-B3	No	No	--	--	--	--
029	029-B1	Yes	--	14	28.2	14.2	Glass, rust, ash, slag.
	029-B2	No	No	--	--	--	--
	029-B3	Yes	--	0	34	34	Ash, slag, brick.
030	030-B1	No	Yes	17.7	17.8	0.1	Slag.
	030-B2	No	No	--	--	--	--
	030-B3	No	Yes	48	51	3	Charcoal.
	030-B4	Yes	--	25	39.2	14.2	Slag mixed in with soil.
		Yes	--	75	77	2	Ash, slag.
	030-B5	No	No	--	--	--	--
031	031-B1	Yes	--	14	55.7	41.7	Black and grey ash and slag, glass.
	031-B2	Yes	--	9	45	36	Dark grey, ash, slag, glass.
032	032-B1	No	No	--	--	--	--
	032-B2	Yes	--	7	21	14	Ash, slag, brick.
	032-B3	No	No	--	--	--	--
	032-B4	Yes	--	16	24	8	Grey and black ash and slag.
	032-B5	Yes	--	13	28.3	15.3	Black ash, glass, slag, brick.
033	-- PN 033 does not exist. ---						
034	034-B1	No	Yes	3.8	18	14.2	trace amounts of Ash
		Yes	--	18	55	37	Ash and slag, ceramics
	034-B2	Yes	--	8	67	59	Brick, black ash, slag, glass.
	034-B3	Yes	--	9.5	90	80.5	Concrete, grey ash and slag.
035	035-B1	Yes	--	7	50.5	43.5	Ash, slag.
	035-B2	Yes	--	33	48	15	Black ash, slag, glass.
	035-B3	Yes	--	10.3	12	1.7	Slag.
		No	Yes	17	17.1	0.1	Coal, slag.
		Yes	--	46	78	32	Ash, brick, slag, glass.
036	036-B1	No	No	--	--	--	--
	036-B2	No	Yes	13.7	18	4.3	Coal, glass.
	036-B3	No	No	--	--	--	--
037	037-B1	No	No	--	--	--	--
	037-B2	No	No	--	--	--	--
	037-B3	No	No	--	--	--	--

Table 1. Summary of Fill in Soil Borings
Corning Study Area - Offsite OU5, Corning, New York

Parcel ID #	Boring ID	Target Fill Present (Yes/No)	Trace Fill Present (Yes/No)	Top of Fill Interval (Inches Below Ground)	Bottom of Fill Interval (Inches Below Ground)	Thickness of Fill (Inches)	Description of Target/Trace Fill Present
038	038-B1	No	No	--	--	--	--
	038-B2	No	No	--	--	--	--
039	039-B1	No	No	--	--	--	--
	039-B2	No	No	--	--	--	--
040	040-B1	No	No	--	--	--	--
	040-B2	No	No	--	--	--	--
	040-B3	No	No	--	--	--	--
041	041-B1	No	No	--	--	--	--
	041-B2	No	No	--	--	--	--
	041-B3	No	No	--	--	--	--
042	042-B1	No	Yes	2.5	2.6	0.1	Trace brick.
		No	Yes	7.5	7.6	0.1	Trace coal.
	042-B2	No	No	--	--		--
	042-B3	No	No	--	--		--
043	043-B1	No	No	--	--		--
	043-B2	No	No	--	--		--
044	044-B1	No	No	--	--		--
	044-B2	No	No	--	--		--
045	045-B1	No	Yes	9	9.1	0.1	Coal.
	045-B2	Yes	--	8.8	12.6	3.8	Slag, ash.
	045-B3	No	No	--	--	--	--
046	046-B1	No	No	--	--	--	--
	046-B2	No	Yes	6	6.1	0.1	Coal.
	046-B3	Yes	--	2	5	3	Slag, ash.
047	047-B1	No	Yes	7	7.1	0.1	Glass.
	047-B2	No	Yes	14	14.1	0.1	Coal.
048	048-B1	No	No	--	--	--	--
	048-B2	No	No	--	--	--	--
049	049-B1	No	Yes	4	5	1	Coal.
	049-B2	No	No	--	--	--	--
	049-B3	No	No	--	--	--	--
050	-- Did not participate in program. --						
051	051-B1	Yes	--	34.3	70.2	35.9	Ash, slag, coal, glass mixed with in soil.
	051-B2	No	Yes	56.5	60.5	4	Furnace brick.
	051-B3	No	No	--	--	--	--
	051-B4	No	No	--	--	--	--
	051-B5	No	No	--	--	--	--
052	052-B1	No	No	--	--	--	--
	052-B2	No	No	--	--	--	--
	052-B3	Yes	--	9	59	50	Glass, ash, coal mixed with in soil.
	052-B4	Yes	--	26	94	68	Glass, brick, ash, fiberous material.
	052-B5	No	No	--	--	--	--
	052-B6	No	Yes	30.8	30.9	0.1	trace glass
	052-B6	No	Yes	44.5	44.6	0.1	trace furnace brick
	052-B6	No	Yes	52.2	52.3	0.1	trace glass
	052-B6	No	Yes	62	62.1	0.1	Trace glass
053	053-B1	No	No	--	--	--	--
	053-B2	Yes	--	5	13	8	Ash, slag.
	053-B3	No	No	--	--	--	--
054	054-B1	No	No	--	--	--	--
	054-B2	Yes	--	8.4	29	20.6	Ash, slag, coal mixed in with soil.
	054-B3	Yes	--	8	26.6	18.6	Ash, slag, coal, brick mixed in with soil.
055	055-B1	No	No	--	--	--	--
	055-B2	No	No	--	--	--	--
056	056-B1	No	No	--	--	--	--
	056-B2	No	No	--	--	--	--
	056-B3	No	No	--	--	--	--
057	057-B1	Yes	--	13	53	40	White and grey ash and slag, brick, glass.
	057-B2	Yes	--	6	40.5	34.5	Ash, slag.
	057-B3	Yes	--	12	48	36	Ash, slag, glass, brick.
058	058-B1	No	Yes	6	19	13	Trace amount of coal
	058-B2	No	No	--	--	--	--
059	059-B1	No	Yes	7.5	8.5	1	Trace amount of furnace brick
		Yes	--	24	40.5	16.5	Ash, slag, brick, glass mixed in with soil.
	059-B2	No	No	--	--	--	--
	059-B3	No	Yes	6	6.1	0.1	Ash
		Yes	--	44	47	3	Ash, slag, glass, brick.
	059-B4	Yes	--	25	48	23	Ash, slag, glass.
060	060-B1	Yes	--	6	9	3	Grey ash, slag.
	060-B2	No	Yes	5	8	3	Trace amounts of ash, glass.
	060-B3	Yes	--	4	11	7	Glass, brick, ash, slag.
	060-B4	No	No	--	--	--	--
	060-B5	No	No	--	--	--	--
061	061-B1	No	No	--	--	--	--
	061-B2	No	No	--	--	--	--
	061-B3	Yes	--	2	10	8	Ash, slag.
	061-B4	No	No	--	--	--	--

Table 1. Summary of Fill in Soil Borings
Corning Study Area - Offsite OU5, Corning, New York

Parcel ID #	Boring ID	Target Fill Present (Yes/No)	Trace Fill Present (Yes/No)	Top of Fill Interval (Inches Below Ground)	Bottom of Fill Interval (Inches Below Ground)	Thickness of Fill (Inches)	Description of Target/Trace Fill Present
062	062-B1	No	No	--	--	--	--
	062-B2	No	No	--	--	--	--
	062-B3	No	Yes	5	8.6	3.6	Coal, slag.
	062-B4	Yes	--	16.8	26.5	9.7	Ash, coal, glass, slag.
063	063-B1	No	No	--	--	--	--
	063-B2	No	No	--	--	--	--
	063-B3	No	No	--	--	--	--
064	064-B1	No	Yes	6	6.1	0.1	Coal.
		No	Yes	33	33.1	0.1	Coal.
	064-B2	No	No	--	--	--	--
	064-B3	No	Yes	19.2	28.8	9.6	Trace pieces of Coal and Slag.
065	065-B1	Yes	--	16	33.3	17.3	Mostly Black Ash and Slag w/ trace Glass and Brick.
	065-B2	Yes	--	12	48	36	Slag and Brick mixed with soil, glass, and Foundry Sand
	065-B3	No	No	--	--	--	--
066	066-B1	No	No	--	--	--	--
	066-B2	No	No	--	--	--	--
067	067-B1	No	No	--	--	--	--
	067-B2	No	No	--	--	--	--
068	068-B1	No	No	--	--	--	--
	068-B2	No	No	--	--	--	--
069	069-B1	No	Yes	9	9.1	0.1	Glass and Coal.
	069-B2	No	No	--	--	--	--
	069-B3	No	Yes	5	5.1	0.1	Glass and Ash.
	069-B4	Yes	--	21	43.7	22.7	Ash, Glass, Furnace Brick.
	069-B5	Yes	--	30	50.2	20.2	Ash, Glass, Furnace Brick, Metal pieces.
	069-B6	Yes	--	23.4	30	6.6	Ash, Glass, Foundry Sand.
070	070-B1	No	Yes	10	10.1	0.1	Ash and Coal.
		No	Yes	22.7	22.8	0.1	Ash and Coal.
	070-B2	Yes	--	16.5	39.5	23	Ash, Slag, Glass, Furnace Brick.
	070-B3	Yes	--	18.6	34.6	16	Ash, Slag, Brick.
	070-B4	No	No	--	--	--	--
	070-B5	No	Yes	8.7	13	4.3	Chunk of Furnace Brick.
071	071-B1	Yes	--	8.7	13	4.3	Slag and Glass.
	071-B2	Yes	--	20.5	41	20.5	Ash, Slag, Glass.
	071-B3	No	No	--	--	--	--
072	-- Did not participate in program. --						
073	073-B1	No	Yes	9.7	9.8	0.1	Coal
	073-B2	No	Yes	10	11.5	1.5	Coal and Slag.
	073-B3	Yes	--	5.5	13.7	8.2	Brick and Slag.
	073-B4	No	No	--	--	--	--
074	074-B1	No	No	--	--	--	--
	074-B2	No	Yes	14	14.1	0.1	Coal
		No	Yes	19	19.1	0.1	Coal
	074-B3	No	Yes	13	15.5	2.5	Coal
	074-B4	Yes	--	9	30	21	Ash, Coal, Slag, Brick.
	074-B5	Yes	--	5	21	16	Ash, Slag, Glass.
	074-B6	No	No	--	--	--	--
075	075-B1	No	No	--	--	--	--
	075-B2	No	No	--	--	--	--
	075-B3	Yes	Yes	12	24	12	Ash, Slag, Flecks of Glass.
	075-B4	No	No	--	--	--	--
076	076-B1	Yes	--	15.5	50	34.5	Black and Gray Ash and Slag.
	076-B2	Yes	--	7.2	39.6	32.4	Ash and Slag.
	076-B3	No	Yes	9.3	25.3	16	Trace amounts of glass and slag
		Yes	--	25.3	38.6	13.3	Ash, Slag, Glass.
077	077-B1	Yes	--	21	45	24	Black Ash, Slag, Furnace Brick, Construction Brick.
	077-B2	No	Yes	8.5	8.6	0.1	Glass.
		Yes	--	16	33.5	17.5	White Ceramics, Glass, Furnace Brick, Construction Brick.
	077-B3	Yes	--	15	19	4	Black Ash.
	077-B4	No	Yes	6	8.5	2.5	Trace Glass and Slag.
	077-B5	No	No	--	--	--	--
078	078-B1	No	No	--	--	--	--
	078-B2	No	No	--	--	--	--
	078-B3	No	No	--	--	--	--
	078-B4	No	No	--	--	--	--
079	079-B1	No	No	--	--	--	--
	079-B2	No	Yes	7.5	7.6	0.1	Coal.
	079-B3	No	Yes	11	11.1	0.1	Ash.
080	080-B1	No	No	--	--	--	--
	080-B2	No	No	--	--	--	--
	080-B3	No	No	--	--	--	--
081	081-B1	No	Yes	24	24.1	0.1	Trace amounts of coal.
	081-B2	No	No	--	--	--	--
	081-B3	No	Yes	7	7.1	0.1	Coal.
082	082-B1	82	No	--	--	--	--
	082-B2	No	No	--	--	--	--
083	083-B1	Yes	--	7.2	51.3	44.1	Black and Gray Ash, Slag, Metal flakes.
	083-B2	Yes	--	6	78.5	72.5	Black and Gray Ash, Slag, Glass some layers mixed with soil.
	083-B3	Yes	--	3	107	104	Black and Gray Ash, Glass, Foundry Sand, Yellow/orange Slag.

Table 1. Summary of Fill in Soil Borings
Corning Study Area - Offsite OU5, Corning, New York

Parcel ID #	Boring ID	Target Fill Present (Yes/No)	Trace Fill Present (Yes/No)	Top of Fill Interval (Inches Below Ground)	Bottom of Fill Interval (Inches Below Ground)	Thickness of Fill (Inches)	Description of Target/Trace Fill Present
084	084-B1	No	No	--	--	--	--
	084-B2	No	Yes	4.5	4.6	0.1	Glass and Slag.
		No	Yes	18.2	18.3	0.1	trace piece of coal
		No	Yes	33	33.1	0.1	trace piece of coal
		No	Yes	36	36	0	Ash
	084-B3	No	Yes	14	14.1	0.1	Glass
		No	Yes	30	30.1	0.1	Slag
085	085-B1	No	No	--	--	--	--
	085-B2	No	Yes	6.6	6.7	0.1	Piece of Coal.
	085-B3	No	No	--	--	--	--
	085-B4	No	No	--	--	--	--
086	086-B1	Yes	--	6.3	99	92.7	Black and Gray Ash, Slag, Glass, Brick.
	086-B2	Yes	--	18.2	39	20.8	Black, White and Gray Ash, Slag, Glass.
087	-- Did not participate in program. --						
088	-- Did not participate in program. --						
089	089-B1	Yes	--	10.8	48	37.2	White, Gray and Black Ash, Glass, Slag.
	089-B2	Yes	--	12	60	48	Ash, Slag, Glass.
	089-B3	Yes	--	10	54	44	Ash, Slag, Glass.
090	090-B1	No	No	--	--	--	--
	090-B2	No	No	--	--	--	--
	090-B3	No	No	--	--	--	--
091	091-B1	No	No	--	--	--	--
	091-B2	No	No	--	--	--	--
	091-B3	No	No	--	--	--	--
092	092-B1	No	No	--	--	--	--
	092-B2	Yes	--	27	51.5	24.5	Light gray Ash, Slag, Concrete.
	092-B3	Yes	--	12	73	61	Soil mixed with Glass, Ash, Furnace Brick, Unknown white material.
	092-B4	No	No	--	--	--	--
093	093-B1	No	Yes	5.2	5.3	0.1	Piece of Glass.
		Yes	--	20	36	16	Gray Ash and Slag.
	093-B2	Yes	--	4	36	32	Gray and Black Ash and Slag.
094	094-B1	No	No	--	--	--	--
	094-B2	No	No	--	--	--	--
095	095-B1	No	No	--	--	--	--
	095-B2	No	No	--	--	--	--
	095-B3	No	No	--	--	--	--
096	096-B1	No	No	--	--	--	--
	096-B2	No	No	--	--	--	--
097	097-B1	No	No	--	--	--	--
	097-B2	No	Yes	13	14	1	Piece of Coal and Glass.
	097-B3	No	No	--	--	--	--
	097-B4	No	Yes	13.6	13.7	0.1	Piece of White material.
098	098-B1	No	Yes	36.5	48	11.5	Trace amounts of coal and brick.
		Yes	--	48	55.3	7.3	Glass and Brick chunks.
	098-B2	No	Yes	22	33	11	Trace Coal and stained soil.
	098-B3	Yes	--	13.7	37.7	24	Ash, Slag, Glass, Brick pieces.
	098-B4	Yes	--	5	48	43	Soils mixed with Coal, Slag, Ash, Brick, Glass throughout.
	098-B5	No	Yes	7	7.1	0.1	Piece of Brick.
		Yes	--	15.2	27	11.8	Chunk of Wood on top of Concrete, w/ trace Brick and Coal.
099	099-B1	No	No	--	--	--	--
	099-B2	No	No	--	--	--	--
	099-B3	No	Yes	0	22.8	22.8	trace amounts of coal
100	100-B1	No	No	--	--	--	--
	100-B2	No	No	--	--	--	--
101	101-B1	No	Yes	12	12.1	0.1	Ash and Coal.
	101-B2	No	No	--	--	--	--
	101-B3	No	No	--	--	--	--
102	102-B1	No	No	--	--	--	--
	102-B2	No	No	--	--	--	--
103	103-B1	Yes	--	7.8	41.5	33.7	Black and gray Ash, Slag, Glass.
	103-B2	Yes	--	15	44.2	29.2	Black and gray Ash, Slag, Glass.
	103-B3	Yes	--	6.5	25.5	19	Gray, black and white Ash, Slag, Brick, Glass.
104	104-B1	Yes	--	17	60	43	Black and dark Gray Ash, Slag, Glass fragments, piece of Metal.
	104-B2	Yes	--	16	72	56	Ash, Slag, Brick, Foundry Sand, chunk of Brick at 7".
	104-B3	Yes	--	6	31.5	25.5	Black Ash, Slag, Glass. (mixed with top soil 4" to 8")
	104-B4	Yes	--	4.8	33.6	28.8	Black Ash, Slag, Brick, Glass. (mixed with top soil 4"to 10")
105	105-B1	No	Yes	6.7	6.8	0.1	Trace Brick.
	105-B2	No	Yes	11.5	11.6	0.1	Trace Coal.
106	106-B1	No	No	--	--	--	--
	106-B2	No	No	--	--	--	--
	106-B3	No	No	--	--	--	--
107	107-B1	No	Yes	8	8.1	0.1	Chunk of Concrete.
	107-B2	No	No	--	--	--	--

Table 1. Summary of Fill in Soil Borings
Corning Study Area - Offsite OU5, Corning, New York

Parcel ID #	Boring ID	Target Fill Present (Yes/No)	Trace Fill Present (Yes/No)	Top of Fill Interval (Inches Below Ground)	Bottom of Fill Interval (Inches Below Ground)	Thickness of Fill (Inches)	Description of Target/Trace Fill Present
108	108-B1	No	No	--	--	--	--
	108-B2	No	Yes	8.5	8.6	0.1	Trace Brick and Coal pieces.
109	109-B1	Yes	--	10	60	50	Black and Gray Ash, Slag, Glass.
	109-B2	Yes	--	5	60	55	Light Gray, Gray, Rust colored, Brown Ash, Slag, Glass, Brick, Foundry Sand.
	109-B3	Yes	--	9	48	39	Intervals of light Gray and Black Ash, Slag, Glass.
ROW	ROW-B1	Yes	--	7	30	23	Gray and Black Ash, Slag, Glass Cullet.
	ROW-B2	No	No	--	--	--	--
	ROW-B3	No	No	--	--	--	--
	ROW-B4	No	No	--	--	--	--
	ROW-B5	Yes	--	6	18	12	Black and Gray Ash and Slag.
	ROW-B6	Yes	--	12	24	12	Gray and Black Ash and Slag w/ little Glass and Brick fragments.
	ROW-B7	No	No	--	--	--	--
	ROW-B8	No	No	--	--	--	--
	ROW-B9	No	No	--	--	--	--
	ROW-B10	No	No	--	--	--	--
	ROW-B11	No	No	--	--	--	--
	ROW-B12	No	No	--	--	--	--
	ROW-B13	No	No	--	--	--	--
	ROW-B14	Yes	--	6	12	6	Gray Ash and Slag w/ trace Brick.
Centerway	CEN-B2	No	Yes	12	12.1	0.1	Brick.
		No	Yes	24	24.1	0.1	Coal.
	CEN-B3	No	Yes	21.5	23	1.5	Brick and Slag.
		Yes	--	85.2	92.4	7.2	Ash, Slag, Furnace Brick.
	CEN-B4	Yes	--	17	68	51	Ash, Brick, Glass, Slag mixed in with soil (Pocket of broken Glass 63" to 67").
	CEN-B5	No	Yes	22.1	22.2	0.1	Slag.
		Yes	--	34	57	23	Ash and Slag.
	CEN-B6	No	No	--	--	--	Asphalt 25" to 27"
	CEN-B7	No	No	--	--	--	--
	CEN-B8	No	Yes	6	22	16	Ash, Coal, Glass, Slag, Brick.
		No	Yes	68	77.2	9.2	Ash, Coal.
	CEN-B9	No	No	--	--	--	Piece of Asphalt at 107"
	CEN-B10	Yes	--	65.6	96	30.4	Ash, Slag, Brick, Coal mixed in with soil.
		No	Yes	165	165.1	0.1	Coal and Slag.
	CEN-B11	No	Yes	12	12.1	0.1	Glass.
		No	Yes	41	41.1	0.1	Glass Cullet.
		No	Yes	118	120	2	Glass fragments.
I86 Berm	I86-B1	No	No	--	--	--	--
	I86-B2	No	No	--	--	--	--
	I86-B3	No	Yes	8	8.1	0.1	Slag.
		Yes	--	16	20	4	Chunk of Red Brick.
	I86-B6	Yes	--	12	62.5	50.5	Ash, glass, furnace brick and slag
	I86-B7	Yes	--	4	14	10	Ash, glass, slag
	I86-B8	Yes	--	8	52.1	44.1	Soil mixed with Slag, Glass, Ash, and a Brick
	I86-B9	No	No	--	--	--	--
	I86-B10	No	Yes	18	22	4	Trace pieces of brick and coal
		No	Yes	110.7	144	33.3	trace glass and brick
		No	Yes	152.8	176	23.2	trace glass and brick
	I86-B11	No	No	--	--	--	--
	I86-B12	Yes	--	35	38	3	Red Brick.
		Yes	--	76	78	2	Light Red Brick.
	I86-B13	No	No	--	--	--	--

Notes:

PN - Denotes the randomly assigned parcel number unique to each tax ID.

ROW - Denotes borings collected in the right of way, located just off the pavement of the streets.

CEN - Denotes borings collected along the berm located on the east side of Centerway Drive.

I86 - Denotes borings collected on the southern berm along Interstate 86.

A layer of fill is defined as either a continuous layer of fill greater than 1" or more than a few pieces of target fill mixed with soil

A location is defined as having trace fill, if there is a thickness of target fill less than 1.0". A location could also be considered as only having trace target fill, if only a few pieces of target fill were observed throughout the described interval.

Table 2. Summary of Fill in Garden and Surface Soil Samples
Corning Study Area - Offsite OU5, Corning, New York

Parcel ID #	Surface Sample/Garden Boring ID	Target Fill Present (Yes/No)	Trace Fill Present (Yes/No)	Description of Target/Trace Fill Present
001	001-S1	No	No	--
	001-S2	No	No	--
	001-S3	No	No	--
	001-S4	No	No	--
	001-G1	Yes	No	Mixed impacted fill with top soil and mulch
002	002-S1	No	No	--
	002-S2	Yes	--	Slag, ash, glass, tile.
	002-S3	No	No	--
	002-S4	Yes	--	Slag, ash, glass.
	002-G1	Yes	--	Ash, slag, brick, glass.
	002-G2	Yes	--	Ash, slag, brick, glass.
003	003-S1	No	No	--
	003-S2	No	No	--
	003-S3	No	No	--
	003-S4	No	Yes	Glass.
	003-G1	No	No	--
004	004-S1	No	No	--
	004-S2	No	No	--
	004-S3	No	No	--
	004-S4	No	No	--
005	005-S1	No	No	--
	005-S2	No	Yes	Coal, slag.
	005-S3	No	No	--
	005-S4	No	No	--
	005-G1	No	Yes	Slag, ash, coal.
006	006-S1	No	No	--
	006-S2	No	No	--
	006-S3	No	No	--
	006-S4	No	Yes	Slag, glass.
007	007-S1	No	No	--
	007-S2	No	No	--
	007-S3	No	No	--
	007-S4	No	No	--
008	007-S1	No	No	--
	007-S2	No	Yes	Glass, slag.
	007-S3	No	No	--
009	009-S1	No	Yes	Slag.
	009-S2	No	No	--
	009-S3	No	No	--
	009-S4	No	Yes	Glass.
010	010-S1	No	No	--
	010-S2	No	No	--
	010-S3	No	No	--
	010-S4	No	No	--
011	010-S1	No	No	--
	010-S2	No	No	--
	010-S3	No	No	--
	010-S4	No	No	--
012	012-S1	No	No	--
	012-S2	No	No	--
	012-S3	No	No	--
	012-S4	No	No	--
	012-G1	No	Yes	Slag.
013	013-S1	No	No	--
	013-S2	No	No	--
	013-S3	No	No	--
	013-S4	No	No	--
014	014-S1	No	No	--
	014-S2	No	No	--
	014-S3	No	No	--
	014-S4	No	No	--

Table 2. Summary of Fill in Garden and Surface Soil Samples
Corning Study Area - Offsite OU5, Corning, New York

Parcel ID #	Surface Sample/Garden Boring ID	Target Fill Present (Yes/No)	Trace Fill Present (Yes/No)	Description of Target/Trace Fill Present
015	001-S1	No	No	--
	001-S2	No	No	--
	001-S3	No	No	--
	001-S4	No	No	--
	001-G1	No	No	--
016	016-S1	No	No	--
	016-S2	No	No	--
	016-S3	No	No	--
	016-S4	No	No	--
017	017-S1	No	No	--
	017-S2	No	No	--
	017-S3	No	Yes	Ash, glass.
	017-S4	No	Yes	Ash, glass.
	017-G1	No	Yes	Ash.
	017-G2	No	Yes	Ash.
018	018-S1	No	No	--
	018-S2	No	No	--
	018-S3	No	No	--
	018-S4	No	No	--
019	019-S1	No	No	--
	019-S2	No	No	--
	019-S3	No	No	--
	019-S4	No	No	--
020	020-S1	No	No	--
	020-S2	No	No	--
	020-S3	No	No	--
	020-S4	No	No	--
	020-G1	No	No	--
	020-G2	No	No	--
	020-G3	No	No	--
021	021-S1	No	No	--
	021-S2	No	No	--
	021-S3	No	No	--
	021-S4	No	No	--
022	022-S1	No	No	--
	022-S2	No	No	--
	022-S3	No	No	--
	022-S4	No	No	--
023	023-S1	No	No	--
	023-S2	No	No	--
	023-S3	No	No	--
	023-S4	No	Yes	Slag.
024	024-S1	No	No	--
	024-S2	No	No	--
	024-S3	No	No	--
	024-S4	No	No	--
025	025-S1	No	No	--
	025-S2	No	No	--
	025-S3	No	No	--
	025-S4	No	Yes	Coal, slag.
	025-G1	No	No	--
	025-G2	No	No	--
026	026-S1	No	No	--
	026-S2	No	No	--
	026-S3	No	No	--
	026-S4	No	No	--
	026-G1	No	No	--
027	027-S1	No	No	--
	027-S2	No	No	--
	027-S3	No	Yes	Glass
	027-S4	No	No	--

Table 2. Summary of Fill in Garden and Surface Soil Samples
Corning Study Area - Offsite OU5, Corning, New York

Parcel ID #	Surface Sample/Garden Boring ID	Target Fill Present (Yes/No)	Trace Fill Present (Yes/No)	Description of Target/Trace Fill Present
028	028-S1	No	No	--
	028-S2	No	No	--
	028-S3	No	No	--
	028-S4	No	No	--
	028-G1	No	No	--
029	029-S1	No	No	--
	029-S2	No	No	--
030	030-S1	No	No	--
	030-S2	No	No	--
	030-S3	No	Yes	Glass
	030-S4	No	No	--
031	031-S1	No	No	--
	031-S2	No	No	--
	031-S3	No	No	--
	031-S4	No	No	--
	031-G1	Yes	--	Ash.
032	032-S1	No	No	--
	032-S2	No	No	--
	032-S3	No	No	--
	032-S4	No	No	--
033	-- PN 033 does not exist. ---			
034	034-S1	Yes	--	Glass, ash, ash.
	034-S2	No	No	--
	034-S3	No	No	--
	034-S4	Yes	--	Glass, ash, slag.
035	035-S1	No	No	--
	035-S2	No	Yes	Slag.
	035-S3	No	No	--
	035-S4	No	No	--
036	036-S1	No	No	--
	036-S2	No	No	--
	036-S3	No	No	--
	036-S4	No	No	--
	036-G1	Yes	No	--
037	037-S1	No	No	--
	037-S2	No	No	--
	037-S3	No	No	--
	037-S4	No	No	--
	037-G1	Yes	No	--
038	038-S1	No	No	--
	038-S2	No	No	--
	038-S3	No	No	--
	038-S4	No	No	--
039	039-S1	No	No	--
	039-S2	No	No	--
	039-S3	No	No	--
	039-S4	No	No	--
	039-G1	Yes	Yes	Coal.
	039-G2	Yes	Yes	Coal.
040	040-S1	No	No	--
	040-S2	No	No	--
	040-S3	No	No	--
	040-S4	No	No	--
041	041-S1	No	No	--
	041-S2	No	No	--
	041-S3	No	No	--
	041-S4	No	No	--
	041-G1	No	No	--
042	042-S1	No	No	--
	042-S2	No	Yes	Brick.
	042-S3	No	Yes	Brick.
	042-S4	No	No	--

Table 2. Summary of Fill in Garden and Surface Soil Samples
Corning Study Area - Offsite OU5, Corning, New York

Parcel ID #	Surface Sample/Garden Boring ID	Target Fill Present (Yes/No)	Trace Fill Present (Yes/No)	Description of Target/Trace Fill Present
043	043-S1	No	No	--
	043-S2	No	Yes	Brick.
	043-S3	No	Yes	Brick.
	043-S4	No	Yes	Brick.
044	044-S1	No	No	--
	044-S2	No	No	--
	044-S3	No	No	--
	044-S4	No	No	--
045	045-S1	No	No	--
	045-S2	No	No	--
	045-S3	No	No	--
	045-S4	No	Yes	Brick, ash, glass.
046	046-S1	No	No	--
	046-S2	No	No	--
	046-S3	No	No	--
	046-S4	No	No	--
	046-G1	No	No	--
047	047-S1	No	No	--
	047-S2	No	Yes	Coal, slag.
	047-S3	No	No	--
	047-S4	No	No	--
	047-G1	No	No	--
048	048-S1	No	No	--
	048-S2	No	No	--
	048-S3	No	No	--
	048-S4	No	No	--
049	049-S1	No	No	--
	049-S2	No	No	--
	049-S3	No	Yes	Glass.
	049-S4	No	No	--
	049-G1	Yes	No	--
	049-G2	Yes	Yes	Glass.
050	-- Did not participate in program. --			
051	050-S1	No	No	--
	050-S2	No	No	--
	050-S3	No	No	--
	050-S4	No	No	--
052	052-S1	No	No	--
	052-S2	No	No	--
	052-S3	No	No	--
	052-S4	No	No	--
	052-G1	No	No	--
	052-G2	No	Yes	Glass.
	052-G3	No	Yes	Glass.
053	053-S1	No	No	--
	053-S2	No	No	--
	053-S3	No	No	--
	053-S4	No	No	--
	053-G1	No	Yes	Ash, slag, glass.
054	054-S1	No	No	--
	054-S2	No	No	--
	054-S3	No	No	--
	054-S4	No	No	--
	054-G1	No	Yes	Ash, slag.
055	055-S1	No	No	--
	055-S2	No	No	--
	055-S3	No	No	--
	055-S4	No	No	--
	055-G1	No	Yes	Glass, slag.
056	056-S1	No	No	--
	056-S2	No	Yes	Slag, ash, brick.
	056-S3	No	No	--
	056-S4	No	No	--

Table 2. Summary of Fill in Garden and Surface Soil Samples
Corning Study Area - Offsite OU5, Corning, New York

Parcel ID #	Surface Sample/Garden Boring ID	Target Fill Present (Yes/No)	Trace Fill Present (Yes/No)	Description of Target/Trace Fill Present
057	057-S1	No	No	--
	057-S2	No	No	--
	057-S3	No	No	--
	057-S4	Yes	--	Ash, slag.
058	058-S1	No	No	--
	058-S2	No	No	--
	058-S3	No	No	--
	058-S4	No	No	--
	058-G1	No	Yes	Coal, slag.
	058-G2	No	No	--
	058-G3	No	No	--
	058-G4	No	No	--
	058-G5	No	No	--
059	059-S1	No	No	--
	059-S2	No	No	--
	059-S3	No	Yes	Glass, slag.
	059-S4	No	No	--
060	060-S1	No	No	--
	060-S2	No	No	--
	060-S3	No	No	--
	060-S4	No	No	--
	060-G1	No	No	--
061	061-S1	No	No	--
	061-S2	No	Yes	Ash, slag, brick, coal.
	061-S3	No	Yes	Ash, slag.
	061-S4	No	No	--
	061-G1	No	No	--
062	062-S1	No	No	--
	062-S2	No	Yes	Coal.
	062-S3	No	No	--
	062-S4	No	No	--
063	063-S1	No	No	--
	063-S2	No	No	--
	063-S3	No	No	--
	063-S4	No	No	--
064	064-S1	No	No	--
	064-S2	No	No	--
	064-S3	No	No	--
	064-S4	No	No	--
	064-G1	No	No	--
064	064-S1	No	No	--
	064-S2	No	No	--
	064-S3	No	No	--
	064-S4	No	No	--
	064-G1	No	No	--
065	065-S1	No	No	--
	065-S2	No	No	--
	065-S3	No	No	--
	065-S4	No	No	--
066	066-S1	No	No	--
	066-S2	No	No	--
	066-S3	No	No	--
	066-S4	No	No	--
067	067-S1	No	No	--
	067-S2	No	No	--
	067-S3	No	No	--
	067-S4	No	No	--
068	068-S1	No	No	--
	068-S2	No	No	--
	068-S3	No	No	--
	068-S4	No	No	--

Table 2. Summary of Fill in Garden and Surface Soil Samples
Corning Study Area - Offsite OU5, Corning, New York

Parcel ID #	Surface Sample/Garden Boring ID	Target Fill Present (Yes/No)	Trace Fill Present (Yes/No)	Description of Target/Trace Fill Present
069	068-S1	No	No	--
	068-S2	No	No	--
	068-S3	No	No	--
	068-S4	No	No	--
070	070-S1	No	Yes	Glass.
	070-S2	No	No	--
	070-S3	No	No	--
	070-S4	No	No	--
071	071-S1	No	No	--
	071-S2	No	No	--
	071-S3	No	Yes	Brick and Glass.
	071-S4	No	Yes	Brick.
072	-- Did not participate in program. --			
073	073-S1	No	No	--
	073-S2	No	No	--
	073-S3	No	No	--
	073-S4	No	No	--
074	074-S1	No	No	--
	074-S2	No	No	--
	074-S3	No	No	--
	074-S4	No	No	--
075	075-S1	No	No	--
	075-S2	No	No	--
	075-S3	No	No	--
	075-S4	No	No	--
	075-G1	No	No	--
	075-G2	No	No	--
076	076-S1	No	No	--
	076-S2	No	Yes	Slag and Ash beneath sample depth.
	076-S3	No	No	--
	076-S4	No	No	--
077	077-S1	No	No	--
	077-S2	No	Yes	Glass, Slag, Ash.
	077-S3	No	No	--
	077-S4	No	No	--
078	078-S1	No	No	--
	078-S2	No	No	--
	078-S3	No	No	--
	078-S4	No	No	--
079	079-S1	No	No	--
	079-S2	No	Yes	Slag and Coal.
	079-S3	No	No	--
	079-S4	No	Yes	Slag and Coal.
080	080-S1	No	No	--
	080-S2	No	No	--
	080-S3	No	No	--
	080-S4	No	No	--
081	081-S1	No	No	--
	081-S2	No	No	--
	081-S3	No	No	--
	081-S4	No	No	--
	081-G1	No	No	--
082	082-S1	No	No	--
	082-S2	No	No	--
	082-S3	No	Yes	Coal.
	082-S4	No	No	--
083	083-S1	No	No	--
	083-S2	Yes	--	Unspecified Target Fill
	083-S3	No	No	--
	083-S4	No	No	--
084	084-S1	No	No	--
	084-S2	No	No	--
	084-S3	No	No	--
	084-S4	No	No	--

Table 2. Summary of Fill in Garden and Surface Soil Samples
Corning Study Area - Offsite OU5, Corning, New York

Parcel ID #	Surface Sample/Garden Boring ID	Target Fill Present (Yes/No)	Trace Fill Present (Yes/No)	Description of Target/Trace Fill Present
085	085-S1	No	No	--
	085-S2	No	Yes	Brick.
	085-S3	No	No	--
	085-S4	No	No	--
086	086-S1	No	No	--
	086-S2	No	No	--
	086-S3	No	No	--
	086-S4	No	No	--
087	-- Did not participate in program. --			
088	-- Did not participate in program. --			
089	089-S1	No	No	--
	089-S2	No	No	--
	089-S3	Yes	--	Ash, Slag, Brick, Glass.
	089-S4	No	No	--
090	090-S1	No	No	--
	090-S2	No	Yes	Slag.
	090-S3	No	No	--
	090-S4	No	Yes	One large piece of Slag.
091	091-S1	No	No	--
	091-S2	No	No	--
	091-S3	No	No	--
	091-S4	No	Yes	Glass.
092	092-S1	No	No	--
	092-S2	No	No	--
093	093-S1	No	No	--
	093-S2	No	No	--
	093-S3	No	No	--
	093-S4	No	No	--
	093-G1	Yes	--	Ash and Slag 6" to 12"bgs.
094	094-S1	No	No	--
	094-S2	No	No	--
	094-S3	No	No	--
	094-S4	No	No	--
095	095-S1	No	No	--
	095-S2	No	No	--
	095-S3	No	No	--
	095-S4	No	No	--
096	096-S1	No	No	--
	096-S2	No	No	--
	096-S3	No	No	--
	096-S4	No	No	--
097	097-S1	No	No	--
	097-S2	No	No	--
	097-S3	No	No	--
	097-S4	No	No	--
	097-G1	No	Yes	Trace Ash at 12" bgs
	097-G2	No	No	--
	097-G3	No	No	--
	097-G4	No	No	--
	097-G5	No	No	--
098	098-S1	Yes	--	Slag and Glass.
	098-S2	No	No	--
	098-S3	No	No	--
	098-S4	No	No	--
099	099-S1	No	No	--
	099-S2	No	No	--
	099-S3	No	No	--
	099-S4	No	No	--
	099-G1	No	No	--
100	100-S1	No	No	--
	100-S2	No	No	--
	100-S3	No	No	--
	100-S4	No	No	--

Table 2. Summary of Fill in Garden and Surface Soil Samples
Corning Study Area - Offsite OU5, Corning, New York

Parcel ID #	Surface Sample/Garden Boring ID	Target Fill Present (Yes/No)	Trace Fill Present (Yes/No)	Description of Target/Trace Fill Present
101	101-S1	No	No	--
	101-S2	No	Yes	Slag and Glass.
	101-S3	No	No	--
	101-S4	No	No	--
	101-G1	No	No	--
102	102-S1	No	No	--
	102-S2	No	No	--
	102-G1	No	No	--
	102-G2	No	Yes	Slag
	102-G3	No	Yes	Coal
	102-G4	No	No	--
103	103-S1	No	Yes	Little Slag and Glass.
	103-S2	No	No	--
	103-S3	No	No	--
	103-S4	No	No	--
104	104-S1	No	Yes	Ash, Slag, Glass.
	104-S2	No	No	--
	104-S3	No	Yes	Unspecified Target Fill
	104-S4	No	Yes	Unspecified Target Fill
105	105-S1	No	No	--
	105-S2	No	No	--
	105-S3	No	No	--
	105-S4	No	No	--
106	106-S1	No	No	--
	106-S2	No	No	--
	106-S3	No	No	--
	106-S4	No	No	--
107	107-S1	No	No	--
	107-S2	No	No	--
	107-S3	No	No	--
	107-S4	No	No	--
108	108-S1	No	No	--
	108-S2	No	No	--
	108-S3	No	No	--
	108-S4	No	No	--
109	109-S1	No	No	--
	109-S2	No	No	--
	109-S3	No	No	--
	109-S4	No	No	--
I86 Berm	I86-S1	No	Yes	Black Slag, Coal, Cinder, Ash.
	I86-S2	No	Yes	Black Slag, Coal, Cinder, Ash.

Notes:

1. PN - Denotes the randomly assigned parcel number unique to each tax ID.
2. I86 - Denotes surface samples collected on the southern berm along Interstate 86.

Table 3. Residential Soil Cleanup Objective and TCLP Exceedances by Constituent and Sample Depth
Corning Study Area - Offsite OU5, Corning, New York

Property ID	Arsenic	Cadmium	Lead	Other Metals	SVOC	TCLP
001	(5-7), (15-16)	(5-7)	(5-7)	(5-7)	(3.5-4.5)	(5-7)
002	(surface) (garden) (0-0.5), (1-3) (2-4)	(1-2) (2-4)	(1-2) (2-4) (1-3)	(surface) (garden) (1-3) (2-5)	(1-3)	
003	(1-2) (3-3.8) (5-6)	(1-2) (5-6)	(1-2)		(0-1) (5-6)	
004						
005	(surface)		(surface) (0-2)		(garden)	
006	(15-16)			(surface) (15-16)		
007						
008	(surface)	(surface)		(0-2) (15-16)		
009	(1.5-3)	(1-3) (1.5-3)	(1.5-3)	(surface) (1.5-3)	(1.5-3) (1-3)	(1.5-3)
010				(15-16)		
011	(surface)					
012		(0.5-0.7)	(0.5-0.7)	(0-0.25) (0-0.5) (0.5-0.7)		
013						
014						
015						
016	(0-2) (3.5-4.5) (3-5) (4-6)	(0-2) (3.5-4.5) (3-5) (4-6)	(0-2) (3.5-4.5) (3-5)	(0-2) (3.5-4.5) (3-5)	(0-2)	(3.5-4.5) (3-5) (4-6)
017	(0-1) (3-4)	(0-1) (0.5-1.5) (3-4)	(0-1) (2.5-4.5) (3-4)			(3-4)
018						
019	(0-0.5) (1-3) (6-8)		(0-0.5) (1-3) (5-6) (6-8)	(1-3) (5-6)	(1-3) (5-6) (6-8)	
020						
021	(1-2) (5-6) (2-4) (1-3) (5-7)	(5-6)	(1-2) (2-4) (5-6) (5-7)	(1-2) (5-6)	(1-3) (5-7)	(5-6)
022					(0.5-1.5)	
023						
024	(surface) (3-5) (1-2.5) (0-0.5)	(surface) (0-0.5) (0.5-1.5)	(surface) (1-2.5) (0-0.5)	(surface) (0.5-1.5) (0.5-2.5)		
025						
026						
027	(2-4) (6-8) (10-12)	(0-0.5) (2-4) (6-8)		(2-4)	(2.5-4.2)	(2-4)
028						
029	(0.5-2)	(surface) (0-0.5) (0.5-2)	(0.5-2)		(surface) (0.5-2) (0-2)	
030				(15-16)	(2.5-3.5)	
031	(1-3)				(1-3) (3-5) (2-4)	
032	(2-3)		(2-3)	(surface) (0-0.5)		
034	(surface) (3-5) (1-3) (5-7)	(5-7)	(surface) (1-3) (5-7)		(1-3) (5-7) (6-8)	(5-7)
035	(surface) (0-2.5) (3-5)		(3-5)	(0-2.5) (2-3)		(3-5)
036				(garden)		
037						
038						
039	(garden)					
040	(surface)					
041	(surface) (0-2)					
042	(surface)			(15-16)		
043						
044						
045						
046						
047	(surface)			(surface)		
048	(2-4)					
049	(garden)			(15-16)		
050	No Access					
051	(2-4) (4-6)	(4-6)	(2-4) (4-6)	(surface) (2-4)	(2-4)	
052	(garden) (15-16) (0.5-2.5) (2.5-4.5) (7-8) (2-4) (6-8)	(0.5-2.5) (2.5-4.5) (2-4) (6-8)	(0.5-2.5) (2-4) (6-8)	(garden) (0.5-2.5) (2.5-4.5) (2-4) (6-8) (15-16)		(2-4) (6-8)
053	(surface)		(surface) (0.5-1)	(surface) (0.5-1.0)		
054						
055						
056						
057	(2-4) (4-5)	(2-4)	(2-4) (4-5)	(1-2.5) (2-4)	(1-2.5) (2-4)	

Table 3. Residential Soil Cleanup Objective and TCLP Exceedances by Constituent and Sample Depth
Corning Study Area - Offsite OU5, Corning, New York

Property ID	Arsenic	Cadmium	Lead	Other Metals	SVOC	TCLP
058	(surface) (8-10)					
059	(2.5-4) (2.5-4.5)					
060	(surface)			(surface)		
061						
062						
063						
064	(0-2)			(0-2)		
065	(1-2.5) (1-3)		(1-2.5) (1-3)			
066						
067				(surface)		
068						
069	(0-2) (2.5-3) (2-4)	(2.5-3) (2-4)	(2.5-3) (2-4)	(0-2) (2-4) (2.5-3) (15-16)		(2-4)
070	(surface) (2-3.5)	(surface) (2-3.5)	(2-3)	(2-3)		
071						
072	No Access					
073	(0-2)		(surface) (0-2)	(surface)		
074						
075	(surface)			(surface)		
076	(2-3.5) (2-4)				(2.5-3.5)	
077	(surface) (0-1) (1.4-2) (1-2.5)	(surface)	(surface)	(1-2.5)		
078						
079	(surface) (0-2)					
080				(surface)		
081						
082				(8-10)		
083	(2-4) (2.5-4) (5-7) (10-12)	(2.5-4)	(0-0.3) (2.5-4) (2-4)	(surface) (0-0.3) (2-4) (2.5-4) (5-7) (7-9) (10-12)	(5-7) (7-9)	
084						
085						
086	(1-2) (1.5-3.5) (2-4) (6-8)				(1.5-3.5)	
087	No Access					
088	No Access					
089	(surface) (0.5-2.5) (4-5)	(0.5-2.5)	(0.5-2.5) (2-4) (4-5)	(0.5-2.5) (2-4) (4-5)		
090				(15-16)		
091			(0-2)			
092	(2-4) (5-7)	(2-4) (5-7)	(2-4) (5-7)	(3-4)		(2-4) (5-7)
093						
094	(14-16)					
095						
096						
097						
098					(surface)	
099	(surface) (garden)					
100						
101						
102	(2-4)					
103	(1-2) (1-3)		(1-3)			
104	(surface) (0.5-2.5)		(0-1) (0.5-2.5) (1-2)	(4-6)		
105	(15-16)					
106						
107						
108						
109	(1-3) (4-5)	(1-3)	(1-3) (2-4) (4-5)	(1-3) (2-4) (4-5)		

Note:
Numbers in parentheses indicate sample interval (in depth below ground surface) in which a constituent exceeded the residential soil cleanup objective or TCLP regulatory value.
Blank cells indicate analytical results do not exceed the residential soil cleanup objective or TCLP regulatory value.

Table 4. Summary of Fill and Residential SCO Exceedances by Property
Corning Study Area - Offsite OU5, Corning, New York

	Fill Observed			Residential SCO Exceedance in Soil					
Property Number	Layer	Trace	Layer or Trace	At Any Depth	Surface or Garden	0-2 Feet bgs	2-4 Feet bgs	4+ Feet bgs	TCLP Exceedance
001	Yes	No	Yes	Yes	No	No	Yes	Yes	Yes
002	Yes	No	Yes	Yes	Yes	Yes	Yes	No	No
003	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No
004	No	No	No	No	No	No	No	No	No
005	No	Yes	Yes	Yes	Yes	Yes	No	No	No
006	No	Yes	Yes	Yes	Yes	No	No	Yes	No
007	Yes	Yes	Yes	No	No	No	No	No	No
008	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No
009	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
010	No	Yes	Yes	Yes	No	No	No	Yes	No
011	No	No	No	Yes	Yes	No	No	No	No
012	Yes	Yes	Yes	Yes	No	Yes	No	No	No
013	No	No	No	No	No	No	No	No	No
014	No	No	No	No	No	No	No	No	No
015	No	No	No	No	No	No	No	No	No
016	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes
017	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes
018	No	No	No	No	No	No	No	No	No
019	Yes	No	Yes	Yes	No	Yes	Yes	Yes	No
020	No	Yes	Yes	No	No	No	No	No	No
021	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes
022	Yes	No	Yes	Yes	No	Yes	No	No	No
023	Yes	No	Yes	No	No	No	No	No	No
024	Yes	No	Yes	Yes	Yes	Yes	Yes	No	No
025	No	Yes	Yes	No	No	No	No	No	No
026	No	No	No	No	No	No	No	No	No
027	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes
028	No	Yes	Yes	No	No	No	No	No	No
029	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
030	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No
031	Yes	No	Yes	Yes	No	Yes	Yes	No	No
032	Yes	No	Yes	Yes	Yes	Yes	Yes	No	No
034	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
035	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes
036	No	Yes	Yes	Yes	Yes	No	No	No	No
037	No	No	No	No	No	No	No	No	No
038	No	No	No	No	No	No	No	No	No

Indicates Trace Fill Only Observed and a Residential SCO Exceedance on the property.

Indicates Trace Fill Only Observed and no Residential SCO Exceedance on the property.

Indicates Fill Observed and a Residential SCO Exceedance on the property.

Indicates No Fill Observed and a Residential SCO Exceedance on the property.

Indicates Fill Observed and no Residential SCO Exceedance on the property.

Indicates No Fill Observed and no Residential SCO Exceedance on the property.

Layer is defined as a measurable thickness of one inch or greater of ash, brick, or glass fill.

Trace is defined as one to a few pieces of fill material at a point or given interval of soil.

Table 4. Summary of Fill and Residential SCO Exceedances by Property
Corning Study Area - Offsite OU5, Corning, New York

	Fill Observed			Residential SCO Exceedance in Soil					
Property Number	Layer	Trace	Layer or Trace	At Any Depth	Surface or Garden	0-2 Feet bgs	2-4 Feet bgs	4+ Feet bgs	TCLP Exceedance
039	No	Yes	Yes	Yes	Yes	No	No	No	No
040	No	No	No	Yes	Yes	No	No	No	No
041	No	No	No	Yes	Yes	Yes	No	No	No
042	No	Yes	Yes	Yes	Yes	No	No	Yes	No
043	No	Yes	Yes	No	No	No	No	No	No
044	No	No	No	No	No	No	No	No	No
045	Yes	No	Yes	No	No	No	No	No	No
046	Yes	No	Yes	No	No	No	No	No	No
047	No	Yes	Yes	Yes	Yes	No	No	No	No
048	No	No	No	Yes	No	No	Yes	No	No
049	No	Yes	Yes	Yes	Yes	No	No	Yes	No
050	No Access								
051	Yes	No	Yes	Yes	Yes	No	Yes	Yes	No
052	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
053	Yes	No	Yes	Yes	Yes	Yes	No	No	No
054	Yes	Yes	Yes	No	No	No	No	No	No
055	No	Yes	Yes	No	No	No	No	No	No
056	No	Yes	Yes	No	No	No	No	No	No
057	Yes	No	Yes	Yes	No	Yes	Yes	Yes	No
058	No	Yes	Yes	Yes	Yes	No	No	Yes	No
059	Yes	No	Yes	Yes	No	No	Yes	No	No
060	Yes	No	Yes	Yes	Yes	No	No	No	No
061	Yes	Yes	Yes	No	No	No	No	No	No
062	Yes	Yes	Yes	No	No	No	No	No	No
063	No	No	No	No	No	No	No	No	No
064	No	Yes	Yes	Yes	No	Yes	No	No	No
065	Yes	No	Yes	Yes	No	Yes	Yes	No	No
066	No	Yes	Yes	No	No	No	No	No	No
067	No	No	No	Yes	Yes	No	No	No	No
068	No	No	No	No	No	No	No	No	No
069	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes
070	Yes	No	Yes	Yes	Yes	No	Yes	No	No
071	Yes	No	Yes	No	No	No	No	No	No
072	No Access								
073	Yes	No	Yes	Yes	Yes	Yes	No	No	No
074	Yes	Yes	Yes	No	No	No	No	No	No
075	Yes	No	Yes	Yes	Yes	No	No	No	No

Indicates Trace Fill Only Observed and a Residential SCO Exceedance on the property.

Indicates Trace Fill Only Observed and no Residential SCO Exceedance on the property.

Indicates Fill Observed and a Residential SCO Exceedance on the property.

Indicates No Fill Observed and a Residential SCO Exceedance on the property.

Indicates Fill Observed and no Residential SCO Exceedance on the property.

Indicates No Fill Observed and no Residential SCO Exceedance on the property.

Layer is defined as a measurable thickness of one inch or greater of ash, brick, or glass fill.

Trace is defined as one to a few pieces of fill material at a point or given interval of soil.

Table 4. Summary of Fill and Residential SCO Exceedances by Property
Corning Study Area - Offsite OU5, Corning, New York

	Fill Observed			Residential SCO Exceedance in Soil					
Property Number	Layer	Trace	Layer or Trace	At Any Depth	Surface or Garden	0-2 Feet bgs	2-4 Feet bgs	4+ Feet bgs	TCLP Exceedance
076	Yes	No	Yes	Yes	No	No	Yes	No	No
077	Yes	No	Yes	Yes	Yes	Yes	Yes	No	No
078	No	No	No	No	No	No	No	No	No
079	No	Yes	Yes	Yes	Yes	Yes	No	No	No
080	No	No	No	Yes	Yes	No	No	No	No
081	No	Yes	Yes	No	No	No	No	No	No
082	No	Yes	Yes	Yes	No	No	No	Yes	No
083	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No
084	No	Yes	Yes	No	No	No	No	No	No
085	No	Yes	Yes	No	No	No	No	No	No
086	Yes	No	Yes	Yes	No	Yes	Yes	Yes	No
087	No Access								
088	No Access								
089	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No
090	No	Yes	Yes	Yes	No	No	No	Yes	No
091	No	Yes	Yes	Yes	No	Yes	No	No	No
092	Yes	No	Yes	Yes	No	No	Yes	Yes	Yes
093	Yes	No	Yes	No	No	No	No	No	No
094	No	No	No	Yes	No	No	No	Yes	No
095	No	No	No	No	No	No	No	No	No
096	No	No	No	No	No	No	No	No	No
097	No	Yes	Yes	No	No	No	No	No	No
098	Yes	No	Yes	Yes	Yes	No	No	No	No
099	No	Yes	Yes	Yes	Yes	No	No	No	No
100	No	No	No	No	No	No	No	No	No
101	No	Yes	Yes	No	No	No	No	No	No
102	No	Yes	Yes	Yes	No	No	Yes	No	No
103	Yes	No	Yes	Yes	No	Yes	Yes	No	No
104	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No
105	No	Yes	Yes	Yes	No	No	No	Yes	No
106	No	No	No	No	No	No	No	No	No
107	No	No	No	No	No	No	No	No	No
108	No	Yes	Yes	No	No	No	No	No	No
109	Yes	No	Yes	Yes	No	Yes	Yes	Yes	No
Sum	50	42	80	64	35	35	33	28	11

- Indicates Trace Fill Only Observed and a Residential SCO Exceedance on the property.
- Indicates Trace Fill Only Observed and no Residential SCO Exceedance on the property.
- Indicates Fill Observed and a Residential SCO Exceedance on the property.
- Indicates No Fill Observed and a Residential SCO Exceedance on the property.
- Indicates Fill Observed and no Residential SCO Exceedance on the property.
- Indicates No Fill Observed and no Residential SCO Exceedance on the property.

Sum of properties in each category	
17	orange
13	purple
40	blue
7	yellow
10	gray
17	green
104	total

Layer is defined as a measurable thickness of one inch or greater of ash, brick, or glass fill.
Trace is defined as one to a few pieces of fill material at a point or given interval of soil.

Table 5. Number of Properties with Residential Soil Cleanup Objective and TCLP Exceedances by Depth Interval and Analyte
Corning Study Area - Offsite OU5, Corning, New York

Residential Soil Cleanup Exceedance Count

SVOC	Garden Sample	Surface Sample	0-2	2-4	4-10	10+	Any depth
BENZO(A)ANTHRACENE	1		6	3	4		12
BENZO(A)PYRENE	1		7	3	3		11
BENZO(B)FLUORANTHENE	1	1	9	3	4		15
BENZO(K)FLUORANTHENE			5	1	3		9
CHRYSENE	1		8	3	4		14
DIBENZ(A,H)ANTHRACENE			8	3	3		12
INDENO(1,2,3-C,D)PYRENE	1	2	12	8	5		20

Residential Soil Cleanup Exceedance Count

Metal	Garden Sample	Surface Sample	0-2	2-4	4-10	10+	Any depth
ARSENIC	5	21	25	22	16	7	53
BARIUM	1	1	7	9	9	3	17
CADMIUM		5	12	10	11		22
CHROMIUM, TOTAL	1	6	8	3	2	1	17
COPPER			2	1	1		4
LEAD		6	22	15	10		30
MERCURY	6	1	9	8			21
NICKEL			1		1		2
ZINC			1	3	1		4
MANGANESE		1			1	8	10
SELENIUM				1			1

TCLP Regulatory Value Exceedance Count

TCLP Metal	Garden Sample	Surface Sample	0-2	2-4	4-10	10+	Any depth
BARIUM				1			1
CADMIUM			1	3			4
LEAD			1	6	6		10

Notes:

The numbers in the cells above represent the number of properties with a sample concentration exceeding the residential soil cleanup objective or TCLP regulatory value.

0-2, 2-4, 4-10, and 10+ represent the depth below ground surface in feet.

Table 6. Summary of Detections and Exceedances
Corning Study Area - Offsite OU5, Corning, New York

Semi-Volatile Organic Compound	Maximum Detection	Units	# Properties with Residential SCO Exceedances	# Samples with Residential SCO Exceedances	Total Samples	Non-Detects	Detects	Detection Frequency
2,4,5-TRICHLOROPHENOL		ug/kg	0	0	336	336	0	0.0%
2,4,6-TRICHLOROPHENOL		ug/kg	0	0	336	336	0	0.0%
2,4-DICHLOROPHENOL		ug/kg	0	0	336	336	0	0.0%
2,4-DIMETHYLPHENOL		ug/kg	0	0	336	336	0	0.0%
2,4-DINITROPHENOL		ug/kg	0	0	336	336	0	0.0%
2,4-DINITROTOLUENE		ug/kg	0	0	336	336	0	0.0%
2,6-DINITROTOLUENE		ug/kg	0	0	336	336	0	0.0%
2-CHLORONAPHTHALENE	660	ug/kg	0	0	336	301	35	10.4%
2-CHLOROPHENOL		ug/kg	0	0	336	336	0	0.0%
2-METHYLNAPHTHALENE	1200	ug/kg	0	0	336	151	185	55.1%
2-METHYLPHENOL (O-CRESOL)	340	ug/kg	0	0	336	335	1	0.3%
2-NITROANILINE		ug/kg	0	0	336	336	0	0.0%
2-NITROPHENOL		ug/kg	0	0	336	336	0	0.0%
3,3'-DICHLOROBENZIDINE		ug/kg	0	0	336	336	0	0.0%
3-NITROANILINE		ug/kg	0	0	336	336	0	0.0%
4,6-DINITRO-2-METHYLPHENOL		ug/kg	0	0	336	336	0	0.0%
4-BROMOPHENYL PHENYL ETHER		ug/kg	0	0	336	336	0	0.0%
4-CHLORO-3-METHYLPHENOL		ug/kg	0	0	336	336	0	0.0%
4-CHLOROANILINE		ug/kg	0	0	336	336	0	0.0%
4-CHLOROPHENYL PHENYL ETHER		ug/kg	0	0	336	336	0	0.0%
4-METHYLPHENOL (P-CRESOL)	1800	ug/kg	0	0	336	300	36	10.7%
4-NITROANILINE		ug/kg	0	0	336	336	0	0.0%
4-NITROPHENOL		ug/kg	0	0	336	336	0	0.0%
ACENAPHTHENE	1000	ug/kg	0	0	336	253	83	24.7%
ACENAPHTHYLENE	3400	ug/kg	0	0	336	181	155	46.1%
ACETOPHENONE	2100	ug/kg	0	0	336	295	41	12.2%
ANTHRACENE	15000	ug/kg	0	0	336	233	103	30.7%
ATRAZINE		ug/kg	0	0	336	336	0	0.0%
BENZALDEHYDE	76	ug/kg	0	0	336	321	15	4.5%
BENZO(A)ANTHRACENE	55000	ug/kg	12	22	336	148	188	56.0%
BENZO(A)PYRENE	50000	ug/kg	11	23	336	121	215	64.0%
BENZO(B)FLUORANTHENE	83000	ug/kg	15	31	336	113	223	66.4%
BENZO(G,H,I)PERYLENE	42000	ug/kg	0	0	336	141	195	58.0%
BENZO(K)FLUORANTHENE	35000	ug/kg	9	12	336	148	188	56.0%
BENZYL BUTYL PHTHALATE	430	ug/kg	0	0	336	325	11	3.3%
BIPHENYL (DIPHENYL)	550	ug/kg	0	0	336	307	29	8.6%
BIS(2-CHLOROETHOXY) METHANE		ug/kg	0	0	336	336	0	0.0%
BIS(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER)		ug/kg	0	0	336	336	0	0.0%
BIS(2-CHLOROISOPROPYL) ETHER	22	ug/kg	0	0	336	335	1	0.3%
BIS(2-ETHYLHEXYL) PHTHALATE	4000	ug/kg	0	0	336	265	71	21.1%
CAPROLACTAM	180	ug/kg	0	0	336	331	5	1.5%
CARBAZOLE	6700	ug/kg	0	0	336	221	115	34.2%
CHRYSENE	53000	ug/kg	14	25	336	108	228	67.9%
DIBENZ(A,H)ANTHRACENE	11000	ug/kg	12	20	336	202	134	39.9%
DIBENZOFURAN	2700	ug/kg	0	0	336	219	117	34.8%
DIETHYL PHTHALATE		ug/kg	0	0	336	336	0	0.0%
DIMETHYL PHTHALATE	71	ug/kg	0	0	336	335	1	0.3%
DI-N-BUTYL PHTHALATE	270	ug/kg	0	0	336	298	38	11.3%
DI-N-OCTYLPHTHALATE	72	ug/kg	0	0	336	335	1	0.3%
FLUORANTHENE	96000	ug/kg	0	0	336	101	235	69.9%
FLUORENE	3800	ug/kg	0	0	336	213	123	36.6%
HEXACHLOROBENZENE	46	ug/kg	0	0	336	334	2	0.6%
HEXACHLOROBUTADIENE		ug/kg	0	0	336	336	0	0.0%
HEXACHLOROCYCLOPENTADIENE		ug/kg	0	0	336	336	0	0.0%
HEXACHLOROETHANE		ug/kg	0	0	336	336	0	0.0%
INDENO(1,2,3-C,D)PYRENE	53000	ug/kg	20	35	336	147	189	56.3%
ISOPHORONE	150000	ug/kg	0	0	336	296	40	11.9%
NAPHTHALENE	6200	ug/kg	0	0	336	139	197	58.6%
NITROBENZENE		ug/kg	0	0	336	336	0	0.0%
N-NITROSODI-N-PROPYLAMINE		ug/kg	0	0	336	336	0	0.0%
N-NITROSODIPHENYLAMINE		ug/kg	0	0	336	336	0	0.0%
PENTACHLOROPHENOL		ug/kg	0	0	336	336	0	0.0%
PHENANTHRENE	43000	ug/kg	0	0	336	98	238	70.8%
PHENOL	2200	ug/kg	0	0	336	316	20	6.0%
PYRENE	75000	ug/kg	0	0	336	111	225	67.0%

Note:
SCO - Soil Cleanup Objective
Values for Maximum Detection, Total Samples, Non-Detects, Detects, and Detection Frequency represent all samples collected during the Offsite OU5 Investigation. Residential SCO Exceedances represent only residential properties.

Table 6. Summary of Detections and Exceedances
Corning Study Area - Offsite OU5, Corning, New York

Metal	Maximum Detection	Units	# Properties with Residential SCO Exceedances	# Samples with Residential SCO Exceedances	Total Samples	Non-Detects	Detects	Detection Frequency
ALUMINUM	19800	mg/kg	0	0	1441	0	1441	100.0%
ANTIMONY	176	mg/kg	0	0	1441	1383	58	4.0%
ARSENIC	669	mg/kg	53	145	1441	1	1440	99.9%
BARIUM	4790	mg/kg	17	35	1441	0	1441	100.0%
BERYLLIUM	2	mg/kg	0	0	1441	183	1258	87.3%
CADMIUM	374	mg/kg	22	50	1441	1137	304	21.1%
CALCIUM	330000	mg/kg	0	0	1441	3	1438	99.8%
CHROMIUM, TOTAL	436	mg/kg	17	22	1441	2	1439	99.9%
COBALT	55.9	mg/kg	0	0	1441	3	1438	99.8%
COPPER	1520	mg/kg	5	6	1441	1	1440	99.9%
IRON	258000	mg/kg	0	0	1441	0	1441	100.0%
LEAD	28600	mg/kg	30	73	1441	0	1441	100.0%
MAGNESIUM	70700	mg/kg	0	0	1441	1	1440	99.9%
MANGANESE	8260	mg/kg	10	11	1441	0	1441	100.0%
MERCURY	18	mg/kg	21	31	1441	76	1365	94.7%
NICKEL	442	mg/kg	2	2	1441	2	1439	99.9%
POTASSIUM	2160	mg/kg	0	0	1441	2	1439	99.9%
SELENIUM	90.1	mg/kg	1	1	1441	1074	367	25.5%
SILVER	10.1	mg/kg	0	0	1441	1314	127	8.8%
SODIUM	2930	mg/kg	0	0	1441	1138	303	21.0%
THALLIUM	7.2	mg/kg	0	0	1441	1384	57	4.0%
VANADIUM	44.8	mg/kg	0	0	1441	1	1440	99.9%
ZINC	14200	mg/kg	4	5	1441	0	1441	100.0%

Note:
SCO - Soil Cleanup Objective
Values for Maximum Detection, Total Samples, Non-Detects, Detects, and Detection Frequency represent all samples collected during the Offsite OU5 Investigation. Residential SCO Exceedances represent only residential properties.

Metal - TCLP	Maximum Detection	Units	# Properties with TCLP Exceedances	# Samples with TCLP Exceedances	Total Samples	Non-Detects	Detects	Detection Frequency
ARSENIC	5	mg/l	0	0	336	250	86	25.6%
BARIUM	104	mg/l	1	1	336	0	336	100.0%
CADMIUM	17.2	mg/l	4	4	336	264	72	21.4%
CHROMIUM, TOTAL	0.042	mg/l	0	0	336	331	5	1.5%
LEAD	283	mg/l	10	15	336	72	264	78.6%
MERCURY	0.0015	mg/l	0	0	336	332	4	1.2%
SELENIUM	0.14	mg/l	0	0	336	333	3	0.9%
SILVER		mg/l	0	0	336	336	0	0.0%

Notes:
SCO - Soil Cleanup Objective
TCLP - Toxicity Characteristic Leaching Procedure
Values for Maximum Detection, Total Samples, Non-Detects, Detects, and Detection Frequency represent all samples collected during the Offsite OU5 Investigation. Residential SCO Exceedances represent only residential properties.

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Appendices are included in a
separate PDF