

INTERIM REMEDIAL MEASURES WORK PLAN

Study Area Bounded by Pyrex Street, E. Pulteney Street, Post Creek and Chemung River Corning, NY NYSDEC Project ID 851046

City of Corning Memorial Stadium

November 10, 2016

Prepared for:

Corning Incorporated Corning, New York

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W.O. No. 02005.056.002.0001



Certification

I, Michael H. Corbin, certify that I am currently a New York State registered professional engineer as defined in 6 NYCRR Part 375 and that this Interim Remedial Measures Work Plan was prepared in accordance with all applicable standards and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

Executed on the 10th day of November, 2016

Weston Solutions, Inc., Technical Director, P.E.





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LIST OF ACRONYMS

ASP	Analytical Services Protocol
CAMP	Community Air Monitoring Plan
cfs	cubic feet per second
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
ft amsl	feet above mean sea level
ft bgs	feet below ground surface
GPS	global positioning system
HASP	Health and Safety Plan
IDW	investigative derived waste
in bgs	inches below ground surface
IRM	Interim Remedial Measure
mg/Kg	milligram per kilogram
mg/L	milligram per liter
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYSPDES	New York State Pollutant Discharge Elimination System
PC	public-conservation zoning
PCBs	polychlorinated bi-phenyls
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
QC	Quality Control
RCRA	Resource Conservation Recovery Act
SCO	Soil Cleanup Objectives
SOP	standard operating procedure
SVOCs	semi-volatile organic compounds
TAL	Target Analyte List
TCL	Target Compound List
TCLP	Toxicity Characteristic Leaching Procedure
TOGS	New York State Division of Water Technical Operation and Guidance Series



LIST OF ACRONYMS (Continued)

TPH	total petroleum hydrocarbons
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USGS	U.S. Geological Survey
µg/Kg	microgram per kilogram
VOCs	volatile organic compounds
WESTON®	Weston Solutions, Inc.



1. INTRODUCTION

The Study Area is located in the City of Corning, New York, and is bounded by Pyrex Street on the west, E. Pulteney Street on the north, Post Creek on the east and the Chemung River on the south, as illustrated on Figure 1-1. The City of Corning Memorial Stadium property, subject of this Interim Remedial Measure (IRM) Work Plan, is located in the southwest corner of the Study Area, as illustrated on Figure 1-2.

On June 27, 2014 Corning Incorporated entered into an Order on Consent and Administrative Settlement (Order on Consent) with the New York State Department of Environmental Conservation (NYSDEC) to perform preliminary characterization activities within the Study Area. Weston Solutions, Inc. (WESTON[®]) prepared, on behalf of Corning Incorporated, a Study Area Characterization Work Plan dated June 2014, which was Attachment B to the Order on Consent (WESTON, 2014a). Subsequent to the Order on Consent, the NYSDEC approved Study Area Work Plan Addendum 3 (Work Plan Addendum 3) for additional characterization activities at the City of Corning Memorial Stadium property (WESTON, 2015). Collectively the June 2014 Study Area Characterization Work Plan and its Addenda, as modified, amended and approved by NYSDEC will be referred to herein as the Study Area Work Plan.

In accordance with Section II.5 and Appendix A, Section III of the Order on Consent, an IRM is proposed for the City of Corning Memorial Stadium property based on analytical data collected during field investigation activities performed between August 2014 and April 2015 under the Study Area Work Plan.

1.1 ENVIRONMENTAL SETTING

1.1.1 Land Use

The City of Corning Memorial Stadium property is located on an approximately 10.5 acre parcel. This land is owned by the City of Corning and is zoned Public-Conservation (PC). Approximately 6.9 acres of the parcel is leased by the Corning-Painted Post School District for use as athletic fields. As illustrated on Figure 1-3, the surface area for the City of Corning Memorial Stadium property is covered by several structures, a synthetic turf field, a variety of impervious surfaces



(i.e., a rubberized track, concrete sidewalks, roads and parking areas), and permeable surfaces (i.e., grassy areas, stone rip rap areas and gravel areas).

The City of Corning Memorial Stadium property is primarily used for athletic and educational purposes (e.g. marching band, physical education classes and ceremonial activities) and ground cover exists in the form of impervious surfaces including a synthetic turf athletic field and asphalt roads and parking areas. Small portions of the property are covered by mowed lawn.

1.1.2 Topography

The Corning, New York 1976 U.S. Geological Service (USGS) 7.5-minute topographic quadrangle map indicates that the City of Corning Memorial Stadium property is approximately 929 feet above mean sea level (ft amsl). Within approximately one mile radius of the City of Corning Memorial Stadium property, the ground surface elevation ranges from 915 ft amsl to 1,459 ft amsl, with two steep elevation changes, one located to the north and one to the east.

The City of Corning Memorial Stadium property is located adjacent to the Chemung River and the southern boundary of the property runs along an earthen dike located within the NYSDEC-maintained flood control lands. As a result, the City of Corning Memorial Stadium property is located outside but adjacent to the Federal Emergency Management Agency (FEMA) 100-year and 500-year flood zones (FEMA, 2002).

1.1.3 Geology

The City of Corning Memorial Stadium property is located in the Chemung River valley which contains predominately sand and gravel deposits of glaciofluvial origin and more recent alluvial deposits. In the vicinity of the City of Corning Memorial Stadium property, a low permeability, lacustrine silt and clay layer (approximately 10 feet thick) appears to be present about 30 feet below ground surface (ft bgs) in the Chemung River valley-fill deposits (Miller, 1982). The river valley deposits are on the order of 100 feet thick in the vicinity of the City of Corning Memorial Stadium property. These river valley deposits are underlain by low permeability shale/siltstone bedrock (Miller, 1982).



1.1.4 Hydrology

The saturated portions of the Chemung River valley deposits are recharged principally by infiltration of precipitation. This valley-filled glacial/alluvial aquifer is generally unconfined (i.e., the water table forms the upper boundary of the aquifer) and saturated approximately to the level of nearby rivers (such as the Chemung River) (Olcot, 1995). The depth to the water table at the City of Corning Memorial Stadium property ranges from approximately 16 to 21 ft bgs; however, groundwater levels may be deeper where supply wells actively extract groundwater from the valley aquifer. Groundwater in the valley aquifer generally flows toward and discharges to nearby rivers/creeks; however, groundwater flow directions can be locally altered by supply well withdrawals from the valley aquifer.

1.1.5 Ecological Setting

The City of Corning Memorial Stadium property is composed of a terrestrial cultural ecological community created and maintained by human activities and has been modified by human influence to such a degree that the physical conformation of the substrate and the biological composition of the resident community is substantially different from the character of the substrate or community as it existed prior to human influence.

1.2 ORGANIZATION OF THIS DOCUMENT

This Work Plan is organized into the following sections:

- Section 1 Introduction. This section contains an introduction to the project and environmental setting information.
- Section 2 Current Conditions. This section contains a description of characterization activities conducted at the City of Corning Memorial Stadium property, including the location, types and number of samples collected. Construction activities and an IRM previously conducted at the City of Corning Memorial Stadium property are also discussed.
- Section 3 Interim Remedial Measure Approach. This section contains a description of the approach and objectives of the proposed IRM.
- Section 4 Interim Remedial Measure Activities and Methodologies. This section contains a description of the activities to be conducted, including the locations, rationale for design, and execution of the planned work.



- Section 5 Project Management. This section contains information regarding the scheduling of the work as well as the reporting schedule. Additionally, this section provides details about project logistics, including project controls, management and public relations.
- Section 6 References.

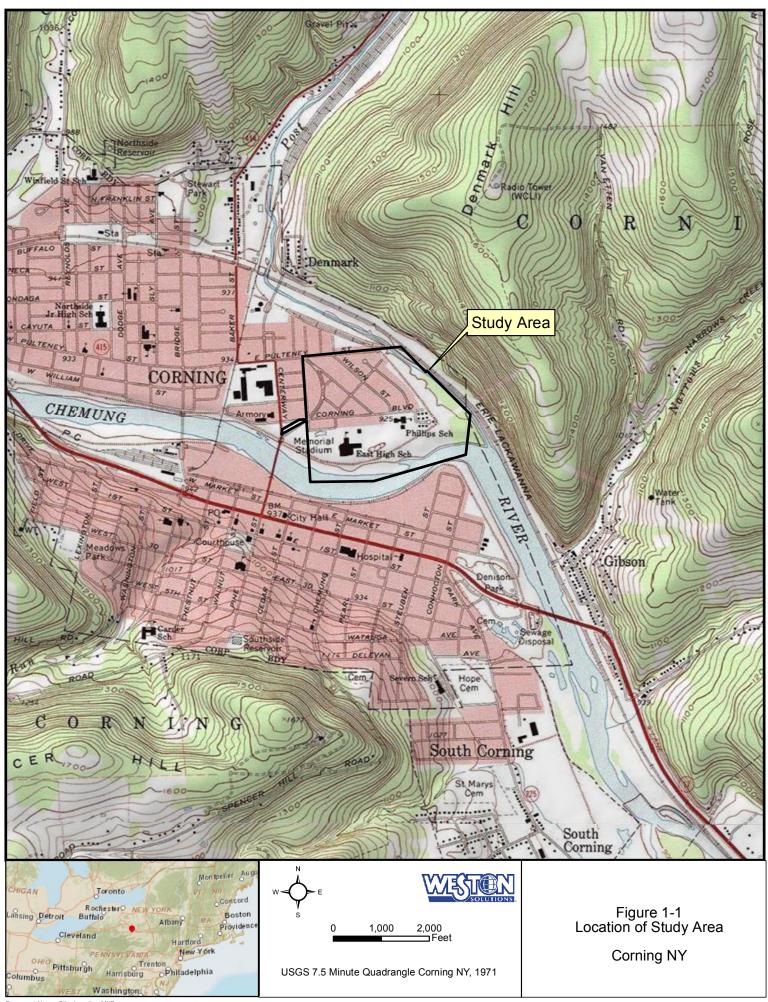
Generally, tables and figures are provided at the end of each section for ease of review.

Tables of validated analytical results for samples collected on the City of Corning Memorial Stadium property are provided in Appendix A.

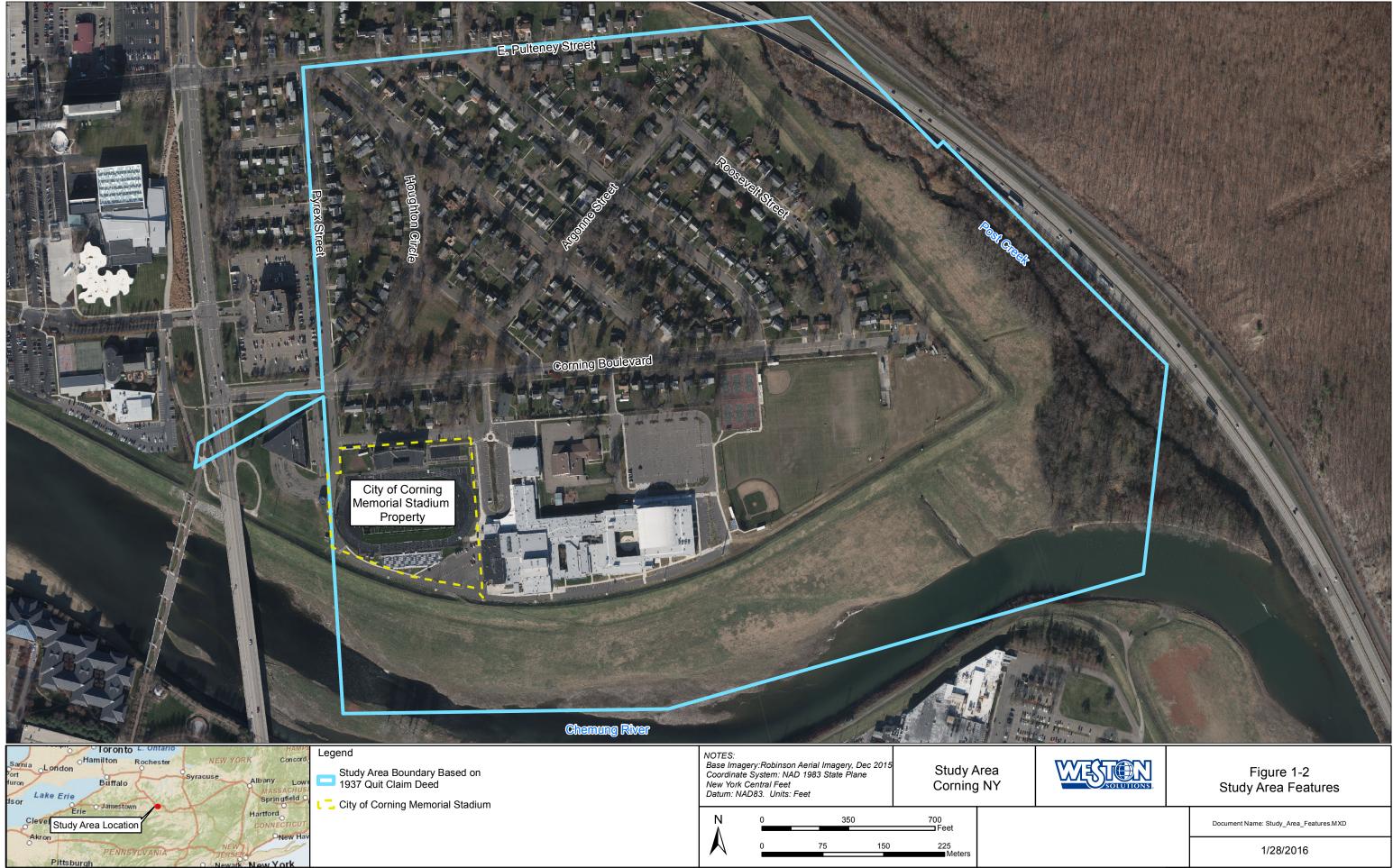


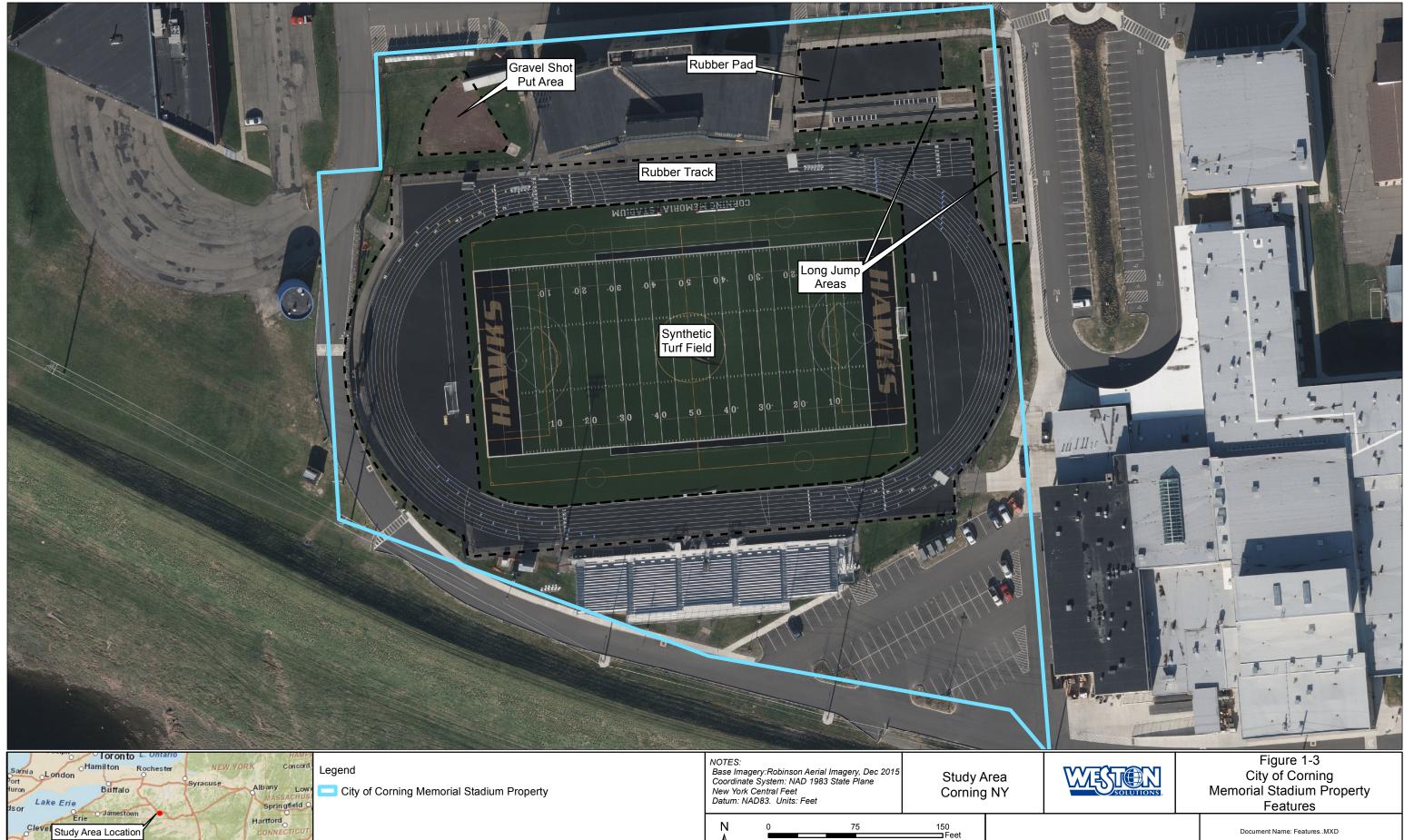
SECTION 1

FIGURES



Document Name: Site_Location.MXD





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30 Meters

Akron

Pittsburgh

New H

Newark New York

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2. CURRENT CONDITIONS

2.1 CHARACTERIZATION ACTIVITIES

In accordance with the Study Area Work Plan and Work Plan Addendum 3, WESTON on behalf of Corning Incorporated has collected soil samples at sixteen surface soil locations and thirteen soil boring locations on the City of Corning Memorial Stadium property. In addition, in accordance with the Study Area Work Plan and the NYSDEC-approved Groundwater Wells plan (WESTON, 2014b) two groundwater monitoring wells have been installed and sampled at the City of Corning Memorial Stadium property. Cumulatively, a total of 63 soil samples and four groundwater samples, along with associated quality assurance/quality control (QA/QC) samples have been collected at the City of Corning Memorial Stadium property. Samples were analyzed for Target Analyte List (TAL) metals plus mercury, Toxicity Characteristic Leaching Procedure (TCLP) Resource Conservation and Recovery Act (RCRA) metals, total petroleum hydrocarbons (TPH), polychlorinated bi-phenyls (PCBs), Target Compound List (TCL) semi-volatile organic compounds (SVOCs), volatile organic compounds (VOCs), or a subset thereof. The locations of the soil samples, soil borings and groundwater monitoring wells are illustrated on Figure 2-1. Tables of validated analytical results for soil samples and groundwater samples collected on the City of Corning Memorial Stadium property are provided in Appendix A.

2.1.1 Surface and Shallow Soil Sampling

At each of the 16 surface soil sampling locations (CMSSS001 to CMSSS016), a surface (0 to 2 inches below ground surface [in bgs]) and a shallow (2 to 24 in bgs) soil sample was collected. In addition, at one surface soil sampling location (CMSSS011) an additional sample was collected from 24 to 29 in bgs at the request of NYSDEC. During the collection of the 2 to 24 in bgs sample at this location ash and coal was observed from 23.5 to 24 in bgs. At the request of NYSDEC, the hand auger was advanced to 29 in bgs and an additional sample was collected of this material.

At 14 of the 16 surface soil sampling locations analytical results for both the surface and shallow soil samples were below the NYSDEC restricted residential Soil Cleanup Objectives (NYSDEC restricted residential SCOs; NYSDEC Subpart 375-6).



At surface soil sampling location CMSSS012, the analytical results for arsenic and lead were above the NYSDEC restricted residential SCOs in the 0 to 2 in bgs surface soil sample. Arsenic and lead were detected at concentrations of 20 mg/Kg and 720 mg/Kg, respectively. The NYSDEC restricted residential SCOs for these compounds are 16 mg/Kg and 400 mg/Kg, respectively. This sampling location is located east of the track, outside of the track fence in the vicinity of the parking area for Corning-Painted Post High School. The analytical results for the corresponding shallow soil sample (2 to 24 in bgs) collected at this location were below the NYSDEC restricted residential SCOs.

At surface soil sampling location CMSSS013, the analytical results in the shallow soil sample (2 to 24 in bgs) had concentrations of arsenic and lead above the NYSDEC restricted residential SCOs. Arsenic and lead were detected at concentrations of 24 mg/Kg and 1,500 mg/Kg, respectively. This sampling location is located in the southwest corner of the property, outside of the stadium fencing. The surface soil sample collected at this location was below the NYSDEC restricted residential SCOs.

At sampling location CMSSS011 the additional soil sample requested by NYSDEC (from 24 to 29 in bgs) had a concentration of arsenic of 18 mg/Kg. The NYSDEC restricted residential SCO for arsenic is 16 mg/Kg. The other two soil samples collected at this location, the surface and shallow soil samples, were below the NYSDEC restricted residential SCOs.

2.1.2 Soil Boring Sampling

Of the 13 soil borings advanced to approximately 16 ft bgs on the City of Corning Memorial Stadium property, four soil borings were installed in grassy areas outside of the footprint of the synthetic turf (i.e., athletic field). The remaining nine soil borings were advanced in soils beneath the synthetic turf in the stadium. The locations of the soil borings are illustrated on Figure 2-1. One to four samples were collected from each soil boring in accordance with the Study Area Work Plan and Work Plan Addendum 3. A summary of the soil boring analytical results is provided in Appendix A and a summary of the soil boring logs is in included in Table 2-1.



2.1.2.1 Soil Boring Results in Grassy Areas

No layer of fill material containing ash, brick and/or glass was observed at the following soil borings installed in the northern area of the property: soil boring CMSSB001 located in the northwest corner of the property and soil boring CMSSB004 located outside the northeastern limits of the track surrounding the synthetic turf field. Furthermore, the analytical results for all soil samples collected from these two soil borings were below the NYSDEC restricted residential SCOs. It should be noted that soil boring CMSSB004 was advanced to investigate ash and coal that was observed during surface and shallow soil sampling at location CMSSS011.

In the southwest corner of the City of Corning Memorial Stadium property, a layer of fill material containing ash, brick and glass was observed between 2 ft and 6 ft bgs at soil boring CMSSB002. Analytical results from the soil sample collected from the layer of fill material containing ash, brick and glass in this soil boring showed concentrations of arsenic, cadmium and lead above the NYSDEC restricted residential SCOs. Total arsenic, cadmium and lead were detected at concentrations of 69.0 mg/Kg, 12 mg/Kg and 1,900 mg/Kg, respectively, which is above their respective NYSDEC restricted residential SCOs of 16 mg/Kg, 4.3 mg/Kg and 400 mg/Kg. In addition, a sample of the fill material containing ash, brick and glass was analyzed using the USEPA TCLP method. Cadmium and lead were detected in this sample at concentrations of 1.1 J+ mg/L and 46 mg/L, respectively. The "J+" qualifier indicates the result is an estimated quantity and may be biased high. USEPA TCLP method is used to determine the appropriate disposal method under current NYSDEC and USEPA regulations. Excavated material will need to be characterized *ex situ* for disposal profiling.

Analytical results from the soil samples collected above and below the layer of fill material containing ash, brick and glass in soil boring CMSSB002 (i.e., the 0 to 2 ft bgs and the 6 to 8 ft bgs intervals) showed total metals at concentrations less than their respective NYSDEC restricted residential SCOs. In addition, samples collected from these intervals and analyzed using the TCLP method did not indicate concentrations of leachate above the USEPA criteria.

In the southeast corner of the City of Corning Memorial Stadium property, in the area of the newly repaved parking lot, a layer of fill material containing ash and brick was observed between 3 and 5 ft bgs at soil boring CMSSB003. Analytical results for all soil samples collected from this soil



boring were below NYSDEC restricted residential SCOs including the sample collected from the layer of fill material containing ash and brick.

2.1.2.2 Soil Borings beneath the Synthetic Turf Field

Nine soil borings were advanced beneath the synthetic turf field at the City of Corning Memorial Stadium property. No layer of fill material containing ash, brick and/or glass was encountered in two of the nine soil borings advanced beneath the synthetic turf (CMSSB005 and CMSSB011). A summary of the observances of ash, brick, and/or glass pieces in all of the soil borings installed at the City of Corning Memorial Stadium property is provided in Table 2-1.

In four of the nine soil borings advanced beneath the synthetic turf field (CMSB005, CMSSB008, CMSSB010 and CMSSB011), the analytical results from all soil samples collected in the respective soil boring were less than the NYSDEC restricted residential SCOs. In addition, samples collected from these intervals and analyzed using the TCLP method did not indicate concentrations of leachate above the USEPA criteria.

Analytical results for arsenic, cadmium and/or lead were greater than the respective NYSDEC restricted residential SCOs in five of the nine soil borings advanced beneath the synthetic turf field. The NYSDEC restricted residential SCOs for arsenic, cadmium and lead are 16 mg/Kg, 4.3 mg/Kg and 400 mg/Kg, respectively. In four of these soil borings (CMSSB006, CMSSB009, CMSSB012 and CMSSB013), analytical results greater than NYSDEC restricted residential SCOs were detected in a sampling interval that coincided with an encountered layer of fill material containing ash, brick and/or glass. Furthermore, in each of these four soil borings, analytical results were below the NYSDEC restricted residential SCOs for samples collected from an interval below the layer of fill material containing ash, brick and/or glass. At the fifth location, CMSSB007, a layer of fill material containing ash and coal was encountered from 1.6 to 1.9 ft bgs and the soil sample collected from the interval below the ash and coal layer (2.5 to 5 ft bgs) had concentrations of arsenic and lead at 16.9 mg/Kg and 485 mg/Kg, respectively.

Two soil samples collected from soil boring CMSSB006 had analytical results for TCLP lead above the USEPA criteria of 5 mg/L. TCLP lead was detected in the 21 to 24 inch sample at 19.4 mg/L and in the 2 to 5.9 ft bgs sample 19.4 (16.4-duplicate) mg/L. TCLP lead was not detected



(0.0030 U) in an additional sample collected in this soil boring at a depth from 6 to 8 ft bgs. USEPA TCLP method is used to determine the appropriate disposal method under current NYSDEC and USEPA regulations. Material, if excavated, will need to be characterized *ex situ* for disposal profiling.

Lastly, concentrations of semi-volatile organic compounds (SVOCs) were detected above their respective NYSDEC restricted residential SCOs in two of the nine soil borings advanced beneath the synthetic turf field (CMSSB006 and CMSSB013). At both of these sampling locations, the analytical results greater than residential SCOs were limited to the samples collected from within the identified layer of fill material containing ash, brick and/or glass in each respective soil boring.

2.1.3 Groundwater Sampling Results

In December 2014, as part of the Study Area Work Plan, two groundwater monitoring wells were installed on the City of Corning Memorial Stadium property. These two monitoring wells (CMSMW-01 and CMSMW-02) were installed in the vicinity of CMSSB002 and CMSSB003 as described in the NYSDEC-approved Groundwater Wells plan (WESTON, 2014b). These two groundwater monitoring wells are located along the southern edge of the City of Corning Memorial Stadium property near the earthen dike that runs along Chemung River. Based on groundwater elevation readings, groundwater in this area flows in a southeasterly direction towards the Chemung River.

Two rounds of groundwater samples were collected from each of the groundwater monitoring wells, one in January 2015 and a second round in April 2015. Analytical results from both of these sampling events indicate that the groundwater has not been impacted by the layers of fill material containing ash, brick and/or glass. The only compounds detected in groundwater above New York State Division of Water Technical and Operational Guidance Series (TOGS) standards were boron, iron and sodium. Iron and sodium are believed to be naturally occurring in the area of the City of Corning Memorial Stadium property. Boron was analyzed for and detected in the CMSMW-02 at concentrations of 1.1 mg/L (1.1 mg/L-duplicate) in April 2015. The TOGS groundwater standard for boron is 1 mg/L. In January 2015, the concentration of boron in groundwater samples collected from monitoring well CMSMW-02 was 0.90 mg/L (0.89 mg/L-duplicate) which is below the



TOGS standard. A summary table of validated analytical results from the groundwater samples collected on the City of Corning Memorial Stadium property is provided in Appendix A.

2.2 CORNING-PAINTED POST EAST HIGH SCHOOL CONSTRUCTION PROJECT

As a part of the Corning-Painted Post School District construction activities, extensive work has been performed on the City of Corning Memorial Stadium property including, but not limited to, the construction of new asphalt roadways and parking areas and the construction of concrete sidewalks. The newly constructed parking lot, roadway and sidewalk areas are shown on the Corning Memorial Stadium property features map provided in the previous section (see Figure 1-3).

2.3 CORNING-PAINTED POST SCHOOL DISTRICT TURF REPLACEMENT PROJECT

The synthetic turf in the City of Corning Memorial Stadium was deemed by the Corning-Painted Post Area School District (School District) to be unsuitable for continued athletic play and replacement of the old turf was proposed and approved by the School District in the fall of 2014. The School District planned to replace the synthetic turf during the summer of 2015 in preparation for its utilization during the 2015-2016 academic year. The School District's consultant (Haley & Aldrich) prepared an IRM Work Plan for the turf replacement project which was included as Appendix B to an Order on Consent and Administrative Settlement (Index No. A8-0859-15-07) between NYSDEC and the School District. This Order on Consent and Administrative Settlement was executed on July 1, 2015. Following the Order on Consent and Administrative Settlement between the School District and NYSDEC, the IRM activities were conducted by the School District as part of the City of Corning Memorial Stadium turf project (Turf Project) during the summer of 2015.

Before the execution of the Order on Consent and Administrative Settlement between the School District and NYSDEC, the City of Corning, the Corning-Painted Post School District and Corning Incorporated submitted letters dated June 30, 2015, to NYSDEC committing that each would undertake the following future actions:



- The City of Corning (as owner of the City of Corning Memorial Stadium property) would impose an institutional control in the form of an Environmental Easement restricting use of the Memorial Stadium property to Restricted Residential Uses and requiring compliance with a NYSDEC-approved Site Management Plan (SMP).
- The School District would implement a Work Plan (consisting of a Work Plan submitted on June 8, 2015 and an amendment dated June 15, 2015) to undertake the Turf Project as defined in the Work Plan at the City of Corning Memorial Stadium and would commit to work with the City of Corning and Corning Incorporated to develop and implement the SMP pursuant to an Environmental Easement to be filed.
- Corning Incorporated would, under its existing Order on Consent prepare and implement a proposed IRM Work Plan to provide and maintain a suitable cover system for soils outside of the Turf Project area at the City of Corning Memorial Stadium property.

2.4 SUMMARY OF CURRENT CONDITIONS

Based on the characterization activities performed by WESTON and the Turf Project and construction work performed by the School District at the City of Corning Memorial Stadium property, two areas have been identified where soil concentrations of arsenic, cadmium and/or lead were detected above the NYSDEC restricted residential SCOs (See Figure 2-2) in the top 2 feet of soil (i.e., 0 to 2 ft bgs). These areas are along the eastern edge of the track in the vicinity of sample CMSSS012 and in the grassy area in the southwest corner of the City of Corning Memorial Stadium property in the vicinity of sample CMSSS013. An additional area southwest of the City of Corning Memorial Stadium in the vicinity of soil boring CMSSB002 was identified where soil concentrations of arsenic, cadmium and lead were detected above the NYSDEC restricted residential SCOs in the soil sample collected at 2 ft bgs (sample collected from 2 to 6 ft bgs).



SECTION 2

FIGURES



- Surface Soil Locations
- Soil Borings

Hartford

Newark New York

New H

dsor

Akron

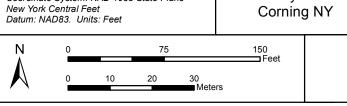
Jamestown

Erie

Pittsburgh

Clevel Study Area Location

Monitoring Well Locations



Memorial Stadium Property

Document Name: Sample_Locations.MXD

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Pittsburgh

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SECTION 2 TABLES

WESTER

Table 2-1Soil Boring Log SummaryStudy Area, Corning, NY

	Observance of ash, bri	Depth to	Total Boring	Highest PID				
Sample Location	Comment / Notes	Interval (ft bgs)	Thickness (ft)	Native Soil (ft bgs)	Depth (ft bgs)	Reading (ppm)		
City of Corning Memorial Stadium Property (CMS)								
CMSSB001	None			1.8 ft	16.0 ft	0 ppm		
CMSSB002	Ash, brick, and glass	2.0 to 6.0 ft	4.0 ft	6.0 ft	16.0 ft	0 ppm		
CMSSB003	Ash and brick	3.0 to 5.0 ft	2.0 ft	5.0 ft	16.0 ft	0 ppm		
CMSSB004	None			2.85 ft	16.0 ft	0 ppm		
CMSSB005	None			4.6 ft	16.0 ft	0 ppm		
CMSSB006	Ash, brick, and glass	1.75 to 5.9 ft	4.15 ft	5.9 ft	16.0 ft	0 ppm		
CMSSB007	Ash and coal	1.5 to 1.9 ft	0.4 ft	2.0 ft	16.0 ft	0 ppm		
CMSSB008	Ash, brick, glass and coal	0.95 to 2.0 ft	1.05 ft	2.0 ft	16.0 ft	0 ppm		
CMSSB009	Ash, brick, glass and coal	3.9 ft to 4.5 ft	0.6 ft	4.5 ft	16.0 ft	0 ppm		
CMSSB010	Brick	1.0 to 1.33 ft	0.33 ft	1.33 ft	16.0 ft	0 ppm		
CMSSB011	None			1.15 ft	16.0 ft	0 ppm		
CMSSB012	Ash, brick and coal	2.0 to 3.9 ft	1.9 ft	3.9 ft	16.0 ft	0 ppm		
CMSSB013	Brick and coal	1.0 to 4.2 ft	3.2 ft	4.2 ft	16.0 ft	0 ppm		



3. INTERIM REMEDIAL MEASURES APPROACH

3.1 INTERIM REMEDIAL MEASURES OBJECTIVE

An IRM is proposed to be conducted at the City of Corning Memorial Stadium property to "mitigate potential environmental or human exposure" to soils with concentrations greater than the NYSDEC restricted residential SCOs [DER-10 1.11(a)1]. In accordance with the NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation (DER-10) a "non-emergency" IRM is being proposed because exposure to soils or fill material containing glass, ash and/or brick with concentrations above NYSDEC restricted residential SCOs can be effectively addressed before completion of the ongoing investigation activities in the Study Area [DER-10 1.11(c)1].

The specific objective of the IRM is to provide a two foot cover in areas with soil sample concentrations greater than the NYSDEC restricted residential SCOs in the areas outside of the Turf Project completed by the Corning-Painted Post School District.

3.2 INTERIM REMEDIAL MEASURES APPROACH

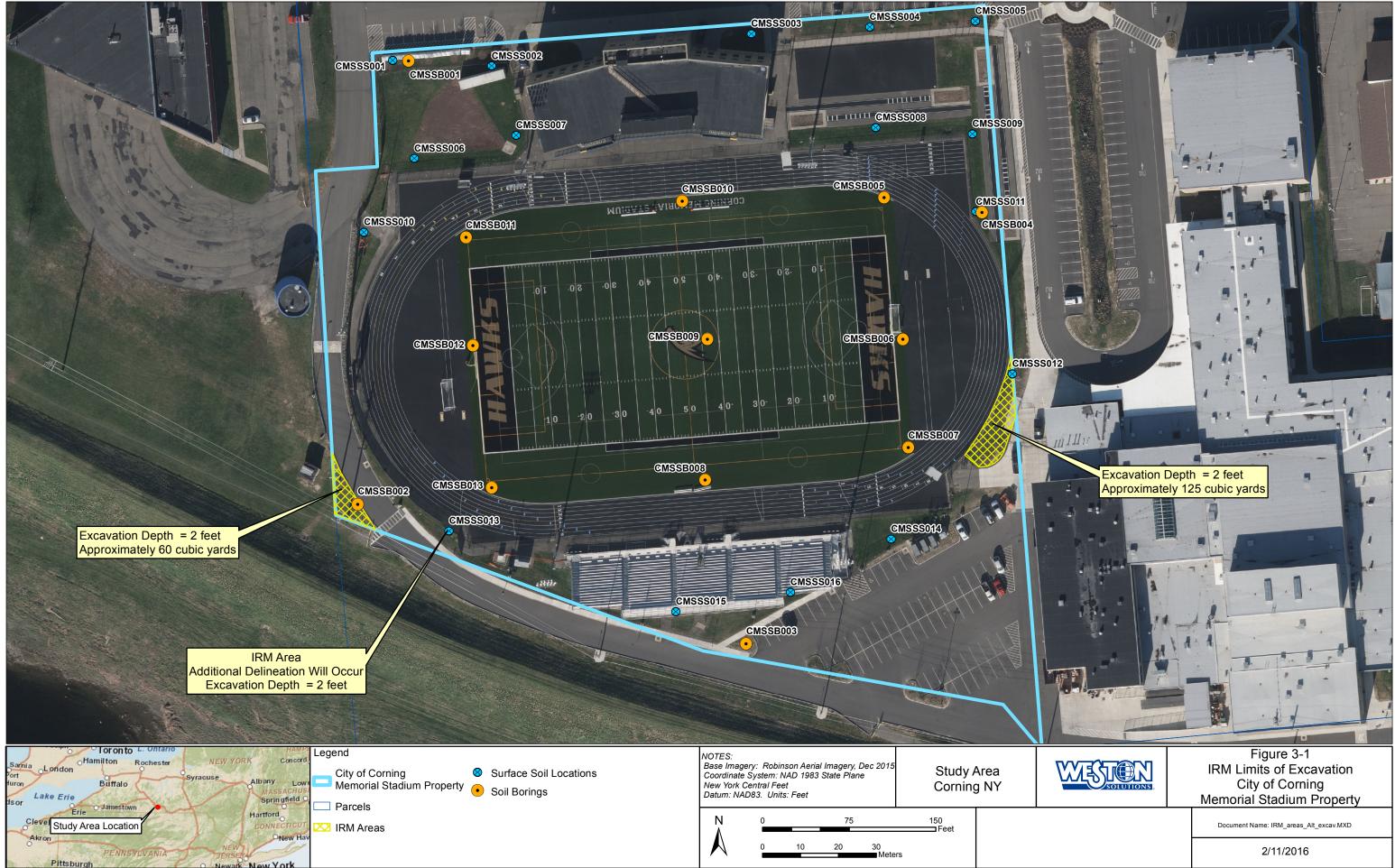
As described in the following Section, additional soil sampling is proposed to refine the limits of excavation in the southeast corner of the stadium near sample location CMSSS013. Following this sampling, two feet of soil will be excavated and removed from the refined limits of excavation at sample location CMSSS013 and the predefined limits of excavation at sample locations CMSSS012 and CMSSB002. These three areas are identified on Figure 3-1.

The predefined limits of excavation at sample locations CMSSS012 and CMSSB002 were identified by radiating outward from the sample locations until reaching a sampling location where soil concentrations were detected at concentrations below the NYSDEC restricted residential SCOs or the property boundary. These identified areas were then refined by areas of impervious surface (i.e., asphalt and concrete covered areas). In addition to the previously stated criteria, final excavation limits will be established based on utility clearance, and accessibility.



SECTION 3

FIGURES





4. INTERIM REMEDIAL MEASURES ACTIVITIES & METHODOLOGIES

4.1 WRITTEN ACCESS CONSENT

The City of Corning Memorial Stadium property is not owned by or under the control of Corning Incorporated or NYSDEC, therefore, activities proposed in this IRM Work Plan will be performed under a written access agreement between Corning Incorporated and the City of Corning.

4.2 ADDITIONAL SURFACE SOIL SAMPLING AND EXCAVATION AREA REFINEMENT

Prior to the start of excavation activities additional shallow soil samples (2 to 24 in bgs) will be collected near CMSSS013, located in the area southwest of the City of Corning Memorial Stadium. Samples will be collected on a five foot grid, stepping outward from the CMSSS013 location for twenty-five feet (five sample grids, twenty samples). The four samples collected from the first grid will be analyzed for arsenic, cadmium and lead, while all other samples will be extracted by the laboratory and held.

If the analytical results from the first step out grid are found to be below the NYSDEC restricted residential SCOs, the extent of excavation will be refined to removal of all material within this 5 foot grid around CMSSS013. If one of the step out locations has concentrations greater than NYSDEC restricted residential SCOs, the next step out point in that direction will be analyzed. This process will continue until the limits of excavation are refined by analytical results. If the limits of excavation cannot be determined after analysis of all the samples, additional sampling will be performed in a similar manner.

Shallow soil samples will be collected for analysis from 2 to 24 in bgs excluding the vegetative cover or sod layer. Prior to sample collection, gross vegetative matter will be removed (i.e., sod layer). Shallow soil samples will be collected using a small Geoprobe rig, a hand-held steel soil auger, or hand-held scoop. Shallow soil samples will be homogenized and placed directly into appropriate sample containers. The soil will be described as appropriate noting the color, moisture content, texture, layering, evidence of disturbance (foreign debris), and the distribution/abundance of roots, as applicable. Shallow soil sample locations will be recorded using a hand-held GPS unit with sub-meter accuracy.



All sample locations will be backfilled with bagged topsoil and the surface will be restored with appropriate material (e.g., sod, gravel, rip-rap). Any investigative derived waste (IDW) from this investigation will be contained in sealed containers (e.g., drums or other appropriate containers) and staged in the NYSDEC-approved Study Area staging area.

All non-dedicated sampling equipment will either be decontaminated by washing with phosphatefree detergent and rinsing with distilled water prior to and between sampling locations, or disposable equipment (e.g., scoops, plastic blending trays) will be used. Decontamination fluids will be collected and contained in sealed containers (e.g., drums or other appropriate containers) and staged in the NYSDEC-approved Study Area staging area.

Samples (including appropriate QC samples such as duplicate samples) will be placed in appropriate sample containers, in iced coolers and shipped with completed chain-of-custody documentation to TestAmerica for analysis. Sampling will be performed in a manner consistent with the Quality Assurance Project Plan (QAPP) contained in NYSDEC-approved Study Area Work Plan.

4.2.1 Quality Assurance / Quality Control

To ensure quality throughout the project, the involvement of trained and experienced personnel will be utilized, and proven operating procedures and analytical methods for sample collection, preservation, analysis, and documentation will be followed.

In addition to the laboratory QA and QC samples analyzed in accordance with the laboratory QA/QC Plan, several types of field QC samples will be obtained and submitted for analysis during the course of the field investigation activities to assess the quality of the data resulting from the field sampling program. These samples include:

- Duplicates: These samples are duplicate samples collected in the field and submitted to the laboratory without indication of the corresponding parent sample. These samples will be collected at a rate of one per every 20 samples and will provide a measure of laboratory precision and matrix variability.
- Field Rinsate Blanks: These samples will be collected to document the field decontamination of reusable sampling equipment. Field rinsate blanks will be prepared by pouring deionized water over the sampling equipment after a decontamination procedure has been completed. This rinse water is then collected



and submitted for analysis to provide an indication of the effectiveness of decontamination procedures (carry-over from sample to sample). These samples will be prepared at a rate of one per 20 samples.

Based on the anticipated collection of samples (20 samples) one duplicate sample and one rinsate blank sample (if applicable) will be collected. Further description of the QA/QC samples and analytical procedures are provided in the QAPP.

Laboratory data deliverable packages will meet the requirements of NYSDEC Analytical Services Protocol (ASP) Category B (See DER-10 Appendix 2B Section 1.0b). Validation of laboratory data deliverable packages will be performed as described in Section 5.2.2.

4.3 SOIL EXCAVATION ACTIVITIES

A map identifying where IRMs will be conducted at the City of Corning Memorial Stadium property under this IRM Work Plan is provided as Figure 3-1. The proposed IRMs within the defined and refined limits of excavation include excavation to two feet below ground surface and placement of a demarcation layer followed by backfill and re-vegetation.

The vertical extent of excavation will be limited to 2 ft bgs. As analytical results from the characterization sampling activities indicate some of the soil below 2 ft bgs has concentrations greater than NYSDEC restricted residential SCOs, a demarcation layer will be installed in all excavation areas at the base of the excavation between the existing in-place soils and the imported backfill material.

4.3.1 **Pre-Excavation Activities**

Prior to the start of any excavation activities, construction health and safety perimeters will be established around the project work areas (i.e. exclusion zone) to prevent unauthorized personnel from entering. The perimeters will be established through the use of temporary barriers, fencing and/or signage to prevent access to the area during excavation and backfilling activities.

The established perimeter will encompass an area large enough to provide a safe construction buffer and for excavation equipment to operate freely to perform the excavation as well as the staging of the excavated soils. The exclusion zone will also provide an area of protection around open excavations and have signage to prevent trespassers from entering the established exclusion



zone. The exclusion zone will remain in place until backfilling of the excavation has been completed.

Prior to excavation activities, the locations of subsurface utilities will be identified by nonintrusive subsurface scans using a combination of geophysical methods to assist in identifying subsurface details.

Prior to and/or during excavation activities, temporary construction erosion and sedimentation control measures (i.e., silt fences, erosion eels) will be installed as needed, adjusted during the course of the work, and will be removed when the area is stabilized. It should be noted that the proposed work will not require a New York State Pollutant Discharge Elimination System (NYSPDES) General Permit for Stormwater Discharges since less than one acre of soil disturbance is proposed.

4.3.2 Excavation Activities

Soil removal will generally be accomplished through the use of conventional earth moving equipment such as an excavator, backhoe, front-end loader, skid steer loader and/or other construction equipment. It is anticipated that smaller equipment (i.e., small to mid-size excavator and a skid steer loader) will be used for the excavation activities given the shallow excavation depth and location of the excavation relative to existing property structures and roadways. Excavation activities will be performed in a controlled manner to limit the exposed earthen areas and minimize the effect on soil erosion. Shovels, rakes and other hand tools will be used as needed for precise removal of material around existing property structures, foundations and utilities.

Staging of excavated soils will be conducted in a controlled manner such as (1) on a prepared pad lined with plastic sheeting (i.e., visqueen), bermed and tarped to provide containment and protection from precipitation, or (2) in roll-off containers. As described in the Community Air Monitoring Plan (CAMP) and subsection 4.4.1, additional actions will be undertaken during hauling and excavation activities to manage dust generation. Wherever possible, excavated soil will be directly loaded onto trucks or into roll off containers for hauling to an appropriate landfill or staging area. Additional information about the handling of excavated soils is described in subsection 4.4. Where possible, care will be taken to allow traffic to pass around the staging and



excavation areas and the City of Corning and School District will be notified of planned excavation activities at least 48 hours prior to the start of activities. To the extent practicable, hauling will be limited to off-peak school hours (i.e., minimize traffic during peak student arrival and departure times).

Erosion and sediment control measures will be implemented as needed and inspected weekly and after each major storm event during excavation activities. Maintenance and repair of the sediment and erosion control measures will be performed on an as needed basis. Excavation activities will be performed in a manner such that erosion is adequately controlled and soil and sediments are not allowed to flow into or onto any watercourse, adjacent properties, roadways, parking areas, walkways or storm and sanitary sewers. In most of the areas, excavation will be conducted in a below grade manner which will minimize uncontrolled run-off. Soil staging/stockpiling areas will be bermed and covered/tarped. Water that collects in an excavation area will be allowed to infiltrate. Excavation will proceed in a manner to minimize water collecting in the excavation, however excess water may have to be removed by pumping prior to backfill.

The demarcation layer, typically a geotextile membrane, will be placed at the base of excavation between the subsurface existing soil and the imported backfill material. The excavated areas will then be initially backfilled with structural fill and graded to the natural surrounding topographic contours or pre-determined elevations. Grassy areas will be covered with a minimum of 6 inches of vegetative support soil (i.e., top soil, amended soil). Following placement of the vegetative support soil, sod will be installed at the ground surface or, in the event sod is not available due to time of year, a natural seed blanket will be installed and covered with a protective stabilization blanket composed of biodegradable materials.

The order of excavation activities on the City of Corning Memorial Stadium property will be determined based upon a variety of factors, typically including: weather, traffic, ongoing activities at the property and communication with the property owner or the School District. Backfilling will occur after excavation areas are completed to minimize the time that excavations remain open. To prevent cross contamination, separate backfilling equipment will typically be used or equipment will be decontaminated prior to being utilized to move imported backfill material. Equipment



decontamination will be conducted in accordance with Standard Operating Procedures included in Appendix D to the Study Area Work Plan (Weston, 2014a).

Prior to importing backfill material, analytical samples will be collected at the source to ensure the material meets the requirements for soil to be imported under DER-10 Section 5.4(e). These samples will be collected and analyzed in accordance with QAPP. Analytical results for soil samples will be submitted to NYSDEC for approval prior to use during the IRM activities.

Confirmation sampling will not be collected in a horizontal direction during the execution of the IRM activities because the lateral extent of excavation is bound by either impervious surface, by sampling locations where soil concentrations are below NYSDEC restricted residential SCOs, or by property boundaries. Vertical confirmation sampling will not be necessary because soils will be excavated to a predetermined depth of two feet within the defined limits of excavation.

4.4 WASTE HANDLING

Excavated soil generated during removal activities will be direct loaded for disposal or moved to the NYSDEC-approved Study Area staging area for subsequent disposal. In lieu of moving soil to the NYSDEC-approved Study Area staging area, soil can be directly loaded onto haul trucks for disposal in accordance with applicable NYSDEC waste regulations. For profiling of the removed material, including decontamination water and/or solids, samples of the various excavated media will be collected and analyzed in accordance with the QAPP in place for the Study Area Work Plan for disposal profiling. Excavated materials will then be disposed in accordance with all applicable federal and state laws.

Reasonable care will be taken by the equipment operator in handling and loading of excavated soils to minimize spillage and tracking. In the event of spillage or tracking of soils, hand shovels, a skid steer loader or an industrial street sweeper will be utilized to clean traffic areas.

4.4.1 Staging and Loading

Prior to any staging and loading activities, an exclusion zone will be established around the excavation areas. To the extent practical, the exclusion zone will be set up in a manner to allow haul trucks to remain outside of the exclusion zone where they can be loaded by equipment located



inside the exclusion zone. This will minimize the need for decontamination and potential for tracking soil out of the exclusion zone.

Staging and loading activities will be conducted on existing asphalt roadways/driveways to the extent practical. Transportation vehicles will not be permitted to be staged on the grass at the City of Corning Memorial Stadium property. If soils are directly loaded, all trucks will be operated by a licensed hauling company. A route of access will be determined for all truck vehicles going to or from the City of Corning Memorial Stadium property and WESTON will inspect all vehicles prior to departure to assure the load is secured to prevent spillage, leakage or airborne movement during transit. Staging of excavated soils at the NYSDEC-approved Study Area staging area staging area will occur on an as needed basis.

Any construction water or accumulated precipitation collecting in the excavation will be allowed to infiltrate Excavation will proceed in a manner to minimize water collecting in the excavation, however excess water may have to be removed by pumping prior to backfill.

In the event of excessive dry conditions that could create dust, the spread of dust and dirt will be limited by the use of water mist or other suitable methods. Air monitoring will be performed by WESTON to ensure excessive migration of dust particles does not occur during the excavation and/or loading activities. Ambient air concentrations greater than the action level will result in actions being taken to control fugitive emissions (See the CAMP).

4.5 SURVEY ACTIVITIES

The final limits of the excavations will be surveyed by a New York State licensed professional surveyor prior to backfilling. The professional surveyor will produce and stamp a set of "as-built" drawings to document the limits of removal.

4.6 INSPECTIONS

Following backfilling and restoration, WESTON will perform monthly inspections of the areas where the IRM excavation activities were performed under this IRM Work Plan to (1) initially ensure the stability of the area and reestablishment of vegetation in backfilled areas and to (2) confirm that no visual indicators of soil disturbance at depth occurred. These monthly inspections



will be conducted until a final remedy is implemented for the City of Corning Memorial Stadium property, unless otherwise approved by the NYSDEC.



5. PROJECT MANAGEMENT

The proposed activities will be performed by WESTON on behalf of Corning Incorporated. It is anticipated that this work, consistent with the activities performed to date in the Study Area, will be performed under the oversight of an NYSDEC field representative.

5.1 SCHEDULE

The activities described in this IRM Work Plan are scheduled to be performed following NYSDEC approval of this IRM Work Plan and upon receipt of consent to access from the City of Corning. The anticipated project schedule is provided as Figure 5-1.

5.2 DOCUMENTATION

5.2.1 Field Logs

Essential project information pertinent to field activities will be recorded in bound field logbooks and/or field hauling inspection sheets (if applicable). Information pertinent to field activities may include the following: active excavation area, daily excavation and backfill volumes, inspection reports, equipment decontamination, placement of demarcation barrier, waste profiling, project manifests, etc.

5.2.2 Photo Log

A project photo log will be prepared and maintained throughout the IRM activities to provide photo documentation of field activities.

5.2.3 Field Measurements

The limits of excavation will be measured and documented as the work progresses primarily using GPS controls. Final depths of excavation will be measured prior to backfilling in addition to the location of buried utilities or other structures encountered in the excavation area. After backfilling final elevations will be measured prior to placing sod or seeding.



5.2.4 Field Reports

NYSDEC and NYSDOH will be provided updates in the weekly progress reports, including select supporting photographs. All air monitoring data will be recorded in the site field logbook, in designated field sheets, or digitally, and the results of the air monitoring will be communicated to the NYSDEC and NYSDOH on a scheduled basis (i.e. daily for levels which require actions, weekly for routine monitoring data).

5.2.5 Reporting

Following implementation of IRM activities, a Construction Completion Report documenting the work performed will be prepared and submitted to NYSDEC in accordance with DER-10 subdivision 5.8(b)-(d).

The aforementioned report will typically contain the following information:

- Summary description of the removal action as implemented pursuant to the IRM Work Plan
- Quantity of material removed and disposal facility
- Source of backfill and analytical test results
- A set of "as-built" drawings documenting the limits of removal (i.e., depth and extent) and final elevations after backfilling
- Description of institutional controls (if applicable)
- Documentation of any changes to the IRM Work Plan activities

5.3 HEALTH AND SAFETY PLAN

The health and safety of field workers, visitors, and the community are of utmost importance. For the field work, it is planned that workers will be in Level D personal protection (i.e., coveralls or work clothes, work boots, safety glasses, and hard hats). All field activities will be conducted in accordance with the Health and Safety Plan (HASP) and CAMP contained in Appendices B and C. An exclusion zone will be established around the work area in accordance with the HASP. To the extent possible, haul trucks will operate outside of the exclusion zone to minimize the need for



decontamination and potential for tracking soils. As excavation areas are completed the exclusion zone will be adjusted accordingly.

5.4 TEMPORARY FIELD OFFICE

The excavation activities will involve mobilization of personnel and equipment. The temporary field office and equipment staging area, approved by NYSDEC for the ongoing Study Area work, will be utilized. This temporary field office area is surrounded by temporary fencing for security. The office area and access gate are closed and locked when not in use and consist of an office trailer and staging area for field equipment.



SECTION 5

FIGURE

D	Task Name	Duration	Month 1 N	Ionth 2 Mont	h 3 Month 4	Month 5	Month 6 Mo	nth 7 Month 8
1	NYSDEC Approve IRM Work Plan ¹	0 days		5 6 7 8 9 1	0 11 12 13 14 15 1	6 17 18 19 20 21	22 23 24 25 26 2	7 28 29 30 31 32 33 34
2	Backfill Source Sampling	5 days						
3	Data Validation	20 days						
4	NYSDEC Approval of Backfill source(s)	10 days		*				
5	Mobilization and Procurement	20 days		×				
6	Obtain Written Access Consent	15 days		*				
7	Excavation and Backfill ²	30 days			*			
8	Prepare Draft CCR Report	60 days				-		
9	NYSDEC Comments	10 days						
10	Prepare Final CCR Report	10 days						*
Note ¹ Sul ² Pre	rs: rject to approval by NYSDEC dicated upon obtaining written access conser	nt from the prop	erty owner					
	Figure 5-1			lask 🔹	Milestone	>		
	City of Corning Memorial Stac Study Area, Corni		hedule	Split	Critical Path			



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WESTON, 2015, Study Area Characterization Work Plan Addendum Number 3, 20 March 2015. Prepared by Weston Solutions, Inc. for Corning Incorporated.



APPENDIX A

CHARACTERIZATION SAMPLING RESULTS



Location ID			CMSSB001	CMSSB001	CMSSB002	CMSSB002	CMSSB002	CMSSB003	CMSSB003	CMSSB004
Sample ID			CMSSB001-0-000	CMSSB001-0-020	CMSSB002-0-000	CMSSB002-0-020	CMSSB002-0-060	CMSSB003-0-030	CMSSB003-0-050	CMSSB004-0-030
Date			8/4/2014	8/4/2014	8/4/2014	8/4/2014	8/4/2014	8/4/2014	8/4/2014	4/22/2015
Sample Depth	Restricted		0 - 2 feet	2 - 4 feet	0 - 2 feet	2 - 6 feet	6 - 8 feet	3 - 5 feet	5 - 7 feet	3-4 feet
Sample Type	Residential	TCLP	0 - Primary							
Matrix	Screening	Regulatory	SB							
Laboratory Sample ID	Levels ⁽¹⁾	Levels ⁽²⁾	480-65070-10	480-65070-11	480-65070-12	480-65070-13	480-65070-14	480-65070-15	480-65070-16	480-79128-1
Toxicity Characteristic Leaching Procedure (TCLP) Metals, mg/L	Levels	Levels	400-03070-10	400-05070-11	400-03070-12	400-03070-13	400-05070-14	400-05070-15	400-03070-10	400-79120-1
Arsenic, TCLP	~	5	~	~	0.0056 U	0.052	0.024	~	~	~
Barium, TCLP	~	100	~	~	0.33 J+	1.5	0.37 J+	~	~	~
Cadmium, TCLP	~	1	~	~	0.00050 U	1.1 J+	0.014	~	~	~
Chromium, TCLP	~	5	~	~	0.070	0.0068 J+	0.0052 J+	~	~	~
Lead, TCLP	~	5	~	~	0.010 U	46	0.044 J+	~	~	~
Mercury, TCLP	~	0.2	~	~	0.00012 U	0.00012 U	0.00012 U	~	~	~
Selenium, TCLP	~	1	~	~	0.0087 U	0.0087 U	0.0087 U	~	~	~
Silver, TCLP	~	5	~	~	0.0017 U	0.0017 U	0.0017 U	~	~	~
Total Metals, mg/Kg					0.0011 0	0.0011 0	0.0011 0			
Aluminum, Total	~	~	~	~	8400	1900	6900	~	~	~
Antimony, Total	~	~	~	~	0.45 U	4.4 J	0.45 U	~	~	~
Arsenic, Total	16	~	5.9	5.5	6.9	69	7.6	7.6	4.1	5.4
Barium, Total	400	~	~	~	82	93	79	~	~	~
Beryllium, Total	72	~	~	~	0.45	0.080 J	0.37	~	~	~
Boron, Total	~	~	~	~	4.9	19	5.6	~	~	~
Cadmium, Total	4.3	~	0.031 U	0.035 U	0.034 U	13	0.50	0.27	0.037 U	0.15 J
Calcium, Total	~	~	~	~	30000	1400	1200	~	~	~
Chromium, Total	180	~	~	~	12	4.5	8.0	~	~	~
Cobalt, Total	~	~	~	~	7.9	2.1	7.0	~	~	~
Copper, Total	270	~	~	~	17	29	9.7	~	~	~
Iron, Total	~	~	~	~	15000	3300	14000	~	~	~
Lead, Total	400	~	19	11	20	1900	24	57	11	10.6
Magnesium, Total	~	~	~	~	4700	480	2100	~	~	~
Manganese, Total	2000	~	~	~	490	67	410	~	~	~
Mercury, Total	0.81	~	~	~	~	~	~	~	~	0.015 J
Nickel, Total	310	~	~	~	19	4.5 J	16	~	~	~
Potassium, Total	~	~	~	~	1100	290	660	~	~	~
Selenium, Total	180	~	~	~	0.45 U	1.9 J	0.45 U	~	~	~
Silver, Total	180	~	~	~	0.22 U	0.22 U	0.22 U	~	~	~
Sodium, Total	~	~	~	~	370	150 J	40 J	~	~	~
Thallium, Total	~	~	~	~	0.34 U	0.33 U	0.34 U	~	~	~
Vanadium, Total	~	~	~	~	12	5.6	10	~	~	~
Zinc, Total	10000	~	~	~	58	140	41	~	~	~
Volatile Organic Compounds (VOCs), ug/Kg										
1.1.1-Trichloroethane	100000	~	~	~	~	~	~	~	~	~
1,1,2,2-Tetrachloroethane	~	~	~	~	~	~	~	~	~	~
1,1,2-Trichloro-1,2,2-trifluoroethane	~	~	~	~	~	~	~	~	~	~
1,1,2-Trichloroethane	~	~	~	~	~	~	~	~	~	~
1,1-Dichloroethane	26000	~	~	~	~	~	~	~	~	~
1,1-Dichloroethene	100000	~	~	~	~	~	~	~	~	~
1,2,4-Trichlorobenzene, VOC	~	~	~	~	~	~	~	~	~	~
1,2-Dibromo-3-chloropropane	~	~	~	~	~	~	~	~	~	~
1.2-Dibromoethane	~	~	~	~	~	~	~	~	~	~
1.2-Dichlorobenzene. VOC	~	~	~	~	~	~	~	~	~	~
1,2-Dichloroethane	3100	~	~	~	~	~	~	~	~	~
1,2-Dichloropropane	~	~	~	~	~	~	~	~	~	~
1,3-Dichlorobenzene, VOC	~	~	~	~	~	~	~	~	~	~
1,4-Dichlorobenzene, VOC	~	~	~	~	~	~	~	~	~	~
2-Butanone	~	~	~	~	~	~	~	~	~	~
	l	I								



Location ID			CMSSB001	CMSSB001	CMSSB002	CMSSB002	CMSSB002	CMSSB003	CMSSB003	CMSSB004
Sample ID			CMSSB001-0-000	CMSSB001-0-020	CMSSB002-0-000	CMSSB002-0-020	CMSSB002-0-060	CMSSB003-0-030	CMSSB003-0-050	CMSSB004-0-030
-										
Date Samula Date			8/4/2014	8/4/2014	8/4/2014	8/4/2014	8/4/2014	8/4/2014	8/4/2014	4/22/2015
Sample Depth	Restricted		0 - 2 feet	2 - 4 feet	0 - 2 feet	2 - 6 feet	6 - 8 feet	3 - 5 feet	5 - 7 feet	3-4 feet
Sample Type	Residential	TCLP	0 - Primary							
Matrix	Screening	Regulatory	SB							
Laboratory Sample ID	Levels ⁽¹⁾	Levels ⁽²⁾	480-65070-10	480-65070-11	480-65070-12	480-65070-13	480-65070-14	480-65070-15	480-65070-16	480-79128-1
Volatile Organic Compounds (VOCs), ug/Kg (continued)										
2-Hexanone	~	~	~	~	~	~	~	~	~	~
4-Methyl-2-pentanone	~	~	~	~	~	~	~	~	~	~
Acetone	100000	~	~	~	~	~	~	~	~	~
Benzene	4800	~	~	~	~	~	~	~	~	~
Bromodichloromethane	~	~	~	~	~	~	~	~	~	~
Bromoform	~	~	~	~	~	~	~	~	~	~
Bromomethane	~	~	~	~	~	~	~	~	~	~
Carbon disulfide	~	~	~	~	~	~	~	~	~	~
Carbon tetrachloride	2400	~	~	~	~	~	~	~	~	~
Chlorobenzene	100000	~	~	~	~	~	~	~	~	~
Chloroethane	~	~	~	~	~	~	~	~	~	~
Chloroform	49000	~	~	~	~	~	~	~	~	~
Chloromethane	~	~	~	~	~	~	~	~	~	~
cis-1,2-Dichloroethene	100000	~	~	~	~	~	~	~	~	~
cis-1,3-Dichloropropene	~	~	~	~	~	~	~	~	~	~
Cyclohexane	~	~	~	~	~	~	~	~	~	~
Cyclohexane, Methyl-	~	~	~	~	~	~	~	~	~	~
Dibromochloromethane	~	~	~	~	~	~	~	~	~	~
Dichlorodifluoromethane	~	~	~	~	~	~	~	~	~	~
Ethylbenzene	41000	~	~	~	~	~	~	~	~	~
Isopropylbenzene	~	~	~	~	~	~	~	~	~	~
Methyl acetate	~	~	~	~	~	~	~	~	~	~
Methyl tert-butyl ether	100000	~	~	~	~	~	~	~	~	~
Methylene chloride	100000	~	~	~	~	~	~	~	~	~
Styrene	~	~	~	~	~	~	~	~	~	~
Tetrachloroethene	19000	~	~	~	~	~	~	~	~	~
Toluene	100000	~	~	~	~	~	~	~	~	~
trans-1,2-Dichloroethene	100000	~	~	~	~	~	~	~	~	~
trans-1,3-Dichloropropene	~	~	~	~	~	~	~	~	~	~
Trichloroethene	21000	~	~	~	~	~	~	~	~	~
Trichlorofluoromethane	~	~	~	~	~	~	~	~	~	~
Vinylchloride	~	~	~	~	~	~	~	~	~	~
Xylenes, Total	100000	~	~	~	~	~	~	~	~	~
Semi-Volatile Organic Compounds (SVOCs), ug/Kg										
2,4,5-Trichlorophenol	~	~	~	~	78 U	39 UJ	43 U	~	~	~
2,4,6-Trichlorophenol	~	~	~	~	23 U	12 UJ	13 U	~	~	~
2,4-Dichlorophenol	~	~	~	~	19 U	9.3 UJ	10 U	~	~	~
2,4-Dimethylphenol	~	~	~	~	96 U	48 UJ	53 U	~	~	~
2,4-Dinitrophenol	~	~	~	~	120 U	62 UJ	69 U	~	~	~
2,4-Dinitrotoluene	~	~	~	~	55 U	28 UJ	30 U	~	~	~
2,6-Dinitrotoluene	~	~	~	~	87 U	44 UJ	48 U	~	~	~
2-Chloronaphthalene	~	~	~	~	24 U	12 UJ	13 U	~	~	~
2-Chlorophenol	~	~	~	~	18 U	9.1 UJ	10 U	~	~	~
2-Methylnaphthalene	~	~	~	~	4.3 U	2.2 UJ	2.4 U	~	~	~
2-Methylphenol	100000	~	~	~	11 U	5.5 UJ	6.0 U	~	~	~
2-Nitroaniline	~	~	~	~	110 U	57 UJ	63 U	~	~	~
2-Nitrophenol	~	~	~	~	16 U	8.2 UJ	9.0 U	~	~	~
3,3'-Dichlorobenzidine	~	~	~	~	310 U	160 UJ	170 U	~	~	~
3-Nitroaniline	~	~	~	~	82 U	41 UJ	45 U	~	~	~
4,6-Dinitro-2-methylphenol	~	~	~	~	120 U	62 UJ	68 U	~	~	~



Location ID			CMSSB001	CMSSB001	CMSSB002	CMSSB002	CMSSB002	CMSSB003	CMSSB003	CMSSB004
Sample ID			CMSSB001-0-000	CMSSB001-0-020	CMSSB002-0-000	CMSSB002-0-020	CMSSB002-0-060	CMSSB003-0-030	CMSSB003-0-050	CMSSB004-0-030
Date			8/4/2014	8/4/2014	8/4/2014	8/4/2014	8/4/2014	8/4/2014	8/4/2014	4/22/2015
Sample Depth	Restricted		0 - 2 feet	2 - 4 feet	0 - 2 feet	2 - 6 feet	6 - 8 feet	3 - 5 feet	5 - 7 feet	3-4 feet
Sample Type	Residential	TCLP	0 - Primary							
Matrix	Screening	Regulatory	SB							
Laboratory Sample ID	Levels ⁽¹⁾	Levels ⁽²⁾	480-65070-10	480-65070-11	480-65070-12	480-65070-13	480-65070-14	480-65070-15	480-65070-16	480-79128-1
Semi-Volatile Organic Compounds (SVOCs), ug/Kg (continued)	201010	201010		100 00010 11			100 00010 11			100 10120 1
4-Bromophenyl-phenylether	~	~	~	~	110 U	57 UJ	62 U	~	~	~
4-Chloro-3-methylphenol	~	~	~	~	15 U	7.3 UJ	8.1 U	~	~	~
4-Chloroaniline	~	~	~	~	100 U	52 UJ	58 U	~	~	~
4-Chlorophenyl-phenylether	~	~	~	~	7.6 U	3.8 UJ	4.2 U	~	~	~
4-Methylphenol	100000	~	~	~	20 U	9.9 UJ	11 U	~	~	~
4-Nitroaniline	~	~	~	~	40 U	20 UJ	22 U	~	~	~
4-Nitrophenol, SVOC	~	~	~	~	86 U	43 R	48 U	~	~	~
Acenaphthene	100000	~	~	~	4.2 U	2.1 UJ	2.3 U	~	~	~
Acenaphthylene	100000	~	~	~	2.9 U	30 J	1.6 U	~	~	~
Acetophenone	~	~	~	~	18 U	9.1 UJ	10 U	~	~	~
Anthracene	100000	~	~	~	9.1 U	33 J	5.0 U	~	~	~
Atrazine	~	~	~	~	16 U	7.9 UJ	8.7 U	~	~	~
Benz(a)anthracene	1000	~	~	~	6.1 U	170 J	6.5 J	~	~	~
Benzaldehyde	~	~	~	~	39 U	20 UJ	22 U	~	~	~
Benzo(a)pyrene	1000	~	~	~	18 J	130 J	4.7 U	~	~	~
Benzo(b)fluoranthene	1000	~	~	~	30 J	250 J	3.8 U	~	~	~
Benzo(g,h,i)perylene	100000	~	~	~	16 J	110 J	2.4 U	~	~	~
Benzo(k)fluoranthene	3900	~	~	~	13 J	89 J	2.2 U	~	~	~
Biphenyl	~	~	~	~	22 U	11 UJ	12 U	~	~	~
bis (2-chloroisopropyl) ether	~	~	~	~	37 U	19 UJ	20 U	~	~	~
bis(2-Chloroethoxy)methane	~	~	~	~	19 U	9.7 UJ	11 U	~	~	~
bis(2-Chloroethyl)ether	~	~	~	~	31 U	15 UJ	17 U	~	~	~
bis(2-Ethylhexyl)phthalate	~	~	~	~	110 U	57 UJ	63 U	~	~	~
Butyl benzyl phthalate	~	~	~	~	96 U	48 UJ	53 U	~	~	~
Caprolactam	~	~	~	~	150 U	77 UJ	85 U	~	~	~
Carbazole	~	~	~	~	4.1 U	2.1 UJ	2.3 U	~	~	~
Chrysene	3900	~	~	~	25 J	150 J	2.0 U	~	~	~
Dibenz(a,h)anthracene	330	~	~	~	4.2 U	35 J	2.3 UJ	~	~	~
Dibenzofuran	59000	~	~	~	3.7 U	1.9 UJ	2.0 U	~	~	~
Diethylphthalate	~	~	~	~	11 U	5.4 UJ	5.9 U	~	~	~
Dimethyl phthalate	~	~	~	~	9.3 U	4.6 UJ	5.1 U	~	~	~
Di-N-Butyl phthalate	~	~	~	~	120 U	62 UJ	68 U	~	~	~
Di-N-Octyl phthalate	~	~	~	~	8.3 U	4.2 UJ	4.6 U	~	~	~
Fluoranthene	100000	~	~	~	33 J	210 J	2.8 U	~	~	~
Fluorene	100000	~	~	~	8.2 U	4.1 UJ	4.5 U	~	~	~
Hexachlorobenzene	1200	~	~	~	18 U	8.9 UJ	9.8 U	~	~	~
Hexachlorobutadiene, SVOC	~	~	~	~	18 U	9.1 UJ	10 U	~	~	~
Hexachlorocyclopentadiene	~	~	~	~	110 U	54 UJ	59 U	~	~	~
Hexachloroethane	~	~	~	~	28 U	14 UJ	15 U	~	~	~
Indeno(1,2,3-cd)pyrene	500	~	~	~	14 J	150 J	5.4 UJ	~	~	~
Isophorone	~	~	~	~	18 U	8.9 UJ	9.8 U	~	~	~
Naphthalene, SVOC	100000	~	~	~	5.9 U	41 J	3.3 U	~	~	~
Nitrobenzene	15000 ^a	~	~	~	16 U	7.9 UJ	8.7 U	~	~	~
N-Nitroso-di-N-propylamine	~	~	~	~	28 U	14 UJ	16 U	~	~	~
N-Nitrosodiphenylamine	~	~	~	~	19 U	9.7 UJ	11 U	~	~	~
Pentachlorophenol, SVOC	6700	~	~	~	120 U	61 UJ	67 U	~	~	~
Phenanthrene	100000	~	~	~	28 J	110 J	4.1 U	~	~	~
Phenol	100000	~	~	~	38 U	19 UJ	21 U	~	~	~
Pyrene	100000	~	~	~	36 J	210 J	5.7 J	~	~	~



Study Area, Corning, NY

L	ocation ID			CMSSB001	CMSSB001	CMSSB002	CMSSB002	CMSSB002	CMSSB003	CMSSB003	CMSSB004
	Sample ID			CMSSB001-0-000	CMSSB001-0-020	CMSSB002-0-000	CMSSB002-0-020	CMSSB002-0-060	CMSSB003-0-030	CMSSB003-0-050	CMSSB004-0-030
	Date			8/4/2014	8/4/2014	8/4/2014	8/4/2014	8/4/2014	8/4/2014	8/4/2014	4/22/2015
Sam	ple Depth	Restricted		0 - 2 feet	2 - 4 feet	0 - 2 feet	2 - 6 feet	6 - 8 feet	3 - 5 feet	5 - 7 feet	3-4 feet
Sar	nple Type	Residential	TCLP	0 - Primary							
	Matrix	Screening	Regulatory	SB							
Laboratory	Sample ID	Levels ⁽¹⁾	Levels ⁽²⁾	480-65070-10	480-65070-11	480-65070-12	480-65070-13	480-65070-14	480-65070-15	480-65070-16	480-79128-1
Polychlorinated Biphenyls (PBCs), mg/Kg											
Aroclor-1016		~	~	~	~	0.0034 U	0.0034 U	0.0037 U	~	~	~
Aroclor-1221		~	~	~	~	0.0034 U	0.0034 U	0.0037 U	~	~	~
Aroclor-1232		~	~	~	~	0.0034 U	0.0034 U	0.0037 U	~	~	~
Aroclor-1242		~	~	~	~	0.0034 U	0.0034 U	0.0037 U	~	~	~
Aroclor-1248		~	~	~	~	0.0034 U	0.0034 U	0.0037 U	~	~	~
Aroclor-1254		~	~	~	~	0.0082 U	0.0082 U	0.0090 U	~	~	~
Aroclor-1260		~	~	~	~	0.0082 U	0.0082 U	0.0090 U	~	~	~
Aroclor-1262		~	~	~	~	0.0082 U	0.0082 U	0.0090 U	~	~	~
Aroclor-1268		~	~	~	~	0.0082 U	0.0082 U	0.0090 U	~	~	~
Total Petroleum Hydrocarbons, mg/Kg											
ТРН		~	~	~	~	41 J	40 J	66 J	~	~	~

Notes:

mg/Kg = milligram per kilogram.

mg/L = milligram per liter.

ug/Kg = microgram per kilogram.

U = The analyte was analyzed for but was not detected above the level of the detection quantitation limit.

UJ = The analyte was analyzed for but not detected. The quantitation limit is

approximate and may be inaccurate or imprecise.

 ${\sf J}$ = The positive result reported is estimated either because the result is less than the LOQ or because certain quality control criteria were not met.

J+ = The result is an estimated quantity, but the result may be biased high because

certain quality control criteria were not met. R = The data is unusable. The sample results are rejected due to serious deficiencies in

meeting the quality control criteria. The analyte may or maynot be in the sample.

SB = Soil boring.

SS = Surface soil.

 New York State Department of Environmental Conservation (NSYDEC) Subpart 375-6 Remedial Program Soil Cleanup Objectives (SCOs).
 Federal Code of Regulations, Section 261.24 - Toxicity characteristic. Context: Title

(2) Federal Code of Regulations, Section 261.24 - Toxicity characteristic. Context: Title 40 - Protection of Environment. CHAPTER I - ENVIRONMENTAL PROTECTION AGENCY (CONTINUED). SUBCHAPTER I - SOLID WASTES (CONTINUED). PART 261 -IDENTIFICATION AND LISTING OF HAZARDOUS WASTE. Subpart C - Characteristics of Hazardous Waste (2012-07-01).

a = Final Commissioner Policy, CP-51, Supplemental Soil Cleanup Objectives (SSCOs).

c = Constituent included in both NYSDEC Subpart 375-6 and CP-51, most conservative value used (CP-51 SSCO).

 \sim = Analysis not performed or No standard or guidance value listed for this constituent.



Location ID			CMSSB005	CMSSB005	CMSSB006	CMSSB006	CMSSB006	CMSSB006	CMSSB007	CMSSB007
Sample ID			CMSSB005-0-046	CMSSB005-0-010	CMSSB006-0-020	CMSSB006-1-020	CMSSB006-0-060	CMSSB006-0-018	CMSSB007-0-025	CMSSB007-0-005
Date			4/22/2015	4/22/2015	4/22/2015	4/22/2015	4/22/2015	4/22/2015	4/22/2015	4/22/2015
Sample Depth	Restricted		4.6-6 feet	11.5-24 inches	2-5.9 feet	2-5.9 feet	6-8 feet	21-24 inches	2.5-5 feet	6.5-24 inches
Sample Type	Residential	TCLP	0 - Primary	0 - Primary	0 - Primary	1 - Duplicate	0 - Primary	0 - Primary	0 - Primary	0 - Primary
Matrix	Screening	Regulatory	SB							
Laboratory Sample ID	Levels ⁽¹⁾	Levels ⁽²⁾	480-79128-3	480-79128-2	480-79133-2	480-79133-3	480-79133-4	480-79133-1	480-79133-6	480-79133-5
Toxicity Characteristic Leaching Procedure (TCLP) Metals, mg/L	Levels	Levels	400 10120 0	400 10120 2	400 10100 2	400 10100 0	400 10100 4	400 / 5100 /	400 10100 0	400 10100 0
Arsenic, TCLP	~	5	~	~	0.065	0.047	0.0056 U	0.049	0.0056 U	0.031
Barium, TCLP	~	100	~	~	0.76	0.62	0.52	0.91	0.46	0.76
Cadmium, TCLP	~	1	~	~	0.33	0.24	0.00050 U	0.17	0.00050 U	0.0071
Chromium, TCLP	~	5	~	~	0.0040 U	0.0010 U	0.0040 U	0.0040 U	0.0040 U	0.0010 U
Lead, TCLP	~	5	~	~	19.4	16.3	0.0030 U	19.4	0.0037 J	0.51
Mercury, TCLP	~	0.2	~	~	0.00012 U	0.00012 U	0.00012 UJ	0.00012 U	0.00012 U	0.00012 U
Selenium, TCLP	~	1	~	~	0.0087 U					
Silver, TCLP	~	5	~	~	0.0017 U					
Total Metals, mg/Kg		-								
Aluminum, Total	~	~	~	~	2150 J	7570 J	7700 J	4220	9610	8170
Antimony, Total	~	~	~	~	13.5 J	16.0 J	0.54 J	8.2 J	0.53 J	1.8 J
Arsenic, Total	16	~	5.8	9.0	36.4	49.5	4.5	24.2	5.1	16.1
Barium, Total	400	~	~	~	49.6 J	127 J	79.1 J	61.7	99.1	79.0
Beryllium, Total	72	~	~	~	0.22 J	0.71 J	0.39	0.52	0.48	0.55
Boron, Total	~	~	~	~	7.9	10	3.7	6.7	3.6	9.0
Cadmium, Total	4.3	~	0.13 J	0.55	13.1	21.6	0.10 J	7.0	0.13 J	0.89
Calcium, Total	~	~	~	~	1180 J	3280 J	931 J	1750	1970	13600
Chromium, Total	180	~	~	~	4.0 J	10.2 J	9.6	9.2	11.9	11.8
Cobalt, Total	~	~	~	~	2.6 J	7.5 J	6.5	3.6	7.2	6.8
Copper, Total	270	~	~	~	23.1	32.3	8.1	20.1	10	18.0
Iron, Total	~	~	~	~	7900 J	19200 J	14500	10600	16400	15600
Lead, Total	400	~	10.8	78.5	1170 J	2010 J	8.1	1470	8.7	485
Magnesium, Total	~	~	~	~	403 J	1890 J	2040 J	1240	2310	3110
Manganese, Total	2000	~	~	~	66.8 J	317 J	386	156	432	271
Mercury, Total	0.81	~	0.016 J	0.037	0.35	0.34	0.0098 U	0.18	0.013 J	0.077
Nickel, Total	310	~	~	~	6.6	14.1	14.1	8.9	16.6	18.7
Potassium, Total	~	~	~	~	423 J	1060 J	943 J	699	1190	1160
Selenium, Total	180	~	~	~	2.0 J	1.6 J	0.45 U	0.46 U	0.50 U	0.49 U
Silver, Total	180	~	~	~	0.23 U	0.24 U	0.23 U	0.23 U	0.25 U	0.25 U
Sodium, Total	~	~	~	~	52.8 J	105 J	32.3 J	56.9 J	32.0 J	138 J
Thallium, Total	~	~	~	~	0.35 U	0.37 U	0.34 U	0.35 U	0.37 U	0.37 U
Vanadium, Total	~	~	~	~	5.6 J	14.1 J	11.6	9.4	13.7	15.6
Zinc, Total	10000	~	~	~	164	249	43.1	186	48.7	139
Volatile Organic Compounds (VOCs), ug/Kg										
1,1,1-Trichloroethane	100000	~	~	~	~	~	~	~	~	~
1,1,2,2-Tetrachloroethane	~	~	~	~	~	~	~	~	~	~
1,1,2-Trichloro-1,2,2-trifluoroethane	~	~	~	~	~	~	~	~	~	~
1,1,2-Trichloroethane	~	~	~	~	~	~	~	~	~	~
1,1-Dichloroethane	26000	~	~	~	~	~	~	~	~	~
1,1-Dichloroethene	100000	~	~	~	~	~	~	~	~	~
1,2,4-Trichlorobenzene, VOC	~	~	~	~	~	~	~	~	~	~
1,2-Dibromo-3-chloropropane	~	~	~	~	~	~	~	~	~	~
1,2-Dibromoethane	~	~	~	~	~	~	~	~	~	~
1.2-Dichlorobenzene, VOC	~	~	~	~	~	~	~	~	~	~
1,2-Dichloroethane	3100	~	~	~	~	~	~	~	~	~
1,2-Dichloropropane	~	~	~	~	~	~	~	~	~	~
1,3-Dichlorobenzene, VOC	~	~	~	~	~	~	~	~	~	~
1,4-Dichlorobenzene, VOC	~	~	~	~	~	~	~	~	~	~
2-Butanone	~	~	~	~	~	~	~	~	~	~
			1	A	1	•	5	1	1 I	



Location ID			CMSSB005	CMSSB005	CMSSB006	CMSSB006	CMSSB006	CMSSB006	CMSSB007	CMSSB007
Sample ID			CMSSB005-0-046	CMSSB005-0-010	CMSSB006-0-020	CMSSB006-1-020	CMSSB006-0-060	CMSSB006-0-018	CMSSB007-0-025	CMSSB007-0-005
Date			4/22/2015	4/22/2015	4/22/2015	4/22/2015	4/22/2015	4/22/2015	4/22/2015	4/22/2015
Sample Depth	Restricted		4.6-6 feet	11.5-24 inches	2-5.9 feet	2-5.9 feet	6-8 feet	21-24 inches	2.5-5 feet	6.5-24 inches
Sample Septin	Residential	TCLP	0 - Primary	0 - Primary	0 - Primary	1 - Duplicate	0 - Primary	0 - Primary	0 - Primary	0 - Primary
Matrix	Screening	Regulatory	SB							
	Levels ⁽¹⁾	Levels ⁽²⁾	480-79128-3	480-79128-2	480-79133-2	480-79133-3	480-79133-4	480-79133-1	480-79133-6	480-79133-5
Laboratory Sample ID Volatile Organic Compounds (VOCs), ug/Kg (continued)	Levels	Levels	400-79120-3	400-79120-2	400-79133-2	400-79155-5	400-79133-4	400-79133-1	400-79133-0	400-79133-5
2-Hexanone	~	~	~	~	~	~	~	~	~	~
4-Methyl-2-pentanone	~	~	~	~	~	~	~	~	~	~
Acetone	100000	~	~	~	~	~	~	~	~	~
Benzene	4800	~	~	~	~	~	~	~	~	~
Bromodichloromethane	~	~	~	~	~	~	~	~	~	~
Bromoform	~	~	~	~	~	~	~	~	~	~
Bromomethane	~	~	~	~	~	~	~	~	~	~
Carbon disulfide	~	~	~	~	~	~	~	~	~	~
Carbon tetrachloride	2400	~	~	~	~	~	~	~	~	~
Chlorobenzene	100000	~	~	~	~	~	~	~	~	~
Chloroethane	~	~	~	~	~	~	~	~	~	~
Chloroform	49000	~	~	~	~	~	~	~	~	~
Chloromethane	~	~	~	~	~	~	~	~	~	~
cis-1,2-Dichloroethene	100000	~	~	~	~	~	~	~	~	~
cis-1,3-Dichloropropene	~	~	~	~	~	~	~	~	~	~
Cyclohexane	~	~	~	~	~	~	~	~	~	~
Cyclohexane, Methyl-	~	~	~	~	~	~	~	~	~	~
Dibromochloromethane	~	~	~	~	~	~	~	~	~	~
Dichlorodifluoromethane	~	~	~	~	~	~	~	~	~	~
Ethylbenzene	41000	~	~	~	~	~	~	~	~	~
Isopropylbenzene	~	~	~	~	~	~	~	~	~	~
Methyl acetate	~	~	~	~	~	~	~	~	~	~
Methyl tert-butyl ether	100000	~	~	~	~	~	~	~	~	~
Methylene chloride	100000	~	~	~	~	~	~	~	~	~
Styrene	~	~	~	~	~	~	~	~	~	~
Tetrachloroethene	19000	~	~	~	~	~	~	~	~	~
Toluene	100000	~	~	~	~	~	~	~	~	~
trans-1,2-Dichloroethene	100000	~	~	~	~	~	~	~	~	~
trans-1,3-Dichloropropene	~	~	~	~	~	~	~	~	~	~
Trichloroethene	21000	~	~	~	~	~	~	~	~	~
Trichlorofluoromethane	~	~	~	~	~	~	~	~	~	~
Vinylchloride	~	~	~	~	~	~	~	~	~	~
Xylenes, Total	100000	~	~	~	~	~	~	~	~	~
Semi-Volatile Organic Compounds (SVOCs), ug/Kg										
2,4,5-Trichlorophenol	~	~	~	~	5200 U	5300 U	55 U	520 U	58 U	270 U
2,4,6-Trichlorophenol	~	~	~	~	3900 U	3900 U	41 U	390 U	43 U	200 U
2,4-Dichlorophenol	~	~	~	~	2000 U	2100 U	22 U	200 U	23 U	110 U
2,4-Dimethylphenol	~	~	~	~	4700 U	4800 U	49 U	470 U	52 U	240 U
2,4-Dinitrophenol	~	~	~	~	89000 U	91000 U	940 U	8900 U	990 U	4600 U
2,4-Dinitrotoluene	~	~	~	~	4000 U	4100 U	42 U	400 U	44 U	210 U
2,6-Dinitrotoluene	~	~	~	~	2300 UJ	2300 UJ	24 UJ	230 UJ	25 UJ	120 UJ
2-Chloronaphthalene	~	~	~	~	3200 U	3200 U	34 U	320 U	35 U	160 U
2-Chlorophenol	~	~	~	~	3500 U	3600 U	37 U	350 U	39 U	180 U
2-Methylnaphthalene	~	~	~	~	3900 U	3900 U	41 U	390 U	43 U	200 U
2-Methylphenol	100000	~	~	~	2300 U	2300 U	24 U	230 U	25 U	120 U
2-Nitroaniline	~	~	~	~	2800 U	2900 U	30 U	280 U	31 U	150 U
2-Nitrophenol	~	~	~	~	5400 U	5600 U	58 U	540 U	60 U	280 U
3,3'-Dichlorobenzidine	~	~	~	~	23000 U	23000 U	240 U	2300 U	250 U	1200 U
3-Nitroaniline	~	~	~	~	5300 U	5400 U	56 U	530 U	59 U	280 U
4,6-Dinitro-2-methylphenol	~	~	~	~	19000 U	20000 U	200 U	1900 U	210 U	1000 U



Location ID			CMSSB005	CMSSB005	CMSSB006	CMSSB006	CMSSB006	CMSSB006	CMSSB007	CMSSB007
Sample ID			CMSSB005-0-046	CMSSB005-0-010	CMSSB006-0-020	CMSSB006-1-020	CMSSB006-0-060	CMSSB006-0-018	CMSSB007-0-025	CMSSB007-0-005
Date			4/22/2015	4/22/2015	4/22/2015	4/22/2015	4/22/2015	4/22/2015	4/22/2015	4/22/2015
Sample Depth	Restricted		4.6-6 feet	11.5-24 inches	2-5.9 feet	2-5.9 feet	6-8 feet	21-24 inches	2.5-5 feet	6.5-24 inches
Sample Type	Residential	TCLP	0 - Primary	0 - Primary	0 - Primary	1 - Duplicate	0 - Primary	0 - Primary	0 - Primary	0 - Primary
Matrix	Screening	Regulatory	SB							
Laboratory Sample ID	Levels ⁽¹⁾	Levels ⁽²⁾	480-79128-3	480-79128-2	480-79133-2	480-79133-3	480-79133-4	480-79133-1	480-79133-6	480-79133-5
Semi-Volatile Organic Compounds (SVOCs), ug/Kg (continued)	Levels	Levels	400 13120 0	400 73120 2	400 10100 2	400 10100 0	400 7 5 1 00 4	400 10100 1	400 10100 0	400 70100 0
4-Bromophenyl-phenylether	~	~	~	~	2700 U	2800 U	29 U	270 U	30 U	140 U
4-Chloro-3-methylphenol	~	~	~	~	4800 U	4900 U	50 U	480 U	53 U	250 U
4-Chloroaniline	~	~	~	~	4800 U	4900 U	50 U	480 U	53 U	250 U
4-Chlorophenyl-phenylether	~	~	~	~	2400 U	2400 U	25 U	240 U	26 U	120 U
4-Methylphenol	100000	~	~	~	2300 U	2300 U	24 U	230 U	25 U	120 U
4-Nitroaniline	~	~	~	~	10000 U	10000 U	110 U	1000 U	110 U	520 U
4-Nitrophenol, SVOC	~	~	~	~	13000 U	14000 U	140 U	1400 U	150 U	700 U
Acenaphthene	100000	~	~	~	2800 U	2900 U	30 U	280 U	31 U	150 U
Acenaphthylene	100000	~	~	~	2500 U	2500 U	26 U	250 U	28 U	130 U
Acetophenone	~	~	~	~	2600 U	2700 U	28 U	260 U	29 U	140 U
Anthracene	100000	~	~	~	4800 U	4900 U	50 U	480 U	53 U	250 U
Atrazine	~	~	~	~	6700 UJ	6800 UJ	71 UJ	670 UJ	74 UJ	350 UJ
Benz(a)anthracene	1000	~	~	~	1900 U	8700 J	20 U	240 J	21 U	120 J
Benzaldehyde	~	~	~	~	15000 UJ	16000 UJ	160 UJ	1500 UJ	170 UJ	790 UJ
Benzo(a)pyrene	1000	~	~	~	16000 J	7600 J	30 U	280 U	31 U	150 U
Benzo(b)fluoranthene	1000	~	~	~	20000	12000 J	32 U	320 J	34 U	160 J
Benzo(g,h,i)perylene	100000	~	~	~	11000 J	5500 J	22 UJ	200 UJ	23 UJ	110 UJ
Benzo(k)fluoranthene	3900	~	~	~	14000 J	4600 J	26 U	250 U	28 U	130 U
Biphenyl	~	~	~	~	2800 U	2900 U	30 U	280 U	31 U	150 U
bis (2-chloroisopropyl) ether	~	~	~	~	3900 U	3900 U	41 U	390 U	43 U	200 U
bis(2-Chloroethoxy)methane	~	~	~	~	4100 U	4200 U	43 U	410 U	45 U	210 U
bis(2-Chloroethyl)ether	~	~	~	~	2500 U	2500 U	26 U	250 U	28 U	130 U
bis(2-Ethylhexyl)phthalate	~	~	~	~	6600 U	6700 U	70 U	660 U	73 U	340 U
Butyl benzyl phthalate	~	~	~	~	3200 U	3200 U	34 U	320 U	35 U	160 U
Caprolactam	~	~	~	~	5800 U	5900 U	61 U	580 U	64 U	300 U
Carbazole	~	~	~	~	2300 U	2300 U	24 U	230 U	25 U	120 U
Chrysene	3900	~	~	~	4300 U	11000 J	46 U	430 U	48 U	220 U
Dibenz(a,h)anthracene	330	~	~	~	3400 UJ	3500 UJ	36 UJ	340 UJ	38 UJ	180 UJ
Dibenzofuran	59000	~	~	~	2300 U	2300 U	24 U	230 U	25 U	120 U
Diethylphthalate	~	~	~	~	2500 U	2500 U	26 U	250 U	28 U	130 U
Dimethyl phthalate	~	~	~	~	2300 U	2300 U	24 U	230 U	25 U	120 U
Di-N-Butyl phthalate	~	~	~	~	3300 U	3400 U	35 U	330 U	36 U	170 U
Di-N-Octyl phthalate	~	~	~	~	2300 U	2300 U	24 U	230 U	25 U	120 U
Fluoranthene	100000	~	~	~	55000	23000	22 U	460 J	23 U	170 J
Fluorene	100000	~	~	~	2300 U	2300 U	24 U	230 U	25 U	120 U
Hexachlorobenzene	1200	~	~	~	2600 U		28 U	260 U	29 U	140 U
Hexachlorobutadiene, SVOC	~	~	~	~	2800 U	2900 U	30 U	280 U	31 U	150 U
Hexachlorocyclopentadiene	~	~	~	~	2600 U	2700 U	28 U	260 U	29 U	140 U
Hexachloroethane	~	~	~	~	2500 U	2500 U	26 U	250 U	28 U	130 U
Indeno(1,2,3-cd)pyrene	500	~	~	~	11000 J	6100 J	25 UJ	240 UJ	26 UJ	120 UJ
Isophorone	~	~	~	~	4100 U	4200 U	43 U	410 U	45 U	210 U
Naphthalene, SVOC	100000	~	~	~	2500 U	2500 U	26 U	250 U	28 U	130 U
Nitrobenzene	15000 ^a	~	~	~	2200 U	2200 U	23 U	220 U	24 U	110 U
N-Nitroso-di-N-propylamine	~	~	~	~	3300 U	3400 U	35 U	330 U	36 U	170 U
N-Nitrosodiphenylamine	~	~	~	~	16000 U	16000 U	170 U	1600 U	170 U	810 U
Pentachlorophenol, SVOC	6700	~	~	~	19000 U	20000 U	200 U	1900 U	210 U	1000 U
Phenanthrene	100000	~	~	~	12000 J	6000 J	30 U	280 U	31 U	150 U
Phenol	100000	~	~	~	2900 U	3000 U	31 U	300 U	33 U	150 U
Pyrene	100000	~	~	~	40000	17000 J	24 U	350 J	25 U	130 J



Study Area, Corning, NY

Location ID			CMSSB005	CMSSB005	CMSSB006	CMSSB006	CMSSB006	CMSSB006	CMSSB007	CMSSB007
Sample ID			CMSSB005-0-046	CMSSB005-0-010	CMSSB006-0-020	CMSSB006-1-020	CMSSB006-0-060	CMSSB006-0-018	CMSSB007-0-025	CMSSB007-0-005
Date			4/22/2015	4/22/2015	4/22/2015	4/22/2015	4/22/2015	4/22/2015	4/22/2015	4/22/2015
Sample Depth	Restricted		4.6-6 feet	11.5-24 inches	2-5.9 feet	2-5.9 feet	6-8 feet	21-24 inches	2.5-5 feet	6.5-24 inches
Sample Type	Residential	TCLP	0 - Primary	0 - Primary	0 - Primary	1 - Duplicate	0 - Primary	0 - Primary	0 - Primary	0 - Primary
Matrix	Screening	Regulatory	SB							
Laboratory Sample ID	Levels ⁽¹⁾	Levels ⁽²⁾	480-79128-3	480-79128-2	480-79133-2	480-79133-3	480-79133-4	480-79133-1	480-79133-6	480-79133-5
Polychlorinated Biphenyls (PBCs), mg/Kg										
Aroclor-1016	~	~	~	~	~	~	~	~	~	~
Aroclor-1221	~	~	~	~	~	~	~	~	~	~
Aroclor-1232	~	~	~	~	~	~	~	~	~	~
Aroclor-1242	~	~	~	~	~	~	~	~	~	~
Aroclor-1248	~	~	~	~	~	~	~	~	~	~
Aroclor-1254	~	~	~	~	~	~	~	~	~	~
Aroclor-1260	~	~	~	~	~	~	~	~	~	~
Aroclor-1262	~	~	~	~	~	~	~	~	~	~
Aroclor-1268	~	~	~	~	~	~	~	~	~	~
Total Petroleum Hydrocarbons, mg/Kg										
ТРН	~	~	~	~	~	~	~	~	~	~

Notes:

mg/Kg = milligram per kilogram.

mg/L = milligram per liter.

ug/Kg = microgram per kilogram.

U = The analyte was analyzed for but was not detected above the level of the detection quantitation limit.

UJ = The analyte was analyzed for but not detected. The quantitation limit is

approximate and may be inaccurate or imprecise.

J = The positive result reported is estimated either because the result is less than the LOQ or because certain quality control criteria were not met.

J+ = The result is an estimated quantity, but the result may be biased high because

certain quality control criteria were not met.

R = The data is unusable. The sample results are rejected due to serious deficiencies in meeting the quality control criteria. The analyte may or maynot be in the sample.

SB = Soil boring.

SS = Surface soil.

(1) New York State Department of Environmental Conservation (NSYDEC) Subpart 375-

6 Remedial Program Soil Cleanup Objectives (SCOs).(2) Federal Code of Regulations, Section 261.24 - Toxicity characteristic. Context: Title 40 - Protection of Environment. CHAPTER I - ENVIRONMENTAL PROTECTION AGENCY (CONTINUED). SUBCHAPTER I - SOLID WASTES (CONTINUED). PART 261 -IDENTIFICATION AND LISTING OF HAZARDOUS WASTE. Subpart C - Characteristics of Hazardous Waste (2012-07-01).

a = Final Commissioner Policy, CP-51, Supplemental Soil Cleanup Objectives (SSCOs).

c = Constituent included in both NYSDEC Subpart 375-6 and CP-51, most conservative value used (CP-51 SSCO).

~ = Analysis not performed or No standard or guidance value listed for this constituent.



Location ID			CMSSB008		CMSSB008	CMSSB00	9	CMSSB009		CMSSB009		CMSSB010		CMSSB010	CMSSB011
Sample ID			CMSSB008-0-022	2	CMSSB008-0-010	CMSSB009-0	-039	CMSSB009-0-04	46	CMSSB009-0-00)7	CMSSB010-0-	020	CMSSB010-0-008	CMSSB011-0-020
Date			4/22/2015		4/22/2015	4/22/2015		4/22/2015		4/22/2015		4/22/2015		4/22/2015	4/23/2015
Sample Depth	Restricted		2.2-4 feet		11.5-24 inches	3.9-4.5 fee	t	4.6-6.6 feet		8.5-24 inches		2-4 feet		9.5-24 inches	2-4 feet
Sample Type	Residential	TCLP	0 - Primary		0 - Primary	0 - Primar		0 - Primary		0 - Primary		0 - Primary		0 - Primary	0 - Primary
Matrix	Screening	Regulatory	SB		SB	SB	,	SB		SB		SB		SB	SB
Laboratory Sample ID	Levels ⁽¹⁾	Levels ⁽²⁾	480-79133-8		480-79133-7	480-79133-	10	480-79133-11		480-79133-9		480-79133-1	3	480-79133-12	480-79128-5
Toxicity Characteristic Leaching Procedure (TCLP) Metals, mg/L	Levels	Levels	400 10100 0		400 10100 1	400 10100	10	400 70100 11		400 10100 0		400 10100 1	•	400 10100 12	400 10120 0
Arsenic, TCLP	~	5	0.0056	U	0.025	0.0075	J	0.0056	U	0.018	_	0.0056	U	0.0056 U	~
Barium, TCLP	~	100	0.53		0.70	0.84		0.44	J+	0.78		0.25	J+	0.39 J+	~
Cadmium, TCLP	~	1	0.00050	J	0.0047	0.085		0.0011	J	0.0030		0.00050	U	0.00050 U	~
Chromium, TCLP	~	5		U	0.0040 U	0.0040	U	0.0010	U	0.0040	U	0.0040	U	0.0010 U	~
Lead, TCLP	~	5	0.0030	J	0.044	2.6		0.0095	J	0.029		0.0030	U	0.0030 U	~
Mercury, TCLP	~	0.2		U	0.00012 U	0.00012	U	0.00012	U	0.00012	U	0.00012	U	0.00012 U	~
Selenium, TCLP	~	1		U	0.0087 U	0.0087	U	0.0087	U	0.0087	U	0.0087	U	0.0087 U	~
Silver, TCLP	~	5	0.0017	U	0.0017 U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017 U	~
Total Metals, mg/Kg															
Aluminum, Total	~	~	8610		8570	4790		8570		6100		11300		8280	~
Antimony, Total	~	~	0.57	J	1.5 J	3.6	J	0.49	U	0.62	J	0.72	J	0.49 J	~
Arsenic, Total	16	~	5.3		12.9	23.3		5.2		4.9		6.3		6.6	4.4
Barium, Total	400	~	91.2		93.6	75.7		89.6		67.0		86.3		79.3	~
Beryllium, Total	72	~	0.45		0.48	0.35		0.45		0.33		0.52		0.41	~
Boron, Total	~	~	3.1		4.2	6.2		6.1		2.9		2.7		2.1 J	~
Cadmium, Total	4.3	~	0.14	J	0.49	4.5		0.26		0.28		0.10	J	0.12 J	0.088 J
Calcium, Total	~	~	1180		2160	1900		1540		2220		1360		1940	~
Chromium, Total	180	~	10.9		15.2	8.6		11.1		16.1		14.0		11.5	~
Cobalt, Total	~	~	7.2		7.0	4.6		7.2		5.3		8.1		7.2	~
Copper, Total	270	~	9.9		18.6	21.2		10.0		9.9		12.3		10.2	~
Iron, Total	~	~	15900		15500	17100		15800		12300		19000		18700	~
Lead, Total	400	~	11.5		64.4	679		19.5		25.0		10.4		9.3	7.8
Magnesium, Total	~	~	2230		2300	1260		2230		1920		2650		2290	~
Manganese, Total	2000	~	421		310	280		439		305		425		503	~
Mercury, Total	0.81	~	0.019	J	0.047	0.13		0.015	J	0.019	J	0.010	U	0.010 J	0.0093 U
Nickel, Total	310	~	15.4		16.1	10.6		16.1		11.7		18.0		15.9	~
Potassium, Total	~	~	1040		1120	626		1030		773		1340		1060	~
Selenium, Total	180	~		J	0.46 U	0.81	J	0.49	U	0.50	U	0.47	U	0.45 U	~
Silver, Total	180	~		U	0.23 U	0.22	U	0.24	U	0.25	U	0.24	U	0.23 U	~
Sodium, Total	~	~		J	41.2 J	86.7	J	45.0	J	28.0	J	46.1	J	35.6 J	~
Thallium, Total	~	~		U	0.34 U	0.33	U	0.37	U	0.38	U	0.36	U	0.34 U	~
Vanadium, Total	~	~	12.7 49.0		13.5 77.8	9.4		12.6 47.9		9.5 45.4		16.1		13.2 47.9	~
Zinc, Total	10000	~	49.0		11.0	125		47.9		45.4		50.9		47.9	~
Volatile Organic Compounds (VOCs), ug/Kg 1,1,1-Trichloroethane	100000	~	-	_	~	~		~		~		~		~	
1,1,2,2-Tetrachloroethane	100000	~	~		-	~		~		-		~		-	~
1,1,2,2-1 etrachioroethane	~ ~	~	~ ~		~	~ ~		~ ~		~		~		~	~
1,1,2-Trichloroethane	~	~	~		~	~		~		~		~		~	~
1,1-Dichloroethane	~ 26000	~ ~	~		~	~		~		~		~		~	~
1,1-Dichloroethene	100000	~	~		~	~		~		~		~		~	~
1.2.4-Trichlorobenzene. VOC	~	~	~		~	~		~		~		~		~	~
1,2-Dibromo-3-chloropropane	~	~	~		~	~		~		~		~		~	~
1,2-Dibromoethane	~	~	~		~	~		~		~		~		~	~
1,2-Dichlorobenzene, VOC	~	~	~		~	~		~		~		~		~	~
1,2-Dichloroethane	3100	~	~		~	~		~		~		~		~	~
1,2-Dichloropropane	~	~	~		~	~		~		~		~		~	~
1,3-Dichlorobenzene, VOC	~	~	~		~	~		~		~		~		~	~
1,4-Dichlorobenzene, VOC	~	~	~		~	~		~		~		~		~	~
2-Butanone	~	~	~		~	~		~		~		~		~	~
								L							ı J



Location ID			CMSSB008	CMSSB008	CMSSB009	CMSSB009	CMSSB009	CMSSB010	CMSSB010	CMSSB011
Sample ID			CMSSB008-0-022	CMSSB008-0-010	CMSSB009-0-039	CMSSB009-0-046	CMSSB009-0-007	CMSSB010-0-020	CMSSB010-0-008	CMSSB011-0-020
Date			4/22/2015	4/22/2015	4/22/2015	4/22/2015	4/22/2015	4/22/2015	4/22/2015	4/23/2015
Sample Depth	Restricted		2.2-4 feet	11.5-24 inches	3.9-4.5 feet	4.6-6.6 feet	8.5-24 inches	2-4 feet	9.5-24 inches	2-4 feet
Sample Septin	Residential	TCLP	0 - Primary							
Matrix	Screening	Regulatory	SB							
Laboratory Sample ID	Levels ⁽¹⁾	Levels ⁽²⁾	480-79133-8	480-79133-7	480-79133-10	480-79133-11	480-79133-9	480-79133-13	480-79133-12	480-79128-5
Volatile Organic Compounds (VOCs), ug/Kg (continued)	Levels	Levels	400-79133-0	400-79133-7	400-79133-10	400-79133-11	400-79155-9	400-79133-13	400-79133-12	400-79120-5
2-Hexanone	~	~	~	~	~	~	~	~	~	~
4-Methyl-2-pentanone	~	~	~	~	~	~	~	~	~	~
Acetone	100000	~	~	~	~	~	~	~	~	~
Benzene	4800	~	~	~	~	~	~	~	~	~
Bromodichloromethane	~	~	~	~	~	~	~	~	~	~
Bromoform	~	~	~	~	~	~	~	~	~	~
Bromomethane	~	~	~	~	~	~	~	~	~	~
Carbon disulfide	~	~	~	~	~	~	~	~	~	~
Carbon tetrachloride	2400	~	~	~	~	~	~	~	~	~
Chlorobenzene	100000	~	~	~	~	~	~	~	~	~
Chloroethane	~	~	~	~	~	~	~	~	~	~
Chloroform	49000	~	~	~	~	~	~	~	~	~
Chloromethane	~	~	~	~	~	~	~	~	~	~
cis-1,2-Dichloroethene	100000	~	~	~	~	~	~	~	~	~
cis-1,3-Dichloropropene	~	~	~	~	~	~	~	~	~	~
Cyclohexane	~	~	~	~	~	~	~	~	~	~
Cyclohexane, Methyl-	~	~	~	~	~	~	~	~	~	~
Dibromochloromethane	~	~	~	~	~	~	~	~	~	~
Dichlorodifluoromethane	~	~	~	~	~	~	~	~	~	~
Ethylbenzene	41000	~	~	~	~	~	~	~	~	~
Isopropylbenzene	~	~	~	~	~	~	~	~	~	~
Methyl acetate	~	~	~	~	~	~	~	~	~	~
Methyl tert-butyl ether	100000	~	~	~	~	~	~	~	~	~
Methylene chloride	100000	~	~	~	~	~	~	~	~	~
Styrene	~	~	~	~	~	~	~	~	~	~
Tetrachloroethene	19000	~	~	~	~	~	~	~	~	~
Toluene	100000	~	~	~	~	~	~	~	~	~
trans-1,2-Dichloroethene	100000	~	~	~	~	~	~	~	~	~
trans-1,3-Dichloropropene	~	~	~	~	~	~	~	~	~	~
Trichloroethene	21000	~	~	~	~	~	~	~	~	~
Trichlorofluoromethane	~	~	~	~	~	~	~	~	~	~
Vinylchloride	~	~	~	~	~	~	~	~	~	~
Xylenes, Total	100000	~	~	~	~	~	~	~	~	~
Semi-Volatile Organic Compounds (SVOCs), ug/Kg									50	
2,4,5-Trichlorophenol	~	~	53 U	260 U	510 U	54 U	280 U	56 U	52 U	~
2,4,6-Trichlorophenol	~	~	39 U	200 U	380 U	40 U	210 U	42 U	38 U	~
2,4-Dichlorophenol	~	~	21 U	100 U	200 U	21 U	110 U	22 U	20 U	~
2,4-Dimethylphenol	~	~	48 U	240 U	450 U	49 U	250 U	50 U	46 U	~
2,4-Dinitrophenol	~	~	910 U	4500 U	8700 U	930 U	4800 U	960 U	890 U	~
2,4-Dinitrotoluene	~	~	41 U	200 U	390 U	41 U	210 U	43 U	40 U	~
2,6-Dinitrotoluene	~	~	23 UJ	110 UJ	220 UJ	24 UJ	120 UJ	24 UJ	23 UJ	~
2-Chloronaphthalene	~	~	32 U	160 U	310 U	33 U	170 U	34 U	32 U	~
2-Chlorophenol	~	~	36 U	180 U	340 U	37 U	190 U	38 U	35 U	~
2-Methylnaphthalene	~	~	39 U	200 U	380 U	40 U	210 U	42 U	38 U	~
2-Methylphenol	100000	~	23 U	110 U	220 U	24 U	120 U	24 U	23 U	~
2-Nitroaniline	~	~	29 U	140 U	280 U	30 U	150 U	31 U	28 U	~
2-Nitrophenol	~	~	56 U	280 U	530 U	57 U	290 U	59 U	54 U	~
3,3'-Dichlorobenzidine	~	~	230 U	1100 U	2200 U	240 U	1200 U	240 U	230 U	~
3-Nitroaniline	~	~	55 U	270 U	520 U	56 U	290 U	57 U	53 U	~
4,6-Dinitro-2-methylphenol	~	~	200 U	980 U	1900 U	200 U	1000 U	210 U	190 U	~



Location ID			CMSSB008	CMSSB008	CMSSB009	CMSSB009	CMSSB009	CMSSB010	CMSSB010	CMSSB011
Sample ID			CMSSB008-0-022	CMSSB008-0-010	CMSSB009-0-039	CMSSB009-0-046	CMSSB009-0-007	CMSSB010-0-020	CMSSB010-0-008	CMSSB011-0-020
Date			4/22/2015	4/22/2015	4/22/2015	4/22/2015	4/22/2015	4/22/2015	4/22/2015	4/23/2015
Sample Depth	Restricted		2.2-4 feet	11.5-24 inches	3.9-4.5 feet	4.6-6.6 feet	8.5-24 inches	2-4 feet	9.5-24 inches	2-4 feet
Sample Type	Residential	TCLP	0 - Primary							
Matrix	Screening	Regulatory	SB							
Laboratory Sample ID	Levels ⁽¹⁾	Levels ⁽²⁾	480-79133-8	480-79133-7	480-79133-10	480-79133-11	480-79133-9	480-79133-13	480-79133-12	480-79128-5
Semi-Volatile Organic Compounds (SVOCs), ug/Kg (continued)	Levels	Levels	400 10100 0	400 10100 1	400 73100 10	400 10100 11	400 10100 0	400 10100 10	400 10100 12	400 / 5120 0
4-Bromophenyl-phenylether	~	~	28 U	140 U	270 U	28 U	150 U	29 U	27 U	~
4-Chloro-3-methylphenol	~	~	49 U	240 U	460 U	50 U	250 U	51 U	47 U	~
4-Chloroaniline	~	~	49 U		460 U	50 U	250 U	51 U	47 U	~
4-Chlorophenyl-phenylether	~	~	24 U		230 U	25 U	130 U	26 U	24 U	~
4-Methylphenol	100000	~	23 U		220 U	24 U	120 U	24 U	23 U	~
4-Nitroaniline	~	~	100 U	510 U	990 U	110 U	540 U	110 U	100 U	~
4-Nitrophenol, SVOC	~	~	140 U	680 U	1300 U	140 U	720 U	150 U	130 U	~
Acenaphthene	100000	~	29 U	140 U	280 U	30 U	150 U	31 U	28 U	~
Acenaphthylene	100000	~	26 U	130 U	240 U	26 U	130 U	27 U	25 U	~
Acetophenone	~	~	27 U	130 U	250 U	27 U	140 U	28 U	26 U	~
Anthracene	100000	~	49 U	240 U	460 U	50 U	250 U	51 U	47 U	~
Atrazine	~	~	68 UJ	340 UJ	650 UJ	70 UJ	360 UJ	72 UJ	67 UJ	~
Benz(a)anthracene	1000	~	20 U	98 U	690 J	20 U	100 U	21 U	19 U	~
Benzaldehyde	~	~	160 UJ	780 UJ	1500 UJ	160 UJ	820 UJ	160 UJ	150 UJ	~
Benzo(a)pyrene	1000	~	29 U	140 U	540 J	30 U	150 U	31 U	28 U	~
Benzo(b)fluoranthene	1000	~	31 U		750 J	32 U	160 U	33 U	31 U	~
Benzo(g,h,i)perylene	100000	~	21 UJ	100 UJ	590 J	21 UJ	110 UJ	22 UJ	20 UJ	~
Benzo(k)fluoranthene	3900	~	26 U	130 U	410 J	26 U	130 U	27 U	25 U	~
Biphenyl	~	~	29 U	140 U	280 U	30 U	150 U	31 U	28 U	~
bis (2-chloroisopropyl) ether	~	~	39 U		380 U	40 U	210 U	42 U	38 U	~
bis(2-Chloroethoxy)methane	~	~	42 U	210 U	400 U	43 U	220 U	44 U	41 U	~
bis(2-Chloroethyl)ether	~	~	26 U		240 U	26 U	130 U	27 U	25 U	~
bis(2-Ethylhexyl)phthalate	~	~	67 U		640 U	69 U	350 U	71 U	66 U	~
Butyl benzyl phthalate	~	~	32 U		310 U	33 U	170 U	34 U	32 U	~
Caprolactam	~	~	59 U		560 U	60 U	310 U	62 U	58 U	~
Carbazole	~	~	23 U		220 U	24 U	120 U	24 U	23 U	~
Chrysene	3900	~	44 U		700 J	45 U	230 U	46 U	43 U	~
Dibenz(a,h)anthracene	330	~	35 UJ			36 UJ	180 UJ	37 UJ	34 UJ	~
Dibenzofuran	59000	~	23 U		220 U	24 U	120 U	24 U	23 U	~
Diethylphthalate	~	~	26 U		240 U	26 U	130 U	27 U	25 U	~
Dimethyl phthalate	~	~	23 U		220 U	24 U	120 U	24 U	23 U	~
Di-N-Butyl phthalate	~	~	34 U		320 U	34 U	180 U	35 U	33 U	~
Di-N-Octyl phthalate	~	~	23 U		220 U	24 U	120 U	24 U	23 U	~
Fluoranthene	100000	~	21 U		1500 J	21 U	110 U	22 U	20 U	~
Fluorene	100000	~	23 U		220 U 250 U	24 U	120 U 140 U	24 U	23 U	~
Hexachlorobenzene	1200	~	27 U 29 U		250 U 280 U	27 U 30 U	140 U 150 U	28 U 31 U	26 U 28 U	~
Hexachlorobutadiene, SVOC	~	~	29 U 27 U			30 U 27 U		28 U	28 U 26 U	~
Hexachlorocyclopentadiene Hexachloroethane	~	~ ~	27 U 26 U		250 U 240 U	27 U 26 U	140 U	28 U 27 U	26 U 25 U	~
Indeno(1,2,3-cd)pyrene	~ 500	~	26 U 24 UJ		400 J	26 U 25 UJ	130 UJ	26 UJ	25 U 24 UJ	~
	~	~	42 U		400 J 400 U	43 U	220 U	44 U	41 U	~ ~
Isophorone Naphthalene, SVOC	~ 100000	~	26 U		240 U	26 U	130 U	27 U	25 U	~
Nitrobenzene	15000 ^a	~	20 U		240 U	20 U	130 U	27 U	23 U	~ ~
N-Nitroso-di-N-propylamine	~	~	34 U			34 U	120 U	35 U	33 U	~ ~
N-Nitroso-di-N-propylamine	~	~	160 U		1500 U	160 U	840 U	170 U	160 U	~ ~
Pentachlorophenol, SVOC	~ 6700	~	200 U		1900 U	200 U	1000 U	210 U	190 U	~
Phenanthrene	100000	~	200 U		1300 J	30 U	150 U	31 U	28 U	~
Phenol	100000	~	30 U		290 U	30 U	160 U	31 U	28 U	~
Pyrene	100000	~	23 U					24 U	23 U	~ ~
	100000	~	20 0	110 0	100 J	27 0	120 0	27 0	20 0	



Study Area, Corning, NY

Location ID			CMSSB008	CMSSB008	CMSSB009	CMSSB009	CMSSB009	CMSSB010	CMSSB010	CMSSB011
Sample ID			CMSSB008-0-022	CMSSB008-0-010	CMSSB009-0-039	CMSSB009-0-046	CMSSB009-0-007	CMSSB010-0-020	CMSSB010-0-008	CMSSB011-0-020
Date			4/22/2015	4/22/2015	4/22/2015	4/22/2015	4/22/2015	4/22/2015	4/22/2015	4/23/2015
Sample Depth	Restricted		2.2-4 feet	11.5-24 inches	3.9-4.5 feet	4.6-6.6 feet	8.5-24 inches	2-4 feet	9.5-24 inches	2-4 feet
Sample Type	Residential	TCLP	0 - Primary							
Matrix	Screening	Regulatory	SB							
Laboratory Sample ID	Levels ⁽¹⁾	Levels ⁽²⁾	480-79133-8	480-79133-7	480-79133-10	480-79133-11	480-79133-9	480-79133-13	480-79133-12	480-79128-5
Polychlorinated Biphenyls (PBCs), mg/Kg										
Aroclor-1016	~	~	~	~	~	~	~	~	~	~
Aroclor-1221	~	~	~	~	~	~	~	~	~	~
Aroclor-1232	~	~	~	~	~	~	~	~	~	~
Aroclor-1242	~	~	~	~	~	~	~	~	~	~
Aroclor-1248	~	~	~	~	~	~	~	~	~	~
Aroclor-1254	~	~	~	~	~	~	~	~	~	~
Aroclor-1260	~	~	~	~	~	~	~	~	~	~
Aroclor-1262	~	~	~	~	~	~	~	~	~	~
Aroclor-1268	~	~	~	~	~	~	~	~	~	~
Total Petroleum Hydrocarbons, mg/Kg										
ТРН	~	~	~	~	~	~	~	~	~	~

Notes:

mg/Kg = milligram per kilogram.

mg/L = milligram per liter.

ug/Kg = microgram per kilogram.

U = The analyte was analyzed for but was not detected above the level of the detection quantitation limit.

UJ = The analyte was analyzed for but not detected. The quantitation limit is

approximate and may be inaccurate or imprecise.

J = The positive result reported is estimated either because the result is less than the LOQ or because certain quality control criteria were not met.

J+ = The result is an estimated quantity, but the result may be biased high because

certain quality control criteria were not met.

R = The data is unusable. The sample results are rejected due to serious deficiencies in meeting the quality control criteria. The analyte may or maynot be in the sample.

SB = Soil boring.

SS = Surface soil.

(1) New York State Department of Environmental Conservation (NSYDEC) Subpart 375-

6 Remedial Program Soil Cleanup Objectives (SCOs).(2) Federal Code of Regulations, Section 261.24 - Toxicity characteristic. Context: Title 40 - Protection of Environment. CHAPTER I - ENVIRONMENTAL PROTECTION AGENCY (CONTINUED). SUBCHAPTER I - SOLID WASTES (CONTINUED). PART 261 -IDENTIFICATION AND LISTING OF HAZARDOUS WASTE. Subpart C - Characteristics of Hazardous Waste (2012-07-01).

a = Final Commissioner Policy, CP-51, Supplemental Soil Cleanup Objectives (SSCOs).

c = Constituent included in both NYSDEC Subpart 375-6 and CP-51, most conservative value used (CP-51 SSCO).

~ = Analysis not performed or No standard or guidance value listed for this constituent.



Location ID			CMSSB011	CMSSB012	CMSSB012	CMSSB012	CMSSB012	CMSSB013	CMSSB013	CMSSB013
Sample ID			CMSSB011-0-011	CMSSB012-0-020	CMSSB012-0-040	CMSSB012-1-040	CMSSB012-0-007	CMSSB013-0-010	CMSSB013-0-020	CMSSB013-0-045
Date			4/23/2015	4/23/2015	4/23/2015	4/23/2015	4/23/2015	4/23/2015	4/23/2015	4/23/2015
Sample Depth	Restricted		13.5-24 inches	2-3.9 feet	4-12 feet	4-12 feet	8.5-24 inches	1-2 feet	2-4.2 feet	4.5-6.5 feet
Sample Type	Residential	TCLP	0 - Primary	0 - Primary	0 - Primary	1 - Duplicate	0 - Primary	0 - Primary	0 - Primary	0 - Primary
Matrix	Screening	Regulatory	SB	SB	SB	SB	SB	SB	SB	SB
Laboratory Sample ID	Levels ⁽¹⁾	Levels ⁽²⁾	480-79128-4	480-79133-16	480-79133-17	480-79133-18	480-79133-15	480-79133-19	480-79133-20	480-79133-21
Toxicity Characteristic Leaching Procedure (TCLP) Metals, mg/L										
Arsenic, TCLP	~	5	~	0.094	0.0056 U	0.0056 U	0.0056 U	0.013 J	0.0056 U	0.0056 U
Barium, TCLP	~	100	~	0.62	0.56	0.47	0.66	0.74	0.64	0.35 J+
Cadmium, TCLP	~	1	~	0.0054	0.00050 U	0.00050 U	0.0020	0.021	0.014	0.00050 U
Chromium, TCLP	~	5	~	0.0040 U	0.0040 U	0.0040 U	0.0040 U	0.0040 U	0.0073 J+	0.0040 U
Lead, TCLP	~	5	~	0.31	0.0030 U	0.0038 J	0.0075 J	3.0	2.8	0.0031 J
Mercury, TCLP	~	0.2	~	0.00012 U	0.00012 UJ	0.00012 UJ	0.00012 U	0.00012 U	0.00012 U	0.00012 U
Selenium, TCLP	~	1	~	0.0087 U	0.0087 U	0.0087 U	0.0087 U	0.0087 U	0.0087 U	0.0087 U
Silver, TCLP	~	5	~	0.0017 U	0.0017 UJ	0.0017 UJ	0.0017 U	0.0017 U	0.0017 U	0.0017 U
Total Metals, mg/Kg				2000		00.10		5000	0070	0050
Aluminum, Total	~	~	~	7620	11400 J	9940 J	9880	5620	6650	9250
Antimony, Total	~	~	~	4.5 J	0.95 J	2.0 J	0.95 J	2.0 J	1.9 J	0.84 J
Arsenic, Total	16	~	5.0	30.5	6.2	6.0	8.5	10.4	7.8	5.1
Barium, Total	400	~	~	95.3	135 J	104 J	102	212	236	93.6
Beryllium, Total	72	~	~	0.53	0.57	0.52	0.51	0.30	0.33	0.46
Boron, Total	~	~	~	38.8	9.6 0.048 J	8.1	5.6 0.37	4.8	5.3 0.66	5.0 0.088 J
Cadmium, Total Calcium, Total	4.3 ~	~	0.12 J	1.6 10200	1580 J	0.12 J 1450 J	7600	1.1 7570	27200	1740
Chromium, Total	~ 180	~	~	12.2	1300 J	13.0 J	17.1	9.5	11.5	10.5
Cobalt, Total	~	~	~	13.1	9.5	8.8	8.0	4.6	3.9	7.2
Copper, Total	270	~	~	45.6	12.4	11.2	15.5	20.2	15.3	9.7
Iron, Total	~	~	~	15100	19900 J	18200 J	18100	13100	12000	16500
Lead, Total	400	~	9.8	559	11.4	11.7	37.4	1000	333	9.7
Magnesium, Total	~	~	~	2190	2900 J	2690 J	2820	1680	2440	2220
Manganese, Total	2000	~	~	363	526 J	509 J	456	232	208	419
Mercury, Total	0.81	~	0.015 J	0.45	0.0097 U	0.011 U	0.010 J	0.30	0.47	0.015 J
Nickel, Total	310	~	~	15.2	20.0	19.1	18.3	12.2	10.4	15.5
Potassium, Total	~	~	~	1090	1410 J	1180 J	1180	733	1010	1140
Selenium, Total	180	~	~	0.45 U	0.49 U	0.50 U	0.49 U	0.43 U	0.44 U	0.50 U
Silver, Total	180	~	~	0.22 U	0.24 U	0.25 U	0.25 U	0.64 J	0.95	0.25 U
Sodium, Total	~	~	~	180	30.0 J	32.2 J	43.7 J	69.0 J	125 J	35.1 J
Thallium, Total	~	~	~	0.34 U	0.37 U	0.38 U	0.37 U	0.32 U	0.33 U	0.38 U
Vanadium, Total	~	~	~	15.8	14.5 J	14.0 J	15.1	11.7	14.9	12.5
Zinc, Total	10000	~	~	122	54.5 J	52.1 J	67.4	171	176	49.0
Volatile Organic Compounds (VOCs), ug/Kg										
1,1,1-Trichloroethane	100000	~	~	~	~	~	~	~	~	~
1,1,2,2-Tetrachloroethane	~	~	~	~	~	~	~	~	~	~
1,1,2-Trichloro-1,2,2-trifluoroethane	~	~	~	~	~	~	~	~	~	~
1,1,2-Trichloroethane	~ 26000	~	~	~	~	~	~	~	~	~
1,1-Dichloroethane	100000	~	~	~	~ ~	~ ~	~	~	~ ~	~
1,1-Dichloroetnene 1,2,4-Trichlorobenzene, VOC	~	~	~	~ ~	~ ~	~ ~	~	~	~	~
1,2,4- Inchloropenzene, VOC 1,2-Dibromo-3-chloropropane	~ ~	~ ~	~ ~	~	~ ~	~ ~	~	~	~	~ ~
1,2-Dibromo-s-chloropropane	~	~	~ ~	~	~ ~	~ ~	~	~	~ ~	~
1,2-Dioronoenane	~	~	~	~	~	~	~	~	~	~
1,2-Dichloroethane	3100	~	~	~	~	~	~	~	~	~
1,2-Dichloropropane	~	~	~	~	~	~	~	~	~	~
1,3-Dichlorobenzene, VOC	~	~	~	~	~	~	~	~	~	~
1,4-Dichlorobenzene, VOC	~	~	~	~	~	~	~	~	~	~
2-Butanone	~	~	~	~	~	~	~	~	~	~
					1	1	1	1	1	



Location ID			CMSSB011	CMSSB012	CMSSB012	CMSSB012	CMSSB012	CMSSB013	CMSSB013	CMSSB013
Sample ID			CMSSB011-0-011	CMSSB012-0-020	CMSSB012-0-040	CMSSB012-1-040	CMSSB012-0-007	CMSSB013-0-010	CMSSB013-0-020	CMSSB013-0-045
Date			4/23/2015	4/23/2015	4/23/2015	4/23/2015	4/23/2015	4/23/2015	4/23/2015	4/23/2015
Sample Depth	Restricted		13.5-24 inches	2-3.9 feet	4-12 feet	4-12 feet	8.5-24 inches	1-2 feet	2-4.2 feet	4.5-6.5 feet
Sample Type	Residential	TCLP	0 - Primary	0 - Primary	0 - Primary	1 - Duplicate	0 - Primary	0 - Primary	0 - Primary	0 - Primary
Matrix	Screening	Regulatory	SB							
Laboratory Sample ID	Levels ⁽¹⁾	Levels ⁽²⁾	480-79128-4	480-79133-16	480-79133-17	480-79133-18	480-79133-15	480-79133-19	480-79133-20	480-79133-21
Volatile Organic Compounds (VOCs), ug/Kg (continued)	Levels	Levels	400-79120-4	400-73133-10	400-79133-17	400-79133-10	400-79133-13	400-79133-19	400-73133-20	400-79133-21
2-Hexanone	~	~	~	~	~	~	~	~	~	~
4-Methyl-2-pentanone	~	~	~	~	~	~	~	~	~	~
Acetone	100000	~	~	~	~	~	~	~	~	~
Benzene	4800	~	~	~	~	~	~	~	~	~
Bromodichloromethane	~	~	~	~	~	~	~	~	~	~
Bromoform	~	~	~	~	~	~	~	~	~	~
Bromomethane	~	~	~	~	~	~	~	~	~	~
Carbon disulfide	~	~	~	~	~	~	~	~	~	~
Carbon tetrachloride	2400	~	~	~	~	~	~	~	~	~
Chlorobenzene	100000	~	~	~	~	~	~	~	~	~
Chloroethane	~	~	~	~	~	~	~	~	~	~
Chloroform	49000	~	~	~	~	~	~	~	~	~
Chloromethane	~	~	~	~	~	~	~	~	~	~
cis-1,2-Dichloroethene	100000	~	~	~	~	~	~	~	~	~
cis-1,3-Dichloropropene	~	~	~	~	~	~	~	~	~	~
Cyclohexane	~	~	~	~	~	~	~	~	~	~
Cyclohexane, Methyl-	~	~	~	~	~	~	~	~	~	~
Dibromochloromethane	~	~	~	~	~	~	~	~	~	~
Dichlorodifluoromethane	~	~	~	~	~	~	~	~	~	~
Ethylbenzene	41000	~	~	~	~	~	~	~	~	~
Isopropylbenzene	~	~	~	~	~	~	~	~	~	~
Methyl acetate	~	~	~	~	~	~	~	~	~	~
Methyl tert-butyl ether	100000	~	~	~	~	~	~	~	~	~
Methylene chloride	100000	~	~	~	~	~	~	~	~	~
Styrene	~	~	~	~	~	~	~	~	~	~
Tetrachloroethene	19000	~	~	~	~	~	~	~	~	~
Toluene	100000	~	~	~	~	~	~	~	~	~
trans-1,2-Dichloroethene	100000	~	~	~	~	~	~	~	~	~
trans-1,3-Dichloropropene	~	~	~	~	~	~	~	~	~	~
Trichloroethene	21000	~	~	~	~	~	~	~	~	~
Trichlorofluoromethane	~	~	~	~	~	~	~	~	~	~
Vinylchloride	~	~	~	~	~	~	~	~	~	~
Xylenes, Total	100000	~	~	~	~	~	~	~	~	~
Semi-Volatile Organic Compounds (SVOCs), ug/Kg										
2,4,5-Trichlorophenol	~	~	~	260 U	56 U	57 U	270 U	510 U	520 U	57 U
2,4,6-Trichlorophenol	~	~	~	200 U	42 U	42 U	200 U	370 U	390 U	42 U
2,4-Dichlorophenol	~	~	~	100 U	22 U	22 U	110 U	200 U	210 U	22 U
2,4-Dimethylphenol	~	~	~	240 U	50 U	51 U	240 U	450 U	470 U	51 U
2,4-Dinitrophenol	~	~	~	4500 U	960 U	970 U	4700 U	8600 U	8900 U	970 U
2,4-Dinitrotoluene	~	~	~	200 U	43 U	43 U	210 U	390 U	400 U	43 U
2,6-Dinitrotoluene	~	~	~	120 UJ	24 UJ		120 UJ	220 UJ	230 UJ	25 U
2-Chloronaphthalene	~	~	~	160 U	34 U	35 U	170 U	310 U	320 U	35 U
2-Chlorophenol	~	~	~	180 U	38 U	38 U	180 U	340 U	350 U	39 U
2-Methylnaphthalene	~	~	~	200 U	42 U	42 U	200 U	370 U	390 U	42 U
2-Methylphenol	100000	~	~	120 U	24 U	25 U	120 U	220 U	230 U	25 U
2-Nitroaniline	~	~	~	140 U	31 U	31 U	150 U	280 U	280 U	31 U
2-Nitrophenol	~	~	~	280 U	59 U	59 U	290 U	530 U	550 U	60 U
3,3'-Dichlorobenzidine	~	~	~	1200 U	240 U	250 U	1200 U	2200 U	2300 U	250 U
3-Nitroaniline	~	~	~	270 U	57 U	58 U	280 U	520 U	540 U	58 U
4,6-Dinitro-2-methylphenol	~	~	~	980 U	210 U	210 U	1000 U	1900 U	1900 U	210 U



<table-container> Barbar Barbar</table-container>	Location ID			CMSSB011	CMSSB012	CMSSB012	CMSSB012	CMSSB012	CMSSB013	CMSSB013	CMSSB013
<table-container> best descr <th< td=""><td>Sample ID</td><td></td><td></td><td>CMSSB011-0-011</td><td>CMSSB012-0-020</td><td>CMSSB012-0-040</td><td></td><td>CMSSB012-0-007</td><td>CMSSB013-0-010</td><td>CMSSB013-0-020</td><td>CMSSB013-0-045</td></th<></table-container>	Sample ID			CMSSB011-0-011	CMSSB012-0-020	CMSSB012-0-040		CMSSB012-0-007	CMSSB013-0-010	CMSSB013-0-020	CMSSB013-0-045
<table-container> bind <t< td=""><td>Date</td><td></td><td></td><td>4/23/2015</td><td></td><td>4/23/2015</td><td></td><td></td><td></td><td>4/23/2015</td><td></td></t<></table-container>	Date			4/23/2015		4/23/2015				4/23/2015	
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Carbon - - - - 120 U 225 U 120 U 290 J 255 Chrysne 300 - - 240 J 46 U 470 U 230 U 500 J 160 J 477 Diperdulation 5000 - - 170 UJ 37 UJ 160 UJ 230 U 240 U 250 U 200 U 240 U 250 U 200 U 230 U 240 U 250 U		~	~	~	160 U	34 U		170 U	310 U	320 U	35 U
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Dimemping phinalate - - 120 U 25 U 120 U 220 U 230 U 236 U 36 U 170 U 36 U 170 U 36 U 170 U 36 U 170 U 300 U 330 U 36 Di-N-Cycly phinalate - - - 120 U 24 U 25 U 120 U 230 U 25 Fluorantene 100000 - - 360 J 22 U 110 U 100 J 3100 J 25 Hoxanhorobunzene 100000 - - 120 U 24 U 28 U 140 U 250 U 280 U <t< td=""><td>Dibenzofuran</td><td>59000</td><td>~</td><td>~</td><td>120 U</td><td>24 U</td><td>25 U</td><td>120 U</td><td>220 U</td><td>230 U</td><td>25 U</td></t<>	Dibenzofuran	59000	~	~	120 U	24 U	25 U	120 U	220 U	230 U	25 U
Di-N-Buryl phtalate - - - 170 U 35 U 36 U 170 U 320 U 330 U 36 Di-N-Octyl phtalate - - - - 120 U 24 U 25 U 120 U 220 U 230 U 230 U 230 U 36 Fluorantene 100000 - - 350 J 22 U 220 U 220 U 230 U 260 J 260 U 230 U 230 U 260 U 260 U 230 U 260 U 260 U 260 U 260 U 260 <td< td=""><td>Diethylphthalate</td><td>~</td><td>~</td><td>~</td><td>130 U</td><td>27 U</td><td>27 U</td><td>130 U</td><td>240 U</td><td>250 U</td><td>27 U</td></td<>	Diethylphthalate	~	~	~	130 U	27 U	27 U	130 U	240 U	250 U	27 U
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Fluorene 10000 ~ ~ 120 U 24 U 25 U 120 U 260 J 256 Hexachlorobenzene 1200 ~ ~ ~ 130 U 28 U 140 U 250 U 260 U 290 Hexachlorobutalene, SVOC ~ ~ ~ 140 U 31 U 150 U 280	Di-N-Octyl phthalate	~	~	~	120 U	24 U	25 U	120 U	220 U	230 U	25 U
Hexachlorobenzene 1200 ~ ~ 130 U 28 U 140 U 250 U 260 U 29 Hexachlorobutadiene, SVOC ~ ~ ~ ~ ~ 140 U 31 U 150 U 280 U 280 U 31 Hexachlorocyclopentadiene, SVOC ~ ~ ~ ~ 130 U 28 U 140 U 250 U 280 U 31 Hexachlorocyclopentadiene ~ ~ ~ 130 U 28 U 140 U 250 U 260 U 29 Indeno(1,2,3-cd)pyrene 500 ~ ~ 280 J 26 UJ 120 UJ 260 J 850 J 26 Indeno(1,2,3-cd)pyrene 500 ~ ~ 210 U 44 U 210 U 400 U 26 UJ 100 U 250 U 26 Naphthalene, SVOC 10000	Fluoranthene	100000	~	~	350 J	22 U	22 U	110 U	1100 J	3100	31 J
Hexachlorobutadiene, SVOC - - - 140 U 31 U 31 U 150 U 280 U 280 <t< td=""><td>Fluorene</td><td>100000</td><td>~</td><td>~</td><td>120 U</td><td>24 U</td><td>25 U</td><td></td><td></td><td></td><td></td></t<>	Fluorene	100000	~	~	120 U	24 U	25 U				
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Hexachlorocyclopentadiene ~ ~ 130 U 28 U 140 U 250 U 260 U 29 Hexachlorocythane ~ ~ ~ ~ 130 U 27 U 130 U 27 U 130 U 260 U 250 U 27 Inden(1,2,3-cd)pyrene 500 ~ ~ 280 J 26 U 27 U 130 U 240 U 250 U 27 Isophorone ~ ~ 280 J 26 UJ 26 UJ 26 UJ 260 J 260 J <th< td=""><td>Hexachlorobutadiene, SVOC</td><td>~</td><td>~</td><td>~</td><td>140 U</td><td>31 U</td><td>31 U</td><td>150 U</td><td>280 U</td><td>280 U</td><td>31 U</td></th<>	Hexachlorobutadiene, SVOC	~	~	~	140 U	31 U	31 U	150 U	280 U	280 U	31 U
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Isophone ~ ~ ~ 210 U 44 U 210 U 400 U 410 U 45 Naphthalene, SVOC 10000 ~ ~ ~ 130 U 27 U 130 U 240 U 250 U 27 Nitrobenzene 15000 ^a ~ ~ 110 U 23 U 23 U 110 U 240 U 220 U 24 N-Nitrobenzene 15000 ^a ~ ~ ~ 110 U 23 U 23 U 110 U 240 U 220 U 24 N-Nitrosoliphenylamine ~ ~ ~ 700 U 35 U 36 U 170 U 820 U 300 U 170	Hexachloroethane	~	~	~	130 U	27 U	27 U	130 U	240 U	250 U	27 U
Naphtalene, SVOC 10000 ~ ~ 130 U 27 U 130 U 240 U 250 U 27 Nitrobenzene 1500 ^a ~ ~ 110 U 23 U 110 U 210 U 220 U 24 N-Nitroso-di-N-propylamine ~ ~ ~ 170 U 35 U 36 U 170 U 320 U 330 U 36 N-Nitroso-di-N-propylamine ~ ~ ~ 700 U 170 U 36 U 1700 U 320 U 330 U 36 N-Nitrosodiphenylamine ~ ~ ~ 790 U 170 U 820 U 1500 U 170 U 1500 U 1600 U 170 U 170 U 1500 U 1600 U 170 U 1600 U 1600 U 170 U 1600 U 1600 U 170	Indeno(1,2,3-cd)pyrene	500	~	~		26 UJ	26 UJ				26 U
Nitrobenzene 1500 ^a ~ ~ 110 U 23 U 110 U 210 U 220 U 24 N-Nitroso-di-N-propylamine ~ ~ ~ 170 U 35 U 36 U 170 U 320 U 330 U 36 N-Nitroso-di-N-propylamine ~ ~ ~ ~ 790 U 170 U 820 U 1500 U 1600 U 170 U 820 U 1500 U 1600 U 170 U			~	~		44 U			400 U		
Nitrobenzene 1500 ° ~ ~ 110 U 23 U 23 U 110 U 210 U 220 U 24 N-Nitroso-di-N-propylamine ~ ~ ~ 170 U 35 U 36 U 170 U 320 U 330 U 36 N-Nitrosodiphenylamine ~ ~ ~ 790 U 170 U 170 U 820 U 1500 U 1600 U 170 170 170 170 170 U 1500 U 1600 U 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 170 <td< td=""><td>Naphthalene, SVOC</td><td>100000</td><td>~</td><td>~</td><td>130 U</td><td>27 U</td><td>27 U</td><td>130 U</td><td>240 U</td><td>250 U</td><td>27 U</td></td<>	Naphthalene, SVOC	100000	~	~	130 U	27 U	27 U	130 U	240 U	250 U	27 U
N-Nitrosodiphenylamine ~ ~ ~ 790 U 170 U 820 U 1500 U 1600 U 170 Pentachlorophenol, SVOC 6700 ~ ~ 980 U 210 U 10000 U 1900 U 1900 U 1900 U 210 210 U 1000 U 1900 U 1900 U 210 210 U 1000 U 1900 U 1900 U 210 210 U 150 U 1900 U 1900 U 210 210 U 150 U 1900 U 1900 U 210 210 210 210 210 210 210 210 210 210 210 210 210 210 210 210 210 210 210 210 210 210 210 210 210 210 210 210 210 210 210 210 210 210 210 210 210 210 210		15000 ^a	~	~	110 U	23 U	23 U				24 U
Pentachlorophenol, SVOC 6700 ~ ~ 980 U 210 U 1000 U 1900 U 1900 U 210 Phenanthrene 100000 ~ ~ 150 J 31 U 310 U 150 U 1000 J 2200 31 31 J 32 U 150 U 300 U 32 32 J 150 U 300 U 32 32 J 150 U 300 U 32 32 J 150 J 300 U 32 32 J 150 J 300 J 32 32 J 150 J 300 J 32 J 32 J J J 300 J 32 J J J <	N-Nitroso-di-N-propylamine	~	~	~	170 U	35 U	36 U	170 U	320 U	330 U	36 U
Phenanthrene 100000 ~ ~ 150 J 31 U 31 U 150 U 1100 J 2200 31 Phenol 100000 ~ ~ 150 U 32 U 32 U 150 U 200 U 32 U 32 U 150 U 200 U 300 U 32	N-Nitrosodiphenylamine	~	~	~	790 U	170 U	170 U	820 U	1500 U	1600 U	170 U
Phenol 10000 ~ ~ 150 U 32 U 32 U 150 U 290 U 300 U 32	Pentachlorophenol, SVOC	6700	~	~	980 U	210 U	210 U	1000 U	1900 U	1900 U	210 U
	Phenanthrene	100000	~	~	150 J	31 U	31 U	150 U	1100 J	2200	31 U
	Phenol	100000	~	~		32 U	32 U				32 U
ryrene 100000 ~ ~ 7 330 J 24 U 25 U 120 U 800 J 2300 26	Pyrene	100000	~	~	330 J	24 U	25 U	120 U	800 J	2300	26 J



Study Area, Corning, NY

Location ID			CMSSB011	CMSSB012	CMSSB012	CMSSB012	CMSSB012	CMSSB013	CMSSB013	CMSSB013
Sample ID			CMSSB011-0-011	CMSSB012-0-020	CMSSB012-0-040	CMSSB012-1-040	CMSSB012-0-007	CMSSB013-0-010	CMSSB013-0-020	CMSSB013-0-045
Date			4/23/2015	4/23/2015	4/23/2015	4/23/2015	4/23/2015	4/23/2015	4/23/2015	4/23/2015
Sample Depth	Restricted		13.5-24 inches	2-3.9 feet	4-12 feet	4-12 feet	8.5-24 inches	1-2 feet	2-4.2 feet	4.5-6.5 feet
Sample Type	Residential	TCLP	0 - Primary	0 - Primary	0 - Primary	1 - Duplicate	0 - Primary	0 - Primary	0 - Primary	0 - Primary
Matrix	Screening	Regulatory	SB							
Laboratory Sample ID	Levels ⁽¹⁾	Levels ⁽²⁾	480-79128-4	480-79133-16	480-79133-17	480-79133-18	480-79133-15	480-79133-19	480-79133-20	480-79133-21
Polychlorinated Biphenyls (PBCs), mg/Kg										
Aroclor-1016	~	~	~	~	~	~	~	~	~	~
Aroclor-1221	~	~	~	~	~	~	~	~	~	~
Aroclor-1232	~	~	~	~	~	~	~	~	~	~
Aroclor-1242	~	~	~	~	~	~	~	~	~	~
Aroclor-1248	~	~	~	~	~	~	~	~	~	~
Aroclor-1254	~	~	~	~	~	~	~	~	~	~
Aroclor-1260	~	~	~	~	~	~	~	~	~	~
Aroclor-1262	~	~	~	~	~	~	~	~	~	~
Aroclor-1268	~	~	~	~	~	~	~	~	~	~
Total Petroleum Hydrocarbons, mg/Kg										
ТРН	~	~	~	~	~	~	~	~	~	~

Notes:

mg/Kg = milligram per kilogram.

mg/L = milligram per liter.

ug/Kg = microgram per kilogram.

U = The analyte was analyzed for but was not detected above the level of the detection quantitation limit.

UJ = The analyte was analyzed for but not detected. The quantitation limit is

approximate and may be inaccurate or imprecise.

J = The positive result reported is estimated either because the result is less than the LOQ or because certain quality control criteria were not met.

J+ = The result is an estimated quantity, but the result may be biased high because

certain quality control criteria were not met.

R = The data is unusable. The sample results are rejected due to serious deficiencies in meeting the quality control criteria. The analyte may or maynot be in the sample.

SB = Soil boring.

SS = Surface soil.

(1) New York State Department of Environmental Conservation (NSYDEC) Subpart 375-

6 Remedial Program Soil Cleanup Objectives (SCOs).(2) Federal Code of Regulations, Section 261.24 - Toxicity characteristic. Context: Title 40 - Protection of Environment. CHAPTER I - ENVIRONMENTAL PROTECTION AGENCY (CONTINUED). SUBCHAPTER I - SOLID WASTES (CONTINUED). PART 261 -IDENTIFICATION AND LISTING OF HAZARDOUS WASTE. Subpart C - Characteristics of Hazardous Waste (2012-07-01).

a = Final Commissioner Policy, CP-51, Supplemental Soil Cleanup Objectives (SSCOs).

c = Constituent included in both NYSDEC Subpart 375-6 and CP-51, most conservative value used (CP-51 SSCO).

~ = Analysis not performed or No standard or guidance value listed for this constituent.



Location ID			CMSSS001	CMSSS001	CMSSS002	CMSSS002	CMSSS003	CMSSS003	CMSSS004	CMSSS004
Sample ID			CMSSS001-0-000	CMSSS001-0-002	CMSSS002-0-000	CMSSS002-0-002	CMSSS003-0-000	CMSSS003-0-002	CMSSS004-0-000	CMSSS004-0-002
Date			8/4/2014	8/4/2014	8/4/2014	8/4/2014	8/5/2014	8/5/2014	8/5/2014	8/5/2014
Sample Depth	Restricted		0 - 2 inches	2 - 24 inches	0 - 2 inches	2 - 24 inches	0 - 2 inches	2 - 24 inches	0 - 2 inches	2 - 24 inches
Sample Type	Residential	TCLP	0 - Primary							
Matrix	Screening	Regulatory	SS							
Laboratory Sample ID	Levels ⁽¹⁾	Levels ⁽²⁾	480-65069-12	480-65069-13	480-65069-6	480-65069-7	480-65115-7	480-65115-8	480-65115-4	480-65115-5
Toxicity Characteristic Leaching Procedure (TCLP) Metals, mg/L	201010	Lovoio	100 00000 12		100 00000 0	100 00000 1			100 00110 1	
Arsenic, TCLP	~	5	~	~	0.0056 U	0.0056 U	~	~	~	~
Barium, TCLP	~	100	~	~	0.45 J+	0.44 J+	~	~	~	~
Cadmium, TCLP	~	1	~	~	0.0012 J	0.00050 U	~	~	~	~
Chromium, TCLP	~	5	~	~	0.0040 U	0.0040 U	~	~	~	~
Lead, TCLP	~	5	~	~	0.010 U	0.010 U	~	~	~	~
Mercury, TCLP	~	0.2	~	~	0.00012 U	0.00012 U	~	~	~	~
Selenium, TCLP	~	1	~	~	0.0087 U	0.0087 U	~	~	~	~
Silver, TCLP	~	5	~	~	0.0017 U	0.0017 U	~	~	~	~
Total Metals, mg/Kg										
Aluminum, Total	~	~	~	~	8000	9100	~	~	~	~
Antimony, Total	~	~	~	~	1.5 J	1.2 J	~	~	~	~
Arsenic, Total	16	~	7.9	7.1	8.1	6.8	7.2	8.1	8.1	6.3
Barium, Total	400	~	~	~	120	140	~	~	~	~
Beryllium, Total	72	~	~	~	0.48	0.52	~	~	~	~
Boron, Total	~	~	~	~	3.9 J+	2.4 U	~	~	~	~
Cadmium, Total	4.3	~	0.54	0.39	0.50 2800	0.28 2000	0.44	0.37	0.60	0.21 J
Calcium, Total Chromium, Total	~ 180	~	~	~	18	12	~ ~	~ ~	~ ~	~
Cobalt, Total	~	~	~	~	7.6	8.5	~ ~	~ ~	~ ~	~
Copper, Total	~ 270	~	~	~	15	13	~	~	~	~
Iron, Total	~	~	~	~	16000	17000	~	~	~	~
Lead, Total	400	~	74	45	76	31	66	50	79	32
Magnesium, Total	~	~	~	~	2500	2600	~	~	~	~
Manganese, Total	2000	~	~	~	480	540	~	~	~	~
Mercury, Total	0.81	~	~	~	~	~	~	~	~	~
Nickel, Total	310	~	~	~	17	20	~	~	~	~
Potassium, Total	~	~	~	~	760	770	~	~	~	~
Selenium, Total	180	~	~	~	0.50 U	0.47 U	~	~	~	~
Silver, Total	180	~	~	~	0.25 U	0.24 U	~	~	~	~
Sodium, Total	~	~	~	~	32 J	31 J	~	~	~	~
Thallium, Total	~	~	~	~	0.37 U	0.35 U	~	~	~	~
Vanadium, Total	~	~	~	~	11	12	~	~	~	~
Zinc, Total	10000	~	~	~	80	62	~	~	~	~
Volatile Organic Compounds (VOCs), ug/Kg										
1,1,1-Trichloroethane	100000	~	~	~	~	~	~	~	~	~
1,1,2,2-Tetrachloroethane	~	~	~	~	~	~	~	~	~	~
1,1,2-Trichloro-1,2,2-trifluoroethane	~	~	~	~	~	~	~	~	~	~
1,1,2-Trichloroethane	~	~	~	~	~	~	~	~	~	~
1,1-Dichloroethane	26000 100000	~	~	~	~	~	~	~	~	~
1,1-Dichloroethene 1,2,4-Trichlorobenzene, VOC	~	~	~	~ ~	~ ~	~	~ ~	~ ~	~ ~	~
1,2,4- Inchlorobenzene, VOC 1,2-Dibromo-3-chloropropane	~ ~	~	~	~	~ ~	~	~ ~	~	~ ~	~
1,2-Dibromo-s-chloropropane	~ ~	~	~ ~	~	~ ~	~	~	~	~	~
1,2-Diblomberhane	~	~	~	~	~ ~	~	~	~ ~	~	~
1,2-Dichloroethane	3100	~	~	~	~	~	~	~	~	~
1,2-Dichloropropane	~	~	~	~	~	~	~	~	~	~
1,3-Dichlorobenzene, VOC	~	~	~	~	~	~	~	~	~	~
1,4-Dichlorobenzene, VOC	~	~	~	~	~	~	~	~	~	~
2-Butanone	~	~	~	~	~	~	~	~	~	~
	L						1		1	1



Location ID			CMSSS001	CMSSS001	CMSSS002	CMSSS002	CMSSS003	CMSSS003	CMSSS004	CMSSS004
Sample ID			CMSSS001-0-000	CMSSS001-0-002	CMSSS002-0-000	CMSSS002-0-002	CMSSS003-0-000	CMSSS003-0-002	CMSSS004-0-000	CMSSS004-0-002
Date			8/4/2014	8/4/2014	8/4/2014	8/4/2014	8/5/2014	8/5/2014	8/5/2014	8/5/2014
Sample Depth	Restricted		0 - 2 inches	2 - 24 inches	0 - 2 inches	2 - 24 inches	0 - 2 inches	2 - 24 inches	0 - 2 inches	2 - 24 inches
Sample Type	Residential	TCLP	0 - Primary							
Matrix	Screening	Regulatory	SS							
Laboratory Sample ID	Levels ⁽¹⁾	Levels ⁽²⁾	480-65069-12	480-65069-13	480-65069-6	480-65069-7	480-65115-7	480-65115-8	480-65115-4	480-65115-5
Volatile Organic Compounds (VOCs), ug/Kg (continued)	Leveis	Levels	480-05009-12	400-03009-13	480-03009-0	460-05009-7	480-05115-7	400-03113-0	400-03113-4	400-05115-5
2-Hexanone	~	~	~	~	~	~	~	~	~	~
4-Methyl-2-pentanone	~	~	~	~	~	~	~	~	~	~
Acetone	100000	~	~	~	~	~	~	~	~	~
Benzene	4800	~	~	~	~	~	~	~	~	~
Bromodichloromethane	~	~	~	~	~	~	~	~	~	~
Bromoform	~	~	~	~	~	~	~	~	~	~
Bromomethane	~	~	~	~	~	~	~	~	~	~
Carbon disulfide	~	~	~	~	~	~	~	~	~	~
Carbon tetrachloride	2400	~	~	~	~	~	~	~	~	~
Chlorobenzene	100000	~	~	~	~	~	~	~	~	~
Chloroethane	~	~	~	~	~	~	~	~	~	~
Chloroform	49000	~	~	~	~	~	~	~	~	~
Chloromethane	~	~	~	~	~	~	~	~	~	~
cis-1,2-Dichloroethene	100000	~	~	~	~	~	~	~	~	~
cis-1,3-Dichloropropene	~	~	~	~	~	~	~	~	~	~
Cyclohexane	~	~	~	~	~	~	~	~	~	~
Cyclohexane, Methyl-	~	~	~	~	~	~	~	~	~	~
Dibromochloromethane	~	~	~	~	~	~	~	~	~	~
Dichlorodifluoromethane	~	~	~	~	~	~	~	~	~	~
Ethylbenzene	41000	~	~	~	~	~	~	~	~	~
Isopropylbenzene	~	~	~	~	~	~	~	~	~	~
Methyl acetate	~	~	~	~	~	~	~	~	~	~
Methyl tert-butyl ether	100000	~	~	~	~	~	~	~	~	~
Methylene chloride	100000	~	~	~	~	~	~	~	~	~
Styrene	~	~	~	~	~	~	~	~	~	~
Tetrachloroethene	19000	~	~	~	~	~	~	~	~	~
Toluene	100000	~	~	~	~	~	~	~	~	~
trans-1,2-Dichloroethene	100000	~	~	~	~	~	~	~	~	~
trans-1,3-Dichloropropene	~	~	~	~	~	~	~	~	~	~
Trichloroethene	21000	~	~	~	~	~	~	~	~	~
Trichlorofluoromethane	~	~	~	~	~	~	~	~	~	~
Vinylchloride	~	~	~	~	~	~	~	~	~	~
Xylenes, Total	100000	~	~	~	~	~	~	~	~	~
Semi-Volatile Organic Compounds (SVOCs), ug/Kg					40	45				
2,4,5-Trichlorophenol	~	~	~	~	48 U	45 U	~	~	~	~
2,4,6-Trichlorophenol	~	~	~	~	14 U	14 U	~	~	~	~
2,4-Dichlorophenol	~	~	~	~	11 U	11 U	~	~	~	~
2,4-Dimethylphenol	~	~	~	~	59 U	56 U	~	~	~	~
2,4-Dinitrophenol	~	~	~	~	76 U	72 U	~	~	~	~
2,4-Dinitrotoluene	~	~	~	~	34 U 53 U	32 U	~	~	~	~
2,6-Dinitrotoluene	~	~	~	~	53 U 15 U	50 U 14 U	~	~	~	~
2-Chloronaphthalene	~	~		~	15 U	14 U 10 U	~	~	~	
2-Chlorophenol	~	~	~	~		2.5 U	~	~	~	~
2-Methylnaphthalene	~ 100000	~	~	~			~	~	~	~
2-Methylphenol		~	~	~	6.7 U 70 U	6.3 U 66 U	~	~	~	~
2-Nitroaniline	~		~	~	10 U	9.4 U	~	~	~	~
2-Nitrophenol	~	~	~	~	10 U	9.4 U 180 U	~	~	~	~
3,3'-Dichlorobenzidine	~	~	~	~	50 U	47 U	~	~	~	~
3-Nitroaniline	~	~	~	~	75 U	47 0 71 U	~	~	~	~
4,6-Dinitro-2-methylphenol	~	~	~	~	75 U	/i U	~	~	~	~



Location ID	(CMSSS001	CMSSS001	CMSSS002	CMSSS002	CMSSS003	CMSSS003	CMSSS004	CMSSS004
Sample ID	1		CMSSS001-0-000	CMSSS001-0-002	CMSSS002-0-000	CMSSS002-0-002	CMSSS003-0-000	CMSSS003-0-002	CMSSS004-0-000	CMSSS004-0-002
Date			8/4/2014	8/4/2014	8/4/2014	8/4/2014	8/5/2014	8/5/2014	8/5/2014	8/5/2014
Sample Depth			0 - 2 inches	2 - 24 inches	0 - 2 inches	2 - 24 inches	0 - 2 inches	2 - 24 inches	0 - 2 inches	2 - 24 inches
Sample Type	Residential	TCLP	0 - Primary							
Matrix	Screening	Regulatory	SS							
Laboratory Sample ID		Levels ⁽²⁾	480-65069-12	480-65069-13	480-65069-6	480-65069-7	480-65115-7	480-65115-8	480-65115-4	480-65115-5
Semi-Volatile Organic Compounds (SVOCs), ug/Kg (continued)		201010	100 00000 12		100 00000 0					100 00110 0
4-Bromophenyl-phenylether	~	~	~	~	69 U	65 U	~	~	~	~
4-Chloro-3-methylphenol	~	~	~	~	9.0 U	8.5 U	~	~	~	~
4-Chloroaniline	~	~	~	~	64 U	60 U	~	~	~	~
4-Chlorophenyl-phenylether	~	~	~	~	4.6 U	4.4 U	~	~	~	~
4-Methylphenol	100000	~	~	~	12 U	11 U	~	~	~	~
4-Nitroaniline	~	~	~	~	24 U	23 U	~	~	~	~
4-Nitrophenol, SVOC	~	~	~	~	53 U	50 U	~	~	~	~
Acenaphthene	100000	~	~	~	6.5 J	2.4 U	~	~	~	~
Acenaphthylene	100000	~	~	~	8.7 J	1.7 U	~	~	~	~
Acetophenone	~	~	~	~	11 U	11 U	~	~	~	~
Anthracene	100000	~	~	~	27 J	6.7 J	~	~	~	~
Atrazine	~	~	~	~	9.7 U	9.2 U	~	~	~	~
Benz(a)anthracene	1000	~	~	~	190 J	50 J	~	~	~	~
Benzaldehyde	~	~	~	~	24 U	23 U	~	~	~	~
Benzo(a)pyrene	1000	~	~	~	240	57 J	~	~	~	~
Benzo(b)fluoranthene	1000	~	~	~	390	89 J	~	~	~	~
Benzo(g,h,i)perylene	100000	~	~	~	250	46 J	~	~	~	~
Benzo(k)fluoranthene	3900	~	~	~	130 J	41 J	~	~	~	~
Biphenyl	~	~	~	~	14 U	13 U	~	~	~	~
bis (2-chloroisopropyl) ether	~	~	~	~	23 U	21 U	~	~	~	~
bis(2-Chloroethoxy)methane	~	~	~	~	12 U	11 U	~	~	~	~
bis(2-Chloroethyl)ether	~	~	~	~	19 U	18 U	~	~	~	~
bis(2-Ethylhexyl)phthalate	~	~	~	~	70 U	66 U	~	~	~	~
Butyl benzyl phthalate	~	~	~	~	58 U	55 U	~	~	~	~
Caprolactam	~	~	~	~	94 U	89 U	~	~	~	~
Carbazole	~	~	~	~	18 J	4.8 J	~	~	~	~
Chrysene	3900	~	~	~	250	62 J	~	~	~	~
Dibenz(a,h)anthracene	330	~	~	~	56 J	12 J	~	~	~	~
Dibenzofuran	59000	~	~	~	6.1 J	2.1 U	~	~	~	~
Diethylphthalate	~	~	~	~	6.6 U	6.2 U	~	~	~	~
Dimethyl phthalate	~	~	~	~	5.7 U	5.4 U	~	~	~	~
Di-N-Butyl phthalate	~	~	~	~	75 U	71 U	~	~	~	~
Di-N-Octyl phthalate	~	~	~	~	5.1 U	4.8 U	~	~	~	~
Fluoranthene	100000	~	~	~	400	100 J	~	~	~	~
Fluorene	100000	~	~	~	7.7 J	4.7 U	~	~	~	~
Hexachlorobenzene	1200	~	~	~	11 U	10 U	~	~	~	~
Hexachlorobutadiene, SVOC	~	~	~	~	11 U	11 U	~	~	~	~
Hexachlorocyclopentadiene	~	~	~	~	66 U	62 U	~	~	~	~
Hexachloroethane	~	~	~	~	17 U	16 U	~	~	~	~
Indeno(1,2,3-cd)pyrene	500	~	~	~	240	49 J	~	~	~	~
Isophorone	~	~	~	~	11 U	10 U	~	~	~	~
Naphthalene, SVOC	100000	~	~	~	8.2 J	3.4 U	~	~	~	~
Nitrobenzene	15000 ^a	~	~	~	9.7 U	9.1 U	~	~	~	~
N-Nitroso-di-N-propylamine	~	~	~	~	17 U	16 U	~	~	~	~
N-Nitrosodiphenylamine	~	~	~	~	12 U	11 U	~	~	~	~
Pentachlorophenol, SVOC	6700	~	~	~	75 U	71 U	~	~	~	~
Phenanthrene	100000	~	~	~	150 J	40 J	~	~	~	~
Phenol	100000	~	~	~	23 U	22 U	~	~	~	~
Pyrene	100000	~	~	~	370	92 J	~	~	~	~



Study Area, Corning, NY

Loca	ion ID		CMSSS001	CMSSS001	CMSSS002	CMSSS002	CMSSS003	CMSSS003	CMSSS004	CMSSS004
San	ple ID		CMSSS001-0-000	CMSSS001-0-002	CMSSS002-0-000	CMSSS002-0-002	CMSSS003-0-000	CMSSS003-0-002	CMSSS004-0-000	CMSSS004-0-002
	Date		8/4/2014	8/4/2014	8/4/2014	8/4/2014	8/5/2014	8/5/2014	8/5/2014	8/5/2014
Sample	Depth Restricted		0 - 2 inches	2 - 24 inches	0 - 2 inches	2 - 24 inches	0 - 2 inches	2 - 24 inches	0 - 2 inches	2 - 24 inches
Sample	Type Residential	TCLP	0 - Primary							
	Matrix Screening	Regulatory	SS							
Laboratory San	ple ID Levels ⁽¹⁾	Levels ⁽²⁾	480-65069-12	480-65069-13	480-65069-6	480-65069-7	480-65115-7	480-65115-8	480-65115-4	480-65115-5
Polychlorinated Biphenyls (PBCs), mg/Kg										
Aroclor-1016	~	~	~	~	0.0042 U	0.0039 U	~	~	~	~
Aroclor-1221	~	~	~	~	0.0042 U	0.0039 U	~	~	~	~
Aroclor-1232	~	~	~	~	0.0042 U	0.0039 U	~	~	~	~
Aroclor-1242	~	~	~	~	0.0042 U	0.0039 U	~	~	~	~
Aroclor-1248	~	~	~	~	0.0042 U	0.0039 U	~	~	~	~
Aroclor-1254	~	~	~	~	0.018 J	0.0093 U	~	~	~	~
Aroclor-1260	~	~	~	~	0.010 U	0.0093 U	~	~	~	~
Aroclor-1262	~	~	~	~	0.010 U	0.0093 U	~	~	~	~
Aroclor-1268	~	~	~	~	0.010 U	0.0093 U	~	~	~	~
Total Petroleum Hydrocarbons, mg/Kg										
ТРН	~	~	~	~	51 U	46 U	~	~	~	~

Notes:

mg/Kg = milligram per kilogram.

mg/L = milligram per liter.

ug/Kg = microgram per kilogram.

U = The analyte was analyzed for but was not detected above the level of the detection quantitation limit.

UJ = The analyte was analyzed for but not detected. The quantitation limit is

approximate and may be inaccurate or imprecise.

J = The positive result reported is estimated either because the result is less than the LOQ or because certain quality control criteria were not met.

J+ = The result is an estimated quantity, but the result may be biased high because

certain quality control criteria were not met.

R = The data is unusable. The sample results are rejected due to serious deficiencies in meeting the quality control criteria. The analyte may or maynot be in the sample.

SB = Soil boring.

SS = Surface soil.

(1) New York State Department of Environmental Conservation (NSYDEC) Subpart 375-

6 Remedial Program Soil Cleanup Objectives (SCOs).(2) Federal Code of Regulations, Section 261.24 - Toxicity characteristic. Context: Title 40 - Protection of Environment. CHAPTER I - ENVIRONMENTAL PROTECTION AGENCY (CONTINUED). SUBCHAPTER I - SOLID WASTES (CONTINUED). PART 261 -IDENTIFICATION AND LISTING OF HAZARDOUS WASTE. Subpart C - Characteristics of Hazardous Waste (2012-07-01).

a = Final Commissioner Policy, CP-51, Supplemental Soil Cleanup Objectives (SSCOs).

c = Constituent included in both NYSDEC Subpart 375-6 and CP-51, most conservative value used (CP-51 SSCO).

~ = Analysis not performed or No standard or guidance value listed for this constituent.



Location ID			CMSSS004	CMSSS005	CMSSS005	CMSSS006	CMSSS006	CMSSS007	CMSSS007	CMSSS008
Sample ID			CMSSS004-1-002	CMSSS005-0-000	CMSSS005-0-002	CMSSS006-0-000	CMSSS006-0-002	CMSSS007-0-000	CMSSS007-0-002	CMSSS008-0-000
Date			8/5/2014	8/5/2014	8/5/2014	8/4/2014	8/4/2014	8/4/2014	8/4/2014	8/4/2014
Sample Depth	Restricted		2 - 24 inches	0 - 2 inches	2 - 24 inches	0 - 2 inches	2 - 24 inches	0 - 2 inches	2 - 24 inches	0 - 2 inches
Sample Type	Residential	TCLP	1 - Duplicate	0 - Primary						
Matrix	Screening	Regulatory	SS							
Laboratory Sample ID	Levels ⁽¹⁾	Levels ⁽²⁾	480-65115-6	480-65115-9	480-65115-10	480-65069-3	480-65069-4	480-65069-1	480-65069-2	480-65069-8
Toxicity Characteristic Leaching Procedure (TCLP) Metals, mg/L										
Arsenic, TCLP	~	5	~	~	~	~	~	~	~	~
Barium, TCLP	~	100	~	~	~	~	~	~	~	~
Cadmium, TCLP	~	1	~	~	~	~	~	~	~	~
Chromium, TCLP	~	5	~	~	~	~	~	~	~	~
Lead, TCLP	~	5	~	~	~	~	~	~	~	~
Mercury, TCLP	~	0.2	~	~	~	~	~	~	~	~
Selenium, TCLP	~	1	~	~	~	~	~	~	~	~
Silver, TCLP	~	5	~	~	~	~	~	~	~	~
Total Metals, mg/Kg										
Aluminum, Total	~	~	~	~	~	~	~	~	~	~
Antimony, Total	~	~	~ 7.4	~	~	~	~	~	~	~
Arsenic, Total	16	~	7.4	5.9	6.9	9.3	7.1	7.9 J	6.8	11
Barium, Total	400	~	~	~	~	~	~	~	~	~
Beryllium, Total Boron, Total	72	~	~	~	~	~	~	~	~	~
Cadmium, Total	~ 4.3	~ ~	~ 0.37	~ 0.076 J	~ 0.41	~ 0.58	~ 0.14 J	~ 0.45 J	~ 0.34	~ 0.77
Calcium, Total	4.3	~	~	0.076 J	~	0.56	0.14 J ~	0.45 J	~	0.77
Chromium, Total	~ 180	~ ~	~	~	~	~	~	~	~	~
Cobalt, Total	~	~	~	~	~	~	~	~	~	~
Copper, Total	270	~	~	~	~	~	~	~	~	~
Iron, Total	~	~	~	~	~	~	~	~	~	~
Lead, Total	400	~	47	8.3	47	85	28	55	27	92
Magnesium, Total	~	~	~	~	~	~	~	~	~	~
Manganese, Total	2000	~	~	~	~	~	~	~	~	~
Mercury, Total	0.81	~	~	~	~	~	~	~	~	~
Nickel, Total	310	~	~	~	~	~	~	~	~	~
Potassium, Total	~	~	~	~	~	~	~	~	~	~
Selenium, Total	180	~	~	~	~	~	~	~	~	~
Silver, Total	180	~	~	~	~	~	~	~	~	~
Sodium, Total	~	~	~	~	~	~	~	~	~	~
Thallium, Total	~	~	~	~	~	~	~	~	~	~
Vanadium, Total	~	~	~	~	~	~	~	~	~	~
Zinc, Total	10000	~	~	~	~	~	~	~	~	~
Volatile Organic Compounds (VOCs), ug/Kg	100000									
1,1,1-Trichloroethane	100000	~	~	~	~	~	~	~	~	~
1,1,2,2-Tetrachloroethane	~	~	~	~	~	~	~	~	~	~
1,1,2-Trichloro-1,2,2-trifluoroethane 1,1,2-Trichloroethane	~	~	~	~	~	~	~	~	~ ~	~
1,1-Dichloroethane	~ 26000	~ ~	~	~	~ ~	~	~	~	~ ~	~ ~
1,1-Dichloroethene	100000	~ ~	~	~	~ ~	~	~ ~	~	~ ~	~ ~
1,2,4-Trichlorobenzene, VOC	~	~	~	~	~	~	~	~	~	~
1,2-Dibromo-3-chloropropane	~	~	~	~	~	~	~	~	~	~
1,2-Dibromoethane	~	~	~	~	~	~	~	~	~	~
1,2-Dichlorobenzene, VOC	~	~	~	~	~	~	~	~	~	~
1,2-Dichloroethane	3100	~	~	~	~	~	~	~	~	~
1,2-Dichloropropane	~	~	~	~	~	~	~	~	~	~
1,3-Dichlorobenzene, VOC	~	~	~	~	~	~	~	~	~	~
1,4-Dichlorobenzene, VOC	~	~	~	~	~	~	~	~	~	~
2-Butanone	~	~	~	~	~	~	~	~	~	~



Location ID			CMSSS004	CMSSS005	CMSSS005	CMSSS006	CMSSS006	CMSSS007	CMSSS007	CMSSS008
Sample ID			CMSSS004-1-002	CMSSS005-0-000	CMSSS005-0-002	CMSSS006-0-000	CMSSS006-0-002	CMSSS007-0-000	CMSSS007-0-002	CMSSS008-0-000
Date			8/5/2014	8/5/2014	8/5/2014	8/4/2014	8/4/2014	8/4/2014	8/4/2014	8/4/2014
Sample Depth	Restricted		2 - 24 inches	0 - 2 inches	2 - 24 inches	0 - 2 inches	2 - 24 inches	0 - 2 inches	2 - 24 inches	0 - 2 inches
Sample Type	Residential	TCLP	1 - Duplicate	0 - Primary						
Matrix	Screening	Regulatory	SS							
Laboratory Sample ID	Levels ⁽¹⁾	Levels ⁽²⁾	480-65115-6	480-65115-9	480-65115-10	480-65069-3	480-65069-4	480-65069-1	480-65069-2	480-65069-8
Volatile Organic Compounds (VOCs), ug/Kg (continued)	Levels	Levels	400-03113-0	400-03113-3	400-03113-10	400-03003-3	400-03003-4	400-03003-1	400-03003-2	400-03003-0
2-Hexanone	~	~	~	~	~	~	~	~	~	~
4-Methyl-2-pentanone	~	~	~	~	~	~	~	~	~	~
Acetone	100000	~	~	~	~	~	~	~	~	~
Benzene	4800	~	~	~	~	~	~	~	~	~
Bromodichloromethane	~	~	~	~	~	~	~	~	~	~
Bromoform	~	~	~	~	~	~	~	~	~	~
Bromomethane	~	~	~	~	~	~	~	~	~	~
Carbon disulfide	~	~	~	~	~	~	~	~	~	~
Carbon tetrachloride	2400	~	~	~	~	~	~	~	~	~
Chlorobenzene	100000	~	~	~	~	~	~	~	~	~
Chloroethane	~	~	~	~	~	~	~	~	~	~
Chloroform	49000	~	~	~	~	~	~	~	~	~
Chloromethane	~	~	~	~	~	~	~	~	~	~
cis-1,2-Dichloroethene	100000	~	~	~	~	~	~	~	~	~
cis-1,3-Dichloropropene	~	~	~	~	~	~	~	~	~	~
Cyclohexane	~	~	~	~	~	~	~	~	~	~
Cyclohexane, Methyl-	~	~	~	~	~	~	~	~	~	~
Dibromochloromethane	~	~	~	~	~	~	~	~	~	~
Dichlorodifluoromethane	~	~	~	~	~	~	~	~	~	~
Ethylbenzene	41000	~	~	~	~	~	~	~	~	~
Isopropylbenzene	~	~	~	~	~	~	~	~	~	~
Methyl acetate	~	~	~	~	~	~	~	~	~	~
Methyl tert-butyl ether	100000	~	~	~	~	~	~	~	~	~
Methylene chloride	100000	~	~	~	~	~	~	~	~	~
Styrene	~	~	~	~	~	~	~	~	~	~
Tetrachloroethene	19000	~	~	~	~	~	~	~	~	~
Toluene	100000	~	~	~	~	~	~	~	~	~
trans-1,2-Dichloroethene	100000	~	~	~	~	~	~	~	~	~
trans-1,3-Dichloropropene	~	~	~	~	~	~	~	~	~	~
Trichloroethene	21000	~	~	~	~	~	~	~	~	~
Trichlorofluoromethane	~	~	~	~	~	~	~	~	~	~
Vinylchloride	~	~	~	~	~	~	~	~	~	~
Xylenes, Total	100000	~	~	~	~	~	~	~	~	~
Semi-Volatile Organic Compounds (SVOCs), ug/Kg										
2,4,5-Trichlorophenol	~	~	~	~	~	~	~	~	~	~
2,4,6-Trichlorophenol	~	~	~	~	~	~	~	~	~	~
2,4-Dichlorophenol	~	~	~	~	~	~	~	~	~	~
2,4-Dimethylphenol	~	~	~	~	~	~	~	~	~	~
2,4-Dinitrophenol	~	~	~	~	~	~	~	~	~	~
2,4-Dinitrotoluene	~	~	~	~	~	~	~	~	~	~
2,6-Dinitrotoluene	~	~	~	~	~	~	~	~	~	~
2-Chloronaphthalene	~	~	~	~	~	~	~	~	~	~
2-Chlorophenol	~	~	~	~	~	~	~	~	~	~
2-Methylnaphthalene	~	~	~	~	~	~	~	~	~	~
2-Methylphenol	100000	~	~	~	~	~	~	~	~	~
2-Nitroaniline	~	~	~	~	~	~	~	~	~	~
2-Nitrophenol	~	~	~	~	~	~	~	~	~	~
3,3'-Dichlorobenzidine	~	~	~	~	~	~	~	~	~	~
3-Nitroaniline	~	~	~	~	~	~	~	~	~	~
4,6-Dinitro-2-methylphenol	~	~	~	~	~	~	~	~	~	~



Location ID			CMSSS004	CMSSS005	CMSSS005	CMSSS006	CMSSS006	CMSSS007	CMSSS007	CMSSS008
Sample ID			CMSSS004-1-002	CMSSS005-0-000	CMSSS005-0-002	CMSSS006-0-000	CMSSS006-0-002	CMSSS007-0-000	CMSSS007-0-002	CMSSS008-0-000
Date			8/5/2014	8/5/2014	8/5/2014	8/4/2014	8/4/2014	8/4/2014	8/4/2014	8/4/2014
Sample Depth	Restricted		2 - 24 inches	0 - 2 inches	2 - 24 inches	0 - 2 inches	2 - 24 inches	0 - 2 inches	2 - 24 inches	0 - 2 inches
Sample Type	Residential	TCLP	1 - Duplicate	0 - Primary						
Matrix	Screening	Regulatory	SS							
Laboratory Sample ID	Levels ⁽¹⁾	Levels ⁽²⁾	480-65115-6	480-65115-9	480-65115-10	480-65069-3	480-65069-4	480-65069-1	480-65069-2	480-65069-8
Semi-Volatile Organic Compounds (SVOCs), ug/Kg (continued)										
4-Bromophenyl-phenylether	~	~	~	~	~	~	~	~	~	~
4-Chloro-3-methylphenol	~	~	~	~	~	~	~	~	~	~
4-Chloroaniline	~	~	~	~	~	~	~	~	~	~
4-Chlorophenyl-phenylether	~	~	~	~	~	~	~	~	~	~
4-Methylphenol	100000	~	~	~	~	~	~	~	~	~
4-Nitroaniline	~	~	~	~	~	~	~	~	~	~
4-Nitrophenol, SVOC	~	~	~	~	~	~	~	~	~	~
Acenaphthene	100000	~	~	~	~	~	~	~	~	~
Acenaphthylene	100000	~	~	~	~	~	~	~	~	~
Acetophenone	~	~	~	~	~	~	~	~	~	~
Anthracene	100000	~	~	~	~	~	~	~	~	~
Atrazine	~	~	~	~	~	~	~	~	~	~
Benz(a)anthracene	1000	~	~	~	~	~	~	~	~	~
Benzaldehyde	~	~	~	~	~	~	~	~	~	~
Benzo(a)pyrene	1000	~	~	~	~	~	~	~	~	~
Benzo(b)fluoranthene	1000	~	~	~	~	~	~	~	~	~
Benzo(g,h,i)perylene	100000 3900	~	~	~	~	~	~	~	~	~
Benzo(k)fluoranthene	~	~	~	~	~	~	~	~	~	~
Biphenyl	~ ~	~	~	~	~ ~	~		~	~ ~	~
bis (2-chloroisopropyl) ether bis(2-Chloroethoxy)methane	~ ~	~	~	~	~ ~	~ ~	~ ~	~ ~	~ ~	~ ~
bis(2-Chloroethyl)ether	~	~	~	~	~	~	~	~	~	~
bis(2-Ethylhexyl)phthalate	~	~	~	~	~	~	~	~	~	~
Butyl benzyl phthalate	~	~	~	~	~	~	~	~	~	~
Caprolactam	~	~	~	~	~	~	~	~	~	~
Carbazole	~	~	~	~	~	~	~	~	~	~
Chrysene	3900	~	~	~	~	~	~	~	~	~
Dibenz(a,h)anthracene	330	~	~	~	~	~	~	~	~	~
Dibenzofuran	59000	~	~	~	~	~	~	~	~	~
Diethylphthalate	~	~	~	~	~	~	~	~	~	~
Dimethyl phthalate	~	~	~	~	~	~	~	~	~	~
Di-N-Butyl phthalate	~	~	~	~	~	~	~	~	~	~
Di-N-Octyl phthalate	~	~	~	~	~	~	~	~	~	~
Fluoranthene	100000	~	~	~	~	~	~	~	~	~
Fluorene	100000	~	~	~	~	~	~	~	~	~
Hexachlorobenzene	1200	~	~	~	~	~	~	~	~	~
Hexachlorobutadiene, SVOC	~	~	~	~	~	~	~	~	~	~
Hexachlorocyclopentadiene	~	~	~	~	~	~	~	~	~	~
Hexachloroethane	~	~	~	~	~	~	~	~	~	~
Indeno(1,2,3-cd)pyrene	500	~	~	~	~	~	~	~	~	~
Isophorone	~	~	~	~	~	~	~	~	~	~
Naphthalene, SVOC	100000	~	~	~	~	~	~	~	~	~
Nitrobenzene	15000 ^a	~	~	~	~	~	~	~	~	~
N-Nitroso-di-N-propylamine	~	~	~	~	~	~	~	~	~	~
N-Nitrosodiphenylamine Pentachlorophenol, SVOC	~ 6700	~	~	~	~	~	~	~	~	~
	100000	~	~	~	~	~	~	~	~	~
Phenanthrene Phenol	100000	~	~	~	~ ~	~ ~	~	~ ~	~	~ ~
Pyrene	100000	~	~ ~	~	~	~ ~	~	~ ~	~	~ ~
ר אוסווס	100000	~			<u>~</u>	~			1 ~	



Study Area, Corning, NY

Location ID			CMSSS004	CMSSS005	CMSSS005	CMSSS006	CMSSS006	CMSSS007	CMSSS007	CMSSS008
Sample ID			CMSSS004-1-002	CMSSS005-0-000	CMSSS005-0-002	CMSSS006-0-000	CMSSS006-0-002	CMSSS007-0-000	CMSSS007-0-002	CMSSS008-0-000
Date			8/5/2014	8/5/2014	8/5/2014	8/4/2014	8/4/2014	8/4/2014	8/4/2014	8/4/2014
Sample Depth	Restricted		2 - 24 inches	0 - 2 inches	2 - 24 inches	0 - 2 inches	2 - 24 inches	0 - 2 inches	2 - 24 inches	0 - 2 inches
Sample Type	Residential	TCLP	1 - Duplicate	0 - Primary						
Matrix	Screening	Regulatory	SS							
Laboratory Sample ID	Levels ⁽¹⁾	Levels ⁽²⁾	480-65115-6	480-65115-9	480-65115-10	480-65069-3	480-65069-4	480-65069-1	480-65069-2	480-65069-8
Polychlorinated Biphenyls (PBCs), mg/Kg										
Aroclor-1016	~	~	~	~	~	~	~	~	~	~
Aroclor-1221	~	~	~	~	~	~	~	~	~	~
Aroclor-1232	~	~	~	~	~	~	~	~	~	~
Aroclor-1242	~	~	~	~	~	~	~	~	~	~
Aroclor-1248	~	~	~	~	~	~	~	~	~	~
Aroclor-1254	~	~	~	~	~	~	~	~	~	~
Aroclor-1260	~	~	~	~	~	~	~	~	~	~
Aroclor-1262	~	~	~	~	~	~	~	~	~	~
Aroclor-1268	~	~	~	~	~	~	~	~	~	~
Total Petroleum Hydrocarbons, mg/Kg										
ТРН	~	~	~	~	~	~	~	~	~	~

Notes:

mg/Kg = milligram per kilogram.

mg/L = milligram per liter.

ug/Kg = microgram per kilogram.

U = The analyte was analyzed for but was not detected above the level of the detection quantitation limit.

UJ = The analyte was analyzed for but not detected. The quantitation limit is

approximate and may be inaccurate or imprecise.

J = The positive result reported is estimated either because the result is less than the LOQ or because certain quality control criteria were not met.

J+ = The result is an estimated quantity, but the result may be biased high because

certain quality control criteria were not met.

R = The data is unusable. The sample results are rejected due to serious deficiencies in meeting the quality control criteria. The analyte may or maynot be in the sample.

SB = Soil boring.

SS = Surface soil.

(1) New York State Department of Environmental Conservation (NSYDEC) Subpart 375-

6 Remedial Program Soil Cleanup Objectives (SCOs).(2) Federal Code of Regulations, Section 261.24 - Toxicity characteristic. Context: Title 40 - Protection of Environment. CHAPTER I - ENVIRONMENTAL PROTECTION AGENCY (CONTINUED). SUBCHAPTER I - SOLID WASTES (CONTINUED). PART 261 -IDENTIFICATION AND LISTING OF HAZARDOUS WASTE. Subpart C - Characteristics of Hazardous Waste (2012-07-01).

a = Final Commissioner Policy, CP-51, Supplemental Soil Cleanup Objectives (SSCOs).

c = Constituent included in both NYSDEC Subpart 375-6 and CP-51, most conservative value used (CP-51 SSCO).

~ = Analysis not performed or No standard or guidance value listed for this constituent.



Location ID			CMSSS008	CMSSS009	CMSSS009	CMSSS010	CMSSS010	CMSSS011	CMSSS011	CMSSS011
Sample ID			CMSSS008-0-002	CMSSS009-0-000	CMSSS009-0-002	CMSSS010-0-000	CMSSS010-0-002	CMSSS011-0-000	CMSSS011-1-000	CMSSS011-0-002
Date			8/4/2014	8/1/2014	8/1/2014	8/4/2014	8/4/2014	8/1/2014	8/1/2014	8/1/2014
Sample Depth	Restricted		2 - 24 inches	0 - 2 inches	2 - 24 inches	0 - 2 inches	2 - 24 inches	0 - 2 inches	0 - 2 inches	2 - 24 inches
Sample Type	Residential	TCLP	0 - Primary	1 - Duplicate	0 - Primary					
Matrix	Screening	Regulatory	SS	SS	SS	SS	SS	SS	SS	SS
Laboratory Sample ID	Levels ⁽¹⁾	Levels ⁽²⁾	480-65069-9	480-64771-6	480-64771-7	480-65069-10	480-65069-11	480-64771-1	480-64771-2	480-64771-3
Toxicity Characteristic Leaching Procedure (TCLP) Metals, mg/L	Leveis	Leveis	400-00009-9	400-04771-0	400-04771-7	400-00009-10	400-00009-11	400-04//1-1	400-04771-2	400-04771-3
Arsenic, TCLP	~	5	~	~	~	~	~	0.010 J	~	0.0056 U
Barium, TCLP	~	100	~	~	~	~ ~	~	0.47	~	0.72
Cadmium, TCLP	~	100	~	~	~	~ ~	~	0.0024	~	0.0065
Chromium, TCLP	~	5	~	~	~	~ ~	~	0.0024 0.0049 J+	~	0.0000 U
Lead, TCLP	~ ~	5	~	~	~	~	~	0.019 J+	~ ~	0.040 0 0.044 J+
Mercury, TCLP	~ ~	0.2						0.0019 J+		0.00012 U
Selenium, TCLP		1	~	~	~	~	~	0.00012 U	~	0.00012 U
Silver, TCLP	~	5	~	~	~	~	~	0.0087 U	~	0.0087 U
	~	5	~	~	~	~	~	0.0017 0	~	0.0017 0
Total Metals, mg/Kg	~	~	~	~	~	~		7200	~	
Aluminum, Total	~ ~	~		~ ~	~ ~	~	~	0.46 U	~ ~	3.0 J
Antimony, Total	~ 16		~ 9.2	~ 9.1	~ 8.0	~ 6.1	~ 6.9	9.0		3.0 J
Arsenic, Total Barium, Total	400	~	9.2	9.1	8.0	6.1 ~	6.9 ~	9.0	~	14 110 J
	400 72		~					0.65		0.45
Beryllium, Total		~	~	~	~	~	~	4.6	~	4.7
Boron, Total	~	~	~	~	~	~	~		~	
Cadmium, Total	4.3	~	0.46	0.50	0.18 J	0.30	0.37	0.49 2900	~	1.1
Calcium, Total	~	~	~	~	~	~	~		~	4100
Chromium, Total	180	~	~	~	~	~	~	24	~	16
Cobalt, Total	~	~	~	~	~	~	~	7.2	~	7.6
Copper, Total	270	~	~	~	~	~	~	16	~	21
Iron, Total	~	~	~	~	~	~	~	15000	~	16000
Lead, Total	400	~	46	95	48	28	38	86	~	200
Magnesium, Total	~	~	~	~	~	~	~	2400	~	3100 J
Manganese, Total	2000	~	~	~	~	~	~	440	~	440
Mercury, Total	0.81	~	~	~	~	~	~	~	~	~
Nickel, Total	310	~	~	~	~	~	~	16 750	~	18 710 J
Potassium, Total	~	~	~	~	~	~	~		~	
Selenium, Total	180	~	~	~	~	~	~	0.46 U	~	0.52 J
Silver, Total	180	~	~	~	~	~	~	0.26 J	~	0.25 U
Sodium, Total	~	~	~	~	~	~	~	67 J	~	46 J
Thallium, Total	~	~	~	~	~	~	~	0.35 U	~	0.38 U
Vanadium, Total	~	~	~	~	~	~	~	11	~	12
Zinc, Total	10000	~	~	~	~	~	~	110	~	96
Volatile Organic Compounds (VOCs), ug/Kg	10000							0.40	0.40	0.45
1,1,1-Trichloroethane	100000	~	~	~	~	~	~	0.40 UJ	0.40 UJ	0.45 U 1.0 U
1,1,2,2-Tetrachloroethane	~	~	~	~	~	~	~	0.89 UJ	0.88 UJ	
1,1,2-Trichloro-1,2,2-trifluoroethane	~	~	~	~	~	~	~	1.2 UJ 0.71 UJ	1.2 UJ	1.4 U
1,1,2-Trichloroethane	~	~	~	~	~	~	~		0.71 UJ	0.80 U
1,1-Dichloroethane	26000	~	~	~	~	~	~	0.67 UJ	0.66 UJ	0.75 U
1,1-Dichloroethene	100000	~	~	~	~	~	~	0.67 UJ	0.67 UJ	0.75 U
1,2,4-Trichlorobenzene, VOC	~	~	~	~	~	~	~	0.33 UJ	0.33 UJ	0.37 U
1,2-Dibromo-3-chloropropane	~	~	~	~	~	~	~	2.7 UJ	2.7 UJ	3.1 U
1,2-Dibromoethane	~	~	~	~	~	~	~	0.70 UJ	0.70 UJ	0.79 U
1,2-Dichlorobenzene, VOC	~	~	~	~	~	~	~	0.43 UJ	0.43 UJ	0.48 U
1,2-Dichloroethane	3100	~	~	~	~	~	~	0.28 UJ	0.27 UJ	0.31 U
1,2-Dichloropropane	~	~	~	~	~	~	~	2.7 UJ	2.7 UJ	3.1 U
1,3-Dichlorobenzene, VOC	~	~	~	~	~	~	~	0.28 UJ	0.28 UJ	0.32 U
1,4-Dichlorobenzene, VOC	~	~	~	~	~	~	~	0.77 UJ	0.76 UJ	0.86 U
2-Butanone	~	~	~	~	~	~	~	2.0 UJ	2.0 UJ	2.3 U



Location ID			CMSSS008	CMSSS009	CMSSS009	CMSSS010	CMSSS010	CMSSS011	CMSSS011	CMSSS011
Sample ID			CMSSS008-0-002	CMSSS009-0-000	CMSSS009-0-002	CMSSS010-0-000	CMSSS010-0-002	CMSSS011-0-000	CMSSS011-1-000	CMSSS011-0-002
Date			8/4/2014	8/1/2014	8/1/2014	8/4/2014	8/4/2014	8/1/2014	8/1/2014	8/1/2014
Sample Depth	Restricted		2 - 24 inches	0 - 2 inches	2 - 24 inches	0 - 2 inches	2 - 24 inches	0 - 2 inches	0 - 2 inches	2 - 24 inches
Sample Type	Residential	TCLP	0 - Primary	1 - Duplicate	0 - Primary					
Matrix	Screening	Regulatory	SS							
Laboratory Sample ID	Levels ⁽¹⁾	Levels ⁽²⁾	480-65069-9	480-64771-6	480-64771-7	480-65069-10	480-65069-11	480-64771-1	480-64771-2	480-64771-3
Volatile Organic Compounds (VOCs), ug/Kg (continued)										
2-Hexanone	~	~	~	~	~	~	~	2.7 UJ	2.7 UJ	3.1 U
4-Methyl-2-pentanone	~	~	~	~	~	~	~	1.8 UJ	1.8 UJ	2.0 U
Acetone	100000	~	~	~	~	~	~	4.6 UJ	4.6 UJ	5.2 U
Benzene	4800	~	~	~	~	~	~	0.27 UJ	0.27 UJ	0.30 U
Bromodichloromethane	~	~	~	~	~	~	~	0.73 UJ	0.73 UJ	0.83 U
Bromoform	~	~	~	~	~	~	~	2.7 UJ	2.7 UJ	3.1 U
Bromomethane	~	~	~	~	~	~	~	0.49 UJ	0.49 UJ	0.56 U
Carbon disulfide	~	~	~	~	~	~	~	2.7 UJ	2.7 UJ	3.1 U
Carbon tetrachloride	2400	~	~	~	~	~	~	0.53 UJ	0.53 UJ	0.60 U
Chlorobenzene	100000	~	~	~	~	~	~	0.72 UJ	0.72 UJ	0.81 U
Chloroethane	~	~	~	~	~	~	~	1.2 UJ	1.2 UJ	1.4 U
Chloroform	49000	~	~	~	~	~	~	0.34 UJ	0.34 UJ	0.38 U
Chloromethane	~	~	~	~	~	~	~	0.33 UJ	0.33 UJ	0.37 U
cis-1,2-Dichloroethene	100000	~	~	~	~	~	~	0.70 UJ	0.70 UJ	0.79 U
cis-1,3-Dichloropropene	~	~	~	~	~	~	~	0.79 UJ	0.78 UJ	0.89 U
Cyclohexane	~	~	~	~	~	~	~	0.77 UJ	0.76 UJ	0.86 U
Cyclohexane, Methyl-	~	~	~	~	~	~	~	0.83 UJ	0.83 UJ	0.94 U
Dibromochloromethane	~	~	~	~	~	~	~	0.70 UJ	0.70 UJ	0.79 U
Dichlorodifluoromethane	~	~	~	~	~	~	~	0.45 UJ	0.45 UJ	0.51 U
Ethylbenzene	41000	~	~	~	~	~	~	0.38 UJ	0.38 UJ	0.43 U
Isopropylbenzene	~	~	~	~	~	~	~	0.83 UJ	0.82 UJ	0.93 U
Methyl acetate	~	~	~	~	~	~	~	1.0 UJ	1.0 UJ	1.1 UJ
Methyl tert-butyl ether	100000	~	~	~	~	~	~	0.54 UJ	0.54 UJ	0.61 U
Methylene chloride	100000	~	~	~	~	~	~	2.5 UJ	2.5 UJ	2.8 U
Styrene	~	~	~	~	~	~	~	0.27 UJ	0.27 UJ	0.31 U
Tetrachloroethene	19000	~	~	~	~	~	~	0.74 UJ	0.73 UJ	0.83 U
Toluene	100000	~	~	~	~	~	~	0.41 UJ	0.41 UJ	0.47 U
trans-1,2-Dichloroethene	100000	~	~	~	~	~	~	0.57 UJ	0.56 UJ	0.64 U
trans-1,3-Dichloropropene	~	~	~	~	~	~	~	2.4 UJ	2.4 UJ	2.7 U
Trichloroethene	21000	~	~	~	~	~	~	1.2 UJ	1.2 UJ	1.4 U
Trichlorofluoromethane	~	~	~	~	~	~	~	0.52 UJ	0.52 UJ	0.58 U
Vinylchloride	~	~	~	~	~	~	~	0.67 UJ	0.66 UJ	0.75 U
Xylenes, Total	100000	~	~	~	~	~	~	0.92 UJ	0.92 UJ	1.0 U
Semi-Volatile Organic Compounds (SVOCs), ug/Kg										
2,4,5-Trichlorophenol	~	~	~	~	~	~	~	41 U	~	43 U
2,4,6-Trichlorophenol	~	~	~	~	~	~	~	12 U	~	13 U
2,4-Dichlorophenol	~	~	~	~	~	~	~	9.8 U	~	10 U
2,4-Dimethylphenol	~	~	~	~	~	~	~	50 U	~	53 U
2,4-Dinitrophenol	~	~	~	~	~	~	~	65 U	~	68 U
2,4-Dinitrotoluene	~	~	~	~	~	~	~	29 U	~	30 U
2,6-Dinitrotoluene	~	~	~	~	~	~	~	46 U	~	48 U
2-Chloronaphthalene	~	~	~	~	~	~	~	12 U	~	13 U
2-Chlorophenol	~	~	~	~	~	~	~	9.5 U	~	10 U
2-Methylnaphthalene	~	~	~	~	~	~	~	8.4 J	~	10 J
2-Methylphenol	100000	~	~	~	~	~	~	5.7 U	~	6.0 U
2-Nitroaniline	~	~	~	~	~	~	~	60 U	~	63 U
2-Nitrophenol	~	~	~	~	~	~	~	8.5 U	~	8.9 U
3,3'-Dichlorobenzidine	~	~	~	~	~	~	~	160 U	~	170 U
3-Nitroaniline	~	~	~	~	~	~	~	43 U	~	45 U
4,6-Dinitro-2-methylphenol	~	~	~	~	~	~	~	64 U	~	68 U



Location ID	(CMSSS008	CMSSS009	CMSSS009	CMSSS010	CMSSS010	CMSSS011	CMSSS011	CMSSS011
Sample ID	1		CMSSS008-0-002	CMSSS009-0-000	CMSSS009-0-002	CMSSS010-0-000	CMSSS010-0-002	CMSSS011-0-000	CMSSS011-1-000	CMSSS011-0-002
Date			8/4/2014	8/1/2014	8/1/2014	8/4/2014	8/4/2014	8/1/2014	8/1/2014	8/1/2014
Sample Depth	Restricted		2 - 24 inches	0 - 2 inches	2 - 24 inches	0 - 2 inches	2 - 24 inches	0 - 2 inches	0 - 2 inches	2 - 24 inches
Sample Type		TCLP	0 - Primary	1 - Duplicate	0 - Primary					
Matrix	Screening	Regulatory	SS							
Laboratory Sample ID		Levels ⁽²⁾	480-65069-9	480-64771-6	480-64771-7	480-65069-10	480-65069-11	480-64771-1	480-64771-2	480-64771-3
Semi-Volatile Organic Compounds (SVOCs), ug/Kg (continued)	Levels	Levels	400-03003-3	400-04771-0	400-04771-7	480-05005-10	400-03009-11	400-04771-1	400-04771-2	480-04771-5
4-Bromophenyl-phenylether	~	~	~	~	~	~	~	59 U	~	62 U
4-Chloro-3-methylphenol	~	~	~	~	~	~	~	7.7 U	~	8.0 U
4-Chloroaniline	~	~	~	~	~	~	~	55 U	~	57 U
4-Chlorophenyl-phenylether	~	~	~	~	~	~	~	4.0 U	~	4.2 U
4-Methylphenol	100000	~	~	~	~	~	~	10 U	~	11 U
4-Nitroaniline	~	~	~	~	~	~	~	21 U	~	22 U
4-Nitrophenol, SVOC	~	~	~	~	~	~	~	45 U	~	47 U
Acenaphthene	100000	~	~	~	~	~	~	2.2 U	~	4.4 J
Acenaphthylene	100000	~	~	~	~	~	~	7.4 J	~	15 J
Acetophenone	~	~	~	~	~	~	~	9.6 U	~	10 U
Anthracene	100000	~	~	~	~	~	~	11 J	~	27 J
Atrazine	~	~	~	~	~	~	~	8.3 U	~	8.7 U
Benz(a)anthracene	1000	~	~	~	~	~	~	66 J	~	92 J
Benzaldehyde	~	~	~	~	~	~	~	20 U	~	21 U
Benzo(a)pyrene	1000	~	~	~	~	~	~	75 J	~	110 J
Benzo(b)fluoranthene	1000	~	~	~	~	~	~	110 J	~	170 J
Benzo(g,h,i)perylene	100000	~	~	~	~	~	~	74 J	~	73 J
Benzo(k)fluoranthene	3900	~	~	~	~	~	~	49 J	~	65 J
Biphenyl	~	~	~	~	~	~	~	12 U	~	12 U
bis (2-chloroisopropyl) ether	~	~	~	~	~	~	~	12 0 19 U	~	20 U
bis(2-Chloroethoxy)methane	~	~	~	~	~	~	~	10 U	~	11 U
bis(2-Chloroethyl)ether	~	~	~	~	~	~	~	16 U	~	17 U
bis(2-Ethylhexyl)phthalate	~	~	~	~	~	~	~	60 U	~	63 U
Butyl benzyl phthalate	~	~	~	~	~	~	~	50 U	~	52 U
Caprolactam	~	~	~	~	~	~	~	81 U	~	85 U
Carbazole	~	~	~	~	~	~	~	5.5 J	~	12 J
Chrysene	3900	~	~	~	~	~	~	75 J	~	100 J
Dibenz(a,h)anthracene	330	~	~	~	~	~	~	17 J	~	26 J
Dibenzofuran	59000	~	~	~	~	~	~	4.2 J	~	5.7 J
Diethylphthalate	~	~	~	~	~	~	~	5.6 U	~	5.9 U
Dimethyl phthalate	~	~	~	~	~	~	~	4.9 U	~	5.1 U
Di-N-Butyl phthalate	~	~	~	~	~	~	~	64 U	~	68 U
Di-N-Octyl phthalate	~	~	~	~	~	~	~	4.4 U	~	4.6 U
Fluoranthene	100000	~	~	~	~	~	~	120 J	~	170 J
Fluorene	100000	~	~	~	~	~	~	4.3 U	~	7.2 J
Hexachlorobenzene	1200	~	~	~	~	~	~	9.3 U	~	9.7 U
Hexachlorobutadiene, SVOC	~	~	~	~	~	~	~	9.6 U	~	10 U
Hexachlorocyclopentadiene	~	~	~	~	~	~	~	5.0 U	~	59 U
Hexachloroethane	~	~	~	~	~	~	~	14 U	~	15 U
Indeno(1.2,3-cd)pyrene	500	~	~	~	~	~	~	84 J	~	92 J
Isophorone	~	~	~	~	~	~	~	9.3 U	~	9.8 U
Naphthalene, SVOC	100000	~	~	~	~	~	~	7.6 J	~	3.3 U
Nitrobenzene	15000 ^a	~	~	~	~	~	~	8.3 U	~	8.7 U
N-Nitroso-di-N-propylamine	~	~	~	~	~	~	~	15 U	~	16 U
N-Nitrosodiphenylamine	~	~	~	~	~	~	~	10 U	~	10 U
Pentachlorophenol, SVOC	6700	~	~	~	~	~	~	64 U	~	67 U
Phenanthrene	100000	~	~	~	~	~	~	45 J	~	79 J
Phenol	100000	~ ~	~	~	~	~	~	20 U	~	21 U
Pyrene	100000	~ ~	~	~	~	~	~	110 J	~	120 J
r yrene	100000	~		-				110 J	-	120 J



Study Area, Corning, NY

Location	D		CMSSS008	CMSSS009	CMSSS009	CMSSS010	CMSSS010	CMSSS011	CMSSS011	CMSSS011
Sample I			CMSSS008-0-002	CMSSS009-0-000	CMSSS009-0-002	CMSSS010-0-000	CMSSS010-0-002	CMSSS011-0-000	CMSSS011-1-000	CMSSS011-0-002
Dat	e		8/4/2014	8/1/2014	8/1/2014	8/4/2014	8/4/2014	8/1/2014	8/1/2014	8/1/2014
Sample Dept	Restricted		2 - 24 inches	0 - 2 inches	2 - 24 inches	0 - 2 inches	2 - 24 inches	0 - 2 inches	0 - 2 inches	2 - 24 inches
Sample Typ	e Residential	TCLP	0 - Primary	1 - Duplicate	0 - Primary					
Matri	Screening	Regulatory	SS							
Laboratory Sample I	D Levels ⁽¹⁾	Levels ⁽²⁾	480-65069-9	480-64771-6	480-64771-7	480-65069-10	480-65069-11	480-64771-1	480-64771-2	480-64771-3
Polychlorinated Biphenyls (PBCs), mg/Kg										
Aroclor-1016	~	~	~	~	~	~	~	0.0036 U	~	0.0037 U
Aroclor-1221	~	~	~	~	~	~	~	0.0036 U	~	0.0037 U
Aroclor-1232	~	~	~	~	~	~	~	0.0036 U	~	0.0037 U
Aroclor-1242	~	~	~	~	~	~	~	0.0036 U	~	0.0037 U
Aroclor-1248	~	~	~	~	~	~	~	0.0036 U	~	0.0037 U
Aroclor-1254	~	~	~	~	~	~	~	0.025	~	0.023 J
Aroclor-1260	~	~	~	~	~	~	~	0.0085 U	~	0.019 U
Aroclor-1262	~	~	~	~	~	~	~	0.0085 U	~	0.0089 U
Aroclor-1268	~	~	~	~	~	~	~	0.0085 U	~	0.0089 U
Total Petroleum Hydrocarbons, mg/Kg										
ТРН	~	~	~	~	~	~	~	300	~	180

Notes:

mg/Kg = milligram per kilogram.

mg/L = milligram per liter.

ug/Kg = microgram per kilogram.

U = The analyte was analyzed for but was not detected above the level of the detection quantitation limit.

UJ = The analyte was analyzed for but not detected. The quantitation limit is

approximate and may be inaccurate or imprecise.

J = The positive result reported is estimated either because the result is less than the LOQ or because certain quality control criteria were not met.

J+ = The result is an estimated quantity, but the result may be biased high because

certain quality control criteria were not met.

R = The data is unusable. The sample results are rejected due to serious deficiencies in meeting the quality control criteria. The analyte may or maynot be in the sample.

SB = Soil boring.

SS = Surface soil.

(1) New York State Department of Environmental Conservation (NSYDEC) Subpart 375-

6 Remedial Program Soil Cleanup Objectives (SCOs).(2) Federal Code of Regulations, Section 261.24 - Toxicity characteristic. Context: Title 40 - Protection of Environment. CHAPTER I - ENVIRONMENTAL PROTECTION AGENCY (CONTINUED). SUBCHAPTER I - SOLID WASTES (CONTINUED). PART 261 -IDENTIFICATION AND LISTING OF HAZARDOUS WASTE. Subpart C - Characteristics of Hazardous Waste (2012-07-01).

a = Final Commissioner Policy, CP-51, Supplemental Soil Cleanup Objectives (SSCOs).

c = Constituent included in both NYSDEC Subpart 375-6 and CP-51, most conservative value used (CP-51 SSCO).

~ = Analysis not performed or No standard or guidance value listed for this constituent.



Location ID			CMSSS011	CMSSS011	CMSSS012	CMSSS012	CMSSS013	CMSSS013	CMSSS014	CMSSS014
Sample ID			CMSSS011-1-002	CMSSS011-0-020	CMSSS012-0-000	CMSSS012-0-002	CMSSS013-0-000	CMSSS013-0-002	CMSSS014-0-000	CMSSS014-0-002
Date			8/1/2014	8/1/2014	8/4/2014	8/4/2014	8/4/2014	8/4/2014	8/5/2014	8/5/2014
Sample Depth	Restricted		2 - 24 inches	24 - 29 inches	0 - 2 inches	2 - 24 inches	0 - 2 inches	2 - 24 inches	0 - 2 inches	2 - 24 inches
Sample Type	Residential	TCLP	1 - Duplicate	0 - Primary						
Matrix	Screening	Regulatory	SS							
Laboratory Sample ID	Levels ⁽¹⁾	Levels ⁽²⁾	480-64771-4	480-64771-5	480-65069-20	480-65069-21	480-65069-14	480-65069-15	480-65115-1	480-65115-2
Toxicity Characteristic Leaching Procedure (TCLP) Metals, mg/L										
Arsenic, TCLP	~	5	0.0056 U	~	~	~	~	~	0.012 J	0.0090 J
Barium, TCLP	~	100	0.63	~	~	~	~	~	0.36	0.71
Cadmium, TCLP	~	1	0.0055	~	~	~	~	~	0.0019 J	0.0058
Chromium, TCLP	~	5	0.0040 U	~	~	~	~	~	0.0040 U	0.0010 U
Lead, TCLP	~	5	0.024 J+	~	~	~	~	~	0.0071 J	0.020
Mercury, TCLP	~	0.2	0.00012 U	~	~	~	~	~	0.00012 U	0.00012 U
Selenium, TCLP	~	1	0.0087 U	~	~	~	~	~	0.0087 U	0.0087 U
Silver, TCLP	~	5	0.0017 U	~	~	~	~	~	0.0017 U	0.0017 U
Total Metals, mg/Kg										
Aluminum, Total	~	~	7300 J	~	~	~	~	~	7800	7000
Antimony, Total	~	~	0.94 J	~	~	~	~	~	1.1 J	3.7 J
Arsenic, Total	16	~	9.6	18	20	11	11	24	10	11
Barium, Total	400	~	100 J	~	~	~	~	~	120	110
Beryllium, Total	72	~	0.41	~	~	~	~	~	0.45	0.41
Boron, Total	~	~	4.1	~	~	~	~	~	4.2	3.5
Cadmium, Total	4.3	~	0.85	1.6	3.1	1.7	0.69	0.99	0.77	0.91
Calcium, Total	~	~	6500	~	~	~	~	~	3000	2700
Chromium, Total	180	~	15	~	~	~	~	~	22	13
Cobalt, Total	~	~	7.6	~	~	~	~	~	7.9	7.0
Copper, Total	270	~	18	~	~	~	~	~	18	18
Iron, Total	~	~	15000	~	~	~	~	~	16000	15000
Lead, Total	400	~	120	190	720	390	85	1500	100 2700	86 2300
Magnesium, Total	~	~	2400 J 430	~	~	~	~	~		
Manganese, Total	2000 0.81	~	430	~	~ ~	~	~	~	470	410 ~
Mercury, Total Nickel, Total	310	~	~ 18	~	~	~ ~	~	~ ~	~ 18	~ 16
Potassium, Total	~	~	610 J		~	~	~	~	890	730
Selenium, Total	~ 180	~	0.46 J		~	~ ~	~	~	0.47 U	0.50 U
Silver, Total	180	~	0.22 J		~	~	~	~	0.23 U	0.25 U
Sodium, Total	~	~	36 J		~	~	~	~	31 J	36 J
Thallium, Total	~	~	0.32 U		~	~	~	~	0.35 U	0.37 U
Vanadium, Total	~	~	12	~	~	~	~	~	12	11
Zinc, Total	10000	~	100	~	~	~	~	~	170	320
Volatile Organic Compounds (VOCs), ug/Kg										
1,1,1-Trichloroethane	100000	~	~	~	~	~	~	~	~	~
1,1,2,2-Tetrachloroethane	~	~	~	~	~	~	~	~	~	~
1,1,2-Trichloro-1,2,2-trifluoroethane	~	~	~	~	~	~	~	~	~	~
1,1,2-Trichloroethane	~	~	~	~	~	~	~	~	~	~
1,1-Dichloroethane	26000	~	~	~	~	~	~	~	~	~
1,1-Dichloroethene	100000	~	~	~	~	~	~	~	~	~
1,2,4-Trichlorobenzene, VOC	~	~	~	~	~	~	~	~	~	~
1,2-Dibromo-3-chloropropane	~	~	~	~	~	~	~	~	~	~
1,2-Dibromoethane	~	~	~	~	~	~	~	~	~	~
1,2-Dichlorobenzene, VOC	~	~	~	~	~	~	~	~	~	~
1,2-Dichloroethane	3100	~	~	~	~	~	~	~	~	~
1,2-Dichloropropane	~	~	~	~	~	~	~	~	~	~
1,3-Dichlorobenzene, VOC	~	~	~	~	~	~	~	~	~	~
1,4-Dichlorobenzene, VOC	~	~	~	~	~	~	~	~	~	~
2-Butanone	~	~	~	~	~	~	~	~	~	~



Location ID			CMSSS011	CMSSS011	CMSSS012	CMSSS012	CMSSS013	CMSSS013	CMSSS014	CMSSS014
Sample ID			CMSSS011-1-002	CMSSS011-0-020	CMSSS012-0-000	CMSSS012-0-002	CMSSS013-0-000	CMSSS013-0-002	CMSSS014-0-000	CMSSS014-0-002
Date			8/1/2014	8/1/2014	8/4/2014	8/4/2014	8/4/2014	8/4/2014	8/5/2014	8/5/2014
Sample Depth	Restricted		2 - 24 inches	24 - 29 inches	0 - 2 inches	2 - 24 inches	0 - 2 inches	2 - 24 inches	0 - 2 inches	2 - 24 inches
Sample Type	Residential	TCLP	1 - Duplicate	0 - Primary						
Matrix	Screening	Regulatory	SS							
Laboratory Sample ID	Levels ⁽¹⁾	Levels ⁽²⁾	480-64771-4	480-64771-5	480-65069-20	480-65069-21	480-65069-14	480-65069-15	480-65115-1	480-65115-2
Volatile Organic Compounds (VOCs), ug/Kg (continued)	201010	Lovoio	100 01111 1	100 0 11 1 0		100 00000 21	100 00000 11			100 00110 2
2-Hexanone	~	~	~	~	~	~	~	~	~	~
4-Methyl-2-pentanone	~	~	~	~	~	~	~	~	~	~
Acetone	100000	~	~	~	~	~	~	~	~	~
Benzene	4800	~	~	~	~	~	~	~	~	~
Bromodichloromethane	~	~	~	~	~	~	~	~	~	~
Bromoform	~	~	~	~	~	~	~	~	~	~
Bromomethane	~	~	~	~	~	~	~	~	~	~
Carbon disulfide	~	~	~	~	~	~	~	~	~	~
Carbon tetrachloride	2400	~	~	~	~	~	~	~	~	~
Chlorobenzene	100000	~	~	~	~	~	~	~	~	~
Chloroethane	~	~	~	~	~	~	~	~	~	~
Chloroform	49000	~	~	~	~	~	~	~	~	~
Chloromethane	~	~	~	~	~	~	~	~	~	~
cis-1,2-Dichloroethene	100000	~	~	~	~	~	~	~	~	~
cis-1,3-Dichloropropene	~	~	~	~	~	~	~	~	~	~
Cyclohexane	~	~	~	~	~	~	~	~	~	~
Cyclohexane, Methyl-	~	~	~	~	~	~	~	~	~	~
Dibromochloromethane	~	~	~	~	~	~	~	~	~	~
Dichlorodifluoromethane	~	~	~	~	~	~	~	~	~	~
Ethylbenzene	41000	~	~	~	~	~	~	~	~	~
Isopropylbenzene	~	~	~	~	~	~	~	~	~	~
Methyl acetate	~	~	~	~	~	~	~	~	~	~
Methyl tert-butyl ether	100000	~	~	~	~	~	~	~	~	~
Methylene chloride	100000	~	~	~	~	~	~	~	~	~
Styrene	~	~	~	~	~	~	~	~	~	~
Tetrachloroethene	19000	~	~	~	~	~	~	~	~	~
Toluene	100000	~	~	~	~	~	~	~	~	~
trans-1,2-Dichloroethene	100000	~	~	~	~	~	~	~	~	~
trans-1,3-Dichloropropene	~	~	~	~	~	~	~	~	~	~
Trichloroethene	21000	~	~	~	~	~	~	~	~	~
Trichlorofluoromethane	~	~	~	~	~	~	~	~	~	~
Vinylchloride	~	~	~	~	~	~	~	~	~	~
Xylenes, Total	100000	~	~	~	~	~	~	~	~	~
Semi-Volatile Organic Compounds (SVOCs), ug/Kg										
2,4,5-Trichlorophenol	~	~	40 U	43 UJ	~	~	~	~	46 U	48 U
2,4,6-Trichlorophenol	~	~	12 U	13 UJ	~	~	~	~	14 U	14 U
2,4-Dichlorophenol	~	~	9.5 U	10 UJ	~	~	~	~	11 U	12 U
2,4-Dimethylphenol	~	~	49 U	54 UJ	~	~	~	~	57 U	60 U
2,4-Dinitrophenol	~	~	64 U	70 UJ	~	~	~	~	74 U	77 U
2,4-Dinitrotoluene	~	~	28 U	31 UJ	~	~	~	~	33 U	34 U
2,6-Dinitrotoluene	~	~	44 U	49 UJ	~	~	~	~	51 U	54 U
2-Chloronaphthalene	~	~	12 U	13 UJ	~	~	~	~	14 U	15 U
2-Chlorophenol	~	~	9.2 U	10 UJ	~	~	~	~	11 U	11 U
2-Methylnaphthalene	~	~	9.7 J	20 J	~	~	~	~	2.5 U	2.7 U
2-Methylphenol	100000	~	5.6 U	6.1 UJ	~	~	~	~	6.5 U	6.8 U
2-Nitroaniline	~	~	58 U	64 UJ	~	~	~	~	67 U	71 U
2-Nitrophenol	~	~	8.3 U	9.1 UJ		~	~	~	9.6 U	10 U
3,3'-Dichlorobenzidine	~	~	160 U	170 UJ	~	~	~	~	180 U	190 U
3-Nitroaniline	~	~	42 U	46 UJ	~	~	~	~	48 U	51 U
4,6-Dinitro-2-methylphenol	~	~	63 U	69 UJ	~	~	~	~	73 U	76 U



Location ID			CMSSS011	CMSSS011	CMSSS012	CMSSS012	CMSSS013	CMSSS013	CMSSS014	CMSSS014
Sample ID			CMSSS011-1-002	CMSSS011-0-020	CMSSS012-0-000	CMSSS012-0-002	CMSSS013-0-000	CMSSS013-0-002	CMSSS014-0-000	CMSSS014-0-002
Date			8/1/2014	8/1/2014	8/4/2014	8/4/2014	8/4/2014	8/4/2014	8/5/2014	8/5/2014
Sample Depth	Restricted		2 - 24 inches	24 - 29 inches	0 - 2 inches	2 - 24 inches	0 - 2 inches	2 - 24 inches	0 - 2 inches	2 - 24 inches
Sample Type	Residential	TCLP	1 - Duplicate	0 - Primary						
Matrix	Screening	Regulatory	SS							
Laboratory Sample ID	Levels ⁽¹⁾	Levels ⁽²⁾	480-64771-4	480-64771-5	480-65069-20	480-65069-21	480-65069-14	480-65069-15	480-65115-1	480-65115-2
Semi-Volatile Organic Compounds (SVOCs), ug/Kg (continued)										
4-Bromophenyl-phenylether	~	~	58 U	63 UJ	~	~	~	~	67 U	70 U
4-Chloro-3-methylphenol	~	~	7.5 U	8.2 UJ	~	~	~	~	8.7 U	9.1 U
4-Chloroaniline	~	~	53 U	58 UJ	~	~	~	~	62 U	65 U
4-Chlorophenyl-phenylether	~	~	3.9 U	4.2 UJ	~	~	~	~	4.5 U	4.7 U
4-Methylphenol	100000	~	10 U	11 UJ	~	~	~	~	12 U	12 U
4-Nitroaniline	~	~	20 U	22 UJ	~	~	~	~	24 U	25 U
4-Nitrophenol, SVOC	~	~	44 U	48 UJ	~	~	~	~	51 U	53 U
Acenaphthene	100000	~	15 J	5.4 J	~	~	~	~	2.5 U	2.6 U
Acenaphthylene	100000	~	12 J	8.2 J	~	~	~	~	1.7 U	1.8 U
Acetophenone	~	~	9.3 U	10 UJ	~	~	~	~	11 U	11 U
Anthracene	100000	~	33 J	35 J	~	~	~	~	56 J	5.6 U
Atrazine	~	~	8.1 U	8.9 UJ	~	~	~	~	9.4 U	9.8 U
Benz(a)anthracene	1000	~	120 J	330 J	~	~	~	~	120 J	43 J
Benzaldehyde	~	~	20 U	22 UJ	~	~	~	~	23 U	24 U
Benzo(a)pyrene	1000	~	120 J	350 J	~	~	~	~	120 J	44 J
Benzo(b)fluoranthene	1000	~	180 110 J	600 J 340 J	~	~	~	~	170 J	69 J 49 J
Benzo(g,h,i)perylene	100000 3900	~		· · · ·	~	~	~	~	120 J 65 J	49 J 24 J
Benzo(k)fluoranthene	~	~	73 J 11 U	290 J 12 UJ	~	~	~	~	65 J 13 U	14 U
Biphenyl bis (2-chloroisopropyl) ether	~	~	11 U	21 UJ	~ ~	~	~	~	22 U	23 U
bis(2-Chloroethoxy)methane	~	~	9.9 U	11 UJ	~	~ ~	~	~ ~	11 U	12 U
bis(2-Chloroethyl)ether	~	~	16 U	17 UJ	~	~	~	~	18 U	12 U
bis(2-Ethylhexyl)phthalate	~	~	59 U	64 UJ	~	~	~	~	68 U	71 U
Butyl benzyl phthalate	~	~	49 U	53 UJ	~	~	~	~	56 U	59 U
Caprolactam	~	~	79 U	86 UJ	~	~	~	~	91 U	95 U
Carbazole	~	~	15 J	17 J	~	~	~	~	37 J	2.5 U
Chrysene	3900	~	120 J	300 J	~	~	~	~	130 J	47 J
Dibenz(a,h)anthracene	330	~	28 J	73 J	~	~	~	~	36 J	20 J
Dibenzofuran	59000	~	9.0 J	12 J	~	~	~	~	27 J	2.3 U
Diethylphthalate	~	~	5.5 U	6.0 UJ	~	~	~	~	6.4 U	6.7 U
Dimethyl phthalate	~	~	4.7 U	5.2 UJ	~	~	~	~	5.5 U	5.7 U
Di-N-Butyl phthalate	~	~	63 U	69 UJ	~	~	~	~	73 U	76 U
Di-N-Octyl phthalate	~	~	4.2 U	4.7 UJ	~	~	~	~	4.9 U	5.2 U
Fluoranthene	100000	~	190	410 J	~	~	~	~	230	67 J
Fluorene	100000	~	15 J	8.3 J	~	~	~	~	32 J	5.1 U
Hexachlorobenzene	1200	~	9.0 U	9.9 UJ		~	~	~	10 U	
Hexachlorobutadiene, SVOC	~	~	9.3 U	10 UJ	~	~	~	~	11 U	11 U
Hexachlorocyclopentadiene	~	~	55 U	60 UJ	~	~	~	~	64 U	67 U
Hexachloroethane	~	~	14 U	15 UJ	~	~	~	~	16 U	17 U
Indeno(1,2,3-cd)pyrene	500	~	130 J	450 J	~	~	~	~	120 J	49 J
Isophorone	~	~	9.1 U 8.4 J	10 UJ	~	~	~	~	11 U	11 U 3.7 U
Naphthalene, SVOC	100000 15000 ^a	~		21 J	~	~	~	~	26 J	
Nitrobenzene		~	8.0 U 14 U	8.8 UJ	~	~	~	~	9.3 U	
N-Nitroso-di-N-propylamine	~	~	14 U 9.9 U	16 UJ 11 UJ	~	~	~	~	17 U 12 U	17 U 12 U
N-Nitrosodiphenylamine Pentachlorophenol, SVOC	~ 6700	~	9.9 U 62 U	11 UJ 68 UJ	~	~	~	~ ~	12 U 72 U	76 U
Pentachiorophenol, SVOC Phenanthrene	100000	~	120 J	140 J	~	~ ~	~	~ ~	260	76 U 30 J
Phenol	100000	~	120 J	21 UJ	~	~ ~	~	~ ~	200 22 U	23 U
Pyrene	100000	~	19 0	480 J	~	~ ~	~	~ ~	22 0	23 U 56 J
гутене	100000	~	130	-00 J		-	~		220	J J



Study Area, Corning, NY

Location ID			CMSSS011	CMSSS011	CMSSS012	CMSSS012	CMSSS013	CMSSS013	CMSSS014	CMSSS014
Sample ID			CMSSS011-1-002	CMSSS011-0-020	CMSSS012-0-000	CMSSS012-0-002	CMSSS013-0-000	CMSSS013-0-002	CMSSS014-0-000	CMSSS014-0-002
Date			8/1/2014	8/1/2014	8/4/2014	8/4/2014	8/4/2014	8/4/2014	8/5/2014	8/5/2014
Sample Depth	Restricted		2 - 24 inches	24 - 29 inches	0 - 2 inches	2 - 24 inches	0 - 2 inches	2 - 24 inches	0 - 2 inches	2 - 24 inches
Sample Type	Residential	TCLP	1 - Duplicate	0 - Primary						
Matrix	Screening	Regulatory	SS							
Laboratory Sample ID	Levels ⁽¹⁾	Levels ⁽²⁾	480-64771-4	480-64771-5	480-65069-20	480-65069-21	480-65069-14	480-65069-15	480-65115-1	480-65115-2
Polychlorinated Biphenyls (PBCs), mg/Kg										
Aroclor-1016	~	~	0.0035 U	~	~	~	~	~	0.0040 U	0.0042 U
Aroclor-1221	~	~	0.0035 U	~	~	~	~	~	0.0040 U	0.0042 U
Aroclor-1232	~	~	0.0035 U	~	~	~	~	~	0.0040 U	0.0042 U
Aroclor-1242	~	~	0.0035 U	~	~	~	~	~	0.0040 U	0.0042 U
Aroclor-1248	~	~	0.0035 U	~	~	~	~	~	0.0040 U	0.0042 U
Aroclor-1254	~	~	0.029	~	~	~	~	~	0.023	0.018 J
Aroclor-1260	~	~	0.018 U	~	~	~	~	~	0.014 J	0.015 J
Aroclor-1262	~	~	0.0083 U	~	~	~	~	~	0.0097 U	0.010 U
Aroclor-1268	~	~	0.0083 U	~	~	~	~	~	0.0097 U	0.010 U
Total Petroleum Hydrocarbons, mg/Kg										
ТРН	~	~	210	~	~	~	~	~	400	360

Notes:

mg/Kg = milligram per kilogram.

mg/L = milligram per liter.

ug/Kg = microgram per kilogram.

U = The analyte was analyzed for but was not detected above the level of the detection quantitation limit.

UJ = The analyte was analyzed for but not detected. The quantitation limit is

approximate and may be inaccurate or imprecise.

J = The positive result reported is estimated either because the result is less than the LOQ or because certain quality control criteria were not met.

J+ = The result is an estimated quantity, but the result may be biased high because

certain quality control criteria were not met.

R = The data is unusable. The sample results are rejected due to serious deficiencies in meeting the quality control criteria. The analyte may or maynot be in the sample.

SB = Soil boring.

SS = Surface soil.

(1) New York State Department of Environmental Conservation (NSYDEC) Subpart 375-

6 Remedial Program Soil Cleanup Objectives (SCOs).(2) Federal Code of Regulations, Section 261.24 - Toxicity characteristic. Context: Title 40 - Protection of Environment. CHAPTER I - ENVIRONMENTAL PROTECTION AGENCY (CONTINUED). SUBCHAPTER I - SOLID WASTES (CONTINUED). PART 261 -IDENTIFICATION AND LISTING OF HAZARDOUS WASTE. Subpart C - Characteristics of Hazardous Waste (2012-07-01).

a = Final Commissioner Policy, CP-51, Supplemental Soil Cleanup Objectives (SSCOs).

c = Constituent included in both NYSDEC Subpart 375-6 and CP-51, most conservative value used (CP-51 SSCO).

~ = Analysis not performed or No standard or guidance value listed for this constituent.



Location ID			CMSSS015	CMSSS015	CMSSS016	CMSSS016
Sample ID			CMSSS015-0-000	CMSSS015-0-002	CMSSS016-0-000	CMSSS016-0-002
Date			8/4/2014	8/4/2014	8/4/2014	8/4/2014
Sample Depth			0 - 2 inches	2 - 24 inches	0 - 2 inches	2 - 24 inches
Sample Septin		TCLP	0 - Primary	0 - Primary	0 - Primary	0 - Primary
Matrix		Regulatory	SS	SS	SS	SS
Laboratory Sample ID	· · · ·	Levels ⁽²⁾	480-65069-16	480-65069-17	480-65069-18	480-65069-19
Toxicity Characteristic Leaching Procedure (TCLP) Metals, mg/L	Levels	Levels	400-03009-10	400-03009-17	400-03003-10	400-03003-13
Arsenic, TCLP	~	5	~	~	~	~
Barium, TCLP	~	100	~	~	~	~
Cadmium, TCLP	~	1	~	~	~	~
Chromium, TCLP	~	5	~	~	~	~
Lead, TCLP	~	5	~	~	~	~
Mercury, TCLP	~	0.2	~	~	~	~
Selenium, TCLP	~	1	~	~	~	~
Silver, TCLP	~	5	~	~	~	~
Total Metals, mg/Kg						
Aluminum, Total	~	~	~	~	~	~
Antimony, Total	~	~	~	~	~	~
Arsenic, Total	16	~	7.8	4.8	8.8	12
Barium, Total	400	~	~	~	~	~
Beryllium, Total	72	~	~	~	~	~
Boron, Total	~	~	~	~	~	~
Cadmium, Total	4.3	~	0.50	0.22	0.57	0.58
Calcium, Total	~	~	~	~	~	~
Chromium, Total	180	~	~	~	~	~
Cobalt, Total	~	~	~	~	~	~
Copper, Total	270	~	~	~	~	~
Iron, Total	~	~	~	~	~	~
Lead, Total	400	~	60	17	70	93
Magnesium, Total	~	~	~	~	~	~
Manganese, Total	2000	~	~	~	~	~
Mercury, Total	0.81	~	~	~	~	~
Nickel, Total	310	~	~	~	~	~
Potassium, Total	~	~	~	~	~	~
Selenium, Total	180	~	~	~	~	~
Silver, Total	180	~	~	~	~	~
Sodium, Total	~	~	~	~	~	~
Thallium, Total	~	~	~	~	~	~
Vanadium, Total	~	~	~	~	~	~
Zinc, Total	10000	~	~	~	~	~
Volatile Organic Compounds (VOCs), ug/Kg						
1,1,1-Trichloroethane	100000	~	~	~	~	~
1,1,2,2-Tetrachloroethane	~	~	~	~	~	~
1,1,2-Trichloro-1,2,2-trifluoroethane	~	~	~	~	~	~
1,1,2-Trichloroethane	~	~	~	~	~	~
1,1-Dichloroethane	26000	~	~	~	~	~
1,1-Dichloroethene	100000	~	~	~	~	~
1,2,4-Trichlorobenzene, VOC	~	~	~	~	~	~
1,2-Dibromo-3-chloropropane	~	~	~	~	~	~
1,2-Dibromoethane	~	~	~	~	~	~
1,2-Dichlorobenzene, VOC	~	~	~	~	~	~
1,2-Dichloroethane	3100	~	~	~	~	~
1,2-Dichloropropane	~	~	~	~	~	~
1,3-Dichlorobenzene, VOC	~	~	~	~	~	~
1,4-Dichlorobenzene, VOC	~	~	~	~	~	~
2-Butanone	~	~	~	~	~	~



Location ID			CMSSS015	CMSSS015	CMSSS016	CMSSS016
Sample ID			CMSSS015-0-000	CMSSS015-0-002	CMSSS016-0-000	CMSSS016-0-002
Date			8/4/2014	8/4/2014	8/4/2014	8/4/2014
Sample Depth			0 - 2 inches	2 - 24 inches	0 - 2 inches	2 - 24 inches
			0 - Primary	0 - Primary	0 - Primary	0 - Primary
Sample Type		TCLP	-	-	SS SS	-
Matrix		Regulatory	SS (00.05000.40	SS 400 05000 47		SS 400 AD
Laboratory Sample ID	Levels ⁽¹⁾	Levels ⁽²⁾	480-65069-16	480-65069-17	480-65069-18	480-65069-19
Volatile Organic Compounds (VOCs), ug/Kg (continued) 2-Hexanone	~	~	~	~	~	~
4-Methyl-2-pentanone	~	~	~	~	~	~
Acetone	100000	~	~	~	~	~
Benzene	4800	~	~	~	~	~
Bromodichloromethane	~	~	~	~	~	~
Bromoform	~	~	~	~	~	~
Bromomethane	~	~	~	~	~	~
Carbon disulfide	~	~	~	~	~	~
Carbon tetrachloride	2400	~	~	~	~	~
Chlorobenzene	100000	~	~	~	~	~
Chloroethane	~	~	~	~	~	~
Chloroform	49000	~	~	~	~	~
Chloromethane	~	~	~	~	~	~
cis-1,2-Dichloroethene	100000	~	~	~	~	~
cis-1,3-Dichloropropene	~	~	~	~	~	~
Cyclohexane	~	~	~	~	~	~
Cyclohexane, Methyl-	~	~	~	~	~	~
Dibromochloromethane	~	~	~	~	~	~
Dichlorodifluoromethane	~	~	~	~	~	~
Ethylbenzene	41000	~	~	~	~	~
Isopropylbenzene	~	~	~	~	~	~
Methyl acetate	~	~	~	~	~	~
Methyl tert-butyl ether	100000	~	~	~	~	~
Methylene chloride	100000	~	~	~	~	~
Styrene	~	~	~	~	~	~
Tetrachloroethene	19000	~	~	~	~	~
Toluene	100000	~	~	~	~	~
trans-1,2-Dichloroethene	100000	~	~	~	~	~
trans-1,3-Dichloropropene	~	~	~	~	~	~
Trichloroethene	21000	~	~	~	~	~
Trichlorofluoromethane	~	~	~	~	~	~
Vinylchloride	~	~	~	~	~	~
Xylenes, Total	100000	~	~	~	~	~
Semi-Volatile Organic Compounds (SVOCs), ug/Kg						
2,4,5-Trichlorophenol	~	~	~	~	~	~
2,4,6-Trichlorophenol	~	~	~	~	~	~
2,4-Dichlorophenol	~	~	~	~	~	~
2,4-Dimethylphenol	~	~	~	~	~	~
2,4-Dinitrophenol	~	~	~	~	~	~
2,4-Dinitrotoluene	~	~	~	~	~	~
2,6-Dinitrotoluene	~	~	~	~	~	~
2-Chloronaphthalene	~	~	~	~	~	~
2-Chlorophenol	~	~	~	~	~	~
2-Methylnaphthalene	~	~	~	~	~	~
2-Methylphenol	100000	~	~	~	~	~
2-Nitroaniline	~	~	~	~	~	~
2-Nitrophenol	~	~	~	~	~	~
3,3'-Dichlorobenzidine	~	~	~	~	~	~
3-Nitroaniline	~	~	~	~	~	~
4,6-Dinitro-2-methylphenol	~	~	~	~	~	~



Location ID			CMSSS015	CMSSS015	CMSSS016	CMSSS016
Sample ID			CMSSS015-0-000	CMSSS015-0-002	CMSSS016-0-000	CMSSS016-0-002
Date			8/4/2014	8/4/2014	8/4/2014	8/4/2014
Sample Depth			0 - 2 inches	2 - 24 inches	0 - 2 inches	2 - 24 inches
Sample Type		TCLP	0 - Primary	0 - Primary	0 - Primary	0 - Primary
Matrix		Regulatory	SS	SS	SS	SS
Laboratory Sample ID		Levels ⁽²⁾	480-65069-16	480-65069-17	480-65069-18	480-65069-19
Semi-Volatile Organic Compounds (SVOCs), ug/Kg (continued)	Levels	Levels	400 00000 10	400 00000 11	400 00000 10	400 00000 10
4-Bromophenyl-phenylether	~	~	~	~	~	~
4-Chloro-3-methylphenol	~	~	~	~	~	~
4-Chloroaniline	~	~	~	~	~	~
4-Chlorophenyl-phenylether	~	~	~	~	~	~
4-Methylphenol	100000	~	~	~	~	~
4-Nitroaniline	~	~	~	~	~	~
4-Nitrophenol, SVOC	~	~	~	~	~	~
Acenaphthene	100000	~	~	~	~	~
Acenaphthylene	100000	~	~	~	~	~
Acetophenone	~	~	~	~	~	~
Anthracene	100000	~	~	~	~	~
Atrazine	~	~	~	~	~	~
Benz(a)anthracene	1000	~	~	~	~	~
Benzaldehyde	~	~	~	~	~	~
Benzo(a)pyrene	1000	~	~	~	~	~
Benzo(b)fluoranthene	1000	~	~	~	~	~
Benzo(g,h,i)perylene	100000	~	~	~	~	~
Benzo(k)fluoranthene	3900	~	~	~	~	~
Biphenyl	~	~	~	~	~	~
bis (2-chloroisopropyl) ether	~	~	~	~	~	~
bis(2-Chloroethoxy)methane	~	~	~	~	~	~
bis(2-Chloroethyl)ether	~	~	~	~	~	~
bis(2-Ethylhexyl)phthalate	~	~	~	~	~	~
Butyl benzyl phthalate	~	~	~	~	~ ~	~ ~
Caprolactam Carbazole	~	~	~	~	~	~
	~ 3900	~	~	~	~	~
Chrysene Dibenz(a,h)anthracene	330	~	~	~	~	~
Dibenzofuran	59000	~	~	~	~	~
Diethylphthalate	~	~	~	~	~	~
Dimethyl phthalate	~	~	~	~	~	~
Di-N-Butyl phthalate	~	~	~	~	~	~
Di-N-Octyl phthalate	~	~	~	~	~	~
Fluoranthene	100000	~	~	~	~	~
Fluorene	100000	~	~	~	~	~
Hexachlorobenzene	1200	~	~	~	~	~
Hexachlorobutadiene, SVOC	~	~	~	~	~	~
Hexachlorocyclopentadiene	~	~	~	~	~	~
Hexachloroethane	~	~	~	~	~	~
Indeno(1,2,3-cd)pyrene	500	~	~	~	~	~
Isophorone	~	~	~	~	~	~
Naphthalene, SVOC	100000	~	~	~	~	~
Nitrobenzene	15000 ^a	~	~	~	~	~
N-Nitroso-di-N-propylamine	~	~	~	~	~	~
N-Nitrosodiphenylamine	~	~	~	~	~	~
Pentachlorophenol, SVOC	6700	~	~	~	~	~
Phenanthrene	100000	~	~	~	~	~
Phenol	100000	~	~	~	~	~
Pyrene	100000	~	~	~	~	~



Location ID			CMSSS015	CMSSS015	CMSSS016	CMSSS016
Sample ID			CMSSS015-0-000	CMSSS015-0-002	CMSSS016-0-000	CMSSS016-0-002
Date			8/4/2014	8/4/2014	8/4/2014	8/4/2014
Sample Depth	Restricted		0 - 2 inches	2 - 24 inches	0 - 2 inches	2 - 24 inches
Sample Type	Residential	TCLP	0 - Primary	0 - Primary	0 - Primary	0 - Primary
Matrix	Screening	Regulatory	SS	SS	SS	SS
Laboratory Sample ID	Levels ⁽¹⁾	Levels ⁽²⁾	480-65069-16	480-65069-17	480-65069-18	480-65069-19
Polychlorinated Biphenyls (PBCs), mg/Kg						
Aroclor-1016	~	~	~	~	~	~
Aroclor-1221	~	~	~	~	~	~
Aroclor-1232	~	~	~	~	~	~
Aroclor-1242	~	~	~	~	~	~
Aroclor-1248	~	~	~	~	~	~
Aroclor-1254	~	~	~	~	~	~
Aroclor-1260	~	~	~	~	~	~
Aroclor-1262	~	~	~	~	~	~
Aroclor-1268	~	~	~	~	~	~
Total Petroleum Hydrocarbons, mg/Kg						
ТРН	~	~	~	~	~	~

Notes:

mg/Kg = milligram per kilogram.

mg/L = milligram per liter.

ug/Kg = microgram per kilogram.

U = The analyte was analyzed for but was not detected above the level of the detection quantitation limit.

UJ = The analyte was analyzed for but not detected. The quantitation limit is

approximate and may be inaccurate or imprecise.

J = The positive result reported is estimated either because the result is less than the LOQ or because certain quality control criteria were not met.

J+ = The result is an estimated quantity, but the result may be biased high because certain quality control criteria were not met.

R = The data is unusable. The sample results are rejected due to serious deficiencies in meeting the quality control criteria. The analyte may or maynot be in the sample.

SB = Soil boring.

SS = Surface soil.

(1) New York State Department of Environmental Conservation (NSYDEC) Subpart 375-

6 Remedial Program Soil Cleanup Objectives (SCOs).(2) Federal Code of Regulations, Section 261.24 - Toxicity characteristic. Context: Title 40 - Protection of Environment. CHAPTER I - ENVIRONMENTAL PROTECTION AGENCY (CONTINUED). SUBCHAPTER I - SOLID WASTES (CONTINUED). PART 261 -IDENTIFICATION AND LISTING OF HAZARDOUS WASTE. Subpart C - Characteristics of Hazardous Waste (2012-07-01).

a = Final Commissioner Policy, CP-51, Supplemental Soil Cleanup Objectives (SSCOs).

c = Constituent included in both NYSDEC Subpart 375-6 and CP-51, most conservative value used (CP-51 SSCO).

~ = Analysis not performed or No standard or guidance value listed for this constituent.



L	ocation ID		CMSMW01	CMSMW01	CMSMW02	CMSMW02	CMSMW02	CMSMW02
	Sample ID		CMSMW01-0-150106	CMSMW01-0-150427	CMSMW02-0-150106	CMSMW02-1-150106	CMSMW02-0-150428	CMSMW02-1-150428
	Date	TOGS	1/6/2015	4/27/2015	1/6/2015	1/6/2015	4/28/2015	4/28/2015
Sa	mple Type TOGS	Groundwater	0 - Primary	0 - Primary	0 - Primary	1 - Duplicate	0 - Primary	1 - Duplicate
	Matrix Groundwater	Guidance	GW	GW	GW	GW	GW	GW
Laboratory		Value ⁽²⁾	480-73807-3	480-79302-1	480-73807-5	480-73807-6	480-79302-4	480-79302-5
Total Metals, mg/L								
Aluminum, Total	~	~	~	~	0.11 J	0.16 J	0.25	0.26
Antimony, Total	0.003	~	~	~	0.0068 U	0.0068 U	0.0068 U	0.0068 U
Arsenic, Total	0.025	~	0.0056 U	0.0056 U	0.0056 U	0.0056 U	0.0056 U	0.0056 U
Barium, Total	1	~	~	~	0.20	0.20	0.23	0.24
Beryllium, Total	~	0.003	~	~	0.00030 U	0.00030 U	0.00030 U	0.00030 U
Boron, Total	1	~	~	~	0.90	0.89	1.1	1.1
Cadmium, Total	0.005	~	0.00050 U	0.00050 U	0.00050 U	0.00050 U	0.00050 U	0.00050 U
Calcium, Total	~	~	~	~	109	108	117	123
Chromium, Total	0.05	~	~	~	0.0061	0.0062	0.0013 J	0.0015 J
Cobalt, Total	~	~	~	~	0.00063 U	0.0002 0.00063 U	0.00063 U	0.00063 U
Copper, Total	~ 0.2	~	~ ~	~	0.00083 U 0.010 U	0.00083 U 0.010 U	0.00083 U 0.0016 U	0.00083 U 0.0016 U
Iron, Total	0.2	~	~	~	0.010 0	0.16	0.40	0.35
Iron, Total Lead, Total	0.025	~	~ 0.0030 U	~ 0.0030 U	0.0030 U	0.16 0.0030 U	0.40 0.0030 U	0.0030 U
					26.4	26.0	26.7	28.2
Magnesium, Total	~	35	~	~			0.077	
Manganese, Total	0.3	~	~	~	0.28 0.00012 U	0.28 0.00012 U	0.077 0.00012 U	0.072 0.00012 U
Mercury, Total		~	~	~				
Nickel, Total	0.1	~	~	~	0.0047 J	0.0047 J	0.0018 J	0.0022 J
Potassium, Total	~	~	~	~	2.3	2.2	2.7	2.8
Selenium, Total	0.01	~	~	~	0.0087 U	0.0087 U	0.0087 U	0.0087 U
Silver, Total	0.05	~	~	~	0.0017 U	0.0017 U	0.0027 J	0.0017 U
Sodium, Total	20	~	~	~	136	136	144	145
Thallium, Total	~	0.0005	~	~	0.010 U	0.010 U	0.010 U	0.010 U
Vanadium, Total	~	~	~	~	0.0015 U	0.0015 U	0.0015 U	0.0015 U
Zinc, Total	~	2	~	~	0.011 J+	0.010 U	0.010 U	0.010 U
Volatile Organic Compounds (VOCs), ug/L								
1,1,1-Trichloroethane	5	~	~	~	0.82 U	0.82 U	0.82 U	0.82 U
1,1,2,2-Tetrachloroethane	5	~	~	~	0.21 U	0.21 U	0.21 U	0.21 U
1,1,2-Trichloro-1,2,2-trifluoroethane	5	~	~	~	0.31 U	0.31 U	0.31 U	0.31 U
1,1,2-Trichloroethane	1	~	~	~	0.23 U	0.23 U	0.23 U	0.23 U
1,1-Dichloroethane	5	~	~	~	0.38 U	0.38 U	0.38 U	0.38 U
1,1-Dichloroethene	5	~	~	~	0.29 U	0.29 U	0.29 U	0.29 U
1,2,4-Trichlorobenzene, VOC	5	~	~	~	0.41 U	0.41 U	0.41 U	0.41 U
1,2-Dibromo-3-chloropropane	0.04	~	~	~	0.39 U	0.39 U	0.39 U	0.39 U
1,2-Dibromoethane	0.0006	~	~	~	0.73 U	0.73 U	0.73 U	0.73 U
1,2-Dichlorobenzene, VOC	3	~	~	~	0.79 U	0.79 U	0.79 U	0.79 U
1,2-Dichloroethane	0.6	~	~	~	0.21 U	0.21 U	0.21 U	0.21 U
1,2-Dichloropropane	1	~	~	~	0.72 U	0.72 U	0.72 U	0.72 U
1,3-Dichlorobenzene, VOC	3	~	~	~	0.78 U	0.78 U	0.78 U	0.78 U
1,4-Dichlorobenzene, VOC	3	~	~	~	0.84 U	0.84 U	0.84 U	0.84 U
2-Butanone	~	50	~	~	1.3 U	1.3 U	1.3 U	1.3 UJ
2-Hexanone	~	50	~	~	1.2 U	1.2 U	1.2 U	1.2 UJ
4-Methyl-2-pentanone	~	~	~	~	2.1 U	2.1 U	2.1 U	2.1 UJ
Acetone	~	50	~	~	3.0 U	3.0 U	3.0 U	3.0 UJ
Benzene	1	~	~	~	0.41 U	0.41 U	0.41 U	0.41 U
Bromodichloromethane	~	50	~	~	0.39 U	0.39 U	0.39 U	0.39 U
Bromoform	~	50	~	~	0.26 U	0.26 U	0.26 U	0.26 U
Bromomethane	5	~	~	~	0.69 U	0.69 U	0.69 U	0.69 UJ
Carbon disulfide	~	60 (3)	~	~	0.19 U	0.19 U	0.19 U	0.19 U
Carbon tetrachloride	5	~	~	~	0.27 UJ	0.27 UJ	0.27 U	0.27 U



Location ID			CMSMW01	CMSMW01	CMSMW02	CMSMW02	CMSMW02	CMSMW02
Sample ID			CMSMW01-0-150106	CMSMW01-0-150427	CMSMW02-0-150106	CMSMW02-1-150106	CMSMW02-0-150428	CMSMW02-1-150428
Date		TOGS	1/6/2015	4/27/2015	1/6/2015	1/6/2015	4/28/2015	4/28/2015
Sample Type	TOGS	Groundwater	0 - Primary	0 - Primary	0 - Primary	1 - Duplicate	0 - Primary	1 - Duplicate
Matrix	Groundwater	Guidance	GW	GW	GW	GW	GW	GW
Laboratory Sample ID	Standard ⁽¹⁾	Value ⁽²⁾	480-73807-3	480-79302-1	480-73807-5	480-73807-6	480-79302-4	480-79302-5
Volatile Organic Compounds (VOCs), ug/L (continued)								
Chlorobenzene	5	~	~	~	0.75 U	0.75 U	0.75 U	0.75 U
Chloroethane	5	~	~	~	0.32 U	0.32 U	0.32 U	0.32 U
Chloroform	7	~	~	~	0.34 U	0.34 U	0.34 U	0.34 U
Chloromethane	5	~	~	~	0.35 U	0.35 U	0.35 U	0.35 U
cis-1,2-Dichloroethene	5	~	~	~	0.81 U	0.81 U	0.81 U	0.81 U
cis-1,3-Dichloropropene	0.4 (4)	~	~	~	0.36 U	0.36 U	0.36 U	0.36 U
Cyclohexane	~	~	~	~	0.18 U	0.18 U	0.18 U	0.18 U
Cyclohexane, Methyl-	~	~	~	~	0.16 U	0.16 U	0.16 U	0.16 U
Dibromochloromethane	~	50	~	~	0.32 U	0.32 U	0.32 U	0.32 U
Dichlorodifluoromethane	5	~	~	~	0.68 U	0.68 U	0.68 U	0.68 U
Ethylbenzene	5	~	~	~	0.74 U	0.74 U	0.74 U	0.74 U
Isopropylbenzene	5	~	~	~	0.79 U	0.79 U		0.79 U
Methyl acetate	~	~	~	~	0.50 U	0.50 U	0.50 U	0.50 U
Methyl tert-butyl ether	~	10 (3)	~	~	0.16 U	0.16 U	0.16 U	0.16 U
Methylene chloride	5	~	~	~	0.44 U	0.44 U	0.44 U	0.44 U
Styrene	5	~	~	~	0.73 U	0.73 U		0.73 U
Tetrachloroethene	5	~	~	~	0.36 U	0.36 U		0.36 U
Toluene	5	~	~	~	0.51 U	0.51 U	0.51 U	0.51 U
trans-1,2-Dichloroethene	5	~	~	~	0.90 U	0.90 U		0.90 U
trans-1,3-Dichloropropene	0.4 (4)	~	~	~	0.37 U	0.37 U	0.37 U	0.37 U
Trichloroethene	5	~	~	~	0.46 U	0.46 U		0.46 U
Trichlorofluoromethane	5	~	~	~	0.88 UJ	0.88 UJ		0.88 U
Vinylchloride	2	~	~	~	0.90 U	0.90 U		0.90 U
Xylenes, Total	5 (5)	~	~	~	0.66 U	0.66 U	0.66 U	0.66 U
Semi-Volatile Organic Compounds (SVOCs), ug/L								
2,4,5-Trichlorophenol	~	~	~	~	1.1 U	1.1 U		0.47 U
2,4,6-Trichlorophenol	~	~	~	~	0.73 U	0.73 U		0.59 U
2,4-Dichlorophenol	5	~	~	~	0.57 U	0.57 U		0.49 U
2,4-Dimethylphenol	~	50	~	~	0.63 U	0.63 U		0.48 U
2,4-Dinitrophenol	~	10	~	~	1.0 U	1.0 UJ		2.2 U
2,4-Dinitrotoluene	5	~	~	~	0.15 U	0.15 U		0.43 U
2,6-Dinitrotoluene	5	~	~	~	0.14 U	0.14 U		0.39 U
2-Chloronaphthalene	~	10	~	~	0.68 U	0.68 U		0.45 U
2-Chlorophenol	~	~	~	~	0.48 U	0.48 U	0.49 U	0.51 U
2-Methylnaphthalene	~	~	~	~	0.78 U	0.78 U		0.58 U
2-Methylphenol	~	~	~	~	0.73 U	0.73 U		0.39 U
2-Nitroaniline	5	~	~	~	1.0 U	1.0 U		0.41 U
2-Nitrophenol	~	~	~	~	0.35 U	0.35 U		0.47 U
3,3'-Dichlorobenzidine	5	~	~	~	1.7 U	1.7 U		0.39 U
3-Nitroaniline	5	~	~	~	1.5 U	1.5 U		0.47 U
4,6-Dinitro-2-methylphenol	~	~	~	~	1.6 U	1.6 UJ	2.1 U	2.1 U



Location ID			CMSMW01	CMSMW01	CMSMW02	CMSMW02	CMSMW02	CMSMW02
Sample ID			CMSMW01-0-150106	CMSMW01-0-150427	CMSMW02-0-150106	CMSMW02-1-150106	CMSMW02-0-150428	CMSMW02-1-150428
Date		TOGS	1/6/2015	4/27/2015	1/6/2015	1/6/2015	4/28/2015	4/28/2015
Sample Type	TOGS	Groundwater	0 - Primary	0 - Primary	0 - Primary	1 - Duplicate	0 - Primary	1 - Duplicate
Matrix	Groundwater	Guidance	GW	GW	GW	GW	GW	GW
Laboratory Sample ID	Standard ⁽¹⁾	Value ⁽²⁾	480-73807-3	480-79302-1	480-73807-5	480-73807-6	480-79302-4	480-79302-5
Semi-Volatile Organic Compounds (SVOCs), ug/L (continued)								
4-Bromophenyl-phenylether	~	~	~	~	0.57 U	0.57 U	0.42 U	0.44 U
4-Chloro-3-methylphenol	~	~	~	~	0.57 U	0.57 U	0.42 U	0.44 U
4-Chloroaniline	5	~	~	~	0.17 U	0.17 U	0.55 U	0.57 U
4-Chlorophenyl-phenylether	~	~	~	~	0.78 U	0.78 U	0.33 U	0.34 U
4-Methylphenol	~	~	~	~	0.52 U	0.52 U	0.34 U	0.35 U
4-Nitroaniline	5	~	~	~	1.5 U	1.5 U	0.23 U	0.24 U
4-Nitrophenol, SVOC	~	~	~	~	1.0 U	1.0 U	1.4 U	1.5 U
Acenaphthene	~	20	~	~	0.57 U	0.57 U	0.38 U	0.40 U
Acenaphthylene	~	~	~	~	0.94 U	0.94 U	0.35 U	0.40 U
Acetophenone	~	~	~	~	0.46 U	0.46 U	0.50 U	0.52 U
Anthracene	~	~ 50	~ ~	~	0.46 U	0.46 U	0.30 U	0.32 U 0.27 U
	~ 7.5	~		~	0.44 0 0.52 UJ	0.44 0 0.52 UJ	0.28 U	0.27 U
Atrazine		~ 0.002	~		0.094 U	0.094 U		
Benz(a)anthracene	~		~	~			0.34 U 0.33 UJ	
Benzaldehyde	~	~	~	~	1.1 U	1.1 U		
Benzo(a)pyrene	ND	~	~	~	0.073 U	0.073 U	0.44 U	
Benzo(b)fluoranthene	~	0.002	~	~	0.11 U	0.11 U	0.32 U	0.33 U
Benzo(g,h,i)perylene	~	~	~	~	0.48 U	0.48 U	0.33 U	0.34 U
Benzo(k)fluoranthene	~	0.002	~	~	0.073 U	0.073 U	0.68 U	0.71 U
Biphenyl	5	~	~	~	0.94 U	0.94 U	0.61 U	0.63 U
bis (2-chloroisopropyl) ether	5	~	~	~	0.68 U	0.68 U	0.48 U	0.50 U
bis(2-Chloroethoxy)methane	5	~	~	~	0.52 U	0.52 U	0.33 U	0.34 U
bis(2-Chloroethyl)ether	1.0	~	~	~	0.16 U	0.16 U	0.37 U	0.39 U
bis(2-Ethylhexyl)phthalate	5	~	~	~	0.42 U	0.42 U	1.7 U	1.7 U
Butyl benzyl phthalate	~	50	~	~	0.73 U	0.73 U	0.39 U	0.49 U
Caprolactam	~	~	~	~	0.47 U	0.47 U	2.1 U	2.1 U
Carbazole	~	~	~	~	0.63 U	0.63 U	0.28 U	0.29 U
Chrysene	~	0.002	~	~	0.73 U	0.73 U	0.31 U	0.32 U
Dibenz(a,h)anthracene	~	~	~	~	0.083 U	0.083 U	0.39 U	0.41 U
Dibenzofuran	~	~	~	~	0.78 U	0.78 U	0.48 U	0.49 U
Diethylphthalate	~	50	~	~	0.73 U	0.73 U	0.21 U	0.21 U
Dimethyl phthalate	~	50	~	~	0.57 U	0.57 U	0.34 U	0.35 U
Di-N-Butyl phthalate	50	~	~	~	0.52 U	0.52 U	0.29 U	0.30 U
Di-N-Octyl phthalate	~	50	~	~	0.46 UJ	0.46 U	0.44 U	0.46 U
Fluoranthene	~	50	~	~	0.57 U	0.57 U	0.37 U	0.39 U
Fluorene	~	50	~	~	0.89 U	0.89 U	0.34 U	0.35 U
Hexachlorobenzene	0.04	~	~	~	0.10 U	0.10 U		0.49 U
Hexachlorobutadiene, SVOC	0.5	~	~	~	0.35 U	0.35 U	0.63 U	0.66 U
Hexachlorocyclopentadiene	5	~	~	~	0.78 U	0.78 U		0.57 U
Hexachloroethane	5	~	~	~	0.078 U	0.078 U	0.55 U	0.57 U
Indeno(1,2,3-cd)pyrene	~	0.002	~	~	0.057 U	0.057 U	0.44 UJ	0.46 U
Isophorone	~	50	~	~	0.68 U	0.68 U		0.42 U
Naphthalene, SVOC	~	10	~	~	1.0 U	1.0 U		0.74 U
Nitrobenzene	0.4	~	~	~	0.18 U	0.18 U		0.28 U
N-Nitroso-di-N-propylamine	~	~	~	~	0.14 U	0.14 UJ	0.50 U	0.52 U
N-Nitrosodiphenylamine	~	50	~	~	0.52 U	0.52 U	0.48 U	0.49 U
Pentachlorophenol, SVOC	1 (6)	~	~	~	1.4 U	1.4 U		2.1 U
Phenanthrene	~	50	~	~	0.63 U	0.63 U		0.43 U
Phenol	~ 1 ⁽⁶⁾	~	~	~	0.31 U	0.31 U		0.38 U
	•	~ 50			0.57 UJ			0.38 U
Pyrene	~	50	~	~	0.57 00	0.57 0	0.32 0	0.55 0



Study Area, Corning, NY

Location ID			CMSMW01	CMSMW01	CMSMW02	CMSMW02	CMSMW02	CMSMW02
Sample ID			CMSMW01-0-150106	CMSMW01-0-150427	CMSMW02-0-150106	CMSMW02-1-150106	CMSMW02-0-150428	CMSMW02-1-150428
Date		TOGS	1/6/2015	4/27/2015	1/6/2015	1/6/2015	4/28/2015	4/28/2015
Sample Type	TOGS	Groundwater	0 - Primary	0 - Primary	0 - Primary	1 - Duplicate	0 - Primary	1 - Duplicate
Matrix	Groundwater	Guidance	GW	GW	GW	GW	GW	GW
Laboratory Sample ID	Standard ⁽¹⁾	Value ⁽²⁾	480-73807-3	480-79302-1	480-73807-5	480-73807-6	480-79302-4	480-79302-5
Polychlorinated Biphenyls (PBCs), mg/L								
Aroclor-1016	0.09	~	~	~	~	~	~	~
Aroclor-1221	0.09	~	~	~	~	~	~	~
Aroclor-1232	0.09	~	~	~	~	~	~	~
Aroclor-1242	0.09	~	~	~	~	~	~	~
Aroclor-1248	0.09	~	~	~	~	~	~	~
Aroclor-1254	0.09	~	~	~	~	~	~	~
Aroclor-1260	0.09	~	~	~	~	~	~	~
Aroclor-1262	0.09	~	~	~	~	~	~	~
Aroclor-1268	0.09	~	~	~	~	~	~	~
Total Petroleum Hydrocarbons, mg/L								
TPH	~	~	~	~	~	~	~	~

mg/L = milligram per liter. ug/L = microgram per liter.

U = The analyte was analyzed for but was not detected above the level of the detection

quantitation limit.

UJ = The analyte was analyzed for but not detected. The quantitation limit is

approximate and may be inaccurate or imprecise.

J = The positive result reported is estimated either because the result is less than the

LOQ or because certain quality control criteria were not met.

J+ = The result is an estimated quantity, but the result may be biased high because

certain quality control criteria were not met.

GW = Groundwater.

(1) Groundwater standards for water class GW (groundwater as a source for drinking water) from Table 1 of the New York State Division of Water Technical and Operational Guidance Series (TOGS) No. 1.1.1 Ambient Water Quality Standards and Guidance Values Memorandum, Part 1 (Reissued June 1998).

(2) TOGS guidance value for water class GA included in the TOGS No. 111 Ambient Water Quality Standards and Guidance Values Memorandum, Part 1 (Reissued June 1998).

(3) TOGS guidance value for water class GA included in the April 2000 Addendum to June 1998 Division of Water Technical and Operational Guidance Series (TOGS) No. 1.1.1.

(4) Standard for total 1,3-dichloropene (cis- and trans-).

(5) Standard for total xylenes.

(6) Standard for total phenols.

ND = means a non-detectable concentration by the approved analytical methods referenced in Section 700.3.



APPENDIX B

HEALTH AND SAFETY PLAN (HASP)

The final Health and Safety Plan will be maintained at the Study Area during field activities.

HEALTH AND SAFETY PLAN (HASP)

Office:West Chester, PAProject Name:Study Area Bounded by Pyrex Street, E. Pulteney Street,
Post Creek and Chemung RiverClient:Corning IncorporatedWork Location:Corning, NYWO#:02005.056.001.0001



HEALTH AND SAFETY PLAN (HASP)

Work Order Number	Date	Project Manager Approval	Project Safety Manager Approval
		••••••••••••••••••••••••••••••••••••••	





	HEAL	TH ANI	O SAFETY	PLAN (HASP)		
Bronarad by: A	ovno / P. Mol oughlin			. 02005 056 001 0001		Date:
Flepaled by. A. J	ayne / R. McLoughlin Study Area Bou	ן יחded by Pי		: 02005.056.001.0001 History:		04/03/2015
	Pulteney St., Po			Soil and/or ground		
Project Identificat				a site with potentia	al fill containing as	sh, brick and
	est Chester, PA	Maala		glass pieces.		
	udy Area, Corning, New prning Incorporated	YOrk				
Work Location	Located in Corning,	New York	on the north			
Address:	bank of the Chemur					
	tudy Area Characterizat	•	v /			
	ite HASP not necessary			sign off below:		
	required. If required, protector (NYLD) subcontra					ates:
New TOIR Leak Del			gulatory Stat			
Site regulatory status:	TBD		<u> </u>	Manual (Required to b	pe On-Site)	
CERCLA/SARA	RCRA Other Federa	l Agency		azard Assessment and Re		mine the Standard
🔲 U.S. EPA	U.S. EPA D	DE	.,	able to this project. Indicat id the appropriate pages o		
□ State	State U	SACE	Stack Te			ne Standard Flan.
NPL Site	NRC 🗌 Ai	r Force	Air Emiss	sions		
🗆 OSHA	□ 10 CFR 20 □		Asbestos		<u> </u>	
	on (Req'd See Attachment 926	D)	☐ Industria	Hygiene		
	Rev	iew and	Approval Do	cumentation:		
Reviewed by: SO/DEHSM/CEHS	George Crawford		George	M Crawbor 2 (CIH Date:	04/06/2015
CO/DENOM/CENC	Name (Print)		Signature		Duic.	0 1100/2010
Environmental.			5			
Compliance Advisor	-				Date:	
Approved by	Name (Print)		Signature			
Approved by: Project Manager	John Sontag				Date:	
	Name (Print)		Signature		Date.	
		Assessm		pment Selection		
personnel beginnin protective equipme	WESTON's Personal Pi g work, the FSO and/or nt selection outlined with Manual Section 5, Perso	otective E the Site M hin this HA	quipment Progr anager have ev SP is appropria	am and 29 CFR 19 ² aluated conditions a te for the hazards ki	10.132, at the site and verified that th	e personal
🖂 FSO	Stephan Roy				Date:	
	Name		Signature			
🖂 Site Manager	John Sontag				Date:	
	Name		Signature			
Compliance Off		ontag			Date:	·
Dangerous Goo Coordinator					Date:	





BEHAVIOR-BASED SAFETY (BBS) – Pledge

I Accept and Understand 100% Safe Work Is an Achievable Goal

- ★ I will work to develop strong connections and team with my co-workers to establish a culture of working safely 100% of the time.
- ★ I will actively care about all Weston employees, our families, team contractors and clients.
- ★ I will help to keep our projects safe and will meet and exceed compliance requirements.
- ★ I will understand and comply with the Health and Safety Plan, Accident Prevention Plan, and Environmental Compliance Plan for each field project. They guide my actions.
- ★ I will stop any work that presents an imminent hazard to people or the environment or is not adequately addressed in the Health and Safety Plan, Accident Prevention Plan, or Environmental Compliance Plan.
- ★ I will identify changing conditions to address safety implications. No surprises!
- ★ I will identify unsafe working conditions and be proactive in correcting them.
- ★ I will coach and mentor and will accept coaching from others to encourage safe work behaviors.
- ★ I am empowered to share lessons-learned and foster continuous improvement.

I will Learn where I can get Assistance

- ★ I will develop high quality relationships with my Division Environmental, Health, and Safety (EHS) Manager; Profit Center Safety Officer; and Field Safety Officer.
- ★ I will learn how and when to contact our Environmental Advisors.
- ★ I will get to know our Corporate EHS staff and become familiar with the Corporate EHS Portal Site.

I will Report All Incidents

- If a safety incident occurs, even if there is no injury or damage but there could have been, I will report the incident immediately.
- ★ I will conduct safety reviews of all incidents with my supervisor, if requested. The review will focus on cause and lessons-learned so that we can be proactive in preventing it from happening again.



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ATTACHMENTS

Chemical Contaminants Data Sheets

Hazard Communication Program

Air Sampling Data Sheets

Safety Procedures/Field Operating Procedures (FLD Ops)

Environmental Health & Safety Inspection Checklist

ATTACHMENT A

Safety Data Sheets

Incident Reporting

- ATTACHMENT B ATTACHMENT C
- ATTACHMENT D
- ATTACHMENT E
- ATTACHMENT F
 - Traffic Control Plan
- ATTACHMENT G ATTACHMENT H



1. PERSONNEL ON SITE INFORMATION



			<u> </u>
	1.1 WESTONF	REPRESENTATIVE	5
Organization/Branch	Name/Title	Address	Telephone
National Accounts	John Sontag/Project Manager	1400 Weston Way West Chester, PA 19380	610-701-3679
National Accounts	Stephane Roy/ Project Geoscientist	1400 Weston Way West Chester, PA 19380	610-701-3147
National Accounts	Rachel McLoughlin/ Project Scientist	1400 Weston Way West Chester, PA 19380	610-701-3428
Roles and Responsibilities: Manage and implement site	e characterization program.		
		SUBCONTRACTORS	
Organization/Branch	Name/Title	Address	Telephone
	Name: Title:	Street: City: State, Zip:	
	Name: Title:	Street: City: State, Zip:	
	Name: Title:	Street: City: State, Zip:	
Roles and Responsibilities:			
	SITE-SPECIFIC HEALT	H AND SAFETY PERSONN	IEL
The Site Field Safety Officer (F	SO) for activities to be conducted a	at this site is: Stephane Roy / Ra	chel McLoughlin
The Site Manager has ultimate	e responsibility for ensuring that the	provisions of this Site HASP are ac	lequate and implemented in the field.
	require decisions to be made cond and meet the additional training re		ms. Therefore, the personnel assigned 9 CFR 1910.120.
	R certification; annual 8-hour O liarity with jobs of similar scope.		rtification; current Adult First Aid
Designated alternates inc	lude: John Sontag		



1.3 SITE	PERSONNEL AND	CERTIFICATION STA	TUS
	1.3.1 WESTON Emplo	oyee Certification	
Name: John Sontag Title: Project Manager Task(s): All		Name: Stephane Roy Title: Project Geoscientis Task(s): All	t
Certification Level or Description:		Certification Level or Desc	cription:
⊠Medical Current □Fit Test Current (Qual.)	⊠Training Current □Fit Test Current (Quant.)	⊠ Medical Current □Fit Test Current (Qual.)	⊠Training Current □Fit Test Current (Quant.)
Name: Rachel McLoughlin Title: Project Scientist Task(s): All		Name: Matt Barela Title: Associate Project So Task(s): All	
Certification Level or Description: Medical Current Fit Test Current (Qual.)	⊠Training Current □Fit Test Current (Quant.)	Certification Level or Desc Medical Current Fit Test Current (Qual.)	rription: ⊠Training Current □Fit Test Current (Quant.)
Name: Devon Hollenden		Name: Greg Flasinski	
Title: Assistant Geoscientist		Title:	
Task(s): All		Task(s): All	
Certification Level or Description:		Certification Level or Desc	•
Medical Current	Training Current	Medical Current	Training Current
Fit Test Current (Qual.)	Fit Test Current (Quant.)	Fit Test Current (Qual.)	Fit Test Current (Quant.)
Name:		Name:	
Title:		Title:	
Task(s):		Task(s):	
Certification Level or Description:		Certification Level or Desc	cription:
Medical Current	Training Current	Medical Current	Training Current
Fit Test Current (Qual.)	Fit Test Current (Quant.)	Fit Test Current (Qual.)	Fit Test Current (Quant.)
Name:		Name:	
Title:		Title:	
Task(s):		Task(s):	
Certification Level or Description:		Certification Level or Desc	ription:
Medical Current	Training Current	Medical Current	Training Current
Fit Test Current (Qual.)	Fit Test Current (Quant.)	Fit Test Current (Qual.)	Fit Test Current (Quant.)

TRAINING CURRENT - Training: All personnel, including visitors, entering the exclusion or contamination reduction zones must have certifications of completion of training in accordance with OSHA 29 CFR 1910, 29 CFR 1926, or 29 CFR 1910.120.

FIT TEST CURRENT - Respirator Fit Testing: All persons, including visitors, entering any area requiring the use or potential use of any tight-fitting respirator must have had, as a minimum, a qualitative fit test, administered in accordance with OSHA 29 CFR 1910.134 or ANSI, within the last 12 months. If site conditions require the use of a full-face, tight-fitting, air-purifying respirator for protection from asbestos or lead, employees must have had a quantitative fit test, administered according to OSHA 29 CFR 1910.1001 or .1025 or 29 CFR 1926.1101 or .62, within the last 12 months.

MEDICAL CURRENT - Medical Monitoring Requirements: All personnel, including visitors, entering the exclusion or contamination reduction zones must be certified as medically fit to work and able to wear a respirator, if appropriate, in accordance with 29 CFR 1910 or 29 CFR 1926 (substance-specific), or 29 CFR 1910.120 (HAZWOPER).

The Site Field Safety Officer is responsible for verifying all certifications and fit tests.



SITE PER	SONNEL AND CE	RTIFICATIO	N STATUS		
1.3.2 Subo	contractor's Health and	d Safety Progra	am Evaluation		
Name of Subcontractor: TBD Address:					
Activities To Be Conducted by Subcor	ntractor:				
	Evaluation 0	Criteria			
Medical Program meets OSHA/WESTON criteria	Personal Protective Equip	ment available	On-site monitoring equipment available, calibrated, and operated properly		
Acceptable					
Unacceptable	Unacceptable		Unacceptable		
Comments:	Comments:		Comments:		
Safe Working Procedures clearly specified	Training meets OSHA/WE	STON criteria	Emergency Procedures		
Comments:	Comments:		Comments:		
Decontamination Procedures	General Health and Safety evaluation	/ Program	Additional comments:		
	Acceptable		Subcontractor has agreed to and will conform to the WESTON HASP for this		
			project.		
Comments:	Comments:		Subcontractor will work under its own HASP, which has been accepted by Project PM.		
Evaluation Conducted by:			Date:		
Evaluation Source (SubTrack, etc.):					
	Subcontra	actor			
Certifications for all subcontractor pe	rsonnel will be added to	the HASP prior	to beginning work.		
Name:		Name:			
Title:		Title:			
Task(s):		Task(s):			
Certification Level or Description:		Certification Le	evel or Description:		
Medical Current	Training Current	Medical Current	Training Current		
Fit Test Current (Qual.)	Fit Test Current (Quant.)	Fit Test Current (Qual.) Fit Test Current (Quant.)		
Name:		Name:			
Title:		Title:			
Task(s):		Task(s):			
Certification Level or Description:		Certification Le	evel or Description:		
Medical Current	Training Current	Medical Current	Training Current		
Fit Test Current (Qual.)	Fit Test Current (Quant.)	Fit Test Current (Qual.) Fit Test Current (Quant.)		



2. HEALTH AND SAFETY EVALUATION

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		2.1 H	EALTH AND SA		ΓΙΟΝ				
	2.1.1 Task Hazard Assessment								
Background	Background Review: X Complete Partial If partial why? N/A								
No. 1	Task/ Soil s	nder This Plan: Subtask ampling		Description soil boring and surfac		Schedule 2015 - TBD			
2		ndwater stigation		roundwater monitoring oundwater sampling	wells and	2015 - TBD			
3		g/Excavation		backfill of test pits/su	rface soil	2015 - TBD			
Types of Numbers re		he following hazard	d evaluation forms. Com	plete hazard evaluation for	ms for each approp	riate hazard class.			
Physioche	mical 1	Chemically Toxic	c 1	Radiation 3	Biological 2				
🗌 Flamma	able	Inhalation	🛛 Carcinogen	lonizing:	Etiological Agent				
Explosi	ve	Ingestion	Mutagen	Internal exposure	🛛 Other (plant, i	nsect, animal)			
Corrosi	ve	Contact	Teratogen	External exposure					
🗌 Reactiv	e	Absorption							
O2 Rich	1	OSHA 1910.1	000 Substance	Non-ionizing:	🔲 Physical Hazards 4				
O2 Defi	cient	(Air Contamin	ants)	🛛 UV 🗌 IR	Characterizati				
		Standard	c Hazard Substance wing page for listing)	RF MicroW Laser					
		Source/Loc	ation of Contaminan	its and Hazardous Sub	stances:				
	elated to Tasl	s	Indirectly Related t Members:	o Tasks — Nearby Proce	ss(es) That Could	Affect Team			
☐ Air	_		WESTON Work	Location					
Other S			Nearby Non-Clie						
Ground	dwater		Describe:	5					
Soil	10/-1-*								
			Have activities (task[s]) been coordinated v	vith facility?				
	y Wastewater		Comments:	/	-				
	s Wastewater								
Other _									



HEALTH AND SAFETY EVALUATION

2.1.2 Chemical Hazards of Concern

	2.1.		cal Hazar	as of Concern		
□ N/A				□ N/A		
Chemical Contaminants of Concern Attach data sheets from an acceptable source dictionary, ACGIH TLV booklet, Hazardous Su concentrations below and locate data sheets i	ibstances Data base (HSDB), etc. I			Identify hazardous materials used or on-si reagent type chemicals, solutions, or other performing tasks related to this project cou all subcontractors and other parties workin chemicals and the location of the SDSs. C of the hazardous materials they use or hav List chemicals and quantities below and lo	r identified materials that in normal uld produce hazardous substances. ng nearby are informed of the prese obtain from subcontractors and othe ve on-site and identify location of th	use in Ensure that ence of these er parties, lists le SDSs here.
Chemical Na	ne	Concer	tration	Chemical N	ame	Quantity
A		()			
Arsenic Lead						
Cadmium						
oldinidii						
	OSHA-SI	PECIFIC H	IAZARDO	OUS SUBSTANCES		
1910.1001 Asbestos	1910.1002 Coal tar pitch volat	iles	1910.	1003 4-Nitrobiphenyl, etc.	1910.1004 alpha-Naphthylam	nine
1910.1005 [Reserved]	1910.1006 Methyl chloromethy	yl ether	1910.	1007 3,3'-Dichlorobenzidine (and its salts)	1910.1008 bis-Chloromethyl	ether
1910.1009 beta-Naphthylamine	1910.1010 Benzidine		1910.	1011 4-Aminodiphenyl	1910.1012 Ethyleneimine	
1910.1013 beta-Propiolactone	1910.1014 2-Acetylaminofluor	ene	1910.	1015 4-Dimethylaminoazobenzene	1910.1016 N-Nitrosodimethyl	amine
1910.1017 Vinyl chloride	X 1910.1018 Inorganic arsenic		1910.	1025 Lead (Att. FLD# 46)	1910.1026 Chromium VI (att.	FLD 53)
1910.1027 Cadmium (Att. 50 FLD)	1910.1028 Benzene (Att. FLD	# 54 or 61)	1910.	1029 Coke oven emissions	1910.1043 Cotton dust	
1910.1044 1,2-Dibromo-3-chloropropane	1910.1045 Acrylonitrile		1910.	1047 Ethylene oxide	1910.1048 Formaldehyde	
1910.1050 Methylenedianiline				1052 Methylene chloride	1926.60 Methylenedianiline	
⊠1926.62 Lead	1926.1101 Asbestos (Att. FLD	52)	1926.	1127 Cadmium		



HEA	LTH AND SAF	ETY EVALUAT	ION	
2.	.1.3 Biological I	Hazards of Concer	'n	
Poisonous Plants (FLD 43-D)		Insects (FLD 43-	B)	
Route of Exposure: Inhalation	Suspect Ingestion Direct Penetration	Location/Task No(s) Source: Route of Exposure:	AII ☐ Known ☐ Inhalation ⊠ Contact	 ☑ Suspect ☐ Ingestion ☑ Direct Penetration
	Yes ⊠ No Yes ⊠ No	Team Member(s) Alle Immunization require	-	☐ Yes ⊠ No ☐ Yes ⊠ No
Snakes, Reptiles (FLD 43-A)		Animals (FLD 43	-A)	
Route of Exposure: Inhalation	Suspect Ingestion Direct Penetration	Location/Task No(s) Source: Route of Exposure:	AII ☐ Known ☐ Inhalation ⊠ Contact	 ☑ Suspect ☐ Ingestion ☑ Direct Penetration
	Yes ⊠ No Yes ⊠ No	Team Member(s) Alle Immunization require	•	☐ Yes ⊠ No ☐ Yes ⊠ No
FLD 43 — WESTON Biohazard Field O	Operating Procedures	s: Att. OP 🗌		
Sewage		Etiologic Agents	s (FLD –C) (Lis	it)
Route of Exposure: Inhalation	Suspect Ingestion Direct Penetration	Location/Task No.(s) Source: Route of Exposure:	: Known Inhalation Contact	Suspect Ingestion Direct Penetration
Team Member(s) Allergic:	Yes 🗌 No Yes 🗌 No	Team Member(s) Alle Immunization require	-	☐ Yes ☐ No ☐ Yes ☐ No
Tetanus Vaccination within Past 10 yrs:	: Yes No			
FLD 43-C — Mold and Fungus. Att. OP	· 🗌			
FLD 44 — WESTON Bloodborne Patho	ogens Exposure Con	itrol Plan – First Aid Pi	rocedures: Att	OP 🛛
FLD 45 — WESTON Bloodborne Patho	ogens Exposure Con	trol Plan – Working wi	ith Infectious V	Vaste: Att. OP



			HE	ALTH	AND SAF		ION		
						lazards of Conce	'n		
	-			Ν	IONIONIZIN	G RADIATION			
Task No.	Type of Nonionizing Radiation	Source	On-Site	TLV/	PEL	Wavelength Range	Control Measures	Monitoring Inst	rument
1	Ultraviolet	Solar					Appropriate clothing/ sunscreen	None	
	Infrared								
	Radio Frequency			1					
	Microwave								
	Laser								
						RADIATION			+
Task No.	Radionuclide	Major Radiations	Radioacti Half-Life (Years)	ive	DAC (µCii/m	L) 	Y	Surface Contamination Limit	Monitoring Instrument



HEALTH AND SAFETY EVALUATION

2.1.5 Physical Hazards of Concern

Physical Hazard Attach WESTON OF Titles			
Condition	Physical Hazard	OP	WESTON OP Titles
Loud noise	Hearing loss/disruption of communication	\square	Section 7.0 - ECH&S Program Manual Occupational Noise & HC Program
Inclement weather	Rain/humidity/cold/ice/snow/lightning	\boxtimes	FLD02 - Inclement Weather
Steam heat stress	Burns/displaced oxygen/wet working surfaces		FLD03 - Hot Process - Steam
Heat stress	Burns/hot surfaces/low pressure steam		FLD04 - Hot Process - LT3
Ambient heat stress	Heat rash/cramps/exhaustion/heat stroke		FLD05 - Heat Stress Prevention/Monitoring
Cold stress	Hypothermia/frostbite	\square	FLD06 - Cold Stress
Cold/wet	Trench/paddy/immersion foot/edema		FLD02 - Inclement Weather
Confined spaces	Falls/burns/drowning/engulfment/electrocution		FLD08 - Confined Space Entry
Industrial Trucks	Fork Lift Truck Safety		FLD09 – Powered Industrial Trucks
Improper lifting	Back strain/abdomen/arm/leg muscle/joint injury		FLD10 - Manual Lifting/Handling Heavy Objects
Uneven surfaces	Vehicle accidents/slips/trips/falls		FLD11 - Rough Terrain
Poor housekeeping	Slips/trips/falls/punctures/cuts/fires	\square	FLD12 - Housekeeping
Structural integrity	Crushing/overhead hazards/compromised floors		FLD13 - Structural Integrity
Improper cylinder. handling	Mechanical injury/fire/explosion/suffocation		FLD16 - Pressure Systems - Compressed Gases
Water hazards	Poor visibility/entanglement/drowning/cold stress		FLD17 - Diving
Water hazards	Drowning/heat/cold stress/hypothermia/falls		FLD18 - Operation and Use of Boats
Water hazards	Drowning/frostbite/hypothermia/falls/electrocution		FLD19 - Working Over Water
Vehicle hazards	Struck by vehicle/collision		FLD20 - Traffic
Explosions	Explosion/fire/thermal burns		FLD21 - Explosives
Moving mechanical parts	Crushing/pinch points/overhead hazards/electrocution		FLD22 – Earth Moving Equipment
Moving mech. parts	Overhead hazards/electrocution		FLD23 – Cranes, Rigging, and Slings
Working at elevation	Overhead hazards/falls/electrocution		FLD24 - Aerial Lifts/Man lifts
Working at elevation	Overhead hazards/falls/electrocution		FLD25 - Working at Elevation
Working at elevation	Overhead hazards/falls/electrocution/slips		FLD26 - Ladders
Working at elevation	Slips/trips/falls/overhead hazards		FLD27 - Scaffolding
Trench cave-in	Crushing/falling/overhead hazards/suffocation	\boxtimes	FLD28 - Excavating/Trenching
Physiochemical	Explosions/fires from oxidizing, flam./corr. material		FLD30 - Hazardous Materials Use/Storage
Physiochemical	Fire and explosion		FLD31 - Fire Prevention/Response Plan Required
Physiochemical	Fire		FLD32 - Fire Extinguishers Required
Structural integrity	Overhead/electrocution/slips/trips/falls/fire		FLD33 - Demolition
Electrical	Electrocution/shock/thermal burns		FLD34 - Utilities
Electrical	Electrocution/shock/thermal burns	\square	FLD35 - Electrical Safety
Burns/fires	Heat stress/fires/burns		FLD36 - Welding/Cutting/Brazing/Radiography
Impact/thermal	Thermal burns/high pressure impaction/heat stress	\square	FLD37 - Pressure Washers/Sand Blasting
Impaction/electrical	Smashing body parts/pinching/cuts/electrocution	\square	FLD38 - Hand and Power Tools
Poor visibility	Slips/trips/falls		FLD39 - Illumination
Fire/explosion	Burns/impaction		FLD40 - Storage Tank Removal/Decommissioning
Communications	Disruption of communications		FLD41 - Std. Hand/Emergency Signals
Energy/release	Unexpected release of energy		FLD42 - Lockout/Tag-out
Biological Hazards	Biological Hazards at site		FLD43 - Biological Hazards
Animals	Animals		FLD43A - Animals
Insects	Stinging and Biting Insects		FLD43B - Stinging and Biting Insects
Molds/Fungi	Molds and Fungi		FLD43C - Molds and Fungi



2.1.5 Physical Hazards of Concern (Continued)			
Physical Hazard Condition	Physical Hazard	Attach OP	WESTON OP Titles
Hazardous Plants	Hazardous Plants	\boxtimes	FLD43D - Hazardous Plants
Etiologic Agents	Etiologic Agents		FLD43E - Etiologic Agents
Biological Hazards/BBP	Biological Hazards/BBP at site/First Aid Providers		FLD44 - Biological Hazards – Bloodborne Pathogens Exposure Control Plan – First Aid Providers
Infectious Waste	Infectious Waste at site/BBP/ at site/Infectious Waste		FLD45 – Biological Hazards – Bloodborne Pathogens Exposure Control Plan – Work With Infectious Waste
Lead Contaminated sites	Lead poisoning	\boxtimes	FLD46 - Control of Exposure to Lead
Puncture/cuts	Cuts/ dismemberment/gouges		FLD47 - Clearing, Grubbing and Logging Operations
Government Inspector	Disruption of Operations		FLD48 – Federal, State, Local Regulatory Agency Inspections
Unknown Chemicals	Exposure to hazardous materials/waste	\square	FLD49 – Safe Storage of Samples
Cadmium	Exposure Control	\square	FLD50 – Cadmium Exposure Control Plan
Process Safety Procedure	Safety Procedure	\square	FLD51 – Process Safety Procedure
Asbestos	Asbestos Exposure		FLD52 – Asbestos Exposure Control Plan
Hexavalent Chromium	Exposure Control Plan		FLD53 – Hexavalent Chromium Exposure Control Plan
Benzene	Exposure Control Plan		FLD54 - Benzene Exposure Control Plan
Hydrofluoric acid	Working with HF		FLD55 – Working with Hydrofluoric Acid
Moving drill rig parts	Crushing/pinch points/overhead hazards/electrocution	\square	FLD56 – Drilling Safety
Vehicles/driving	Accidents,/fatigue/cell phone use	\square	FLD 57 – Motor Vehicle Safety
Improper material handling	Back injury/crushing from load shifts/equipment/tools	\square	FLD 58 – Drum Handling Operations
COC decontamination	COCs/slip, trip, and falls/waste generation/environmental compliance/PPE	\square	FLD59 - Decontamination
Drilling hazards	Electrocution/overhead hazards/pinch points	\square	Environmental Remediation Drilling Safety Guideline - 2005
Fatigue	Long work hours	\square	FLD60 – Employee Duty Schedule
Benzene/Gasoline	Benzene exposure		FLD61 – Gasoline Contaminant Exposure
Cardiac Arrest	Accident/Heart Attack		FLD62 – 2009 Automatic External Defibrillator (AED) Program Guidelines
Ionizing Radiation	Ionizing Radiation		FLD63 – Using Handheld X-Ray Fluorescence (XRF) Analyzers
Working Alone	Isolated Working Conditions		FLD64 – Employees Working Alone



3. SITE SECURITY

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3-1



3.1 SITE SECURITY ASSESSMENT FORM

DESCRIPTION				
DESCRIPTION Site Name and Location: Number of Employees and Subcontractors on Site:				
Former Study Area, Corning NY	TBD	ors on Site:		
Type of Work: Study Area characterization sampling activities (Soil a	and/or groupdwator compling)			
	nu/or groundwater sampning)			
Projected Start Date: 2014	Projected Completion Date: TBD			
	Are Chemicals Used or Stored That Meet DHS/CFATS Requirements? N/A			
http://www.dhs.gov/files/programs/gc 1185909570187	7.shtm			
If Yes, Attach Plan and DHS Approvals to HASP.				
http://www.dhs.gov/files/programs/gc 1169501486197	7.shtm			
SURROUNDING AREA (urban/suburban/rural; resi		ume nonulation density etc		
Suburban, residential neighborhood with school prope		ille, population density, etc		
	ity within Study Area mints.			
THREAT INDICATORS (apparent social, economic	, political, ethnic, criminal, gang related,	and other risk factors)		
N/A				
COUNTERMEASURES (Current and projected risk	mitigation factors)			
Security Systems (Reference Site Security Checkli				
Security Procedures (Reference Site Security Che	cklist):			
Closest police station location and contact inform	ation:			
Corning Police Department – 607-962-0340				
1 Center Way				
Corning, NY 14830				
Other relevant observations or information to facto	or into the Site Security Plan:			
N/A				
OVERALL SECURITY ASSESSMENT (Submit "Medium" and "High" risk assessments to Corporate Security for review				
Risk Level: 🛛 Low 🗌 Medium	High	Date:		
Site Safety Officer:	Division Safety Manager:			
USE ATTACHMENTS FOR ADDITIONAL COMM	MENTS, MAPS AND DIAGRAMS			



3.2 WESTON SITE SECURITY CHECKLIST

To be used for completing the Site Security Assessment Form required on all WESTON projects. Contact Corporate Security for guidance on any items that are "NEEDED" and "NOT IN PLACE".

CONTROL MEASURES:		In-Place / Not In-Place	Needed / Not Needed	
1. Fencing, lockable gates, no holes (enter details below):				
	a. Chain Link material		\Box / \boxtimes	
	b. Other material (describe)		\Box / \boxtimes	
	c. Height (in feet and inches)			
	d. Top cover (e.g., razor wire)			
	e. Signage (e.g., No Trespassing)			
2.	Guard service:			
	a. During working hours?			
	b. During non-working hours?			
	c. As a stationary post?			
	d. As a roving patrol?			
	e. Do they have written instructions?			
	f. Do they have adequate training?			
	g. Do they have adequate supervision?			
	h. Do they have daily reports?			
	i. Do they have daily inspections?			
3.	ID badges displayed by:			
	a. Employees?			
	b. Contractors?			
	c. Visitors?			
4.	Log books for:		\Box / \boxtimes	
	a. Employee sign-in?			
	b. Visitor sign-in?			
	c. Vehicle sign-in?			
	d. Incident reports?			
	e. Property removal?			
	f. Keys and access cards?			
5.	Electronics and hardware options (enter details below):		\Box / \boxtimes	
	a. Access card readers			
	b. Adequate lighting			
	c. Closed circuit TV			
	d. Alarm system			
	e. Other (describe)			
6.	Procedures documented for:		\Box / \boxtimes	
	a. Security training?			
	b. Security instructions?			
	c. Contingency plans?			
	d. Opening and closing protocols?			
	e. Other (describe)?			
7.	Law enforcement liaison documented for:			
	a. Municipal police?			
	b. County sheriff?			
	c. State police?			
	d. Federal agencies (specify)?			

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WESTON SITE SECURITY CHECKLIST (CONTINUED) To be used for completing the Site Security Assessment Form required on all WESTON projects. Contact Corporate Security for guidance on any items that are "NEEDED" and "NOT IN PLACE".			
CHAIN OF COMMAND:	Name	24/7 Contact Information	
a. Security Coordinator			
b. Site Supervisor			
c. Project Manager	John Sontag	610-701-3679	
d. PC Manager			



4. TASK BY TASK ASSESSMENT

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4.1 TASK-BY-TASK RISK ASSESSMENT					
4.1.1 Task 1 Description					
TASK 1: Soil sampling. Includes a combination of soil boring and surface soil sampling.					
EQUIPMENT REQUIRED/USED					
Geoprobe and/or Hollow-stem auger Hand tools rig					
Scoops Hearing Protection Nitrile gloves Mini Rae Safety Boots Safety Glasses					
Dust Monitoring					
POTENTIAL HAZARDS/RISKS					
Chemical					
 ☐ Hazard Present Risk Level: ☐ H ☐ M ☐ L What justifies risk level? Sampling soil with potential metals. 					
Physical					
☐ Hazard Present Risk Level: ☐ H ☐ M ☐ L What justifies risk level?					
Work generally will occur at residential or school property, with some work in utility right-of-way areas and floodplain areas.					
Biological					
Hazard Present Risk Level: H M L What justifies risk level?					
Potential for ticks, bees, snakes, vegetation and small animals.					
RADIOLOGICAL					
Hazard Present Risk Level: H M L What justifies risk level?					
LEVELS OF PROTECTION/JUSTIFICATION					
Level D					
SAFETY PROCEDURES REQUIRED AND/OR FIELD OPS UTILIZED					
All work will be performed in accordance with the provisions of this HASP, OSHA guidelines, and WESTON Standard Operating Procedures.					
FLD 02, 05, 06, 10,11, 12, 13, 19, 20, 22, 28, 34, 37, 38, 41, 43, 47, 56, 57, 59, 60, Section 7.0, Environmental Remediation Drilling Safety Guidance – 2005, Air monitoring in accordance with the Study Area-specific Community Air Monitoring Plan (CAMP).					



TA	SK-BY-TASK RISK ASSESSMENT (Continued)						
	4.1.2 Task 2 Description						
	TASK 2: Groundwater sampling activities, includes the installation of groundwater monitoring wells and groundwater sampling						
	EQUIPMENT REQUIRED/USED						
Hollow-stem auger Rig	Hand Tools Dust Monitoring						
Nitrile Gloves	Sample Bottles						
Safety Boots	Water Level Indicator						
Safety Glasses	Groundwater Pumps						
Hearing Protection MiniRae	Bailers						
MINIKae	Tubing POTENTIAL HAZARDS/RISKS						
	Chemical						
Hazard Present	Risk Level: H M X L						
What justifies risk level?							
Ground water sampling	with potential constituents at lower levels						
	Physical						
Hazard Present What justifies risk level?	Risk Level: 🗌 H 🔤 M 🛛 🛛 L						
	r at residential or school property, with some work possibly in utility right-of-way						
areas	· · · · · · · · · · · · · · · · · · ·						
	Biological						
Hazard Present	Risk Level: 🗌 H 🔤 M 🔤 L						
What justifies risk level?	snakes, vegetation and small animals.						
T Otential for ticks, bees,	shakes, vegetation and sman animals.						
	RADIOLOGICAL						
Hazard Present							
What justifies risk level?							
LEVELS OF PROTECTION/JUSTIFICATION							
SAFETY PROCEDURES REQUIRED AND/OR FIELD OPS UTILIZED All work will be performed in accordance with the provisions of this HASP, OSHA guidelines, and WESTON Standard							
Operating Procedures.							
FLD 01, 02, 05, 06, 10, 11, 12, 17, 18, 19, 20, 32, 34, 35, 36, 37, 41, 43, 47, 57, 59, 60 Section 7.0,							
Environmental Remediation Drilling Safety Guidance – 2005, Air monitoring in accordance with the Study							
Area-specific Community Air Monitoring Plan (CAMP).							



4.1 TASK-BY-TASK RISK ASSESSMENT (Continued)					
4.1.3 Task 3 Description					
TASK 3: Excavation/test pitting, backfilling and sampling activities. Test pits will be approximately 1 foot to 18 inches wide, 4 to 7 feet long and up to 4 feet deep. Excavation activities include surface excavation/scraping up to 1 ft below ground surface.					
EQUIPMENT REQUIRED/USED					
Construction Equipment (Mini- Dust Monitoring backhoe/excavator/front end loader) Dust Monitoring Safety Boots Hearing Protection Safety Glasses Hearing Protection Hearing Protection MiniRae					
POTENTIAL HAZARDS/RISKS					
Chemical					
☐ Hazard Present Risk Level: ☐ H ☐ M ☐ L What justifies risk level? Sampling soil with potential metals.					
Physical					
Hazard Present Risk Level: H M L What justifies risk level? Activities include the use of heavy equipment in residential and public areas.					
Biological					
Hazard Present Risk Level: H M L What justifies risk level? Potential for ticks, bees, snakes, vegetation and small animals.					
RADIOLOGICAL					
Hazard Present Risk Level: H M L What justifies risk level?					
LEVELS OF PROTECTION/JUSTIFICATION					
Level D					
SAFETY PROCEDURES REQUIRED AND/OR FIELD OPS UTILIZED					
All work will be performed in accordance with the provisions of this HASP, OSHA guidelines, and WESTON Standard Operating Procedures. FLD 02, 05, 06, 10,11, 12, 13, 20, 22, 28, 34, 37, 38, 41, 43, 47, 56, 57, 59, Section 7.0, Environmental Remediation Drilling Safety Guidance – 2005, Air monitoring in accordance with the Study Area-specific Community Air Monitoring Plan (CAMP).					



4.1 TASK-BY-TASK RISK ASSESSMENT (Continued)						
4.1.4 Task 4 Description						
EQUIPMENT REQUIRED/USED						
POTENTIAL HAZARDS/RISKS						
Chemical						
☐ Hazard Present Risk Level: ☐ H ☐ M ☐_L What justifies risk level?						
Physical						
Hazard Present Risk Level: H M L What justifies risk level?						
Biological						
Hazard Present Risk Level: H M L What justifies risk level?						
RADIOLOGICAL						
Hazard Present Risk Level: H M L What justifies risk level?						
LEVELS OF PROTECTION/JUSTIFICATION						
SAFETY PROCEDURES REQUIRED AND/OR FIELD OPS UTILIZED						
All work will be performed in accordance with the provisions of this HASP, OSHA guidelines, and WESTON Standard Operating Procedures.						



4.2 PERSONNEL PROTECTION PLAN

	4.2 PERSONNEL P	ROTECTION PLAN				
Engineering Controls Describe Engineering Controls used as part of F	Personnel Protection Plan:					
Task(s) Tasks 1-3						
Administrative Controls Describe Administrative Controls used as part or	f Personnel Protection Plan:					
Task(s)Tasks 1-3AllConduct hazard analysAllConduct safety briefingAllConduct safety briefingTaken to minimize or end	gs with contractors prior to pe	erforming daily tasks to discuss safety hazards and controls				
Personal Protective Equipment Action Levels for Changing Levels of Protection.	Refer to Site Air Monitoring Program—A	Action Levels. Define Action Levels for up or down grade for each task:				
Task(s)Tasks 1-3AllHard hat, safety glasses, safety shoes, hearing protection (as necessary)AllPPE will be reviewed with each hazard analysis to ensure level of PPE is appropriate for scope of workAllStudy Area Air Monitoring plan (i.e., Community Air Monitoring Plan [CAMP])						
	Description of Lev	els of Protection				
Level [)	Level D Modified				
Task(s): All ⊠ Head	Hard hat when near drilling rig	Task(s): NA				
⊠ Eye and Face ⊠ Hearing	Safety Glasses Ear plugs in designated areas	Eye and Face Hearing				
Arms and Legs Only Appropriate Work Uniform	Coveralls or long pants and appropriate shirt Nitrile (as needed)	Arms and Legs Only Whole Body				
☑ Hand – Gloves Nitrile (as needed) ☐ Apron ☑ Foot - Safety Boots ☑ Hand - Gloves □ Fall Protection □ Gloves						

Foot - Safety Boots

Over Boots

Other



1

4.3 DESCRIPTION OF LEVELS OF PROTECTION					
Level C Level B () or Level A ()					
Task(s): NA	Task(s): NA				
Head	Head				
Eye and Face	Eye and Face				
☐ Hearing	Hearing				
Arms and Legs Only	Arms and Legs Only				
U Whole Body	U Whole Body				
Apron	Apron				
Hand – Gloves	Hand - Gloves				
Gloves	Gloves				
Gloves	Gloves				
☐ Foot - Safety Boots	Foot - Safety Boots				
Outer Boots	Outer Boots				
Boots (Other)	Boots (Other)				
Half Face	SAR - Airline				
Cart./Canister	□ SCBA				
Full Face	Comb. Airline/SCBA				
Cart./Canister	Cascade System				
	Compressor				
Cart./Canister	Fall Protection				
□ Туре C	Flotation				
Fall Protection	Other				
Flotation					
Other					



5. MONITORING PROGRAM

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5.1 SITE OR PROJECT HAZARD MONITORING PROGRAM							
5.1.1 Air Monitoring Instruments							
Instrument Selection and Initial Check Record Reporting Format: I Field Notebook I Field Data Sheets* I Air Monitoring Log I Trip Report I Other							
Instrument	Task No.(s)	Number Required	Number Received	Checked Upon Receipt	Comment	Initials	
GM (Pancake)							
Nal (Micro R)							
ZnS (Alpha Scintillator)							
☐ Other							
🖾 PID	1.0						
MiniRAE	1-3						
MultiRAE (LEL/O2/H2S/CO/PID)							
TVA 1000 (PID/FID)							
Other							
🗌 FID							
TVA 1000 (FID/PID)							
Other	1-3						
☑ PDR 1000 (Particulate)	1-5						
Single Gas Meter (SGM)							
Specify Chemical:							
Personal Sampling Pump							
Specify Media:							
Bio-Aerosol Monitor							
Tubes/type:							
Tubes/type:							
Tubes/type:							
Tubes/type:							



5.1 SITE OR PROJECT HAZARD MONITORING PROGRAM								
	5.1	1.1 Air	Monitorin	ng Instrum	nents Cali	bration Reco	rd	
Instrument, Mfg., Model, Equip. ID No.	Date	Time	Calib. Material	Calib. Method Mfg.'s	Other	Initial Setting and Reading	Final Setting and Reading	Calibrator's Initials



5.2 SITE AIR MONITORING PROGRAM

Action Levels

These Action Levels, if not defined by regulation, are some percent (usually 50%) of the applicable PEL/TLV/REL. That number must also be adjusted to account for instrument response factors.

instrument response factors.				
	Tasks	Action L	+	Action
Explosive or Flammable Atmosphere		Ambient Air Concentration	Confined Space Concentration	
		<10% LEL	0 to 1% LEL	Work may continue. Consider toxicity potential.
		10 to 25% LEL	1 to 10% LEL	Work may continue. Increase monitoring frequency.
		>25% LEL	>10% LEL	Work must stop. Ventilate area before returning.
Oxygen		Ambient Air Concentration	Confined Space Concentration	
		<19.5% O ₂	<19.5% O ₂	Leave area. Re-enter only with self-contained breathing apparatus.
		19.5% to 25% O ₂	19.5% to 23.5% O ₂	Work may continue. Investigate changes from 21%.
		>25% O ₂	>23.5% O ₂	Work must stop. Ventilate area before returning.
Radiation	3, Radiation	< 3 times ba	ckground	Continue work.
	screening related to XRF to be performed by selected subcontractor for XRF work	3 times background to < 1 mR/hour		Radiation above background levels (normally 0.01-0.02 mR/hr) signifies possible radiation source(s) present. Continue investigation with caution. Perform thorough monitoring. Consult with a Health Physicist.
		> 1 mrem/hour		Potential radiation hazard. Evacuate site. Continue investigation only upon the advice of Health Physicist.
⊠ Organic Gases and Vapors	1, 2	1.0 units sustained		Increase monitoring frequency. Stop work and evaluate appropriate PPE
☑ Inorganic Gases, Vapors, and Particulates	1, 2	100 μg/m ³ above background per 15- minute period		Continue work with dust suppression techniques. If levels exceed 150 µg/m ³ above background per 15- minute period. Stop work and re-evaluate dust suppression.



5.3 ACTION LEVELS

(Attach action level calculations)

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6. HOSPITAL INFORMATION

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6.1 CONTINGENCIES					
	6.1.1 Emerg	gency Contacts and P	hone Numbers		
Agency		Contact	Phone Number		
WorkCare WESTON Medical Directo	r	Dr. Peter Greaney		From 6 am to 4:30 pm Pacific Time call 800-	
WorkCare WESTON Program Admir	nistrator	Heather Lind		0 for the Operator or ext. 475 o request the on-call clinician.	
After-Business Hours Contact (In Case of Emergency Only)			4:31 p.m. – 5:5 Saturday, Sunda 6155 Dial 3 to rea service. Request with the on-call c	9 a.m. Pacific Time, all day y, and Holidays call 800-455- ach the after-hours answering that the service connect you linician or the on-call clinician ur call within 30 minutes.	
WESTON Corporate Environmental Director	Health & Safety	Harold Hannah		(267) 516-0274 (Cell)	
WESTON Health & Safety Division S	afety Manager	George Crawford	(610) 701-3771 -	(610) 701-3771 - (484) 437-5976 (Cell)	
WESTON Health & Safety Local Safe	ety Officer	George Crawford	(610) 701-3771-	(610) 701-3771- (484) 437-5976 (Cell)	
Fire Department	-		911	911	
Police Department			911	911	
WESTON FSO Cell Phone					
WESTON PM Cell Phone		John Sontag	(610) 701-3679		
Client Site Phone					
Site Telephone					
Nearest Telephone					
Poison Control			(800) 222-1222		
	Local Med	lical Emergency Facili	ity(s) - LMF		
Name of Hospital: Guthrie Corning H	ospital				
Address: 1 Guthrie Drive, Corning, NY 14830				Phone No.: 607-937-8674	
Name of Contact:				Phone No.:	
Type of Service:	Route to Hospital:			Travel time from site:	
X Physical trauma only	(See Attached)		9 Minutes		
Chemical exposure only				Distance to hospital:	
Physical trauma and chemical exposure				5.2 Miles Name/no. of 24-hr ambulance service: 911	
Available 24 hours					



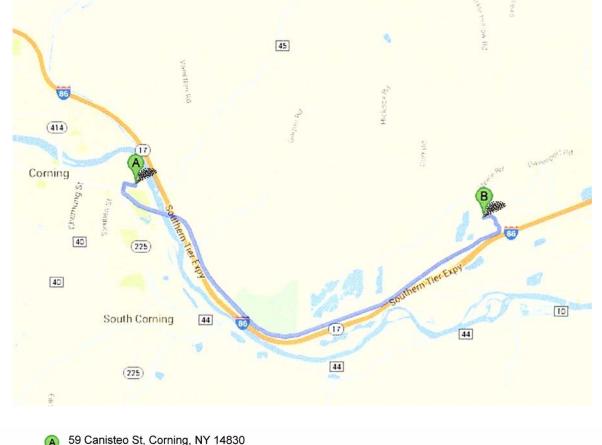
Secondary or Specialty Service Provider							
Name of Hospital:							
Address: Phone No.:							
Name of Contact:	Name of Contact: Phone No.:						
Type of Service:	Route to Hospital (see attached):	Travel time from site:					
Physical trauma only							
Chemical exposure only		Distance to hospital:					
Physical trauma and chemical exposure		Name/no. of 24-hr ambulance service:					
Available 24 hours		/					

See reporting an incident in Attachment F.



6.1.2 Hospital Map

This map is subject to Google's Terms of Service, and Google is the owner of rights therein. Portions of this image may have been removed for clarity.



1. Head south on Canisteo St toward Woodview Ave	go 82 ft total 82 ft
2. Take the 1st right onto Woodview Ave	go 0.1 mi total 0.1 mi
3. Take the 1st left onto Conhocton St	go 495 ft total 0.2 mi
 Take the 2nd left onto NY-352 E/E Corning Rd/Denison Pkwy E Continue to follow NY-352 E/E Corning Rd About 5 mins 	go 3.8 mi total 4.0 mi
5. Continue straight onto E Corning Rd Destination will be on the left About 2 mins	go 1.2 mi total 5.2 mi
Guthrie Corning Hospital Guthrie Drive, Corning, NY 14830	

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6.1 CONTINGENCIES						
	6.	.1.3 Response Plans				
Medical - General Provide first aid, if trained; assess and determine need for further medical assistance. Transport or arrange for transport after appropriate decontamination.		First Aid Kit: Yes No Blood Borne Pathogens Kit: Yes No	Type Appropriate sized ANSI- approved Type III Kit, plus BBP	Location In Vehicle near work area	Special First-Aid Procedures: Cyanides on-site Yes No If yes, contact LMF. Do they have antidote kit?	
LMF = Local Medical Facility		Eyewash required	Туре	Location	HF on-site Yes ⊠ No If yes, need neutralizing ointment for first- aid kit. Contact LMF.	
		Shower required	Туре	Location		
Plan for Response to Spill/Release		Plan for Response to Fire/Explosion			Fire Extinguishers	
In the event of a spill or release, ensure safety, assess situation, and perform containment and control measures, as appropriate.	 a. Cleanup per SDSs if small; or sound alarm, call for assistance, notify Emergency Coordinator b. Evacuate to pre- determined safe place c. Account for personnel d. Determine if team can respond safely e. Mobilize per Site Spill Response Plan 	In the event of a fire or explosion, ensure personal safety, assess situation, and perform containment and control measures, as appropriate:	 Emergence Evacuate predeterm place c. Account for d. Use fire ex only if safe in its use e. Stand by t emergenc of materia conditions 	nce, notify cy Coordinator to ined safe or personnel xtinguisher e and trained to inform y responders ls and	Type/Location <u>ABC/Vehicle / / / / / / / / / / / /</u>	
Response Gear	Location	Description (Other Fire Re	esponse Equipr	nent)	Location	
Plan to Respond to Seci	urity Problems					
911 Emergency						



7. DECONTAMINATION PLAN



7.1 GENERAL DECONTAMINATION PLAN						
Personnel Decontamination						
Consistent with the levels of protection required, step-by-step procedures for personnel decontamination for each level of protection are attached. Level D PPE with used PPE properly disposed on-site						
Levels of Protection Required for Decontamination Personnel						
The levels of protection required for personnel assisting with decontamination will be:						
Level B Level C Level D Modifications include:						
Disposition of Decontamination Wastes						
Drill cuttings and other waste soil/water generated during characterization activities will be containerized daily in 55-gallon drums or other appropriate containers (as described in the Study Area Work Plan). The filled containers will be staged in a secure, designated area (TBD). The waste soil and waste water will be properly disposed in accordance with sample results.						
Equipment Decontamination A procedure for decontamination steps required for non-sampling equipment and heavy machinery follows:						
Equipment will be decontaminated in accordance with the decontamination SOP included in the Study Area Work Plan.						
Sampling Equipment Decontamination						
Sampling equipment will be decontaminated in accordance with the following procedure:						
All non-dedicated sampling and monitoring equipment will be decontaminated in accordance with the decontamination SOP included in the Study Area Work Plan.						



7.2 LEVEL D DECONTAMINATION PLAN
Check indicated functions or add steps, as necessary:
Function Description of Process, Solution, and Container
Segregated equipment drop
Boot cover and glove wash
Boot cover and glove rinse
Tape removal - outer glove and boot
Boot cover removal
Outer glove removal
HOTLINE
Suit/safety boot wash
Suit/boot/glove rinse
Safety boot removal
Suit removal
Inner glove wash
Inner glove rinse
Inner glove removal
Inner clothing removal
CONTAMINATION REDUCTION ZONE (CRZ)/SAFE ZONE BOUNDARY
Field wash
Disposal Plan, End of Day:
Disposal Plan, End of Week:
Disposal Plan, End of Project:
Disposal Flan, End of Froject.



7.3 LEVEL C DECONTAMINATION PLAN
Check indicated functions or add steps, as necessary:
Function Description of Process, Solution, and Container
Segregated equipment drop
Boot cover and glove wash
Boot cover and glove rinse
Tape removal - outer glove and boot
Boot cover removal
Outer glove removal
HOTLINE
Suit/safety boot wash
Suit/boot/glove rinse
Safety boot removal
Suit removal
Inner glove wash
Inner glove rinse
Face piece removal
Inner glove removal
Inner clothing removal
CONTAMINATION REDUCTION ZONE (CRZ)/SAFE ZONE BOUNDARY
Field wash
Redress
Disposal Plan, End of Day:
Disposal Plan, End of Week:
Disposal Plan, End of Project:



7.4 LEVEL B () or Level A () DECONTAMINATION PLAN
Check indicated functions or add steps, as necessary:
Function Description of Process, Solution, and Container
Segregated equipment drop
Boot cover and glove wash
Boot cover and glove rinse
Tape removal - outer glove and boot
Boot cover removal
Outer glove removal
HOTLINE
Suit/safety boot wash
Suit/SCBA/boot/glove rinse
Safety boot removal
Remove SCBA backpack without disconnecting
Splash suit removal
Inner glove wash
Inner glove rinse
SCBA disconnect and face piece removal
Inner glove removal
Inner clothing removal
CONTAMINATION REDUCTION ZONE (CRZ)/SAFE ZONE BOUNDARY
Field wash
Redress
Disposal Plan, End of Day: All materials will be decontaminated daily in accordance with the decontamination SOP included in the Study Area Work Plan and containerized in 55-gallon drums or other appropriate containers in a secure area.
Disposal Plan, End of Week:
Disposal Plan, End of Project: All material, will be disposed of properly and in accordance with sampling results.



8. TRAINING AND BRIEFING TOPICS/SIGN OFF SHEET



8.1 TRAINING AND BRIEFING TOPICS							
The following items will be covered at the site-specific training meeting, daily or periodically.							
Site characterization and analysis, Sec. 3.0, 29 CFR 1910.120 I	Level A						
Physical hazards	Level B						
Chemical hazards	Level C						
Animal bites, stings, and poisonous plants	Level D						
Etiologic (infectious) agents	Monitoring, 29 CFR 1910.120 (h)						
Site control, 29 CFR 1910.120 d	Decontamination, 29 CFR 1910.120 (k)						
Engineering controls and work practices, 29 CFR 1910.120 (g)	Emergency response, 29 CFR 1910.120 (I)						
Heavy machinery	Elements of an emergency response, 29 CFR 1910.120 (I)						
Forklift	Procedures for handling site emergency incidents, 29 CFR 1910.120 (I)						
Backhoe	Off-site emergency response, 29 CFR 1910.120 (I)						
Equipment	Handling drums and containers, 29 CFR 1910.120 (j)						
Tools	Opening drums and containers						
Ladder, 29 CFR 1910.25.26.26 + 29 CFR 1926.1053	Electrical material handling equipment						
Overhead and underground utilities	Radioactive waste						
Scaffolds	Shock-sensitive waste						
Structural integrity	Laboratory waste packs						
Unguarded openings - wall, floor, ceilings	Sampling drums and containers						
Pressurized air cylinders	Shipping and transport, 49 CFR 172.101, IATA						
Personal protective equipment, 29 CFR 1910.120 (g); 29 CFR 1910.134	Tank and vault procedures						
Respiratory protection, 29 CFR 1910.120 (g); ANSI Z88.2	Illumination, 29 CFR 1926.26						
Working over water FLD-19	Sanitation, 29 CFR 1926.27						
Boating safety FLD-18	Proper lifting techniques						
Heat Stress / Cold Stress	Lead, Arsenic, Cadmium exposure training						



8.2 HEALTH AND SAFETY PLAN APPROVAL/SIGNOFF FORM

Site Name: Study Area, Corning, New York

WO#: 02005.056.001.0001

Date

June 2014

Address: Located in Corning, New York on the north bank of the Chemung River (see Figure 1).

I understand, agree to, and will conform with the information set forth in this Health and Safety Plan (and attachments) and discussed in the personnel health and safety briefing(s).

Signature

Name

-	



ATTACHMENT A CHEMICAL CONTAMINANTS DATA SHEETS



ATTACHMENT B SAFETY DATA SHEETS

(ATTACH SDS)



ATTACHMENT C

SAFETY PROCEDURES/FIELD OPERATING PROCEDURES (FLD OPS)

In lieu of attaching individual copies of FLDs, the site safety officer or his designee may elect to maintain an electronic copy of the WESTON Corporate Environmental Compliance, Health, and Safety Program Manual (including all FLDs) on site in an electronic format. The most recent version of the CEHS Program Manual and supporting documents are located at:

http://portal/services/EHS/SitePages/CEHSProgramElements.aspx



ATTACHMENT D HAZARD COMMUNICATION PROGRAM



SITE-SPECIFIC HAZARD COMMUNICATION PROGRAM

Location-Specific Hazard Communication Program/Checklist

To ensure an understanding of and compliance with the Hazard Communication Standard, WESTON will use this checklist/document (or similar document) in conjunction with the WESTON Written Hazard Communication Program as a means of meeting site- or location-specific requirements.

While responsibility for activities within this document reference the WESTON Safety Officer (SO), it is the responsibility of all personnel to ensure compliance. Responsibilities under various conditions can be found within the WESTON Written Hazard Communication Program.

To ensure that information about the dangers of all hazardous chemicals used by WESTON is known by all affected employees, the following Hazard Communication Program has been established. All affected personnel will participate in the Hazard Communication Program. This written program, as well as WESTON's Corporate Hazard Communication Program, will be available for review by any employee, employee representative, representative of OSHA, NIOSH, or any affected employer/employee on a multi-employer site.

Site or other location name/address: <u>Study Area, Corning, NY</u>							
Site/Project/Location Manager:	John Sontag						
Site/Location Safety Officer:	TBD						
□ List of chemicals compiled, format: x HASP □ Other:							
Location of SDS files:	Attached						
Training conducted by: Name:	TBD	Date:					
Indicate format of training docum	entation: X Field Log: 🛛 Other:						
Client briefing conducted regarding hazard communication:							
If multi-employer site (client, subcontractor, agency, etc.), indicate name of affected companies:							
Other employer(s) notified of che	micals, labeling, and SDS information:						

□ Has WESTON been notified of other employer's or client's hazard communication program(s), as necessary? □ Yes X No

List of Hazardous Chemicals

A list of known hazardous chemicals used by WESTON personnel must be prepared and attached to this document or placed in a centrally identified location with the SDSs. Further information on each chemical may be obtained by reviewing the appropriate SDS. The list will be arranged to enable cross-reference with the SDS file and the label on the container. The SO or Location Manager is responsible for ensuring the chemical listing remains up-to-date.

Container Labeling

The WESTON SO will verify that all containers received from the chemical manufacturer, importer, or distributor for use on-site are clearly labeled.

The SO is responsible for ensuring that labels are placed where required and for comparing SDSs and other information with label information to ensure correctness.



Safety Data Sheets (SDSs)

The SO is responsible for establishing and monitoring WESTON's SDS program for the location. The SO will ensure that procedures are developed to obtain the necessary SDSs and will review incoming SDSs for new or significant health and safety information. He/she will see that any new information is passed on to the affected employees. If an SDS is not received at the time of initial shipment, the SO will call the manufacturer and have an SDS delivered for that product in accordance with the requirements of WESTON's Written Hazard Communication Program.

A log for, and copies of, SDSs for all hazardous chemicals in use will be kept in the SDS folder at a location known to all site workers. SDSs will be readily available to all employees during each work shift. If an MSDS is not available, immediately contact the WESTON SO or the designated alternate. When a revised SDS is received, the SO will immediately replace the old SDS.

Employee Training and Information

The SO is responsible for the WESTON site-specific personnel training program. The SO will ensure that all program elements specified below are supplied to all affected employees.

At the time of initial assignment for employees to the work site, or whenever a new hazard is introduced into the work area, employees will attend a health and safety meeting or briefing that includes the information indicated below.

- Hazardous chemicals present at the work site.
- Physical and health risks of the hazardous chemicals.
- The signs and symptoms of overexposure.
- Procedures to follow if employees are overexposed to hazardous chemicals.
- Location of the SDS file and Written Hazard Communication Program.
- How to determine the presence or release of hazardous chemicals in the employee's work area.
- How to read labels and review SDSs to obtain hazard information.
- Steps WESTON has taken to reduce or prevent exposure to hazardous chemicals.
- How to reduce or prevent exposure to hazardous chemicals through the use of controls procedures, work practices, and personal protective equipment.
- Hazardous, non-routine tasks to be performed (if any).
- Chemicals within unlabeled piping (if any).

Hazardous Non-routine Tasks

When employees are required to perform hazardous non-routine tasks, the affected employee(s) will be given information by the SO about the hazardous chemicals he or she may use during such activity. This information will include specific chemical hazards, protective and safety measures the employee can use, and steps WESTON is using to reduce the hazards. These steps include, but are not limited to, ventilation, respirators, presence of another employee, and emergency procedures.

Chemicals in Unlabeled Pipes

Work activities may be performed by employees in areas where chemicals are transferred through unlabeled pipes. Prior to starting work in these areas, the employee will contact the SO, at which time information as to the chemical(s) in the pipes, potential hazards of the chemicals or the process involved, and the safety precautions that should be taken will be determined and presented.

Multi-Employer Work Sites

It is the responsibility of the SO to provide other employers with information about hazardous chemicals imported by WESTON to which their employees may be exposed, along with suggested safety precautions. It is also the responsibility of the SO and the Site Manager to obtain information about hazardous chemicals used by other employers to which WESTON employees may be exposed.



WESTON's chemical listing will be made available to other employers, as requested. SDSs will be available for viewing, as necessary.

The location, format, and/or procedures for accessing SDS information must be relayed to affected employees.



ATTACHMENT E AIR SAMPLING DATA SHEETS



AIR MONITORING PROGRAM								
			Fie	eld Data She	ets			
Location:				GM: Shield Probe/ Aerosol Thin Window				
% LEL	% O 2	PID (units)	FID (units)	Monitor (mg/m ³)	mR/hr	cpm	Nal (uR/hr)	ZnS (cpm)
	Monit	ox (ppm)			D	etector Tube	s)	
Sound Lev	els (dBA)	Illumination	рН	Other	Other	Other	Other	Other
Location:								
				Aerosol Monitor	GM: Shield Probe/ Thin Window		Nal	ZnS
% LEL	% O 2	PID (units)	FID (units)	(mg/m ³)	mR/hr	cpm	(uR/hr)	(cpm)
Monitox (ppm)			Detector Tube(s)					
Sound Lev	Sound Levels (dBA) Illumination pH Other Other Other Other Other							



AIR MONITORING/SAMPLING DATA LOG									
Client:			W.O. No.: Sample No.:			.:			
Address:			Sampled By: Date:						
	Emp	loyee ar	nd Locati	on Info	rmation				
Employee Name: Employee No.: Job Title:									
☐ SAR ☐ SCBA	□ PAPR □ ½ Mask □ Full Face □ □ SAR □ ½ Mask □ Full Face □ □ SCBA			Manufa	acturer:	Other:		ridge Type:	
	lat 🗌 HPD 🔤 Glo		Safety Sho		Coverails				
			ampling	Data					
Sampling Type:	Personal Area Source	Media:				Pump Ty /	pe/Ser	rial No.:	
🗌 Full Shift 🛛 Partial	Shift 🗌 Grab								
Calibrator/Serial No.: Pre-Cali / 2. 3. avg-pre:					Post-Calibration: 1. 2. 3. avg-post:			n:	
Start Time:	Restart Time:				% Change:				
1 st Stop Time:	2 nd Stop Time:	3 rd St	top Time:		Total Time:		'	Volume:	
Multiple Samples for the		Itiple Chen Yes	nical Expos	sures:		Exposure Time:			
	<u>, </u>			nditions	;		L		
Weather Conditions:	Temp:	R.H:	В	.P.:	C)ther:			
Engineering Controls:									
		Subst	ances E	valuate	d				
Substance	Result	Substanc	e	Resu	lt	Substar	nce	Result	
Observations and Comments									
QA by:								Date:	

Date: _____

June 2014

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ATTACHMENT F INCIDENT REPORTING



C :.V	Velcome to NOI	Track.: - Win	dows Internet Explo	orer					
0	💽 🗸 🙋 http:	://prdnet/noitracl	√IncidentInfo.asp×				*	Google	ρ-
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		ack	Add New Incident	Reports	Admin	Help	Blog		
	Incident Info	Individua				пер	ыод		
	Near Incide	ent		Safety		Computer		Fields marked wi	ith * are required
	Threat or Ir	ntimidation				Computer/	Technology	Environmental	
	Act of Viole					Other	reamonogy	Property/Equip	
	Theft			Illness				Regulatory Ag	-
	Vandalism			Exposure				Other	
	Violation of Requirements	Company or	Government Security	Other Saf	ety				
	Other Secu	rity							
	Was this a sing latest in a serie			ion is limited to 255 c escription.	haracters. If mo	re information is	required, add	the information	
	Date of Inciden	it *				Inknown Date			
Done	Time of Inciden	nt* Hr	s 💙 min 💙 AN		i	Inknown Time		Second Second Second	🔍 100% 👻

Please go to NOITrack using the following link to complete incident reporting. If you are in the field and do not have access to NOITrack, please contact someone in your office to do the reporting for you.

http://asweb/noitrack/IncidentInfo.aspx

Questions can be directed to Susan Hipp-Ludwick at 610.701.3046.



ATTACHMENT G TRAFFIC CONTROL PLAN

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June 2014



ATTACHMENT H ENVIRONMENTAL HEALTH & SAFETY INSPECTION CHECKLIST

June 2014



ENVIRONMENTAL HEALTH AND SAFETY INSPECTION CHECKLIST

Project Name: _____

Inspector:

Submit to:

Date: _____

June 2014



THE WESTON SITE APPEARANCE

YES	NO		COMMENT
		Is the site secured to prevent inadvertent, unnecessary, or unauthorized access? Are gates closed and locked at any time that the access point is not occupied or visible to site workers?	
		Are access points posted with signs to indicate client and end-user client name, WESTON's name and logo, names of other contractors and sub-contractors, project name and location, and appropriate safety messages?	
		Are required postings in place (e.g., Labor Poster, Emergency Phone Numbers, Site Map, etc.)?	
		Are site trailers tied down per local code and provided with stairs that have a landing platform with guard and stair railings?	
		Is a Site Safety file system established in the office to maintain records required by applicable safety regulations	
		Is the Health and Safety Plan (HASP) or Accident Prevention Plan (APP) amended as scope of work changes, hazards are discovered or eliminated or if risk change?	
		Is the Site Safety Plan and the Safety Officers Field Manual on site?	
		Is new employee indoctrination provided?	
		Have site Rules been provided, discussed and signed off on by all employees	
		Incident Reporting procedure explained to all?	
		Is site management trained in the WESTON (and client as applicable) Incident Reporting system?	
		Are NOI and Supplemental Report forms and OSHA 300 Log available on site?	
		Is Site Management aware of the Case Management and Incident Investigation Procedures?	
		Is there a list of preferred provider medical facilities available?	
		Has the "Inspection By A Regulatory Agency" procedure been reviewed by all site management?	
		Will Competent Persons be required because of activities to be performed, equipment to be used or hazards to be encountered?	

POLICIES

YES	NO		COMMENT
		Each individual employee is aware that he or she responsible for complying with applicable safety requirements, wearing prescribed safety equipment and preventing avoidable accidents.	
		Do employees understand that they will wear clothing suitable for existing weather and work conditions and the minimum work uniform will include long pants, sleeved work shirts, protective footwear, hard hat, and safety glasses unless otherwise specified via the HASP.	
		Are employees provided safety and health training to enable them to perform their work safely? Is all training documented to indicate the date of the session, topics covered, and names of participants?	
		Safety meetings are conducted daily. The purpose of the meetings are to review past activities, review pertinent tailgate safety topics and establish safe working procedures for anticipated hazards encountered during the day.	
		Training has been provided to all personnel regarding handling of emergency situations that may arise from the activity or use of equipment on the project.	
		Employees/contractors are informed and understand that they may not be under the influence of alcohol, narcotics, intoxicants, or similar mind-altering substances at any time. Employees found under the influence of or consuming such substances will be immediately removed from the job site.	
		Site workers and operators of any equipment or vehicles are able to read and understand the signs, signals, and operating instructions of their use.	
		Have contractors performing work provided copies of relevant documentation (such as medical fit-for-duty, training certificates, fit-tests, etc.) prior to initiation of the project?	



SANITATION 29 CFR 1926 Subparts C, D. EM 385-1-1, Section 2

YES	NO		COMMENT
		Is an adequate supply of drinking water provided? Is potable/drinking water labeled as such? Are there sufficient drinking cups provided?	
		Are there a sufficient number of toilets?	
		Are washing facilities readily available and appropriate for the cleaning needs?	
		Are washing facilities kept sanitary with adequate cleansing and drying materials?	
		Waste is secured so as not to attract rodents, insects, or other vermin?	
		Is an effective housekeeping program established and implemented?	

ACCIDENT PREVENTION SIGNS, TAGS, LABELS, SIGNALS, AND PIPING SYSTEM IDENTIFICATION 29 CFR 1926 Subpart G. EM 385-1-1, Section 8

YES	NO		COMMENT
		Are signs, tags, and labels provided to give adequate warning and caution of hazards and instruction/directions to workers and the public?	
		Are all employees informed as to the meaning of the various signs, tags, and labels used in the workplace and what special precautions are required?	
		Are construction areas posted with legible traffic signs at points of hazard?	
		Are signs required to be seen at night lighted or reflectorized?	
		Tags contain a signal word ("danger" or "caution") and a major message to indicate the specific hazardous condition or the instruction to be communicated to the employee. Tags follow requirements as outlined in 29 CFR 1926.200.	

MEDICAL SERVICES AND FIRST AID 29 CFR 1926 Subparts C, D. EM 385-1-1, Section 3

YES	NO		COMMENT
		Is a local medical emergency facility (LMEF) identified in the HASP or APP?	
		Has the LMEF been visited to verify the directions and establish contacts?	
		Has site management reviewed WESTON's incident management procedures?	
		Have clinics and specialists that will help WESTON manage injuries and illnesses been identified?	
		Is there at least two (2) people certified in First Aid and CPR?	
		Are first aid kits available at the command post and appropriate remote locations?	
		Are first Aid Kits and Eyewash/Safety Showers inspected weekly?	
		Are 15 minute eyewash/safety showers in place if required?	



FIRE PREVENTION AND PROTECTION 29 CFR 1926 Subpart F. EM 385-1-1, Section 9

YES	NO		COMMENT
		Is an Emergency Response and Contingency Plan in place?	
		Are emergency phone numbers posted?	
		Are fire extinguishers selected and provided based on the types of materials and potential fire classes in each area?	
		Are fire extinguishers provided in each administrative and storage trailer, within 50 ft but no closer than 25 ft of any fuel or flammable liquids storage, on welding and cutting equipment, on mechanical equipment?	
		Are fire extinguishers checked daily and inspected monthly?	
		Do site personnel know the location of fire extinguishers and how to use them?	
		Are flammable and combustible liquids stored in approved containers?	
		Safety cans are used for dispensing flammable or combustible liquids in 5 gallon or less volumes.	
		Are flammable and combustible liquids stored in flammable storage cabinets or appropriate storage areas?	
		Are flammable materials separated from oxidizers by at least 20 feet (or 5 foot tall, ½ -hour rated fire wall) when in storage?	
		Are fuel storage tanks double walled or placed in a lined berm?	
		Spills are cleaned up immediately and wastes are disposed of properly.	
		Combustible scrap, debris, and waste material (oily rags) are stored in closed metal containers and disposed of promptly.	
		Vehicle fueling tanks are grounded and bonding between the tank and vehicle being fueled is provided?	
		LPG is stored, handled, and used according to OSHA regulations 29 CFR 1926.	
		LPG cylinders are not stored indoors.	
		Is a hot work permit program in place? See WESTON FLD-36	
		Is smoking limited to specific areas, prohibited in flammable storage areas and are signs posted to this effect?	



HAZARDOUS SUBSTANCES, AGENTS, AND ENVIRONMENTS 29 CFR 1926 Subparts D, Z. EM 385-1-1, Sections 6, 28

YES	NO		COMMENT
		Are operations, materials and equipment evaluated to determine the presence of hazardous contaminants or if hazardous agents could be released in the work environment?	
		Are SDS for substances made available at the work-site when any hazardous substance is procured, used, or stored?	
		Are all containers and piping containing hazardous substances labeled appropriately?	
		Is there an inventory of hazardous substances?	
		Is there a site Specific Hazard Communication Program?	
		Spill kits appropriate for the hazardous materials present are on site and their location is known to spill responders.	
		Is disposal of excess hazardous chemicals performed according to WESTON's guidelines and RCRA regulations?	
		Before initiation of activities where there is an identified asbestos or lead hazard, is there a written plan detailing compliance with OSHA and EPA asbestos or lead abatement requirements? Does the plan comply with state and local authority, and USACE requirements, as applicable?	
		Are personnel trained and provided with protection against hazards from animals, poisonous plants, and insects?	



PERSONAL PROTECTIVE AND SAFETY EQUIPMENT, RESPIRATORY AND FALL PROTECTION 29 CFR 1926 Subparts D, E, M. EM 385-1-1, Section 5

YES	NO		COMMENT
		Do employees understand that the minimum PPE is hard hat, safety glasses with side shields and safety shoes or boots and that long pants and a sleeved shirt are required?	
		Has the SSHC reviewed the PPE requirements in the HASP against actual site conditions and certified that the PPE is appropriate? (see Field Manual, PPE Program)	
		PPE is inspected, tested and maintained in serviceable and sanitary condition as recommended by the manufacturer. Is defective or damaged equipment taken out of service and repaired or replaced?	
		Are workers trained in the use of the PPE required?	
		Are personnel exposed to vehicular or equipment traffic, including signal persons, spotters or inspectors required to vests or apparel marked with a reflective or high visibility material?	
		Is there a noise hazard? If yes, hearing protection will be required.	
		Is there a splash or splatter hazard? Face shields or goggles will be required.	
		Will personnel be working in or over water? Personnel Floatation devices will be required.	
		Is there a welding hazard? Welding helmet and leathers will be required. Is there a cutting torch hazard? Goggles and protective clothing will be required.	
		Is each person on a walking/working surface with an unprotected side or edge which is 6 feet (1.8 m) or more above a lower level protected from falling by the use of guardrail systems, safety net systems or personal fall arrest systems? See WESTON FLD 25 (Note General Industry standard is four feet).	
		Guardrail systems are used as primary protection whenever feasible. Guardrail construction meets criteria in 29 CFR 1926.502(b).	
		Personal fall arrest systems (PFAS) are inspected and appropriate for use.	
		Ropes and straps (webbing) used in lanyards, lifelines, and strength components of body belts and body harnesses are from synthetic fibers.	
		Safety nets and safety net installations are constructed, tested and used according to 29 CFR 1926.502.c	
		Is respirator use required? See WESTON Respiratory Protection Program	
		Persons using respiratory protection have been successfully medically cleared, trained, and fit tested.	
		Respirators are used according to the manufacturer's instructions, regulatory requirements, selection criteria, and health and safety plan provisions.	
		For Level C operations with organic vapor contamination, is the cartridge change-out schedule documented?	
		Is breathing certified as Grade D, or better, and certification available on-site?	



MACHINERY AND MECHANIZED EQUIPMENT 29 CFR 1926 Subparts N, O, CC and DD. EM 385-1-1, Sections 16, 17, 18

YES	NO		COMMENT
		Are inspections of machinery by a competent person established?	
		Is equipment inspected daily before its next use?	
		Equipment inspection reports are reviewed, followed-up on negative findings and records of inspections are maintained?	
		Machinery or equipment found to be unsafe is taken out of service until the unsafe condition has been corrected.	
		Is there a preventive maintenance program established?	
		Are operators of equipment qualified and authorized to operate?	
		Is all self-propelled construction and industrial equipment equipped with a reverse signal alarm?	
		Are seats or equal protection provided for each person required to ride on equipment. Are seatbelts installed and worn on motor vehicles, as appropriate.	
		All equipment with windshields is equipped with powered wipers. If fogging or frosting is possible, operable defogging or defrosting devices are required.	
		Internal combustion engines are not operated in enclosed areas unless adequate ventilation is made. Air monitoring is conducted to assure safe working conditions.	
		Is each bulldozer, scraper, dragline, crane, motor grader, front-end loader, mechanical shovel, backhoe, or similar equipment equipped with at least one dry chemical or carbon dioxide fire extinguisher with a minimum rating of 5-B:C?	
		Will cranes or other lifting devices be used? If so, are the following documents available on site: 1) a copy of the operating manual, 2) load rating chart, 3) log book, 4) a copy of the last annual inspection and 5) the initial on-site inspection?	
		Do operators have certificates of training to operate the type of crane(s) to be used?	
		Is a signal person provided when the point of operation is not in full view of the vehicle, machine, or equipment operator? When manual (hand) signals are used, is only one person designated to give signals to the operator?	
		Signal persons back one vehicle at a time. While under the control of a signal person, drivers do not back or maneuver until directed. Drivers stop if contact with the signal person is lost.	
		Is a critical lift plan prepared by a competent person whenever: a lift is not routine, or a lift exceeds 75% of a crane's capacity, a lift results in the load being out of the operator's line of sight, or a lift involves more than one crane, a man basket is used, or the operator believes there is a need for a critical lift plan.	
		Fork Lifts (Powered Industrial Trucks) - Will forklifts be used on site?	
		All forklifts meet the requirements of design, construction, stability, inspection, testing, maintenance, and operation as indicated in ANSI/ASME B56.1 Safety Standards for Low Lift and High Lift Trucks.	
		Do forklift operators have certificates of training?	
		Are pile driving operations conducted according to EM 385-1-1, Section 16.L?	
		Is drilling equipment operated, inspected, and maintained as specified in the manufacturer's operating manual? Is a copy of the manual available at the work-site? See also the Drilling Safety Guide in the Safety Officers Field Manual.	
		Are flag persons provided when operations or equipment on or near a highway expose workers to traffic hazards? Do flag persons and persons working in proximity to a road wear high visibility vests? Are persons exposed to highway vehicle traffic protected by signs in all directions warning of the presence of the flag persons and the work? Do signs and distances from the work zone conform to federal and local regulations?	



MOTOR VEHICLES 29 CFR 1926 Subpart O. EM 385-1-1, Section 18

YES	NO		COMMENT
		Motor vehicle operators have a valid permit, license, or certification of ability for the equipment being operated.	
		Inspection, maintenance, and repair is according to manufacturer's requirements by qualified persons.	
		Vehicles are inspected on a scheduled maintenance program.	
		Vehicles not in safe operating condition are removed from service until defects are corrected.	
		Glass in windshields, windows, and doors is safety glass. Any cracked or broken glass is replaced.	
		Seatbelts are installed and worn.	
		The number of passengers in passenger-type vehicles does not exceed the number which can be seated.	
		Trucks used to transport personnel have securely anchored seating, a rear end gate, and a guardrail.	
		No person is permitted to ride with arms or legs outside of a vehicle body; in a standing position on the body; on running boards; seated on side fenders, cabs, cab shields, rear of the truck or on the load.	
		ATV operators possess a valid state driver's license, have completed an ATV training course prior to operation of the vehicle, and wear appropriate protective equipment such as helmets, boots, and gloves.	



EXCAVATING AND TRENCHING 29 CFR 1926 Subpart P. EM 385-1-1, Section 25

YES	NO		COMMENT
		Has the known or estimated location of utility installations such as sewer, telephone, fuel, electric, water lines, or any other underground installations that may be expected to be encountered during excavation been determined before excavation? Have utility locations been verified by designated state services according to state regulations? Has the client provided clearance where state jurisdiction doesn't apply?	
		Have overhead utilities in excavation areas been identified and either de-energized, shielded or barricaded so excavating equipment will not come within 10 feet?	
		Are inspections of the excavation, the adjacent areas, and protective systems made daily and as necessary by a competent person?	
		Are Protective systems in place as prescribed by the competent person?	
		Is material removed from excavations managed so it will not overwhelm the protective systems?	
		Are barriers provided between excavations and walkways?	
		Are excavations by roadways barricaded to warn vehicles of presence or to prevent them from falling in?	
		Is there a means of exit from the excavation every 25 feet?	
		Is air monitoring required? If yes, Is it performed?	

CONFINED SPACES 29 CFR 1910 Subpart J. EM 385-1-1, Section 6

YES	NO		COMMENT
		Is there a Confined Space Entry Program in place?	
		Are the confined Spaces identified and labeled?	
		Will the Confined Spaces be entered?	
		Is appropriate entry documentation used and on-file?	



ELECTRICAL 29 CFR 1926 Subpart K. EM 385-1-1, Section 11

YES	NO		COMMENT
		Are electrical installations made according to the National Electrical Code and applicable local codes?	
		Qualified electricians make all connections and perform all work within 10 feet of live electric equipment.	
		Location of underground, overhead, under floor, behind wall electrical lines is known and communicated. Lines are documented by qualified person as de-energized where necessary.	
		Workers understand they must not work near live parts of electric circuits, unless they are qualified as required by OSHA or are protected by de-energizing and grounding the parts, guarding the parts by insulation, or other effective means?	
		Employees who regularly work on or around energized electrical equipment or lines are instructed in the cardiopulmonary resuscitation (CPR) methods.	
		Workers are prohibited from working alone on energized lines or equipment over 600 volts.	
		Are Ground-fault circuit interrupters (GFCI's) or is ground fault circuit protection provided to protect employees from ground-fault hazards for all 115 – 120 Volt, 15 and 20 amp receptacle outlets which are not a part of the permanent wiring of a building or structure at construction sites?	
		Circuit breakers are labeled.	
		Circuit breaker and all cabinets with exposed electric conductors are kept tightly closed.	
		Unused openings (including conduit knockouts) in electrical enclosures and fittings are closed with appropriate covers, plugs, or plates.	
		Sufficient access and working space is provided and maintained about all electrical equipment to permit ready and safe operations and maintenance.	
		Motors are located within sight of their controllers or controller disconnecting means are capable of being locked in the pen position or is a separate disconnecting means installed in the circuit within sight of the motor.	
		Are visual inspections of extension cords and cord-and plug-connected equipment conducted daily? Is equipment found damaged or defective tagged and removed from service, and not used until repaired?	
		Wet Areas - Is portable lighting used in wet or conductive locations, such as tanks or boilers operated at no more than 12 volts and protected by GFCIs.	
		Are electrical installations in hazardous areas to NEC?	
		Metal ladders and tools including tape measures or fabric with metal thread are prohibited where contact with energized electrically parts is possible.	
		All extension cords are the three-wire type, designed and rated for hard or extra hard usage?	
		Worn or frayed electrical cords or cables are taken out of service. Fastening with staples, hanging from nails or suspending extension cords by wire is prohibited.	
		Electric wire/flexible cord passing through work areas is protected from damage such as foot traffic, vehicles, sharp corners, projections and pinching? Flexible cords and cables passing through holes are protected by bushings or fittings?	
		Before an employee or contractor performs any service or maintenance on a system where the unexpected energizing, start up, or release of kinetic or stored energy could occur and cause injury or damage, the system is to be isolated. Only authorized persons may apply and remove lockouts and tags.	
		Contractors planning to use hazardous energy control procedures submit their hazardous energy control plan to the WESTON site safety officer or designee before implementing lockout/tagout procedures.	
		There is a site specific hazardous energy control plan that clearly and specifically outlines the scope, purpose, authorization, rules and techniques to be used for the control of hazardous energy.	
		Workers possess the knowledge and skills required for the safe application, usage, and removal of energy controls.	



WELDING AND CUTTING 29 CFR 1926 Subpart J. EM 385-1-1, Section 10

YES	NO		COMMENT
		Prior to performing welding, cutting or any other heat or spark producing activity, an assessment of the area is made by a competent person to identify combustible materials and potential sources of flammable atmospheres.	
		Welders, cutters and their supervisors are trained in the safe operation of their equipment, safe welding and cutting practices, hot work permit requirements, and fire protection.	
		Welding and cutting equipment is inspected daily before use. Unsafe equipment is taken out of use, replaced, or repaired.	
		Workers and the public are shielded from welding rays, flashes, sparks, molten metal, and slag.	
		Employees performing welding, cutting, or heating are protected by PPE appropriate for the hazards (e.g., respiratory, vision and skin protection).	
		Compatible fire extinguishing equipment is provided in the immediate vicinity of welding or cutting operations.	
		Drums, tanks, or other containers and equipment which have contained hazardous materials shall be thoroughly cleaned before welding or cutting. Cleaning shall be performed in accordance with NFPA 327, <u>Cleaning or Safeguarding Small Tanks and</u> <u>Containers</u> , ANSI/AWS F4.1, <u>Recommended Safe Practices for the Preparation for Welding and Cutting of Containers That Have</u> <u>Held Hazardous Substances</u> , and applicable health and safety plan requirements.	

HAND AND POWER TOOL SAFETY 29 CFR 1926 Subpart I. EM 385-1-1, Section 13

YES	NO		COMMENT
		Power tools are from a manufacturer listed by a nationally recognized testing laboratory for the specific application for which they	
		are to be used.	
		Hand & power tools are inspected, maintained, tested, and determined to be in safe operating condition before use.	
		Tools found to be unsafe are not used, tagged and repaired or destroyed.	
		Users of tools are trained in safe use.	
		Electrical tools have cords and plug connections in good repair.	
		Electrical tools are effectively grounded or approved double insulated.	
		Reciprocating, rotating, and moving parts of equipment are guarded if they may be accessed by employees or they otherwise create a hazard.	
		Safety clips/retainers are installed and maintained on pneumatic impact tool connections.	
		Chain saws have an automatic chain brake or anti-kickback device.	
		Pneumatic and hydraulic hoses and fittings are inspected regularly.	
		Employees who operate powder actuated tools are trained and carry valid operator's cards.	
		Powder activated tools are stored in individual locked containers, when not in use and are not loaded until ready to use.	
		Powder actuated tools are inspected for obstructions or defects daily before use.	
		Powder actuated tool operators have appropriate PPE.	



RIGGING 29 CFR 1926 Subpart H. EM 385-1-1, Section 15

YES	NO		COMMENT
		Rigging equipment is inspected as specified by the manufacturer, by a qualified person, before use on each shift and as necessary to assure that it is safe.	
		Defective equipment is removed from service.	
		Rigging not in use is removed from the work area, properly stored, and maintained in good condition.	
		Wire rope removed from service for defects is cut up or plainly marked as unfit for use as rigging.	
		The number of saddle clips used to form eyes in wire rope conforms with Table H-20, are spaced evenly and the saddles are on the live side.	
		Chain rigging has a tag clearly indicating load limits, is inspected before initial use, then weekly, and is of alloyed metal.	
		Fiber rope rigging is not used if it is frozen or has been subject to acids or excessive heat.	
		Slings and their fittings and fastenings are inspected before use on each shift and as needed during use.	
		Drums, sheaves, and pulleys on rigging hardware are smooth and free of surface defects that can damage rigging.	

MATERIAL HANDLING, STORAGE, AND DISPOSAL 29 CFR 1926 Subpart H. EM 385-1-1, Section 14

YES	NO		COMMENT
		Employees are trained in and use safe lifting techniques.	
		Materials are not moved or suspended over workers unless positive precautions have been taken to protect workers.	
		Conveyors are constructed, inspected, & maintained by qualified persons according to manufacturer's recommendations.	
		All conveyors are to be equipped with emergency stopping devices.	
		Hazardous exposed moving machine parts are guarded mechanically, electrically or by location.	
		Controls are clearly marked and/or labeled to indicate the function controlled.	
		Taglines are used for suspended loads where the movement may be hazardous to persons.	
		Material in storage is protected from falling or collapse by effective stacking, blocking, cribbing, etc.	
		Walkways and aisles are to be kept clear.	
		Materials are not stored on scaffolds or runways in excess of normal placement or in excess of safe load limits.	
		Work areas and means of access are maintained safe and orderly.	
		Tools, materials, extension cords, hoses or debris do not cause tripping or other hazards.	
		Storage and construction sites are kept free from the accumulation of combustible materials.	
		Waste materials and rubbish are placed in containers or, if appropriate, in piles. Waste materials are disposed of in accord with applicable local, state, or federal requirements.	



FLOATING PLANT AND MARINE ACTIVITIES 29 CFR 1926 Subpart O. EM 385-1-1 Section 19

YES	NO		COMMENT
		Floating plants that are regulated by the USCG have current inspections and certificates.	
		Before any floating plant is brought to the job site and placed in service it is inspected and determined to be in safe operating condition	
		Periodic inspections are made such that safe operating conditions are maintained. Strict compliance with EM 385-1-1, Section 19 is expected.	
		Plans are in place for removing or securing the plant and evacuation of personnel endangered by severe weather and other marine emergencies such as; fire, flooding, man overboard, hazardous materials incidents, etc.	
		Means of access are properly secured, guarded, and maintained free of slipping and tripping hazards.	
		Dredging operations follow guidelines as established in EM 385-1-1, Section 19.D.	

PRESSURIZED EQUIPMENT AND SYSTEMS 29 CFR 1926 Subparts I, F. EM 385-1-1, Section 20

YES	NO		COMMENT
		Pressurized equipment and systems are inspected before being placed into service.	
		Pressurized equipment or systems found to be unsafe are tagged "Out of Service-Do Not Use".	
		Systems and equipment are operated, inspected, and maintained by qualified, designated personnel.	
		Safe clearance, lockout/tagout procedures are followed as appropriate during maintenance or repair.	
		Air hose, pipes, fittings are pressure-rated for the activity. Defective hoses are removed from service.	
		Hoses aren't laid over ladders, steps, scaffolds, or walkways in a manner that creates a tripping hazard.	
		The use of compressed air for personal cleaning is prohibited. The use of compressed air for other cleaning is restricted to less than 30 psig.	
		Compressed gas cylinders are stored in well-ventilated locations.	
		Cylinders in storage are separated from flammable or combustible liquids and from easily ignitable materials by at least 40 feet or by a minimum five feet tall, ½ -hour fire resistive partition.	
		Stored cylinders containing oxidizing gases are separated from fuel gas cylinders by at least 20 feet or by a minimum five feet tall, ½ -hour fire resistive partition.	
		Cylinder valve caps are in place when cylinders are in storage, in transit, or a regulator is not in place.	
		Compressed gas cylinders in service are secured in substantial fixed or portable racks or hand trucks.	
		Oxygen cylinders and fittings are kept away from, and free from oil and grease.	
		Cylinder Storage areas are posted with the names of the gases in storage and with signs indicating "No Smoking or Open Flame".	
		Cylinders are to be stored such that mechanical and corrosion damage is avoided. Cylinders are not to be stored in areas required as an egress path.	
		Cylinders may be stored in the open outdoors, however, they must be protected from the ground to prevent corrosion and must be protected from temperatures that may exceed 125 degrees F.	



WORK PLATFORMS/SCAFFOLDS 29 CFR 1926 Subparts L, M, N. EM 385-1-1 Sections 21, 22

YES	NO		COMMENT
		Work platforms are erected, used, inspected, tested, maintained and repaired according to manufacturer's requirements.	
		Construction, inspection, and disassembly of scaffolds is under the direction of a competent person.	
		Workers on scaffolding have been trained by a qualified person.	
		Scaffolds are erected on a firm and level surface and are square and plumb.	
		Scaffolds are not loaded in excess of rated capacity.	
		Working levels of work platforms are fully planked or decked.	
		Planks are in good condition and free from obvious defects.	
		Fabricated frame scaffolding four times higher than the base width is secured to building/structure according to manufacturer's instruction and/or OSHA requirements.	
		Working platforms of scaffolding over ten feet in height have guard rails meeting OSHA specifications. Fall protection is suggested at four feet or greater.	
		Scaffolding/work platforms are accessed by means of a properly secured ladder or equivalent. Built on ladders conform to scaffold ladder requirements. Climbing of braces is not allowed.	
		Crane supported work platforms are designed and used in accordance with OSHA standards.	
		Elevating work platforms are operated, inspected, and maintained according to the equipment operations manual.	
		Employees working in aerial lifts remain firmly on the floor of the basket. Employees use fall protection while in an aerial lift basket.	



WALKING AND WORKING SURFACES AND STAIRS 29 CFR 1926 Subparts L, M, X. EM 385-1-1, Sections 21, 22, 24

YES	NO		COMMENT
		Work areas are clean, sanitary, and orderly	
		Work surfaces are kept dry or appropriate means are taken to assure the surfaces are slip-resistant	
		Accumulations of combustible dust are routinely removed.	
		Aisles and passageways are kept clear and marked as appropriate.	
		There is safe clearance for walking in aisles where motorized or mechanical handling equipment is operating.	
		Materials or equipment is stored in such a way that sharp projections will not interfere with the walkway.	
		Changes of direction or elevation are readily identifiable.	
		Aisles or walkways that pass near moving or operating machinery, welding operations or similar operations are arranged so employees will not be subjected to potential hazards.	
		Standard guardrails are provided wherever aisle or walkway surfaces are elevated more than 30 inches above any adjacent floor or the ground and bridges provided where workers must cross over conveyors and similar hazards.	
		There are standard stair rails or handrails on all stairways having four or more risers or with an elevation of 30 or more inches.	
		Stairways are at least 22 inches wide. (General Industry Standard)	
		Stairs angle no more than 50 and no less than 30 degrees, risers are uniform from top to bottom (plus or minus 1/4 inch) and are provided with a surface that renders them slip resistant.	
		Stairway handrails are not less than 36 inches above the leading edge of stair treads and have at least 3 inches of clearance between the handrails and the wall or surface they are mounted on.	
		Where doors or gates open directly on a stairway, there is a platform provided so the swing of the door does not reduce the width of the platform to less than 20 inches.	
		Where stairs or stairways exit directly into any area where vehicles may be operated, there are adequate barriers and warnings provided to prevent employees stepping into the path of traffic.	
		Signs are posted showing the load capacity of elevated storage areas.	
		An appropriate means of access and egress is provided for surfaces with 19 or more inches of elevation change.	
		Material on elevated surfaces is minimized, with that necessary for immediate work requirements piled, stacked, or racked in a manner to prevent it from tipping, falling, collapsing, rolling, or spreading.	

FLOOR AND WALL HOLES AND OPENINGS 29 CFR 1926 Subpart M. EM 385-1-1, Section 24

YES	NO		COMMENT
		Floor and roof openings that persons can walk into or fall through are guarded by a physical barrier or covered.	
		Holes (defined as equal to or greater than 2 inches in least dimension) where person could trip must be covered/protected.	
		Unprotected sides and edges on a walking/working surface six feet or more (note four feet in General Industry) are protected by guardrail system, safety net, or Personal Fall Arrest System (PFAS).	
		Unused portions of service pits and pits not actually in use are either covered or protected by guardrails or equivalent.	
		Coverings for holes or other openings must be constructed of sufficient strength to support any anticipated load, must be secured in place to prevent accidental removal or displacement, and must be marked indicating purpose (e.g., stenciled "Hole" or painted contrasting color to surroundings).	



LADDERS 29 CFR 1926 Subpart X. EM 385-1-1, Section 21

YES	NO		COMMENT
		Portable ladders are used for their designed purpose only.	
		Portable ladders are examined for defects prior to, and after use.	
		Ladders found to be defective are clearly tagged to indicate "DO NOT USE" if repairable, or destroyed immediately if no repair is possible.	
		Workers are trained in hazards associated with ladder use and how to inspect ladders.	
		Ladders have secure footing provided by a combination of safety feet, top of ladder tie-offs and mud cills or a person holding the ladder to prevent slipping.	
		The handrails of a straight ladder used to get from one level to another extend at least 36 inches above the landing.	
		Ladders conform to construction criteria of ANSI Standards A-14.1 and A-14.2.	
		Wooden ladders are not painted with an opaque covering such that signs of flaws, cracks, or drying are obscured.	
		Fixed ladders are constructed and used according to OSHA Standards, 29 CFR 1910.27 and ANSI A-14.3.	
		Rungs, cleats or steps, and side rails that may be used for handholds when climbing, offer adequate gripping surface and are free of splinters, slivers or burrs, and substances that could cause slipping.	
		Fixed ladders of greater than 24 feet have cages or other approved fall protection devices. (Note General Industry is 20 feet).	
		Where fall protection is provided by ladder safety systems (body belts or harnesses, lanyards and braking devices with safety lines or rails), systems meet the requirements of and are used in accordance with WESTON Fall Protection Standard Practices and are compatible with construction of the ladder system.	

DEMOLITION 29 CFR 1926 Subpart T. EM 385-1-1, Section 23

YES	NO		COMMENT
		Prior to initiating demolition activities an engineering survey (by a competent person) and a demolition plan (by a competent person) is completed.	
		All employees engaged in demolition activities are instructed in the demolition plan.	
		It has been determined through the engineering survey and outlined in the plan, if any hazardous materials or conditions (e.g., asbestos, lead, utility connections, etc.) exist. Such hazards are controlled or eliminated before demolition is started.	
		Continued inspections, by a competent person, are conducted to ensure safe employee working conditions.	



TREE MAINTENANCE AND REMOVAL 29 CFR 1910 Subpart R. EM 385-1-1, Section 31

YES	NO		COMMENT
		Tree maintenance or removal is done is under the direction of a qualified person.	
		Tree work, in the vicinity of charged electric lines, is by trained persons qualified to work with electricity and tree work. Appropriate distances are maintained for all workers who are not qualified.	
		Equipment is inspected, maintained, repaired, and used in accordance with the manufacturer's directions.	
		Prior to felling actions are planned to include clearing of the area to permit safe working conditions and escape.	
		Employees must be trained in the safe operation of all equipment.	
		All equipment and machinery is inspected and determined safe prior to use.	
		Work is performed under requirements of FLD 43.	

BLASTING 29 CFR 1926 Subpart U. EM 385-1-1, Section 29

YES	NO		COMMENT
		A blasting safety plan is developed prior to bringing explosives on-site.	
		The transportation, handling, storage, and use of explosives, blasting agents, and blasting equipment must be directed and supervised by a person with proven experience and ability in blasting operations. Licensing of person is verified.	
		Blasting operations in or adjacent to cofferdams, piers, underwater structures, buildings, structures, or other facilities must be carefully planned with full consideration to potential vibration and damage.	

HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE AND UNDERGROUND STORAGE TANK (UST) ACTIVITIES 29 CFR 1926 Subpart D. EM 385-1-1, Section 28

YES	NO		COMMENT
		All construction activities performed with known or potential exposure to hazardous waste are conducted in accordance with Hazardous Waste Operations and Emergency Response requirements.	



CONCRETE and MASONRY CONSTRUCTION 29 CFR 1926 Subpart Q. EM 385-1-1, Section 27

YES	NO		COMMENT
		Construction loads are not placed on a concrete or masonry structure or portion of a concrete or masonry structure unless the employer determines, based on information from a person who is qualified in structural design, that the structure or portion of the structure is capable of supporting the loads.	
		Employees are not permitted to work above or in positions exposed to protruding reinforcing steel or other impalement hazards unless provisions have been made to control the hazard.	
		Sections of concrete conveyances and airlines under pressure are secured with wire rope (or equivalent material) in addition to the regular couplings or connections.	
		Structural and reinforcing steel for walls, piers, columns, and similar vertical structures is supported and/or guyed to prevent overturning or collapse	
		All form-work, shoring, and bracing is designed, fabricated, erected, supported, braced, and maintained so it will safely support all vertical and lateral loads that may be applied until the loads can be supported by the structure.	
		Shoring equipment is inspected prior to erection to determine that it is specified in the shoring design. Any equipment found to be damaged is not used.	
		Erected shoring equipment is inspected immediately prior to, during, and immediately after the placement of concrete. Any shoring equipment that is found to be damaged, displaced, or weakened is immediately reinforced or re-shored.	
		Shoring, vertical slip forms and jacks conform with requirements of Section 27.B.08-13 of USACE EM 385-1-1.	
		Forms and shores (except those on slab or grade and slip forms) are not removed until the individual responsible for forming and/or shoring determines that the concrete has gained sufficient strength to support its weight and all superimposed loads.	
		Precast concrete members are adequately supported to prevent overturning or collapse until permanent connections are complete	
		No one is permitted under pre-cast concrete members being lifted or tilted into position except employees required for the erection of those members.	
		Lift slab operations are planned and designed by a registered engineer or architect.	
		Hydraulic jacks used in lift slab construction have a safety device that causes the jacks to support the load in any position if the jack malfunctions	
		No one is permitted under the slab during jacking operations.	
		A limited access zone is established whenever a masonry wall is being constructed.	
		Fall protection is provided to masonry workers exposed to falls of 6 feet or more.	



STEEL ERECTION 29 CFR 1926 Subpart R. EM 385-1-1, Section 27

YES	NO		COMMENT
		Impact wrenches have a locking device for retaining the socket. Containers shall be provided for storing or carrying rivets, bolts, and drift pins, and secured against accidental displacement when aloft.	
		Structural and reinforcing steel for walls, piers, columns, and similar vertical structures shall be guyed and supported to prevent collapse	
		No loading is placed upon steel joists until all bridging is completely and permanently installed.	
		Workers are provided fall protection whenever they are exposed to falls of 1.8 m (6 ft) or more (EM 385-1-1).	
		Temporary flooring in skeleton steel erection conforms with Section 27.F of USACE 385-1-1	

ROOFING 29 CFR 1926 Subpart M. EM 385-1-1, Sections 21, 22, 24, 27

Yes	No		COMMENT
		In the construction, maintenance, repair, and demolition, of roofs, fall protection systems is provided that will prevent personnel from slipping and failing from the roof and prevent personnel on lower levels from being struck by falling objects	
		On all roofs greater than 4.8 m (16 ft) in height, a hoisting device, stairways, or progressive platforms are furnished for supplying materials and equipment.	
		Roofing materials and accessories that could be moved by the wind, including metal roofing panels, that are on the roof and unattached are secured when wind speeds are greater than, or are anticipated to exceed, 10 mph.	
		Level, guarded platforms are provided at the landing area on the roof.	
		When their use is permitted, warning line systems comply with USACE Section 27.07 of EM 385-1-1.	
		Workers involved in roof-edge materials handling or working in a storage area located on a roof with a slope -/= to four vertical to twelve horizontal and with edges 6 ft or more above lower levels are protected by the use of a guardrail, safety net, or personal fall arrest system along all unprotected roof sides and edges of the area.	



ENVIRONMENTAL COMPLIANCE

Yes	No		Comments
		Environmental Compliance and Waste Management Plan on file.	
		Waste Determination Made.	
		Manifest and/or Shipping Papers prepared and filed.	
		Manifest Exception Reports Prepared, as necessary. Procedures to track manifests in place.	
		State Annual and EPA Biennial Reporting Information Available.	
		RCRA Personnel Training Records on file.	
		CAA Permits on file.	
		CWA Permits on file.	
		RCRA Permits on file.	
		State and/or Local Permits on file.	
		RCRA Inspections conducted and Documentation on file.	
		Transporter and TSD compliance information on file.	
		Waste Accumulation Areas Managed Properly.	
		Wetlands Areas Identified and Protected.	
		Endangered, Threatened, or Special Concern Species or Areas Identified and Protective Methods Determined.	
		Run-on and Runoff Concerns Identified and Managed.	
		Adjacent Land Areas Protected as Necessary.	
		Non-Hazardous Solid Wastes Managed Properly.	



MISCELLANEOUS REGULATORY and POLICY COMPLIANCE

Yes	No		Comments
		Personnel Training Records for DOT Materials Handling on file.	
		Noise Control Issues Addressed and Managed.	
		Site Security Issues Identified and Managed.	
		Known Historical, Archeological, and Cultural Resources Identified and Managed.	
		WESTON EHS Analysis Checklist In Use.	
		Safety Observation and Recognition Program in place.	
		Weekly EHS Report Card System in place.	
		Federal, State, and Local Required Postings in place.	
		Site specific Lockout/Tagout Program is in place.	
		Site-specific Confined Space Program is in place.	
		Site Safety Officer filing system is in place and up to date.	



APPENDIX C

COMMUNITY AIR MONITORING PLAN (CAMP)



Community Air Monitoring Plan

Study Area Bounded by Pyrex Street, E. Pulteney Street, Post Creek and Chemung River Corning, NY NYSDEC Project ID 851046

June 2014

Prepared for

Corning Incorporated Corning, New York

Prepared by

WESTON SOLUTIONS, INC. West Chester, Pennsylvania 19380

W.O. No. 02005.056.001.0001



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LIST OF ACRONYMS

CAMP	Community Air Monitoring Plan
COPCs	constituents of potential concern
HASP	Health and Safety Plan
mg/m ³	milligrams per cubic meter
$\mu g/m^3$	micrograms per cubic meter
NYSDEC	New York State Department of Environmental Conservation
WESTON®	Weston Solutions, Inc.



1. INTRODUCTION

This Community Air Monitoring Plan (CAMP) has been prepared by Weston Solutions, Inc. (WESTON[®]) on behalf of Corning Incorporated to detail the dust control and air monitoring procedures to be performed during the execution of characterization activities at the Study Area located in Corning, New York, bounded by Pyrex Street on the west, E. Pulteney Street on the north, Post Creek on the east and the Chemung River on the south (Study Area). This air monitoring plan will supplement the existing Health and Safety Plan (HASP) and provide an additional measure of protection to potential receptors not directly involved with the characterization activities.

As presented in the Study Area Characterization Work Plan (Work Plan), intrusive characterization activities planned to be conducted within the Study Area may include subsurface soil sampling and groundwater investigations. Since the primary constituents of potential concern (COPCs) at the Study Area are arsenic, cadmium, and lead, air monitoring for dust particulates and dust control techniques will be performed during intrusive activities to provide an additional measure of protection to the surrounding community.

2. METHODS

Perimeter air monitoring for dust particles will be conducted at a minimum of two stations, one generally located upwind, and one generally located downwind of any intrusive characterization activity. In addition, due to the close proximity of playgrounds, athletic playing fields, schools and childcare centers, more stringent CAMP requirements will be necessary. When work areas are within 20 feet of these locations, the continuous monitoring locations for particulates must reflect the nearest potentially exposed individuals. The use of engineering controls such as dust barriers will be considered to prevent exposures related to the work activities and to control dust and odors. Consideration will be given to implementing the planned activities when potentially exposed populations are at a minimum (i.e. during hours when children are not likely to be present). Common-sense measures to keep dust and odors at a minimum around the work areas



will also be implemented to ensure that the children are protected at all times. No visible dust will leave the work area.

As the location of characterization activities will change, the location of the monitoring point relative to the activity will be modified as needed and documented. The monitoring location will be positioned to provide data representative of potential migration of dust in the direction of nearby receptors. The perimeter monitoring equipment will be portable, which will allow the monitoring network to be adjusted if needed to adapt to changes in activities or meteorological conditions.

Particulate monitoring is the measurement of fine liquid or solid particles such as dust, smoke, mist, fumes or smog, in particle sizes less than 10 microns (PM₁₀), in the ambient air. During intrusive activities such as subsurface soil sampling and groundwater monitoring well installation, the generation of dust particles will be monitored. The equipment selected to monitor PM₁₀ will be the Thermo Electron Corporation personal DataRAM (pDR), or equivalent. The pDR is a light-scattering monitor, designed for measuring airborne particulates such as aerosols and dusts. The units are portable and measure the concentration of airborne particulate matter (up to 10 μ m in size) continuously and in real time, with results expressed in milligrams per cubic meter (mg/m³), or 1,000 micrograms per cubic meter (μ g/m³). Particulate concentrations can be measured over the following ranges: 0.01 – 10 mg/m³ (equivalent to 10 – 10,000 μ g/m³) and 0.1 – 100 mg/m³ (equivalent to 100 – 100,000 μ g/m³). The pDR meets performance standard for a real-time particulate monitor according to the New York State Investigation and Remediation; May 2010.

3. CALIBRATIONS

Calibration of instruments will be performed prior to the start of daily activities. Additional calibrations will be performed as needed or whenever maintenance is performed involving the functional elements of the unit. Calibration data will be documented in the field log book or on designated calibration log sheets.



4. DATA RECORDING

The data collected during the monitoring program will be used for real-time data display and notification to on-site personnel when the action levels are exceeded (action levels are discussed in Section 5). All ambient air monitoring data will be recorded in the site field logbook or designated field sheets and the results of the air monitoring will be communicated to the NYSDEC and NYSDOH on scheduled basis (i.e. daily for levels which require actions, weekly for routine monitoring data).

5. ACTION LEVELS

The action level established herein will be used as an indicator that potential excessive migration of dust particles may be occurring during the characterization activities. Monitored ambient air concentrations above the action level will result in actions being taken to more stringently control fugitive emissions or trigger quantitative sampling.

The NYSDEC recommended action level for fugitive dust is 100 μ g/m³ greater than background (measured at the upwind location) for a 15 minute period. At this concentration, work may continue with dust suppression techniques provided that no visible dust is migrating from the working area, and the downwind particulate levels do not exceed 150 μ g/m³ greater than background (measured at the upwind location). If the downwind particulate levels exceed 150 μ g/m³ greater than background (measured at the upwind location), work will stop and dust suppression techniques will be re-evaluated.

If the perimeter monitors detect concentrations above the 100 μ g/m³ action level, Site supervisory personnel will be notified. Notifications will be sent to the WESTON Site Manager and the Site Health and Safety Officer. Upon receiving the notification message, the supervisor will assess the situation and initiate appropriate administrative and/or engineering controls to mitigate the migration of dust particles.