

Consulting
Engineers and
Scientists

Site Characterization Work Plan Addendum
Corning Chestnut Street
Former Manufactured Gas Plant Site

City of Corning, New York
NYSDEC Site # 851035
Index No. D0-0002-9309

Submitted To:

NYSEG
18 Link Drive, P.O. Box 5224
Binghamton, NY 13902-5224

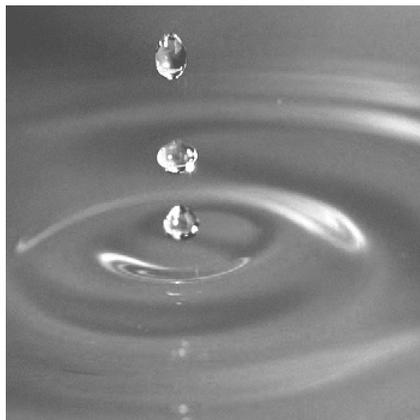
Submitted By:

GEI Consultants, Inc., P.C.
1301 Trumansburg Road, Suite N
Ithaca, NY 14850

July 16, 2021
Project: 1904594

Bruce D. Coulombe, P.G.
Project Manager

Joseph M. Simone, P.E.
Senior Consulting Engineer



Certification

I, Joseph M. Simone, P.E., certify that I am currently a Qualified Environmental Professional as defined in 6 NYCRR Part 375, and that this Site Characterization Work Plan Addendum was prepared in accordance with all applicable statutes and regulations, and in substantial conformance with the NYSDEC Division of Environmental Remediation (DER) Technical Guidance for Site Investigation and Remediation (DER-10).



Joseph M. Simone, P.E.
Senior Engineer

July 16, 2021
Date

Table of Contents

Certification	i
1. Introduction	1
1.1 Addendum Organization	2
2. Changes and Additions to Field Activities	3
2.1 Geophysical Survey	3
2.2 Surface Soil Samples	3
2.3 Test Pit Excavations and Gas Holder Investigation	4
2.4 Additional Soil Borings	5
2.5 Subsurface Soil Sampling	6
2.6 Monitoring Well Installation	8
2.7 Soil Vapor Intrusion Evaluation	9
3. Analytical Program	10
3.1 Emerging Contaminants	10
3.2 Forensic Analysis	10
4. Additional Investigations	12

Tables

2A Surface and Near-Surface Soil Sample Summary
4A Soil Boring Summary
5A Monitoring Well Summary and Laboratory Analyses

Figures

8A Surface and Near-Surface Soil Sample Locations
9A Proposed Exploration Locations

Appendices

A. Environmental Soil Description Guidelines
--

BC/bdp

B:\Working\NYSEG\1904594 Corning Chestnut SC WP Addendum Support\01_ADMIN\Addendum Work Plan\NYSEG Corning SC WP Addendum_2021-07-16.docx

1. Introduction

This Site Characterization (SC) Work Plan Addendum has been prepared for NYSEG (New York State Electric and Gas Corporation) by GEI Consultants, Inc., P.C. (GEI) for a former manufactured gas plant (MGP) site located on Chestnut Street in the City of Corning, New York (site).

A document entitled “Site Characterization Work Plan (SCWP), Corning Chestnut Street Former Manufactured Gas Plant Site, City of Corning, New York, NYSDEC Site # 851035, Index No. D0-0002-9309,” dated February 14, 2017, was submitted to the New York State Department of Environmental Conservation (NYSDEC). The NYSDEC provided approval for the Work Plan in a letter to NYSEG dated March 29, 2017.

The SCWP was submitted to the NYSDEC without review and comment by the owner of the site, Corning Incorporated (Corning). Subsequent to the Work Plan approval, Corning expressed concerns over the disruptions and disturbance to the parking lot where the majority of the site investigation will be performed, and expressed desire to minimize the number of times fieldwork would disrupt use of its headquarters’ parking lot. The former MGP site is also within the boundaries of the Corning Refractories Plant State Superfund Site (NYSDEC site 851048) that is currently identified as a “P” site. A “P” site is a site at which the preliminary information indicates that a site may have contamination that makes it eligible for consideration for placement on the Registry of Inactive Hazardous Waste Disposal Sites.

For these reasons, GEI has prepared this Work Plan Addendum on behalf of NYSEG to modify and amend the NYSDEC-approved Site Characterization Work Plan. This Addendum recognizes that the scope of work may not be sufficient to fully characterize all site conditions related to MGP impacts (if any) and that, if necessary, subsequent investigations could be required. The need for any subsequent investigations at the site will ultimately be determined by the NYSDEC.

Due to the overlapping potential sources and responsibilities at this site, additions to the SCWP (as supplemented by the Addendum) will be made by mutual agreement between Corning and NYSEG, followed by NYSDEC approval. Any further explorations or analysis of site media from those approved in the SCWP and Addendum will only be implemented if Corning and NYSEG are in agreement with the methods and objectives for the data collection, and if the NYSDEC approves of the additional scope of work. Note that changes or additions to the scope of work that can be made in the field during the investigation are limited due to the site activities and the presence of active utilities. However, collection of additional samples and/or archiving of samples may be performed if agreed by Corning and NYSEG field staff, as described in this Addendum.

1.1 Addendum Organization

The remainder of this SCWP Addendum includes the following:

- **Section 2 – Changes and Additions to Field Activities:** This section describes changes and additions to the approved scope of work described in the SCWP for the subsurface investigation, and for the collection of surface, near-surface, and subsurface samples.
- **Section 3 – Changes and Additions to the Analytical Program:** This section describes the changes to the SCWP related to the analysis for Emerging Contaminants (ECs), and clarifies the approach to possible forensic sample analysis.
- **Section 4 – Future Investigations:** This section summarizes the approach to potential future subsurface investigation activities.

2. Changes and Additions to Field Activities

Changes and additions to the field activities specified in the SC Work Plan are described below. The descriptions of investigation activities have been grouped by environmental media of concern or field task. The locations of each of the new or modified SC sampling locations are shown in blue on Figure 9A. This figure is a modification of the original SC Work Plan figure with these numbers, with the “A” designation added to the number of the figure to indicate the changes from the original. These figures will supersede the original figures in the SCWP.

2.1 Geophysical Survey

A geophysical survey will be performed prior to mobilization for the subsurface sampling investigation. This work will be performed in conjunction with the utility location and the layout of the former site features based on historical mapping. The geophysical survey will be performed using ground penetrating radar (GPR), and a time-domain electromagnetic (EM) induction instrument (for locating buried metals) such as a Geonics EM61. Features that may be identified by the survey include subsurface utilities, foundations, and ferrous and non-ferrous metallic objects. The GPR is not expected to be effective to more than about 6 to 10 feet below ground surface (bgs), and the EM61 more than 8 to 10 feet. This should be sufficient to identify utilities and the top of buried foundations. An assessment of deeper conditions may be possible by adding additional geophysical survey tools such as a ground conductivity survey instrument (e.g., Geonics EM31). The EM31 has the potential to detect features up to about 15 to 20 feet bgs.

2.2 Surface Soil Samples

Based on the historical information identified for the Work Plan, excavation has occurred at the property to allow for construction after MGP operations ended. Documentation from a site meeting between representatives of NYSEG and Corning on January 17, 1991 indicates that backfill comprised of 2 feet of clean bank run gravel was used to fill and re-grade some of the excavated areas. Up to 5 to 7 feet of backfill may have been placed prior-to and/or following completion of MGP demolition. No soil quality information is available for the imported gravel fill. The majority of the site is now covered by asphalt and concrete pavement for parking and driveways. The areas where surface soil sampling may be performed are limited to modern landscaped areas consisting of lawns and parking lot islands.

Two types of surface soil samples are included in the SCWP. Samples from 0 to 2 inches below the ground surface (with vegetation removed) will be obtained for comparison to the New York State Department of Health (NYSDOH) criteria. Samples from the ground surface to a depth of

one foot will be obtained for comparison to NYSDEC Soil Cleanup Objectives (SCOs) for commercial or industrial site use.

The SCWP identifies four locations for surface soil sampling in the limited areas where surface soils can be obtained from beneath grassy areas. Both 0 to 2 inch and 0 to 1 foot samples will be obtained from these locations, as shown on Figure 8A, and listed in Table 2A. These locations are SS1A/SS1B, SS2A/SS2B, SS3A/SS3B, and SS4A/SS4B. Samples of deeper fill and native soils from these areas will be part of the subsurface sampling task described in Section 3.4 of the SCWP, and expanded upon in Section 2.5 of the Addendum below.

Native or fill soils beneath paved areas are not considered surface soil for NYSDOH assessment; however, the upper foot of soil still requires evaluation by the NYSDEC for comparison to applicable site SCOs. Furthermore, as no background information regarding the source or soil quality of the fill is available, it is appropriate to include this surface soil in the analytical program for the site in order to assess future site management or remediation needs. Therefore, samples of soil within the 0 to 1 foot zone beneath pavement will be collected from nine soil borings spaced across the site to characterize the fill material, as shown on Figure 8A, and listed in Table 2A. These locations are SB3, SB7, SB8, SB10, SB11, SB12, SB13, SB28, and SB29. As these will not be true surface soil samples, they will be described in the SC investigation as “near-surface” samples. They will, however, be grouped for evaluation with the 0 to 2 inch surface soil samples.

Note that the pavement and associated granular sub-base soil material may be up to a foot thick at these locations. These surface soil samples will therefore be collected from the first foot of soil below the base of the pavement system.

2.3 Test Pit Excavations and Gas Holder Investigation

The NYSDEC-approved Work Plan included six test pits. The purpose of the test pits was to assess whether the gas holder foundations are still present, and if present, to confirm their locations and assess their construction and contents. The actual construction and depth of the foundation for Gas Holder A is unknown. The gas holder, therefore, could have had a foundation that was more than 20 feet bgs. In addition, some gas holders were designed with a mound on the bottom which promoted a water seal around the edge of the gas holder by physically driving any fluids in the bottom of the gas holder to the edge. Others did not have this feature but instead had essentially flat bottoms. A goal of the SC will be to try to determine the construction, depth and configuration of the holders and the holder floors.

The test pits proposed in the SC Work Plan will not be performed, but instead will be replaced by several additional soil borings in and around each holder location as well as the geophysical survey described in Section 2.1. This change is made to minimize the disturbance to Corning’s

property and to minimize the potential for damage to active site utilities. The replacement borings are described below in Section 2.4, shown in Figure 9A, and listed in Table 4A.

The purpose of the holder investigation is to answer these questions:

- Are the foundations of the gas holders still present? If so, where are they located?
- If present, what is the foundation construction?
 - Slab on grade?
 - Sub-grade pit? If a pit holder, is the floor of the foundation flat or does it have a raised “dumpling” central section?
- If a pit foundation is found, what is the nature of the fill inside the foundation? Is light non-aqueous phase liquid (LNAPL), dense non-aqueous phase liquid (DNAPL), or perched groundwater present?
- Is there evidence of LNAPL or DNAPL outside the foundation, which would indicate that the foundation is not intact or the presence of tar-containing features such as drip-boxes?

If soil borings, in concert with the geophysical survey, are not able to adequately investigate the former gas holder locations, then test pits may be performed during a supplemental investigation. A recommendation for test pits would be part of a follow-up work plan for a supplemental SC or subsequent Remedial Investigation (RI).

Note that during the SC, borings will not be advanced through the floor of any gas holder or other subsurface foundation found to prevent the release of NAPL or contaminated groundwater. For above-grade gas holders, the foundation will not be penetrated if impacted soil or groundwater is found in contact with the top of the structure and there is the potential for downward vertical migration through the boring.

2.4 Additional Soil Borings

A total of 18 additional soil borings have been added under this Addendum to expand the approved investigation of the site, as follows:

- SB19 will be added to expand the investigation of the former tar well.
- SB20 will be added to help define conditions at the eastern side of the site near Gas Holder A.
- SB21, SB29, SB30 will be added to help investigate the location of the former creek at the site and/or the former sewer.
- Ten borings will be added to replace the test pits for the investigation of the former gas holder locations (SB-18, SB22-SB25, SB31-SB35).

- SB26, SB27, and SB28 were added to better assess conditions downgradient of the former MGP.

The locations of the soil borings are shown on Figure 9A, and they are listed in Table 4A.

The soil boring locations have been selected as described below:

- A pair of soil borings will be advanced on opposite sides of the probable edge of each holder location. The edges will be defined by the best-fit from historical mapping and the geophysical survey. One boring in each pair will be located inside the wall of the holder, and the other boring outside the wall.
- One boring will be advanced at the center of each former gas holder location, to assess whether a raised central mound is present or if the bottom of the holder is at the same elevation as at the outer wall.

If gas holder or other building foundations are found, the borings inside the foundations will be used to collect soil samples to assess the nature of the fill and to investigate for the presence of MGP residuals. If NAPL is encountered in any feature, care will be taken not to damage the walls or bottoms of the features, to reduce the potential for spreading the residuals outside of the identified structure. Foundations containing DNAPL, impacted groundwater, or perched groundwater will not be penetrated by soil borings.

Table 4A provides an updated summary of information for the borings, including the sample designations, the sampling rationale, the depth of sample collection, and the proposed laboratory analyses. The target depth of each soil boring in the footprint of the former MGP features will be the bottom or floor of the foundation (if present). In the event that additional sample volume is needed to support split sample collection, a borehole will be completed in close proximity to the initial borehole within the area cleared for utilities, and an additional sample collected from the equivalent elevation. Borings outside of subsurface structures will be advanced as described below in Section 2.5.

2.5 Subsurface Soil Sampling

As shown on Figure 9A, a total of 30 borings and eight additional borings for monitoring wells are proposed for the SC. The rationale and procedures for the soil sampling are unchanged, with the exception of the additional sampling of fill materials described in Section 2.2 for surface soils, and for subsurface fill described in this section below.

As shown on the cross-sectional views of the site (Figures 11 and 12) in the SCWP, it is anticipated that the borings will be advanced through the fill and alluvium to a depth approximately 30 feet below the ground surface. It is anticipated that, based on information provided by the United States Geological Survey (USGS), that the top of the clay/silt unit will be

encountered at that depth. This information is considered to be the most reliable source of information currently available following the review of the background materials for the SCWP. If coal tar DNAPL is encountered at the top of the potential confining unit, deeper drilling will not be completed during the SC. Telescoping drilling methods may be employed during a subsequent RI if these conditions are encountered. If deeper drilling is required by the NYSDEC, the drilling methods will be finalized in consultation with the Department in an RI Work Plan.

If a confining layer is not found within the expected depth of 20 to 40 feet bgs at any location, the borings will be advanced to 40 feet or to 10 feet below the base of impacts observed in the field (staining, odor, sheen, elevated PID measurements), whichever is deeper.

Borings advanced inside of buried structures may be terminated at shallower depths if the structures are found to contain NAPL or impacted groundwater.

Generally, two samples for laboratory analyses will be collected from each boring, as described in the SCWP. Up to four samples will be obtained at select borings locations as part of this Addendum to include near-surface soil analysis (described in Section 2.2 above), and for characterization of subsurface imported fill as described below.

Where a distinct fill layer is encountered, an additional fill soil sample will be obtained in order to further characterize the imported fill at the site. These subsurface fill samples will be obtained from a representative interval between the surface soil zone or the base of the pavement and sub-base material and the top of apparent native soil. The fill unit is expected to be between 2 and 7 feet thick. For planning purposes and to obtain good coverage of the site, the following 11 borings have been identified for fill soil sampling: SB1, SB3, SB7, SB8, SB10, SB11, SB12, SB13, SB20, SB28, and SB29. If a distinct and significant fill soil unit is not encountered at any of these locations, the fill soil samples will be collected at the closest boring location where suitable fill soil is found. Note that any locations where the fill consists of clean gravel without significant concentrations of fines (sand-size or smaller soil that can be separated out easily in the field) will be logged in the field but will not be sampled for laboratory analysis.

Soil samples will be logged in the field as described in the SCWP with the following additions/clarifications:

- The texture of the soil will be described using the Unified Soil Classification System (USCS). Figure 3 of the Field Sampling Plan provides details of how the USCS is implemented by GEI.
- A guide for the environmental description of soil samples is provided in Appendix A of this Addendum. This Appendix also provides a standard classification for tar-impacted soils that has been established by the NYSDEC and New York utility industry for use at MGP sites.

- If NAPL is observed, the field staff will first judge if the NAPL is lighter or denser than water (LNAPL or DNAPL). If an easy determination cannot be made, a representative sample will be selected for a shake test. To perform a shake test, the field staff will place a small sample of NAPL-containing soil in a clear jar. The jar will then be filled $\frac{3}{4}$ full with water, closed, and manually shaken for several seconds. The jar will then be allowed to sit for up to five minutes, if needed, to allow any potential emulsions to settle or float. Determination of light or dense NAPL can be made by observing whether the NAPL floats or sinks, along with an estimation of the approximate percentage of NAPL present in the sample.

If grossly impacted soil containing visible tar-like or oil-like LNAPL or DNAPL is encountered, a discrete sample may be taken at the request of NYSDEC, NYSEG and/or Corning and held at the laboratory for possible forensic analysis. However, that discrete sample will not be analyzed unless NYSDEC, NYSEG and Corning agree on the necessity for an analysis to be performed and on the analysis to be performed. Further discussion of forensic analysis is provided below in Section 3.2.

The final boring and well installation depths will be discussed with the NYSDEC and Corning field representatives during the field investigation as the fieldwork progresses. If the depth of the water table is not apparent or it is suspected that perched water is present at a location, additional observations may be necessary before monitoring wells are installed to ensure that the screens intercept the water table. A monitoring well boring may be held open overnight to allow the water column to stabilize, or a temporary 1-inch diameter piezometer may be installed to allow measurement of the water table.

Additional subsurface soil borings will not be advanced during the SC except to avoid subsurface obstructions within areas previously cleared for utilities unless the locations can be approved by Corning's environmental field representative and cleared by Corning site staff. It is not expected that Corning will be able to approve additional borings during the mobilization for drilling, therefore any expansions of the investigation area for delineation of impacts will take place during a supplemental field investigation or RI after consultation with the NYSDEC and Corning.

2.6 Monitoring Well Installation

Two additional monitoring wells have been added to the work plan (MW7 and MW8), as shown on Figure 9A and listed in Table 5A. MW7 will be installed between MW4 and MW6, in order to assess whether contaminants are entering the investigation area via groundwater from up-gradient off-site sources. This well was added to the SCWP based on the review of the NYSDEC spills database, that indicates that there are potential sources of groundwater impact in the presumed up-gradient location of the site and this well location. MW8 will be located along

the western side of the site, to assess whether groundwater impacts are entering the site from the west or whether there are groundwater impacts associated with Gas Holder C.

In addition, the originally-approved location of MW5 (black) was adjusted slightly to the west (blue) as a result of the additional coverage provided by new soil borings SB25, SB26, and SB27.

If NAPL is identified in the soil or groundwater, monitoring of the wells will be performed after they are sampled to assess whether the NAPL is accumulating in the wells, and if it may be recoverable by pumping or bailing.

2.7 Soil Vapor Intrusion Evaluation

A soil vapor intrusion (SVI) evaluation is not proposed for the SC. There are no buildings currently present at the former MGP site (other than an open shed in the Gas Holder B area). The presence or absence of MGP-related residuals has yet to be determined, and as such, conclusions regarding the potential for a complete soil vapor pathway to exist at the site is not yet known.

The SC will provide information as to whether MGP residuals are present at the site, and whether there is sufficient information to assess whether they present a potential risk to nearby structures and receptors. If, in consultation with the NYSDEC and NYSDOH, it is determined that an assessment of the SVI potential and pathways is required, then NYSEG will submit a Work Plan Addendum for this task, or it will be included in an RI Work Plan (should an RI be required for the site). The protocols for a soil vapor evaluation will be consistent with the NYSDOH document entitled “*Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York*,” dated October 2006.

Note that as shown on SCWP Figure 6, it can be expected that there may be other contributing sources for impacted soil vapor at the site and the surrounding area which are not related to the former MGP operations. An evaluation of soil vapor, and as such a source for any impacts identified at the site, may be difficult to assign. If a soil vapor evaluation is planned, NYSEG will work cooperatively with Corning to select appropriate locations for sampling and to identify possible migration pathways and exposure risks to site building occupants, utility workers, or other possible receptors. A discussion of the evaluation of SVI results will be included in the work plan for this task if it is performed during future work.

3. Analytical Program

The laboratory samples for each media and the chemical analyses to be performed are described in the SCWP. Additional analyses and a clarification regarding forensic analysis is provided below.

3.1 Emerging Contaminants

Since the approval of the SCWP, the NYSDEC has issued requirements for site investigations to include the analysis of “emerging contaminants” (ECs). The ECs currently required for analysis are 1,4-dioxane and a suite of Per- and Poly-fluoroalkyl substances (PFAS) compounds.

1,4- Dioxane and PFAS compounds are not associated with former MGPs, and they were not in existence during the time when the MGP was owned and operated by NYSEG and its predecessor companies. However, at the request of NYSDEC (per the NYSDEC’s letter dated June 25, 2021 and subsequent discussions regarding current NYSDEC policy), ECs will be analyzed as described below:

- 1,4-Dioxane in soil and groundwater will be analyzed by United States Environmental Protection Agency (EPA) Method 8270D SIM
- The suite of 21 NYSDEC-identified PFAS compounds in soil and groundwater will be analyzed by laboratory-modified EPA Method 537.1

Soil samples for EC analysis will be obtained from the near-surface soil and fill soil sample obtained from four locations at the site, as noted in Table 2A and Table 4A (SB1/SS1, SB8, SB10, and SB13). The groundwater samples for EC analysis will be obtained from three locations (MW7 - upgradient, MW2 - onsite, and MW5 - downgradient), as listed in Table 5A.

Sampling and analysis for PFAS compounds in soil and groundwater will be performed according to the most recent edition of NYSDEC’s *Guidelines for Sampling and Analysis of PFAS* (January 23, 2020). Sampling and analysis for 1,4-Dioxane will be performed along with the other SVOC analytes, with the only difference being the use of SIM analysis to achieve the necessary detection limits required by NYSDEC.

3.2 Forensic Analysis

Samples may be analyzed for forensic purposes to evaluate potential source areas at the site. As discussed above, the search of environmental records for the site and areas adjacent to the site have identified several potential non-MGP sources of contaminants of concern (COC).

Because the search of environmental records for the site and areas adjacent to the site have identified several other potential non-MGP sources of COC, if a sample was taken at the request of either NYSEG or Corning to be held at the laboratory for possible future forensic analysis, the sample will not be analyzed as part of the SC unless both Corning and NYSEG agree to have the forensic analysis completed and agree in consultation with the NYSDEC on the forensic analytical method to be employed. NYSEG would also not complete a forensic analysis of any such discrete sample taken and held at the laboratory without NYSDEC's prior approval of the forensic analytical method(s) to be employed.

The analyses may be performed using one of the multiple chemical fingerprinting methods as summarized in the SCWP and approved by the NYSDEC or another mutually agreeable method. Additional analyses for forensic evaluation might include high resolution gas chromatography, alkylated PAH analysis, or cyanide speciation.

4. Additional Investigations

The need for additional investigation of the former MGP site will be assessed after completion of the Site Characterization and the assessment of any MGP impacts to the site. If additional characterization or delineation of MGP residual materials or impacts associated with gas production is required, a work plan will be prepared for another Site Characterization supplement.

If the SC finds that any impacts from the former MGP have the potential for significant impacts to human health or the environment, it is expected that a Remedial Investigation will be performed. The work plan will be submitted to Corning for review and comment so that the investigation activities are consistent with its own responsibilities for site investigation of the former refractories plant, and to minimize impacts to ongoing business operations at the site.

Site Characterization Work Plan Addendum
Corning Chestnut Street
Former Manufactured Gas Plant Site
City of Corning, New York
July 16, 2021

Tables

Table 2A
Surface and Near-Surface Soil Sample Summary
Approved SC Samples and Addendum SC Samples
Corning Chestnut Street MGP Site

Sample Summary																
Sample Designation	Description	Sample Date	Sample Location or Rationale	Ground Surface Elevation (Feet NAVD88)	Northing (NAD83)	Easting (NAD83)	Latitude	Longitude	Sample Depth (feet below ground surface)	Comments	Physical Characteristics, Presence of Fill, Hydrocarbon Impacts, PID Screening	VOCs	SVOCs	TAL Metals	Total Cyanide	1,4-Dioxane and PFAS
SC Samples																
SS1A	Surface Soil	TBD	Grass covered area in former Holder A area.	TBD	TBD	TBD	TBD	TBD	0-0.2	Analyze sample for potential exposure assessment	X	X	X	X	X	
SS1B	Near-Surface Soil	TBD	Grass covered area in former Holder A area.	TBD	TBD	TBD	TBD	TBD	0.2-1.0	Analyze sample for potential exposure assessment	X	X	X	X	X	X
SS2A	Surface Soil	TBD	Grass covered area to the southwest of the former Gas Holder C area.	TBD	TBD	TBD	TBD	TBD	0-0.2	Analyze sample for potential exposure assessment	X	X	X	X	X	
SS2B	Near-Surface Soil	TBD	Grass covered area to the southwest of the former Gas Holder C area.	TBD	TBD	TBD	TBD	TBD	0.2-1.0	Analyze sample for potential exposure assessment	X	X	X	X	X	
SS3A	Surface Soil	TBD	Grass covered area between former Gas Holder B and C.	TBD	TBD	TBD	TBD	TBD	0-0.2	Analyze sample for potential exposure assessment	X	X	X	X	X	
SS3B	Near-Surface Soil	TBD	Grass covered area between former Gas Holder B and C.	TBD	TBD	TBD	TBD	TBD	0.2-1.0	Analyze sample for potential exposure assessment	X	X	X	X	X	X
SS4A	Surface Soil	TBD	Grass covered area to the northwest of the former Gas Holder B area.	TBD	TBD	TBD	TBD	TBD	0-0.2	Analyze sample for potential exposure assessment	X	X	X	X	X	
SS4B	Near-Surface Soil	TBD	Grass covered area to the northwest of the former Gas Holder B area.	TBD	TBD	TBD	TBD	TBD	0.2-1.0	Analyze sample for potential exposure assessment	X	X	X	X	X	
Proposed Addendum Near-Surface Samples																
SB3SS	Near-Surface Soil	TBD	Fill sample below parking lot pavement, former MGP building (boiler) location	TBD	TBD	TBD	TBD	TBD	First 1-foot interval below paving system	Analyze sample for fill material characterization and comparison to surface soil SCOs	X	X	X	X	X	X
SB7SS	Near-Surface Soil	TBD	Fill sample below parking lot pavement, former MGP building (tar well) location	TBD	TBD	TBD	TBD	TBD	First 1-foot interval below paving system	Analyze sample for fill material characterization and comparison to surface soil SCOs	X	X	X	X	X	
SB8	Near-Surface Soil	TBD	Fill sample below parking lot pavement, former MGP building (purifiers) location	TBD	TBD	TBD	TBD	TBD	First 1-foot interval below paving system	Analyze sample for fill material characterization and comparison to surface soil SCOs	X	X	X	X	X	X
SB10SS	Near-Surface Soil	TBD	Fill sample below parking lot pavement, former MGP governor house and piping location	TBD	TBD	TBD	TBD	TBD	First 1-foot interval below paving system	Analyze sample for fill material characterization and comparison to surface soil SCOs	X	X	X	X	X	X
SB11SS	Near-Surface Soil	TBD	Fill sample below parking lot pavement, former AST location	TBD	TBD	TBD	TBD	TBD	First 1-foot interval below paving system	Analyze sample for fill material characterization and comparison to surface soil SCOs	X	X	X	X	X	
SB12SS	Near-Surface Soil	TBD	Fill sample below parking lot pavement or adjacent grassy area, former Gas Holder B location	TBD	TBD	TBD	TBD	TBD	First 1-foot interval below paving system	Analyze sample for fill material characterization and comparison to surface soil SCOs	X	X	X	X	X	
SB13SS	Surface Soil	TBD	Fill sample below parking lot pavement, former Gas Holder C location	TBD	TBD	TBD	TBD	TBD	First 1-foot interval below paving system	Analyze sample for fill material characterization and comparison to surface soil SCOs	X	X	X	X	X	X
SB28SS	Near-Surface Soil	TBD	Fill sample below parking lot pavement, former refractories building location	TBD	TBD	TBD	TBD	TBD	First 1-foot interval below paving system	Analyze sample for fill material characterization and comparison to surface soil SCOs	X	X	X	X	X	
SB29SS	Near-Surface Soil	TBD	Fill sample below parking lot pavement, former creek and storm sewer location	TBD	TBD	TBD	TBD	TBD	First 1-foot interval below paving system	Analyze sample for fill material characterization and comparison to surface soil SCOs	X	X	X	X	X	

TBD - To be determined or measured during SC field activities.
Horizontal Coordinates to be reported in New York State Plane, Central Zone, NAD83 North American Datum 1983 (NAD83), and latitude and longitude.
Vertical Coordinates to be reported in North American Datum 1988 (NAVD88).
Approved SC Sample Locations [black]
Proposed SC Addendum Sample Locations [blue]

Note: Prior to conducting the field activities identified in Tables 1-4, a geophysical survey will be performed using GPR and electromagnetic instruments.
Note: Any additional SC samples beyond those identified in the SC Addendum Tables 1-4 require Corning's concurrence and NYSDEC's approval of the location sampled, the kind of sample obtained, and the laboratory methodology utilized for analysis.

Table 4A
Approved Soil Borings
Proposed Addendum Soil Borings
Corning Chestnut Street MGP Site

Sample Summary									Laboratory Analysis					
Sample Designation	Date	Sample Location or Rationale	Ground Surface Elevation (Feet NAVD88)	Northing (NAD83)	Easting (NAD83)	Latitude	Longitude	Total Target Depth (Feet)	Laboratory Sample Depth	VOCs	SVOCs	TAL Metals	Total Cyanide	1,4 Dioxane and PFAS
Approved Soil Borings														
SB1	TBD	To assess soil and fill conditions within the footprint of former Gas Holder A foundation.	TBD	TBD	TBD	TBD	TBD	Bottom of Gas Holder A foundation; or 30 feet to the top of the anticipated potential confining unit. Note 1.	1 Fill sample (generally between 1 and 7 feet bgs) 2 Most visibly impacted interval, or 1-foot interval above water table 3 Below base of impacted soil to confirm non-impacted conditions	3	3	3	3	1
SB2	TBD	To assess soil or fill conditions in the footprint of the former creek present during MGP operations.	TBD	TBD	TBD	TBD	TBD	30 feet bgs; to the top of the anticipated potential confining unit. Note 2.	1 Most visibly impacted interval, or 1-foot interval above water table 2 Below base of impacted soil to confirm non-impacted conditions	2	2	2	2	
SB3	TBD	To assess soil and fill conditions within the footprint of the former MGP Building (boiler room).	TBD	TBD	TBD	TBD	TBD	30 feet bgs; to the top of the anticipated potential confining unit. Note 2.	1 Near-surface sample (below pavement system) 2 Fill sample (generally between 1 and 7 feet bgs) 3 Most visibly impacted interval, or 1-foot interval above water table 4 Below base of impacted soil to confirm non-impacted conditions	4	4	4	4	
SB4	TBD	To assess soil or fill conditions within the footprint of the former MGP Building (yard / shed).	TBD	TBD	TBD	TBD	TBD	30 feet below ground surface, or to top of clay/silt unit. Note 2.	1 Most visibly impacted interval, or 1-foot interval above water table 2 Below base of impacted soil to confirm non-impacted conditions	2	2	2	2	
SB5	TBD	To assess soil or fill conditions within the footprint of the former MGP Building (electrical room) and former creek.	TBD	TBD	TBD	TBD	TBD	30 feet below ground surface, or to top of clay/silt unit. Note 2.	1 Most visibly impacted interval, or 1-foot interval above water table 2 Below base of impacted soil to confirm non-impacted conditions	2	2	2	2	
SB6	TBD	To assess soil or fill conditions within the footprint of the former MGP Building (retort area).	TBD	TBD	TBD	TBD	TBD	30 feet below ground surface, or to top of clay/silt unit. Note 2.	1 Most visibly impacted interval, or 1-foot interval above water table 2 Below base of impacted soil to confirm non-impacted conditions	2	2	2	2	
SB7	TBD	To assess soil or fill conditions within the footprint of the former MGP Building and Tar Well.	TBD	TBD	TBD	TBD	TBD	Bottom of Tar Well; or 30 feet below ground surface, or to top of clay/silt unit. Note 2.	1 Near-surface sample (below pavement system) 2 Fill sample (generally between 1 and 7 feet bgs) 3 Most visibly impacted interval, or 1-foot interval above water table 4 Below base of impacted soil to confirm non-impacted conditions	4	4	4	4	
SB8	TBD	To assess soil or fill conditions within the footprint of the former MGP Building (purifiers). <i>Imported fill sample to be obtained.</i>	TBD	TBD	TBD	TBD	TBD	30 feet below ground surface, or to top of clay/silt unit. Note 2.	1 Near-surface sample (below pavement system) 2 Fill sample (generally between 1 and 7 feet bgs) 3 Most visibly impacted interval, or 1-foot interval above water table 4 Below base of impacted soil to confirm non-impacted conditions	4	4	4	4	2
SB9	TBD	To assess soil or fill conditions adjacent to the former MGP Building (unknown feature).	TBD	TBD	TBD	TBD	TBD	30 feet below ground surface, or to top of clay/silt unit. Note 2.	1 Most visibly impacted interval, or 1-foot interval above water table 2 Below base of impacted soil to confirm non-impacted conditions	2	2	2	2	
SB10	TBD	To assess soil or fill conditions within the footprint of the former Govenor House.	TBD	TBD	TBD	TBD	TBD	30 feet below ground surface, or to top of clay/silt unit. Note 2.	1 Near-surface sample (below pavement system) 2 Fill sample (generally between 1 and 7 feet bgs) 3 Most visibly impacted interval, or 1-foot interval above water table 4 Below base of impacted soil to confirm non-impacted conditions	4	4	4	4	2
SB11	TBD	To assess soil or fill conditions within the former AST1 and AST2 footprints, south of the former Gas Holders. <i>Imported fill sample to be obtained.</i>	TBD	TBD	TBD	TBD	TBD	Bottom of Gas Holder B foundation, or 20 feet below the deepest observed impacted interval. Note 1.	1 Near-surface sample (below pavement system) 2 Fill sample (generally between 1 and 7 feet bgs) 3 Most visibly impacted interval, or 1-foot interval above water table 4 Below base of impacted soil to confirm non-impacted conditions	4	4	4	4	
SB12	TBD	To assess soil or fill conditions within the footprint of former Gas Holder B foundation.	TBD	TBD	TBD	TBD	TBD	Bottom of Gas Holder C foundation, or 20 feet below the deepest observed impacted interval. Note 1.	1 Near-surface sample (below pavement system) 2 Fill sample (generally between 1 and 7 feet bgs) 3 Most visibly impacted interval, or 1-foot interval above water table 4 Below base of impacted soil to confirm non-impacted conditions	4	4	4	4	
SB13	TBD	To assess soil or fill conditions within the footprint of former Gas Holder C foundation.	TBD	TBD	TBD	TBD	TBD	Bottom of Gas Holder C foundation, or 20 feet below the deepest observed impacted interval. Note 1.	1 Near-surface sample (below pavement system) 2 Fill sample (generally between 1 and 7 feet bgs) 3 Most visibly impacted interval, or 1-foot interval above water table 4 Below base of impacted soil to confirm non-impacted conditions	4	4	4	4	2
SB14		To assess soil or fill conditions west of former Gas Holder B and to assess the presence or absence of purifier reported residuals.	TBD	TBD	TBD	TBD	TBD	30 feet below ground surface, or to top of clay/silt unit. Note 2.	1 Most visibly impacted interval, or 1-foot interval above water table 2 Below base of impacted soil to confirm non-impacted conditions	2	2	2	2	

Table 4A
Approved Soil Borings
Proposed Addendum Soil Borings
Corning Chestnut Street MGP Site

Sample Summary									Laboratory Analysis					
Sample Designation	Date	Sample Location or Rationale	Ground Surface Elevation (Feet NAVD88)	Northing (NAD83)	Easting (NAD83)	Latitude	Longitude	Total Target Depth (Feet)	Laboratory Sample Depth	VOCs	SVOCs	TAL Metals	Total Cyanide	1,4 Dioxane and PFAS
SB15	TBD	To assess soil or fill conditions west of former Gas Holder C and to assess the presence or absence of purifier reported residuals.	TBD	TBD	TBD	TBD	TBD	30 feet below ground surface, or to top of clay/silt unit. Note 2.	1 Most visibly impacted interval, or 1-foot interval above water table 2 Below base of impacted soil to confirm non-impacted conditions	2	2	2	2	
SB16	TBD	To assess soil or fill conditions within the footprint of the former MGP Building and Tar Well.	TBD	TBD	TBD	TBD	TBD	Bottom of Tar Well; or 30 feet below ground surface, or to top of clay/silt unit. Note 2.	1 Most visibly impacted interval, or 1-foot interval above water table 2 Below base of impacted soil to confirm non-impacted conditions	2	2	2	2	
SB17	TBD	To assess soil or fill conditions within the adjacent and down gradient of the former Tar Well.	TBD	TBD	TBD	TBD	TBD	30 feet below ground surface, or to top of clay/silt unit. Note 2.	1 Most visibly impacted interval, or 1-foot interval above water table 2 Below base of impacted soil to confirm non-impacted conditions	2	2	2	2	
Proposed Addendum Soil Borings														
SB18	TBD	To assess soil or fill conditions adjacent and up gradient of Gas Holder A.	TBD	TBD	TBD	TBD	TBD	30 feet below ground surface, or to top of clay/silt unit. Note 2.	1 Most visibly impacted interval, or 1-foot interval above water table 2 Below base of impacted soil to confirm non-impacted conditions	2	2	2	3	
SB19	TBD	To assess soil or fill conditions adjacent to and up gradient of the Tar Well.	TBD	TBD	TBD	TBD	TBD	30 feet below ground surface, or to top of clay/silt unit. Note 2.	1 Most visibly impacted interval, or 1-foot interval above water table 2 Below base of impacted soil to confirm non-impacted conditions	2	2	2	2	
SB20	TBD	To assess soil or fill conditions adjacent and cross gradient of Gas Holder A. Imported fill sample to be obtained.	TBD	TBD	TBD	TBD	TBD	30 feet below ground surface, or to top of clay/silt unit. Note 2.	1 Fill sample (generally between 1 and 7 feet bgs) 2 Most visibly impacted interval, or 1-foot interval above water table 3 Below base of impacted soil to confirm non-impacted conditions	3	3	3	3	
SB21	TBD	To assess soil conditions in the footprint of the former creek present during MGP operations.	TBD	TBD	TBD	TBD	TBD	30 feet below ground surface, or to top of clay/silt unit. Note 2.	1 Most visibly impacted interval, or 1-foot interval above water table 2 Below base of impacted soil to confirm non-impacted conditions	2	2	2	2	
SB22	TBD	To assess soil or fill conditions up gradient of former Gas Holder C foundation	TBD	TBD	TBD	TBD	TBD	30 feet below ground surface, or to top of clay/silt unit. Note 2.	1 Most visibly impacted interval, or 1-foot interval above water table 2 Below base of impacted soil to confirm non-impacted conditions	2	2	2	2	
SB23	TBD	To assess soil or fill conditions down gradient of the former Gas Holder C foundation and up gradient of Gas Holder B	TBD	TBD	TBD	TBD	TBD	30 feet below ground surface, or to top of clay/silt unit. Note 2.	1 Most visibly impacted interval, or 1-foot interval above water table 2 Below base of impacted soil to confirm non-impacted conditions	2	2	2	2	
SB24	TBD	To assess soil or fill conditions inside former Gas Holder B foundation.	TBD	TBD	TBD	TBD	TBD	30 feet below ground surface, or to top of clay/silt unit. Note 2.	1 Most visibly impacted interval, or 1-foot interval above water table 2 Below base of impacted soil to confirm non-impacted conditions	2	2	2	2	
SB25	TBD	To assess soil or fill conditions down gradient of the former Gas Holder B foundation.	TBD	TBD	TBD	TBD	TBD	30 feet below ground surface, or to top of clay/silt unit. Note 2.	1 Most visibly impacted interval, or 1-foot interval above water table 2 Below base of impacted soil to confirm non-impacted conditions	2	2	2	2	
SB26	TBD	To assess soil or fill conditions down gradient of the former Gas Holder B foundation.	TBD	TBD	TBD	TBD	TBD	30 feet below ground surface, or to top of clay/silt unit. Note 2.	1 Most visibly impacted interval, or 1-foot interval above water table 2 Below base of impacted soil to confirm non-impacted conditions	2	2	2	2	
SB27	TBD	To assess soil or fill conditions down gradient of the former Gas Holder B foundation.	TBD	TBD	TBD	TBD	TBD	30 feet below ground surface, or to top of clay/silt unit. Note 2.	1 Most visibly impacted interval, or 1-foot interval above water table 2 Below base of impacted soil to confirm non-impacted conditions	2	3	3	2	
SB28	TBD	General Coverage - Yard. Imported fill sample to be obtained.	TBD	TBD	TBD	TBD	TBD	30 feet below ground surface, or to top of clay/silt unit. Note 2.	1 Near-surface sample (below pavement system) 2 Fill sample (generally between 1 and 7 feet bgs) 3 Most visibly impacted interval, or 1-foot interval above water table 4 Below base of impacted soil to confirm non-impacted conditions	4	4	4	4	

Table 4A
Approved Soil Borings
Proposed Addendum Soil Borings
Corning Chestnut Street MGP Site

Sample Summary									Laboratory Analysis					
Sample Designation	Date	Sample Location or Rationale	Ground Surface Elevation (Feet NAVD88)	Northing (NAD83)	Easting (NAD83)	Latitude	Longitude	Total Target Depth (Feet)	Laboratory Sample Depth	VOCs	SVOCs	TAL Metals	Total Cyanide	1,4 Dioxane and PFAS
SB29	TBD	To assess soil conditions in the footprint of the former sewer / creek. Imported fill sample to be obtained.	TBD	TBD	TBD	TBD	TBD	30 feet below ground surface, or to top of clay/silt unit. Note 2.	1 Near-surface sample (below pavement system) 2 Fill sample (generally between 1 and 7 feet bgs) 3 Most visibly impacted interval, or 1-foot interval above water table 4 Below base of impacted soil to confirm non-impacted conditions	4	4	4	4	
SB30	TBD	To assess soil conditions in the footprint of the former sewer.	TBD	TBD	TBD	TBD	TBD	30 feet below ground surface, or to top of clay/silt unit. Note 2.	1 Most visibly impacted interval, or 1-foot interval above water table 2 Below base of impacted soil to confirm non-impacted conditions	2	2	2	2	
SB31	TBD	To locate and characterize inside edge of Gas Holder C	TBD	TBD	TBD	TBD	TBD	Bottom of Gas Holder foundation; or 30 feet to the top of the anticipated potential confining unit. Note 1.	1 Most visibly impacted interval, or 1-foot interval above water table 2 Below base of impacted soil to confirm non-impacted conditions	2	2	2	2	
SB32	TBD	To locate and characterize inside edge of Gas Holder C	TBD	TBD	TBD	TBD	TBD	Bottom of Gas Holder foundation; or 30 feet to the top of the anticipated potential confining unit. Note 1.	1 Most visibly impacted interval, or 1-foot interval above water table 2 Below base of impacted soil to confirm non-impacted conditions	2	2	2	2	
SB33	TBD	To locate and characterize inside edge of Gas Holder B	TBD	TBD	TBD	TBD	TBD	Bottom of Gas Holder foundation; or 30 feet to the top of the anticipated potential confining unit. Note 1.	1 Most visibly impacted interval, or 1-foot interval above water table 2 Below base of impacted soil to confirm non-impacted conditions	2	2	2	2	
SB34	TBD	To locate and characterize the inside edge of Gas Holder A	TBD	TBD	TBD	TBD	TBD	Bottom of Gas Holder foundation; or 30 feet to the top of the anticipated potential confining unit. Note 1.	1 Most visibly impacted interval, or 1-foot interval above water table 2 Below base of impacted soil to confirm non-impacted conditions	2	2	2	2	
SB35	TBD	To locate and characterize the inside edge of Gas Holder A	TBD	TBD	TBD	TBD	TBD	Bottom of Gas Holder foundation; or 30 feet to the top of the anticipated potential confining unit. Note 1.	1 Most visibly impacted interval, or 1-foot interval above water table 2 Below base of impacted soil to confirm non-impacted conditions	2	3	3	3	
SB36	TBD	To assess soil conditions in the footprint of the former sewer.	TBD	TBD	TBD	TBD	TBD	30 feet below ground surface, or to top of clay/silt unit. Note 2.	1 Most visibly impacted interval, or 1-foot interval above water table 2 Below base of impacted soil to confirm non-impacted conditions	2	2	2	2	

Table 4A
Approved Soil Borings
Proposed Addendum Soil Borings
Corning Chestnut Street MGP Site

Sample Summary									Laboratory Analysis					
Sample Designation	Date	Sample Location or Rationale	Ground Surface Elevation (Feet NAVD88)	Northing (NAD83)	Easting (NAD83)	Latitude	Longitude	Total Target Depth (Feet)	Laboratory Sample Depth	VOCs	SVOCs	TAL Metals	Total Cyanide	1,4 Dioxane and PFAS
Approved Soil Borings for Monitoring Well Installation														
MW1	TBD	To assess soil and groundwater conditions northeast and down gradient of former Gas Holder A area.	TBD	TBD	TBD	TBD	TBD	The well screens will be installed across the water table, or across impacted soil intervals, to be determined in the field.	1 Most visibly impacted interval, or 1-foot interval above water table 2 Below base of impacted soil to confirm non-impacted conditions	2	3	3	3	
MW2	TBD	To assess soil and groundwater conditions in the area northeast and down gradient of the former MGP Building.	TBD	TBD	TBD	TBD	TBD	The well screens will be installed across the water table, or across impacted soil intervals, to be determined in the field.	1 Most visibly impacted interval, or 1-foot interval above water table 2 Below base of impacted soil to confirm non-impacted conditions	2	2	2	2	
MW3	TBD	To assess soil and groundwater conditions in the area northeast and down gradient of the ASTs and the MGP Building.	TBD	TBD	TBD	TBD	TBD	The well screens will be installed across the water table, or across impacted soil intervals, to be determined in the field.	1 Most visibly impacted interval, or 1-foot interval above water table 2 Below base of impacted soil to confirm non-impacted conditions	2	2	2	2	
MW4	TBD	To assess up gradient soil and groundwater conditions. To assess soil and groundwater conditions in where purifier residuals were reported in 1998 (former fence line).	TBD	TBD	TBD	TBD	TBD	The well screens will be installed across the water table, or across impacted soil intervals, to be determined in the field.	1 Most visibly impacted interval, or 1-foot interval above water table 2 Below base of impacted soil to confirm non-impacted conditions	2	2	2	2	
MW5	TBD	To assess soil and groundwater conditions in the area northeast and down gradient of Gas Holder B and C foundations.	TBD	TBD	TBD	TBD	TBD	The well screens will be installed across the water table, or across impacted soil intervals, to be determined in the field.	1 Most visibly impacted interval, or 1-foot interval above water table 2 Below base of impacted soil to confirm non-impacted conditions	2	2	2	2	
MW6	TBD	To assess up gradient soil and groundwater conditions. To assess soil and groundwater conditions where purifier residuals were reported in 1998 (former fence line).	TBD	TBD	TBD	TBD	TBD	The well screens will be installed across the water table, or across impacted soil intervals, to be determined in the field.	1 Most visibly impacted interval, or 1-foot interval above water table 2 Below base of impacted soil to confirm non-impacted conditions	2	2	2	2	
Proposed Addendum Soil Borings for Monitoring Well Installation														
MW7	TBD	To assess up gradient soil and groundwater conditions. To assess soil and groundwater conditions in where purifier residuals were reported in 1998 (former fence line).	TBD	TBD	TBD	TBD	TBD	The well screens will be installed across the water table, or across impacted soil intervals, to be determined in the field.	1 Most visibly impacted interval, or 1-foot interval above water table 2 Below base of impacted soil to confirm non-impacted conditions	2	2	2	2	
MW8	TBD	To assess cross gradient soil and groundwater conditions.	TBD	TBD	TBD	TBD	TBD	The well screens will be installed across the water table, or across impacted soil intervals, to be determined in the field.	1 Most visibly impacted interval, or 1-foot interval above water table 2 Below base of impacted soil to confirm non-impacted conditions	2	2	2	2	

TBD - To be determined or measured during SC field activities.

Horizontal Coordinates to be reported in New York State Plane, Central Zone, NAD83 North American Datum 1983 (NAD83), and latitude and longitude.

Vertical Coordinates to be reported in North American Datum 1988 (NAVD88).

Note 1: If coal tar or coal tar impacted material is identified within the former Gas Holder foundation, the soil boring shall not penetrate the bottom of the foundation if identified without additional protective measures in place.

Note 2: The boring will be advanced to the top of the clay/silt layer (potential confining unit) which has been identified by the USGS at a depth of approximately 30' bgs. If coal tar or NAPL is present at the surface of the clay silt unit, any deeper drilling will be discussed with the NYSDEC representative prior to drilling. Telescoping drilling methods may be proposed if these conditions are encountered.

MW1 - Approved Exploration [black]

MW7 - Proposed Exploration [blue]

Note: Any additional SC samples beyond those identified in the SC Addendum Tables 1-4 require Corning's concurrence and NYSDEC's approval of the location sampled, the kind of sample obtained, and the laboratory methodology utilized for analysis.

The number of samples specified for each boring may increase based on the need to characterize soil conditions encountered.

Table 5A
Approved Monitoring Wells, Proposed Addendum Wells, and Laboratory Analyses
Corning Chestnut Street MGP Site

Well Construction Summary												SC Laboratory Analyses					
Designation	Zone Monitored	Date	Ground Surface Elevation (Feet NAVD88)	Top of PVC Riser Elevation (Feet NAVD88)	Northing (NAD83)	Easting (NAD83)	Latitude	Longitude	Screened Interval (Elevation NAVD88)	Depth to Water (Feet)	Groundwater/Surface Water Elevation (Feet NAVD88)	Laboratory Sample Depth	VOCs	SVOCs	TAL Metals	Total Cyanide	1,4-Dioxane and PFAS
Approved Monitoring Wells																	
MW1	Water Table; or NAPL Impacted Zone	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	Center Screened Interval	X	X	X	X	
MW2	Water Table; or NAPL Impacted Zone	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	Center Screened Interval	X	X	X	X	X
MW3	Water Table; or NAPL Impacted Zone	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	Center Screened Interval	X	X	X	X	
MW4	Water Table; or NAPL Impacted Zone	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	Center Screened Interval	X	X	X	X	
MW5	Water Table; or NAPL Impacted Zone	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	Center Screened Interval	X	X	X	X	X
MW6	Water Table; or NAPL Impacted Zone	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	Center Screened Interval	X	X	X	X	
Proposed Addendum Monitoring Wells																	
MW7	Water Table; or NAPL Impacted Zone	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	Center Screened Interval	X	X	X	X	X
MW8	Water Table; or NAPL Impacted Zone	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	Center Screened Interval	X	X	X	X	
Approved Surface Water Reference Point for Groundwater Table Elevation Map Preparation																	
USGS Gauging Station	NA	TBD	NA	NA	TBD	TBD	TBD	TBD	NA	NA	TBD	NA	NA	NA	NA	NA	

TBD - To be determined

NA = Not Applicable

USGS Gauging station north of site at Chemung River will be used to obtain surface water elevation data at the same time as the groundwater data is collected.

Horizontal Coordinates are New York State Plane, Central Zone, NAD83 North American Datum 1983 (NAD83), and latitude and longitude.

Vertical Coordinates are North American Vertical Datum 1988 (NAVD88).

MW4 - NYSDEC approved well

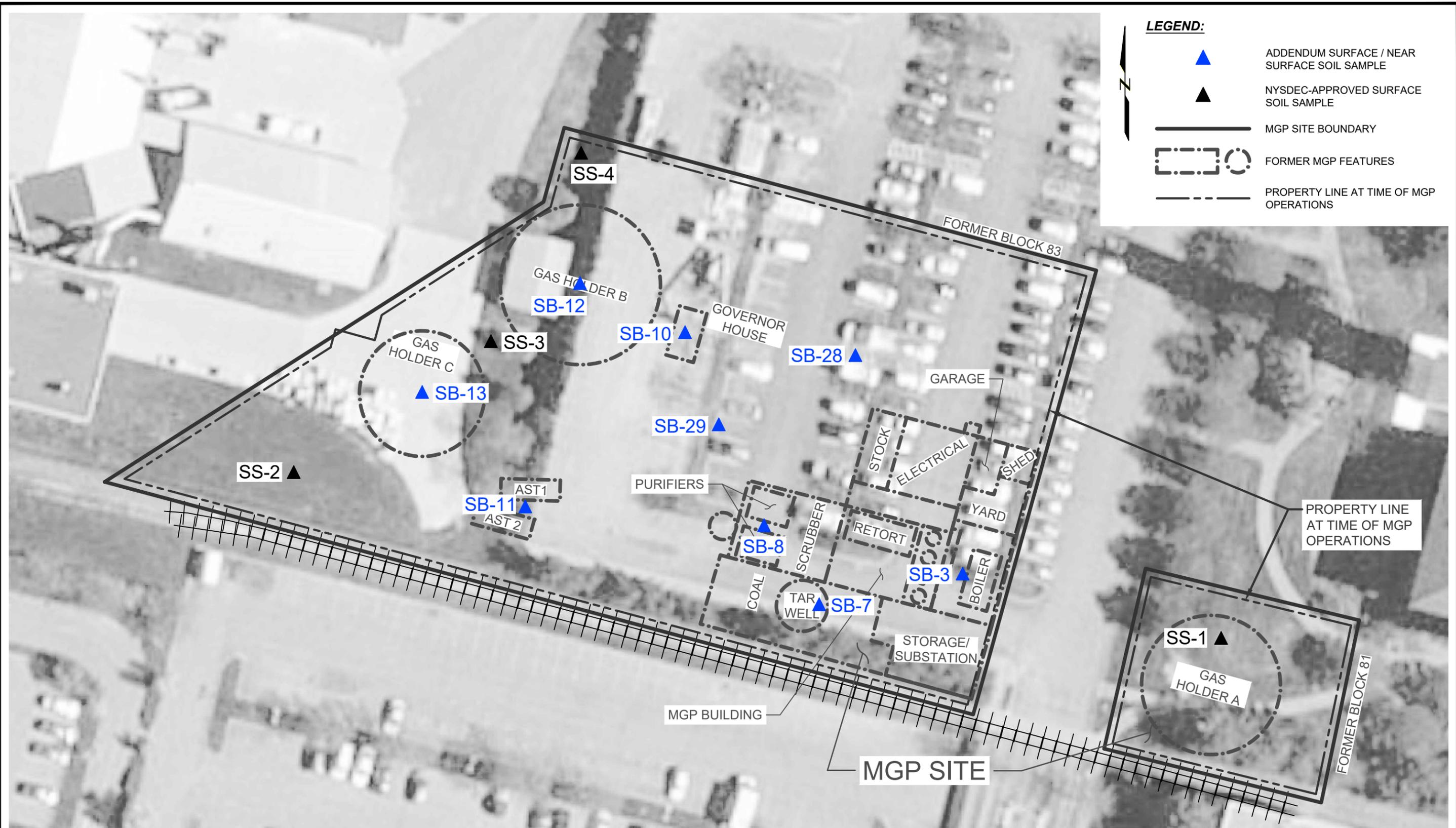
MW8 - Proposed Addendum well (blue)

Note: Prior to conducting the field activities identified in Tables 1-4, a geophysical survey will be performed using GPR and electromagnetic instruments.

Note: Any additional SC samples beyond those identified in the SC Addendum Tables 1-4 require Corning's concurrence and NYSDEC's approval of the location sampled, the kind of sample obtained, and the laboratory methodology utilized for analysis.

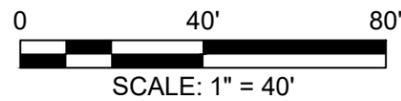
Site Characterization Work Plan Addendum
Corning Chestnut Street
Former Manufactured Gas Plant Site
City of Corning, New York
July 16, 2021

Figures



SOURCES:

- 2013 ESRI WORLD IMAGERY ACCESSED VIA ARCGIS ONLINE SERVICES. COORDINATE SYSTEM: NAD 83 NY STATE PLANE CENTRAL.
- STEBEN COUNTY REAL PROPERTY TAX PARCELS, ACCESSED VIA: <https://scnygis.maps.arcgis.com/apps/webappviewer/index.html?id=a9d84237ea8346f2a526e1f4d4534537>



Site Characterization Work Plan Addendum
 Corning Chestnut Street MGP Site
 Corning, New York

NYSEG
 Binghamton, New York

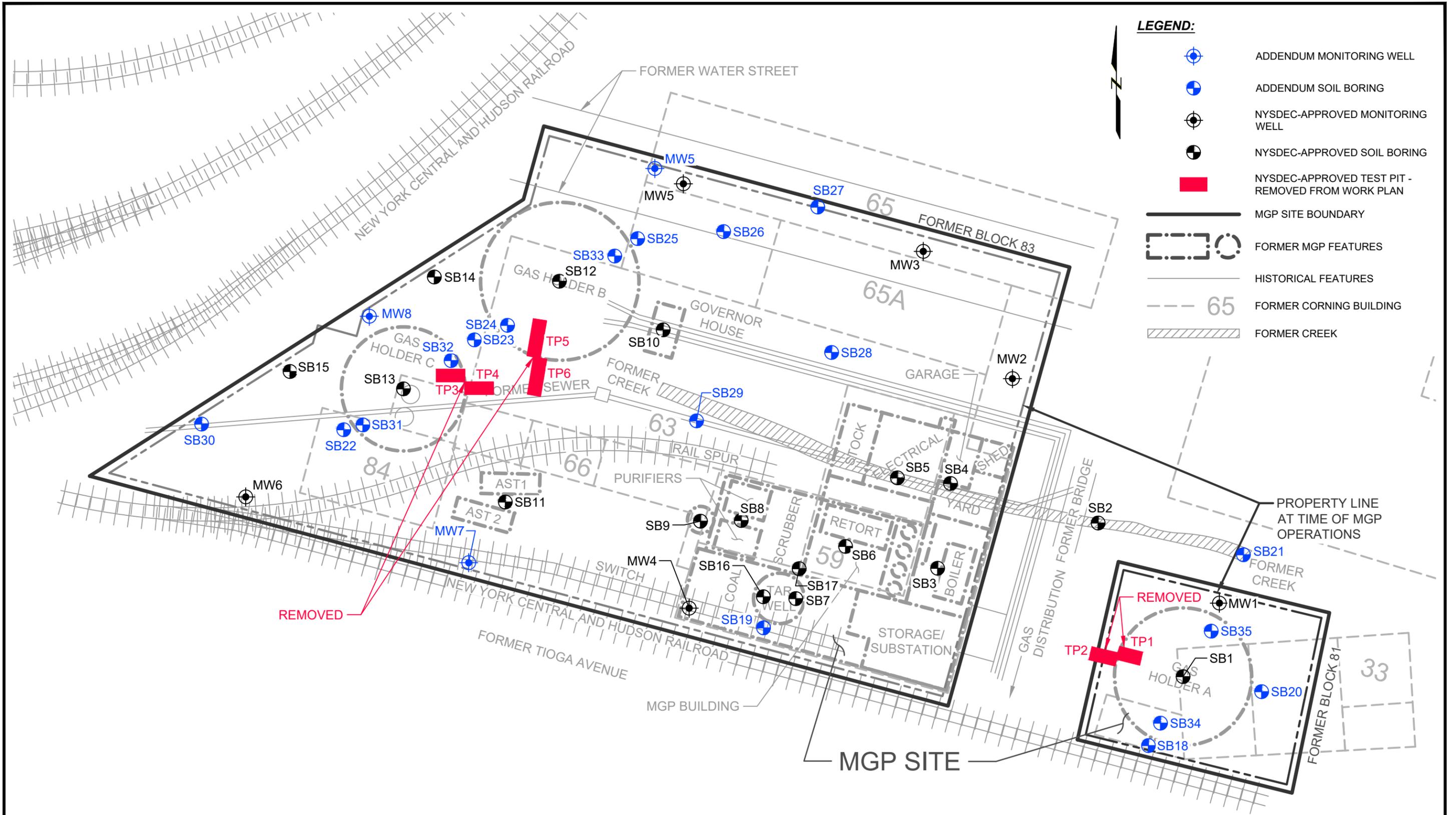


Project 1904594

SURFACE AND NEAR SURFACE SOIL SAMPLES - REVISED ADDENDUM

July 2021

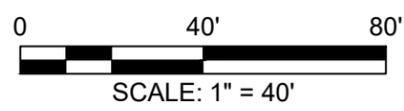
Fig. 8A



LEGEND:

- ADDENDUM MONITORING WELL
- ADDENDUM SOIL BORING
- NYSDEC-APPROVED MONITORING WELL
- NYSDEC-APPROVED SOIL BORING
- NYSDEC-APPROVED TEST PIT - REMOVED FROM WORK PLAN
- MGP SITE BOUNDARY
- FORMER MGP FEATURES
- HISTORICAL FEATURES
- FORMER CORNING BUILDING
- FORMER CREEK

- SOURCES:**
- 2013 ESRI WORLD IMAGERY ACCESSED VIA ARCGIS ONLINE SERVICES. COORDINATE SYSTEM: NAD 83 NY STATE PLANE CENTRAL.
 - STEBEN COUNTY REAL PROPERTY TAX PARCELS, ACCESSED VIA: <https://scnygis.maps.arcgis.com/apps/webappviewer/index.html?id=a9d84237ea8346f2a526e1f4d4534537>



Site Characterization Work Plan Addendum Corning Chestnut Street MGP Site Corning, New York			EXPLORATION LOCATIONS - REVISED FOR ADDENDUM
NYSEG New York	Project 1904594 July 2021		

Site Characterization Work Plan Addendum
Corning Chestnut Street
Former Manufactured Gas Plant Site
City of Corning, New York
July 16, 2021

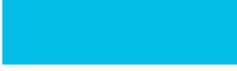
Appendix A

Environmental Soil Description Guidelines

ENV'L TERMINOLOGY FOR SOIL DESCRIPTIONS

- **Ash** - Typically silt-size to medium sand-size.
- Do not use the term "cinders." This is not a technical term. Instead, use "ash," "burnt wood," "burnt material," or a similar term.
- **Coal-like material** - If it looks like coal but you aren't sure.
- **Clinker** - Vitriified (glass-like) or heat-fused material. Often burned impurities in coal. Often looks like pumice.
- **Slag** - Similar to clinker, but normally refers to residue from metal ore processing.
- **Sheen** - Iridescent petroleum-like sheen. Not to be used for a "bacterial sheen," which can be distinguished by its tendency to break up on the water surface at angles. Petroleum sheen will be continuous and will not break up.
- **Stained** - Use with a color ("brown-stained") to indicate that the soil is stained a color other than its natural (unimpacted) color.
- **Coated** - Soil grains are coated with NAPL (oil, tar, etc.). There is not enough NAPL to saturate the pore spaces. ("Split spoon sampler coated with brown oil." "Soil grains coated with gray oil-like substance.")
- **Saturated** - The entire sample pore space is saturated with NAPL. If you use this term, be sure it is not water saturating the pore spaces. Depending on viscosity, the NAPL may drain from a soil sample. ("Sample saturated with green, sticky substance.")
- **Blebs** - Discrete sphericals of NAPL in a soil matrix that was not visibly coated or saturated. ("Contained blebs of reddish-brown tar.")
- **Oil** - Exhibits a petroleum odor, different than MGP odors.
- **Tar** - Exhibits an MGP odor (e.g. naphthalene-like odor).
- **Solid Tar** - Tar that is solid or semi-solid phase. Describe what you observe (e.g., "discrete granules" or "solid layer").
- **Purifier Material** - Commonly brown/rust or blue/green wood chips or granular material. Often has a distinctive sulfur-like odor. Other colors may be present.
- **Odors** - Use terms such as "naphthalene-like odor" or "petroleum-like odor." Use modifiers (strong, moderate, slight) to indicate odor intensity.

Standard Colors for Reporting MGP Impacts

		RGB Color	Auto Cad Index
	TAR SATURATED	255,0,0	10
	COATED MATERIAL, LENSES	255,0,255	210
	HARDENED TAR	129,64,0	34
	BLEBS, GLOBS, SHEEN	255,191,0	40
	STAINING, ODOR	255,255,0	50
	PETROLEUM IMPACTS SATURATION & SHEENS	0,191,255	140
	PETROLEUM IMPACTS STAINING & ODORS	170,234,255	141
	PURIFIER WASTE AND ODOR	0,0,255	170
	NO OBSERVED IMPACTS	0,165,0	92

NOTES:

1. USE ONLY THE COLOR KEYS FOR THE CONDITIONS THAT ARE ENCOUNTERED AT A GIVEN SITE. IF CONDITIONS DESCRIBED ABOVE DO NOT EXIST, DO NOT USE IN LEGEND.
2. THE COLOR DESCRIPTORS ABOVE ARE TO BE USED IN CONJUNCTION WITH THE "ENVIRONMENTAL TERMINOLOGY FOR SOIL DESCRIPTIONS" BY M. PASTER OF GEI CONSULTANTS, INC.

Site Characterization Work Plan Corning Chestnut St. Former MGP Site Corning, New York	 GEI Consultants	COLORS FOR NYSEG IMPACTS
NYSEG Binghamton, New York	Project 1904594	July 2021 Fig. 1