MOVE YOUR ENVIRONMENT FORWARD

# SITE CHARACTERIZATION WORK PLAN

**Vine Street – Site # 851067**
City of Corning
Steuben County, New York 14830

Prepared For:

Contract# D009808, Work Assignment No. 63
New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, NY 12233

Prepared By:

HRP Associates, Inc.
1 Fairchild Square, Suite 110
Clifton Park, NY 12065

HRP #: DEC1063.P2

Issued On: June *24*, 2026

## TABLE OF CONTENTS

**1.0 INTRODUCTION ..... 1**

**1.1 Purpose and Objectives** ..... 1
**1.2 Site Description and Background Information** ..... 1
**1.3 Site Geology and Hydrogeology** ..... 2

**2.0 SITE CHARACTERIZATION SCOPE OF WORK ..... 3**

**2.1 Preliminary Activities** ..... 3
**2.1.1 Work Plan ..... 3**
**2.1.2 Health and Safety Plan ..... 3**
**2.1.3 Quality Assurance Project Plan ..... 3**
**2.2 Investigation, Environmental Sampling, and Implementation** ..... 4
**2.2.1 Underground Utility Clearance and Ground Penetrating Radar Survey . 4**
**2.2.2 Installation of Direct Push Sample Points and Soil Sampling ..... 5**
**2.2.3 Groundwater Characterization ..... 5**
**2.2.3.1. Monitoring Well Development** ..... 6
**2.2.3.2. Monitoring Well Sampling** ..... 6
**2.2.4 Sample Handling Procedures ..... 6**
**2.2.4.1. PFAS Sampling** ..... 7
**2.2.4.2. 1,4-Dioxane Sampling** ..... 7
**2.2.5 Decontamination Procedures ..... 7**
**2.2.6 Disposal of Investigation Derived Waste ..... 7**
**2.2.7 Analytical Data Quality Evaluation ..... 7**
**2.2.8 Base Map Development and Site Survey ..... 8**
**2.3 Site Characterization Report** ..... 8
**2.3.1 Report Preparation ..... 8**
**2.3.2 Electronic Data Delivery ..... 9**

**3.0 GREEN AND SUSTAINABLE REMEDIATION BEST MANAGEMENT PRACTICES ..... 10**

**4.0 SITE-SPECIFIC QUALITY ASSURANCE PROJECT PLAN ..... 12**

**4.1 Site-Specific Sampling** ..... 12
**4.2 Data Quality Assessment and Usability** ..... 12

**5.0 PROJECT MANAGEMENT ..... 13**

**5.1 Project Schedule and Key Milestones** ..... 13
**5.2 Key Project Personnel** ..... 14

**6.0 REFERENCES ..... 15**

## Figures

Figure 1 Site Location
Figure 2 Site Map
Figure 3 Subsurface Investigation Plan

## Tables

Table 1 Site Characterization Sampling Summary
Table 2 Analytical Methods/Quality Assurance Summary

## Appendices

Appendix A Site-Specific Health and Safety Plan

# 1.0 INTRODUCTION

On January 8, 2026, HRP Associates, Inc. (HRP) was authorized to complete this New York State Department of Environmental Conservation (NYSDEC) Work Assignment (WA) No. 63 (D009808-63) for Site Characterization (SC) of the Vine Street Site, which is located in the City of Corning, Steuben County, New York (NY) (the Site). The focus of the Vine Street SC is to characterize potential impacts to soil and groundwater, related to the presence of ash, brick, and/or glass (ABG) in surface soils on-site. The scope of work for the SC, was developed based on HRP's review of previous investigations conducted between 2020 and 2025 as well as discussions and planning with NYSDEC staff.

## 1.1 Purpose and Objectives

This site-specific SC Work Plan (WP) describes the details of the scope of work, including all proposed field activities, laboratory analyses, and data Quality Assurance/Quality Control (QA/QC) evaluation that will be associated with the SC at the Site.

The purpose of the SC is to determine the nature and extent of soil and groundwater impacts that have been identified at the Site. In accordance with DER-10 *Technical Guidance for Site Investigation and Remediation (May 2010),* the primary objectives of the SC scope of work are to:

- Investigate potential impacts from target fill material containing ABG (glass manufacturing waste);
- Preliminarily delineate the vertical and horizontal extent of contaminated soil and determine whether groundwater is impacted; and
- Determine if Site conditions represent a threat to public health or the environment.

The primary contaminants of concern (COCs) are associated with the ABG identified at the Site.

## 1.2 Site Description and Background Information

The Vine Street Site (#851067), located in the City of Corning, Steuben County, NY (**Figure 1**), is the focus of this investigation. The Site totals 20.7-acres and consists of commercial and residential properties, a water treatment building, and City of Corning rights-of-way. A portion of the South Corning Study Area (#851075) and the [redacted] Site (#851078) are included as portions of the Vine Street Site. It is located west of the Chemung River in the southern portion of the Municipality of the Village of South Corning, NY as depicted on **Figure 2**. The property is bordered by Park Avenue and a residential neighborhood to the west; a Family Dollar and a commercial plaza to the north; a flood control levee and transmission line to the east; and baseball fields to the south. The Class C Superfund Site, Bell's Farm & Home Center (#851015) directly adjoins the Subject Property to the north.

The Vine Street Site was an agricultural field with a farm road along its northern boundary and the levee of the Chemung River along its eastern boundary from 1944 to 1952. In 1955, extensive

ground disturbance, as indicated by large, unvegetated irregular shapes visible in aerial photographs, occurred on and south of the 6 Vine Street parcel.

The NYSDEC was notified of ABG observed within multiple excavations during a water main replacement project along Vine Street in November 2020. After the initial observation of ABG, extensive layers of ABG were encountered in the water main replacement excavations at [redacted] as well as along the northern boundary of Flower Avenue, along Wicks Boulevard, and Garden Street.

In 2021, the NYSDEC completed the expedited cleanup of contamination identified at 6 Vine Street through the excavation and treatment of an estimated 885 cubic yards of contaminated soil associated with the construction of a new water filtration building and utilities. A total of 957 tons of hazardous soils were transported off-site for disposal at an approved landfill as part of the 6 Vine Street remediation. A demarcation layer was reportedly installed in areas of remaining contamination. The install consisted of:

- A 4-inch imported stone cover in areas where an impermeable layer such as concrete or asphalt was existing, or
- A one-foot imported stone cover in areas where an impermeable layer did not exist.

Additional disposal of ABG impacted soils were completed by the NYSDEC in the Vine Street Area right-of ways between August 2022 and April 2023. Right-of-ways identified for excavation were identified through observation of ABG at the ground surface along Wicks Boulevard, Vine Street, Flower Avenue, and Garden Street. In September and October 2022, a total of 368 tons of excavated materials from six total rights-of-way were disposed of as non-hazardous waste at an approved landfill facility. Fill material was excavated in each right-of-way to a depth of 6-inches below ground surface. Each right-of-way was restored and backfilled using 4 to 6-inches of crusher run and 2-inches of topsoil.

## 1.3 Site Geology and Hydrogeology

The Site is located in the Chemung River Valley and contains predominantly sand and gravel deposits of glaciofluvial origin and more recent alluvia deposits. River valley deposits are on the order of 100 feet in thickness in the vicinity of the Site. These river deposits are underlain by low permeability shale/siltstone bedrock (Caldwell, D.H., et.al). Depth to the water table is expected to be between 20 to 25 feet below ground surface (ft bgs). Groundwater generally flows north towards the Chemung River. Bedrock depth at the Site is unconfirmed but based on published information, the top of bedrock is expected to be deeper than 80 ft bgs.

## 2.0 SITE CHARACTERIZATION SCOPE OF WORK

Based on the findings and discussions with the NYSDEC, HRP has developed the following scope of work (SOW) to investigate impacts to Site soil and groundwater related to historic waste disposal operations.

### 2.1 Preliminary Activities

As part of the SOW, the following documents have been prepared under this WA:

- Project-specific Work Plan (this document)
- Site-specific Health and Safety Plan (HASP) (included as **Appendix A** of this Work Plan),

The site-specific elements are provided below.

#### 2.1.1 Work Plan

This Work Plan has been prepared for use in performing the SC and will serve as the site-specific Field Activities Plan (FAP). This Work Plan identifies the components of the SC and a description of the tasks to be performed including the specific methods or procedures that will be used to conduct the field sampling. A proposed project schedule is included in **Section 5.1** of this Work Plan.

#### 2.1.2 Health and Safety Plan

A site-specific HASP is provided in **Appendix A**. The site-specific HASP provides guidance to maximize health and safety of on-site workers during SC; specific tasks include media sampling, installation of wells, surveying, and other field related activities. Included in the site-specific HASP is a Community Air Monitoring Plan (CAMP) that details procedures for air monitoring during intrusive activities. The generic HASP has guidelines for health and safety supervision, air monitoring, medical monitoring, personal protective equipment, site controls, safe work practices and decontamination, etc.

#### 2.1.3 Quality Assurance Project Plan

A site-specific Quality Assurance Project Plan (QAPP) has been prepared and is included in **Section 4.0** of this Work Plan. Deviations from the protocols specified in the QAPP will be subject to the NYSDEC approval.

All laboratory analytical work will be performed by a NYSDOH Environmental Laboratory Approval Program (ELAP)-approved laboratory certified in all categories of Contract Laboratory Protocol (CLP) and Solid and Hazardous Waste analytical testing. A Data Usability Summary Report (DUSR) will be included in a SC Report (described in **Section 2.3** of this Work Plan) for each round of analytical work. Category B deliverables will be retained in the project files and available for full data validation by a qualified, independent third party.

## 2.2 Investigation, Environmental Sampling, and Implementation

The SC will include the components described below. It will consist of the installation of up to 20 direct push soil borings across the Site, and the installation and sampling of three new monitoring wells. The number and types of samples to be collected are discussed below and summarized on **Table 1**. The field investigation tasks for the Site are listed below in the order that they are expected to be completed:

1. Underground Utility Identification and Clearance using Ground-Penetrating Radar (GPR)
2. Soil Characterization (soil boring installation, surface, and subsurface soil sampling)
3. Groundwater Characterization (monitoring well installation, monitoring well development, and low flow groundwater sampling)
4. Characterization and Disposal of Investigation Derived Waste
5. Analytical Data Quality Evaluation
6. Base Map Development and Site Survey

### 2.2.1 Underground Utility Clearance and Ground Penetrating Radar Survey

Prior to implementing any intrusive activities, a utility clearance will be conducted. HRP will rely upon multiple lines of evidence to ensure to the maximum extent practicable that subsurface features are identified prior to commencement of intrusive work.

HRP will mark sampling locations prior to installation and contact public utility clearance services to mark out the utilities prior to the survey. The drilling contractor will request utility mark outs through NYS Code Rule 753/Dig Safe System. The dig safe system is limited to public right-of ways and will only identify utilities entering private property rather than utilities present at the monitoring well installation location.

HRP will utilize a qualified subcontractor to conduct a GPR survey to attempt to locate any privately installed underground structures or utilities to ensure boring areas are clear of obstructions and identify any other potential areas of concern (AOCs). The GPR survey and underground utility markout will be completed within a minimum 10-ft radius of each soil boring and monitoring well location.

GPR is a non-destructive and non-intrusive geophysical exploration technique that uses radar waves to detect subsurface objects, such as tanks, drums, and piping. The GPR is also capable of detecting discontinuities in the subsurface materials indicative of excavated and backfilled areas, such as those associated with possible underground storage tank (UST) graves. The objective of performing this survey is not only to make subsurface investigation as safe as possible for the field staff while protecting utilities, but also to identify possible sources and migration pathways (utility corridors, etc.). All anomalies identified during the GPR survey will be marked out in the field.

If necessary, the upper 5 feet of soil borings will be cleared of any underground utilities by non-mechanical means, such as hand-digging methods.

### 2.2.2 Installation of Direct Push Sample Points and Soil Sampling

The subsurface soil investigation locations (**Figure 3**) will be selected based on property access from property owners in the footprint of the Site. Up to 20 soil borings will be advanced to depth of 15-20 ft bgs or refusal via a direct-push Geoprobe or similar motorized drill rig. All soil samples will be screened for volatile organic vapors using a photoionization detector (PID), and any visual or olfactory indications of contamination will be noted and used for the selection of soil samples.

During soil boring installation, continuous soil samples will be collected using macrocore samplers for field characterization (grain size, moisture, color, compaction, staining, odor, and other observations) by the on-site geologist, screened for volatile organic compounds (VOCs) using a PID, and the data recorded on boring logs. Any non-native materials present in the soil core will be noted and described, and any layer of fill material including ABG will be noted and photographed in field logs.

Upon completion, each boring that is not converted to a permanent monitoring well (further detailed in **Section 2.2.3**) will be backfilled from total depth to surface using clean sand or bentonite chips. After backfilling, the surface and surrounding area will be restored to previous conditions.

Up to two soil samples will be collected from each soil boring, with sample intervals generally being biased towards any observable ABG or fill or any other observable impacts. In instances where there are no observable fill or impacts, soil samples may be biased towards the water table interface.

As shown on **Table 1**, all soil samples are being analyzed for total metals (including mercury) by EPA Method 6010 and Method 7471 and TCL SVOCs by EPA Method 8270. The remaining parameters will be analyzed on 20 percent of the samples collected at locations based on field observations. If insufficient volume is recovered for full analyses, material from the sample interval above or below the interval will be included with the target interval for analysis and specified in the sample ID. Additional samples may be collected based on the presence of additional target material, discussions with NYSDEC personnel, or any other field observations.

QA/QC soil samples will be collected at a rate of one for every 20 field samples and analyzed for parameters as described in **Table 1** and **Table 2**. Trip blanks will also be included in sample coolers and analyzed for TCL VOCs by EPA Method 8260 at a rate of 1 per cooler for all coolers submitted with sample being analyzed for TCL VOCs.

The laboratory will submit analytical results to HRP in NYSDEC EQuIS Data Deliverable (EDD) format. Sample locations and total number of samples are summarized on **Table 1** and laboratory QA/QC details are summarized on **Table 2**.

### 2.2.3 Groundwater Characterization

To evaluate Site groundwater quality and obtain groundwater flow information, up to four soil boring locations may be converted to permanent overburden groundwater monitoring wells. The locations of the proposed monitoring wells will be selected based on the on-site observations of soil borings.

The wells will be installed to a depth based on soil sampling observations during soil boring installation. The wells will be constructed of 2-inch PVC with PVC 0.010-slot screens with an appropriately sized sand pack. All wells will be screened across the groundwater interface with the top of the screen extending at least two feet above the water table. A bentonite seal will be installed above the sand pack and allowed to hydrate. Each well will be completed with a concrete collar around each flush mount road box.

#### 2.2.3.1. Monitoring Well Development

The newly installed monitoring wells will be developed a minimum of 24 hours after installation by pumping and surging until the field parameters (temperature, pH, and specific conductance) stabilize for a minimum of three consecutive readings of 10 percent variability or less. In addition, groundwater turbidity must achieve a reading of 50 Nephelometric Turbidity Units (NTUs) or less during the final reading.

All purge water obtained during well development will be containerized in appropriately labeled 55-gallon drums and disposed of in accordance with NYSDEC DER-10. The groundwater will be segregated and handled as described in the section below. All sampling equipment will be appropriately decontaminated between sampling locations or, if applicable, disposed of after one-time use.

#### 2.2.3.2. Monitoring Well Sampling

Depth to groundwater measurements will be collected from the newly installed monitoring wells to the nearest 0.01 foot from the top of casings (survey details are discussed in **Section 2.2.8**) prior to sampling activities, the data will be used to construct a groundwater elevation contour map to determine the direction of groundwater flow and to calculate the apparent hydraulic gradient.

Groundwater sampling will occur a minimum of one week after development has been completed. Groundwater samples will be collected from the four newly installed wells. A complete synoptic round of water levels will be taken prior to the start of groundwater sampling. Samples will be submitted to a NYSDOH ELAP and NYSDEC approved laboratory. Groundwater samples from the newly installed wells will be collected in general accordance with low-flow groundwater sampling procedures.

All analytical samples will be completed using QA/QC NYSDEC Method Category B. The laboratory will submit analytical results to HRP in NYSDEC EDD format. All investigation derived waste (IDW) generated during installation, development, and sampling of the groundwater monitoring wells will be disposed of in accordance with DER-10. Sample locations and totals are summarized on **Table 1** and laboratory QA/QC details are summarized on **Table 2**.

### 2.2.4 Sample Handling Procedures

Nitrile gloves will be worn at all times by personnel collecting and handling the samples. All non-disposable equipment and tooling used for sampling will be properly decontaminated between sampling locations and intervals. Decontamination procedures are described in **Section 2.2.5**.

#### 2.2.4.1. PFAS Sampling

Sampling for PFAS will occur at the Site during the planned activities covered in this Work Plan. Only regular ice will be used in the transport of samples being analyzed for PFAS. The minimum method achievable Reporting Limits for PFAS will be less than or equal to 2 nanograms/Liter (part per trillion [ppt]) for aqueous samples and 0.5 micrograms/kilograms (parts per billion [ppb]) for solids samples.

#### 2.2.4.2. 1,4-Dioxane Sampling

Sampling for 1,4-dioxane will occur at the Site during the planned activities covered in this Work Plan. The minimum method achievable Reporting Limits for 1,4-dioxane will be less than or equal to 0.35 µg/L (ppb) for aqueous samples and 0.1 mg/kg (parts per million [ppm]) in solids samples.

### 2.2.5 Decontamination Procedures

Non-dedicated sampling equipment (i.e., submersible pumps, water level indicators, etc.) will be subject to decontamination procedures prior to each sample collected to reduce the potential for cross-contamination. The decontamination procedures will include the use of a scrub wash with a solution consisting of Alconox® detergent and potable water followed by a rinse with Deionized (DI) water. The decontaminated equipment will be stored in clean environments (i.e., the manufacturer's storage case). Decontamination fluids will be properly labeled and securely stored in a designated waste-container staging area.

### 2.2.6 Disposal of Investigation Derived Waste

IDW that is generated during the field investigation and the development of monitoring wells shall be handled in accordance with NYSDEC DER-10. HRP's subcontractor will be responsible for supplying the equipment and materials necessary for the proper handling and storage of the IDW, such as DOT-approved 55-gallon drums. All containers will be labeled and stored in accordance with applicable NYSDEC regulations at an on-site location.

Soil shall be handled and disposed of in accordance with DER-10. If off-site disposal of IDW is required, it will be disposed of or treated according to applicable local, state, and federal regulations. Soils from the investigation may be disposed within the monitoring well borehole as backfill over the bentonite seal provided the cuttings do not exhibit staining, odors, or elevated PID readings.

It is anticipated that purge water generated during the development and sampling of the monitoring wells will require off-site disposal. Decontamination fluids will be containerized separately from other IDW, and any decontamination fluids that do not exhibit evidence of contamination will be containerized separately from those exhibiting evidence of contamination.

### 2.2.7 Analytical Data Quality Evaluation

This Work Plan and the associated site-specific QAPP Section detail the data quality objectives and analytical requirements needed for this WA.

During the final Work Plan review period, the site-specific QAPP Section and Work Plan will be reviewed and modified according to NYSDEC requirements and comments. Once the plans are finalized, deviations, if required, from protocols specified in the plans will be approved in advance by NYSDEC. As required, the selected analytical laboratory will maintain NYSDOH ELAP certification in all categories of USEPA Contract Laboratory Program (CLP) and Solid and Hazardous Waste analytical testing for the duration of the project.

The ELAP certified laboratory will supply all required data deliverables (USEPA CLP and NYSDEC ASP deliverable format) to enable the data to be validated by a third-party data validation subcontractor. All environmental data will be submitted electronically in a specified format named 'NYSDEC' in accordance with the data submission procedures outlined on the NYSDEC's website (http://www.dec.ny.gov/chemical/62440.html).

Upon receipt of the sample data, the validation contractor will quantitatively and qualitatively validate the laboratory data. The validation of the analytical data will be performed according to the protocols and QC requirements of the analytical methods, the CLP National Functional Guidelines for Organic and Inorganic Data Review (February 1994), the USEPA Region II CLP Data Review SOP, and the reviewer's professional judgment.

### 2.2.8 Base Map Development and Site Survey

The subject property will be surveyed by a New York State licensed land surveyor. The field survey will include establishing project horizontal control and the collection of planimetric features for the development of 2D mapping. Subsequently, a base map of the Site will be developed using Computer Aided-Design (CAD) software that will be utilized to place all sampling locations from on-site investigations. The sample locations will be placed on the base map by geo-referencing previous figures into the local CAD coordinate system and will include all monitoring wells and soil borings.

Upon completion of the investigation fieldwork, a survey will be conducted to properly locate all sampling points. The elevations of all monitoring well casings will be established to within an accuracy of plus or minus 0.01 feet to North American Vertical Datum (NAVD88). A notch will be etched in all interior casings, or a permanent black mark, to provide a reference point for all future groundwater elevation measurements.

## 2.3 Site Characterization Report

### 2.3.1 Report Preparation

The Site Characterization Report (SCR) will provide a description of the field activities, present data collected during field characterization, present a physical description of the Site including geology and hydrogeology, and provide an analysis and interpretation of the available data in the context of existing Site conditions. The SCR will include tabulated laboratory analytical results, Site maps and a discussion of contaminant concentrations, including a comparison to NYSDEC Standards, Criteria and Guidelines as described in Section 3.13 of DER-10.

The SCR prepared as part of this assignment will also provide a summary of the general nature of contamination on the Site to the extent investigated by the SC including, without limitation, the numbers of AOCs requiring further investigation and/or remediation and any significant events or seasonal variation which may have influenced sampling procedures or analytical results. The submitted report will include the report text, appropriate tables, figures, photographs, data summary tables, and boring logs in a PDF format on a compact disc. The electronic file will contain "bookmarks." In addition, one hard copy of the report will be provided.

### 2.3.2 Electronic Data Delivery

In addition to appropriate data summary tables and boring logs included in the report, all environmental data will be submitted electronically in a specified EDD format named in accordance with the data submission procedures outlined on the NYSDEC's web site (http://www.dec.ny.gov/chemical/62440.html).

## 3.0 GREEN AND SUSTAINABLE REMEDIATION BEST MANAGEMENT PRACTICES

Through the course of the SC, HRP will implement Green and Sustainable Best Management Practices (BMPs) to reduce negative impacts to air, water, solid waste, etc.

In consultation with the NYSDEC, quantifiable impact reductions achieved by green and sustainable remediation BMPs implemented during the SC investigations (e.g., tons of carbon reduced, gallons of fuel saved, pounds of waste reduced) may be included in Site fact sheets to promote public awareness of NYSDEC green and sustainable BMPs.

Green and Sustainable Remediation BMPs to be implemented as part of this project are summarized below, organized by BMPs implemented in project planning and field work phases of work.

Project Planning BMPs

BMP 1) A well-conceived dynamic sampling plan has been developed for the Site to assure that the data collected at project on-set adequately addresses Site data gaps, consequently reducing remobilization of field crews and equipment.

BMP 2) Efforts will be made to schedule Site visits and field work to reduce energy consumption and air emissions associated with mobilizations to and from the Site. The following BMPs will be implemented related to HRP mobilization:

- BMP 2a) Field work schedules will be consolidated by coordinating with contractors and property owners. Specifically, attempts will be made to have the GPR work performed in the same mobilization as intrusive work at the Site.
- BMP 2b) When two or more HRP personnel are involved in a trip to and from the Site which requires a passenger vehicle personnel will "car-pool" by sharing a vehicle, reducing energy consumption and emissions associated with taking multiple vehicles to the Site.

Field Work BMPs

BMP 3) Soil borings will be installed with direct push drilling methods, when possible, to reduce the generation of waste drill cuttings and drill rig operation time.

BMP 4) Monitoring wells will be installed as permanent points with protective road boxes or stick-ups so that they may be utilized for potential future sampling events. This will reduce energy usage, air emissions, and mobilizations associated with installing new soil vapor points if re-sampling is required during a future investigation.

BMP 5) When not in use, vehicles, trucks, drill rigs, and other equipment will be shut off to reduce energy consumption and emissions related to engine idling.

BMP 6) Dedicated plastic tubing will be installed to collect groundwater samples from permanent monitoring wells, reducing waste generated by using new tubing if monitoring wells are sampled during future events.

BMP 7) Waste cardboard generated from labware (sample jars, bottle ware, and summa cannisters) will be reused or recycled to reduce waste.

## 4.0 SITE-SPECIFIC QUALITY ASSURANCE PROJECT PLAN

The purpose of the QAPP is to specify QA/QC procedures for the collection, analysis, and evaluation of data that will be legally and scientifically defensible.

### 4.1 Site-Specific Sampling

Soil and groundwater samples will be collected during this site investigation. Matrix types, number of samples (including QA/QC) and analytical details are summarized in **Table 1**.

### 4.2 Data Quality Assessment and Usability

Data quality objectives for the SC are focused on the characterization of COCs related to ABG impacting on-site soil and groundwater.

To achieve these objectives, QA/QC measures will be implemented throughout the site investigation to provide input as to the validity and usability of data generated through soil and groundwater sampling. The procedures for data QA/QC management includes field documentation; sample handling, custody, and shipping; instrument calibration and maintenance; auditing; data reduction, validation, and reporting; corrective action requirements; and QA reporting specific to the analyses performed by the laboratory under subcontract to HRP. **Table 2** lists the sample containers, preservation, and holding time requirements for the parameters specific to this Site. This table will be referenced by field personnel.

For all data generated, a Category B Data package and DUSR will be prepared to provide a thorough evaluation of analytical data utilizing third-party data validation. Environmental Data Services, Inc. (EDS) will be the third-party data validator for this project.

## 5.0 PROJECT MANAGEMENT

HRP has the responsibility of the overall management of this project and will respond to any NYSDEC requests. A proposed project schedule, key milestones, key project personnel, and project-specific subcontractors follow.

### 5.1 Project Schedule and Key Milestones

The proposed project schedule for this WA is outlined below. Key milestones are identified to monitor work progress. Drilling activities will commence following access agreements are signed and returned to the NYSDEC. The following milestones will be applicable for this project:

| CATEGORY | TASK | START | END |
|---|---|---|---|
| **Task 1 – Preliminary Activities** | File Review | 01/8/2026 | 01/16/2026 |
| | Development of 2.11's | 01/19/2026 | 02/13/2026 |
| | Technical Review and Budget Approval | 02/13/2026 | 03/01/2026 |
| | QAPP, Work Plan, and HASP (Includes Department Review and Approval) | 03/01/2026 | 06/26/2026 |
| **Task 2 – Field Work/Field Investigation** | Utility Clearance, Soil Sampling, Monitoring Well Installation, Well Development, Groundwater Sampling, Site Survey | 06/30/2026 | 07/13/2026 |
| **Task 3 – Site Characterization Report** | Report Preparation and Submittal | 07/13/2026 | 10/31/2026 |

## 5.2 Key Project Personnel

A list of the project personnel of the prime consultant and subcontractors responsible for performance of the investigation has been submitted to the NYSDEC for approval. Primary project staff are listed in the table below.

| Personnel | Company | Title for this Work Assignment | Responsibility |
|---|---|---|---|
| Mark Wright, PG (NYSDEC Contract Manager) | HRP Associates, Inc. (Prime Consultant) | Project Manager | Overall management of the WA |
| Bryan Sherman, CSP (Project Manager) | HRP Associates, Inc. | Office Health and Safety Manager | Approval of HASP and responsible for overall health and safety issues with the WA |
| Michael Varni (Senior Project Geologist) | HRP Associates, Inc. | Corporate QA/QC Officer | Responsible for QA/QC on the WA |
| Shannon O'Malley (Consultant) | HRP Associates, Inc. | Field Manager and Site Health & Safety Officer | Responsible for the on-site sampling and investigative tasks |

Subcontractors for this project will include:

- GPR – East Coast Geophysics, Inc
- Drilling – Matrix Environmental Drilling Inc
- Data Validation – Environmental Data Services, Inc. WBE
- Site Survey – Fagan Engineers and Land Surveyors

## 6.0 REFERENCES

Caldwell, D.H., et.al., 1986, Surficial Geologic Map of New York, New York State Museum – Geological Survey, Map and Chart series Finger Lakes Sheet.

Finger Lakes EnviroTech, LLC. dba T & R Environmental (T&R) 2022. *Interim Remedial Measure Construction Completion Report, Vine Street Water Treatment System*. Prepared for the Village of South Corning. June 2022.

Finger Lakes EnviroTech, LLC. dba T & R Environmental (T&R) 2022. *Interim Remedial Measure Interim Site Management Plan, Vine Street Water Treatment System*. Prepared for the Village of South Corning. June 2022.

Parsons 2025. *Short-Term Response Action Summary Report, Vine Street Site Area*, Corning, Steuben County, New York. Prepared for the New York State Department of Environmental Conservation; Division of Environmental Remediation. March 2025.

New York State Department of Environmental Conservation, Division of Environmental Remediation, DER-10 Technical Guidance for Site Investigation and Remediation, May 2010.

New York State Department of Environmental Conservation, Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs, October 2020.

# FIGURES

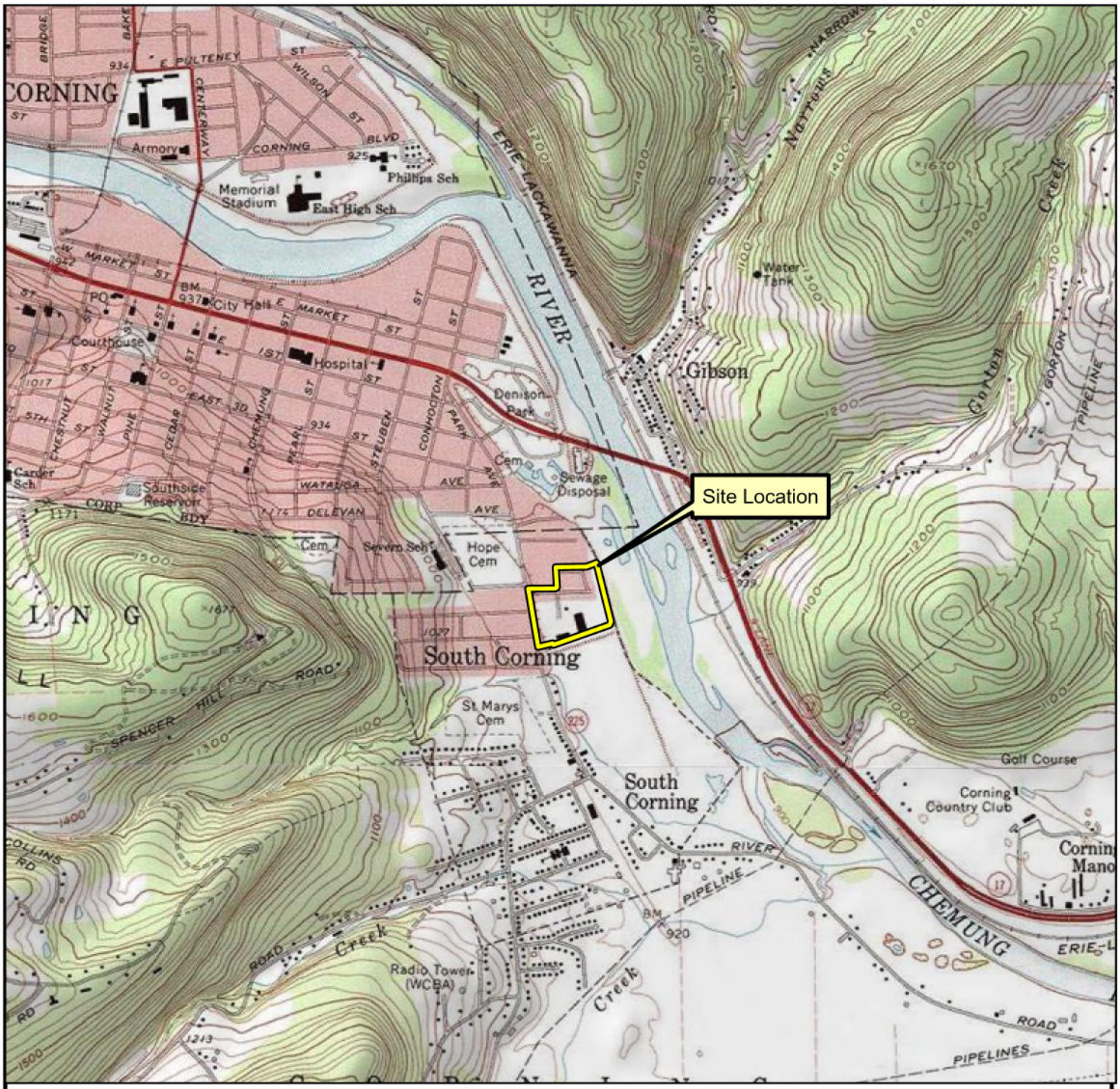



**Figure 1**
**Site Location**
**Vine Street - Corning ABG**
**Corning, New York**
**HRP # DEC1063.P2**
**Scale 1" = 2,000'**

USGS Quadrangle Information
Quad ID: 741-W22
Name: Corning, New York
Date Rev: 1977
Date Pub: 1969


HRP
MOVE YOUR ENVIRONMENT FORWARD
ONE FAIRCHILD SQUARE
SUITE 110
CLIFTON PARK, NY 12065
(518) 877-7101
HRPASSOCIATES.COM


Path: \\hrp-ny-fs2.hrp.local\shared\Data\NNYDEC - NYSDEC\CORNING ABG\DEC1063P2 - Vine Street\GIS\Vine Street\Vine Street.aprx

# TABLES

**Table 1**
**Site Characterization Sample Summary**
**Vine Street - Site # 851067**
**Vine Street**
**Corning, New York**

| Activity/ Matrix | Number of Sample Locations | Location | Samples to be Collected | Analyses |
|---|---|---|---|---|
| Soil<br>(Including MS/MSD<br>1 per 20 samples<br>Duplicate 1 per 20 samples) | Up to 20*, 2 samples per boring | See Figure 2 Sampling Locations | Up to 46* (Including QA/QC) | TCL SVOCs +20 by EPA Method 8270<br>TAL Metals by EPA Method 6010B including Mercury and Boron |
| Soil<br>(Including MS/MSD<br>1 per 20 samples<br>Trip blank- 1/cooler<br>Duplicate 1 per 20 samples) | Up to 4* | See Figure 2 Sampling Locations | Up to 7* (Including QA/QC) | TCL VOCs by EPA Method 8260<br>Total Cyanide by EPA Method 9012A<br>Total PCBs by EPA Method 8082<br>Chlorinated Herbicides by EPA Method 8081<br>TCL Pesticides by EPA Method 8081B<br>PFAS by EPA Method 1633<br>1,4-dioxane by EPA Method 8270-SIM |
| Groundwater Sampling<br>(Including MS/MSD<br>1 per 20 samples<br>Duplicate 1 per 20 samples) | 4 | To Be Determined | Up to 7 (Including QA/QC) | TCL SVOCs +20 by EPA Method 8270<br>TAL Metals by EPA Method 6010B including Mercury and Boron |
| Groundwater Sampling | 1 | To Be Determined | 1 | TCL VOCs by EPA Method 8260<br>Total Cyanide by EPA Method 9012A<br>Total PCBs by EPA Method 8082<br>Chlorinated Herbicides by EPA Method 8081<br>TCL Pesticides by EPA Method 8081B<br>PFAS by EPA Method 1633<br>1,4-dioxane by EPA Method 8270-SIM |

* The total number of sample locations and number of samples collected is dependent on property access limitations.

Acronym List:
PCBs: Polychlorinated biphenyls
PFAS: Per-and Polyfluoroalkyl Substances
VOCs: Volatile Organic Compounds
SVOCs: Semi-Volatile Organic Compounds
TAL: Target Analyte List
TCL: Target Compound List
QA: Quality Assurance
QC: Quality Control

**Table 2**
**Analytical Methods/Quality Assurance Summary**
**Vine Street - Site # 851067**
**Corning, New York**

| | | | | Containers per Sample | | | Preservation Requirements | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Parameter** | **Number of Samples (including Field QC)** | **Preparation Method** | **Analytical Method*** | **No.** | **Size** | **Type** | **Temp.** | **Light Sensitive** | **Chemical** | **Maximum Holding Time** |
| **Soil** | | | | | | | | | | |
| TCL SVOCs by GC/MS | Up to 46* | 3546 | SW-846 Method 8270C | 1 | 4 oz | amber glass jar | 2-6º C | Yes | NA | 14 days |
| TAL Metals (including Mercury and Boron) by ICP | Up to 46* | 3050B | SW-846 Method 6010B | 1 | 2 oz | amber glass jar | 2-6º C | No | NA | 6 months |
| TCL VOCs by GC/MS | Up to 7* | 5035A | SW-846 Method 8260 | 1 | 4 oz | amber glass jar | 2-6º C | No | NA | 14 days/28 days |
| PFAS | Up to 7* | N/A | SW-846 Method 1633 | 1 | 500 ml | HDPE plastic bottle | 0-6º C | No | NA | 90 days |
| 1,4-dioxane | Up to 7* | 3546 | SW-846 Method 8270-SIM | 1 | 4 oz | amber glass jar | 2-6º C | Yes | NA | 14 days |
| Total PCBs | Up to 7* | 3546 | SW-846 Method 8082A | 1 | 8 oz | clear glass jar | 2-6º C | No | NA | 14 days |
| Chlorinated Herbicides | Up to 7* | 3546 | SW-846 8082A | 1 | 8 oz | clear glass jar | 2-6º C | No | NA | 40 days |
| Pesticides | Up to 7* | 3546 | SW-846 8151A | 1 | 8 oz | clear glass jar | 2-6º C | No | NA | 40 days |
| Total Cyanide | Up to 7* | 9012 | SW-846 9012B | 1 | 8 oz | Plastic or glass jar | 2-6º C | No | NA | 14 days |
| **Groundwater** | | | | | | | | | | |
| TCL SVOCs by GC/MS | Up to 7 | 3546 | SW-846 Method 8270C | 2 | 125 ml | Amber jar | 2-6º C | Yes | NA | 14 days |
| TAL Metals (including Mercury and Boron) by ICP | Up to 7 | 3050B | SW-846 Method 6010B | 1 | 250 ml | Plastic bottle | 2-6º C | No | HNO3 | 6 months |
| TCL VOCs | 1 | 5035A | SW-846 Method 8260 | 1 | 40 ml | Glass vial | 2-6º C | No | HCl | 14 days/28 days |
| PFAS | 1 | N/A | SW-846 Method 1633 | 1 | 125 ml | Plastic bottle | 0-6º C | No | NA | 90 days |
| 1,4-dioxane | 1 | 3546 | SW-846 Method 8270-SIM | 1 | 1 L | Amber jar | 2-6º C | Yes | NA | 14 days |
| Total PCBs | 1 | 3546 | SW-846 Method 8082A | 1 | 1 L | Amber jar | 2-6º C | No | NA | 40 days |
| Chlorinated Herbicides | 1 | 3546 | SW-846 8082A | 1 | 1 L | Amber jar | 2-6º C | No | NA | 40 days |
| Pesticides | 1 | 3546 | SW-846 8151A | 1 | 1 L | Amber jar | 2-6º C | No | NA | 40 days |

* The total number of samples collected is dependent on property access limitations.

Acronym List:

GC: Gas Chromatography
ICP: Inductively Coupled Plasma
Ml: Milliliter
HCL: Hydrochloric Acid
TAL: Target Analyte List

PCBs: Polychlorinated Biphenyls
VOCs: Volatile Organic Compounds
HNO3: Nitric Acid
SVOCs: Semi-Volatile Organic Compounds
NA: Not Applicable

L: Liters
Oz: Ounce
HCl: Hydrochloric Acid
C: Celsius
TCL: Total Compound List

PFAS: Per-and Polyfluoroalkyl Substances
HDPE: High Density Polyethylene

HRP

# APPENDIX A
## Site-Specific Health and Safety Plan

MOVE YOUR ENVIRONMENT FORWARD

# SITE-SPECIFIC HEALTH AND SAFETY PLAN (HASP)

**Vine Street – Site # 851067**
6 Vine Street
South Corning, New York 14830

Prepared For:

New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233
Contract #D009808

Prepared By:

HRP Associates, Inc.
1 Fairchild Square, Suite 110
Clifton Park, NY 12065

HRP #: DEC1063.P2

Issued On: June 24, 2026

| ADDENDUM LOG | | |
|---|---|---|
| **Addendum Number** | **Date Issued** | **Modification(s) Needed/Reason(s)** |
| | | |
| | | |
| | | |
| | | |

## DISCLAIMER

*HRP Associates, Inc. does not guarantee the health or safety of any person entering this site. Due to the potential hazards of this site and the activity occurring thereon, it is not possible to discover, evaluate, and provide protection for all possible hazards which may be encountered. Strict adherence to the health and safety guidelines set forth herein will reduce, but not eliminate, the potential for injury at this site. The health and safety guidelines in this plan were prepared specifically for this site for use and should not be used on any other site.*

*If unexpected conditions were to arise, any employee will have "Stop Work Authority." Employees should be capable of identifying existing and predictable hazards in their surroundings or working conditions that are unsanitary, hazardous, or dangerous to the workers. The employee(s) has the authority to impose prompt corrective measures to eliminate these hazards. Some examples include the ability to stop work, close a jobsite, or evacuate workers if needed.*

## TABLE OF CONTENTS

**1.0 INTRODUCTION ..... 1**

**2.0 EMERGENCY CONTACTS AND PROCEDURES ..... 2**

2.1 Contacts ..... 2
2.2 Emergency Procedures ..... 2
2.3 Emergency Supplies and Equipment ..... 3

**3.0 SCOPE OF WORK ..... 4**

3.1 Site's Background ..... 4
3.2 Project's Description ..... 5
3.3 Site Type ..... 5
3.4 Scope of Work ..... 5

**4.0 ROLES AND RESPONSIBILITIES ..... 8**

**5.0 PROJECT HAZARDS AND CONTROL MEASURES ..... 9**

5.1 Identifying Hazards ..... 9
5.2 Task Policy Reminders ..... 9
5.3 Community Air Monitoring (required by DER 10) ..... 11
5.4 Equipment Usage ..... 14

**6.0 SUSPECTED CONTAMINATION AND DECONTAMINATION ..... 15**

6.1 Suspected Contamination ..... 15
6.2 Protective Zones ..... 15
6.3 Decontamination Procedures ..... 15
6.4 Emergency Decontamination ..... 16
6.5 Personal Hygiene ..... 16

**7.0 PERSONAL PROTECTIVE EQUIPMENT ..... 17**

7.1 Levels of Personal Protective Equipment ..... 18

**8.0 TRAINING/MEDICAL SURVEILLANCE ..... 19**

8.1 Training Requirements ..... 19
8.2 Pre-Entry Briefing ..... 20
8.3 Toolbox Talk (Daily Job Brief) ..... 20
8.4 Medical Surveillance ..... 20

**9.0 AUTHORIZATION ..... 20**

**10.0 RECORDKEEPING ..... 21**

**11.0 SITE-SPECIFIC HEALTH AND SAFETY PLAN APPROVAL ..... 21**

**12.0 FIELD TEAM ACKNOWLEDGMENT ..... 23**

## Figures

Figure 1 Site Location Map
Figure 2 Site Plan with Areas of Environmental Concern
Figure 3 Route and Map to Nearest Hospital

## Tables

TABLE 1 General Information
Table 2 Emergency Contacts
Table 3 Emergency Supplies/Equipment
Table 4 Site Type
Table 5 Tasks
Table 6 Roles and Responsibilities
Table 7 Action Levels
Table 8 Hazards Known or Suspected Onsite
Table 9 Hazardous Material Summary
Table 10 Equipment Usage
Table 11 Personal Protective Equipment
Table 12 Potential Field Activity Tasks and Associated PPE
Table 13 Contaminants of Known or Suspected Onsite (FOLLOWS TEXT)

## Appendices

Appendix A Safety and Logistics Planning Call Log
Appendix B Personnel Log
Appendix C Job Safety Analysis (JSA)
Appendix D Toolbox Talk
Appendix E Specific Procedures (Not Included)
Appendix F Safety Data Sheets (for chemicals brought to the site)
Appendix G Community Air Monitoring Program (CAMP)

## 1.0 INTRODUCTION

This Health and Safety Plan (HASP) has been prepared for the Vine Street (NYSDEC Site #851050) Site Characterization (SC). The general and contact information of the site can be found on **Table 1** below.

This HASP has been developed in accordance with HRP Associates, Inc.'s (HRP) Health and Safety (H&S) procedures as required under the Occupational Safety and Health Administration's (OSHA) Hazardous Waste Operations and Emergency Response (HAZWOPER) regulation (Code of Federal Regulations (CFR), 29 CFR 1910.120). Specific H&S information for the project is contained in this HASP. This Plan has also been developed to establish minimum standards necessary for onsite investigation activities to protect the H&S of HRP personnel.

HRP personnel and associated contractors shall be familiar with this HASP prior to conducting proposed site work. This plan must be present onsite and be available for reference/inspection when the subject site work is being conducted.

All project personnel shall sign the certification page acknowledging that they have read and understand this HASP. Changes in the scope of the project or introduction of new hazards to the project shall require revision of the HASP, and approval by the Project Manager (PM) under the Addendum Log.

| **TABLE 1<br>GENERAL INFORMATION** | | |
|---|---|---|
| **Project Number** | DEC1063.P2 | |
| **Site/Project Name** | Vine Street – Site #851067 | |
| **Site Address/Location** | 6 Vine Street, South Corning, NY | |
| **CONTACTS** | | |
| **HRP's Contacts** | | |
| **Title** | **Name** | **Phone Number** |
| **Project Manager** | John Gorman | 716-225-5545 |
| **Site Safety Officer** | Shannon O'Malley | 978-808-1696 |
| **Site-Specific Contacts** | | |
| **Name** | Thoren Gianuzzi, Project Manager | |
| **Title** | Project Manager, New York State Department of Environmental Conservation | |
| **Phone** | 518-402-8246 | |

## 2.0 EMERGENCY CONTACTS AND PROCEDURES

### 2.1 Contacts

**Table 2** presents the Emergency Contact information associated with the planned SC work. The following information, including directions to the nearest hospital shall be posted at the Site. When contacting the local authorities, be sure to provide: your name, facility name, full address, telephone number, and the nature of the emergency. The information on **Table 2** should be revised, if necessary, upon review of the work to be completed and prior to initializing the activities.

**TABLE 2**
**EMERGENCY CONTACTS**

| Contact | Name | Phone Number |
|---|---|---|
| Local Police | City of Corning Police Department | 607-962-0340 ext. 1500 |
| Local Ambulance | Guthrie Corning Hospital | 607-937-7200 |
| Local Fire Department | City of Corning Fire Department | 607-962-0340 |
| Poison Control Center | The Upstate New York Poison Control Center | 1-800-222-1222 |
| National Response Center | National Response Center | 800-424-8802 |
| Spill Response Agency | NYSDEC Spills Hotline | 1-800-457-7362 |
| Local Hospital | Guthrie Corning Hospital | 607-937-7200 |
| Local Hospital Address (Map in **Figure 3**) | 1 Guthrie Drive, Corning, NY | |
| HRP's Site Safety Officer | Shannon O'Malley | 978-808-1696 |
| Project Manager | John Gorman | 716-225-5545 |
| State Agency PM | Thoren Gianuzzi, Project Manager, NYSDEC | 518-402-8246 |

***For the police, ambulance, and fire department, contact 9-1-1.***

The Site Safety Officer will coordinate the entry and exit of response personnel in the event of an emergency.

Map and directions to the following medical facilities are provided on **Figure 3**.

### 2.2 Emergency Procedures

In the event of a worker injury, fire, explosion, spill, flood, or other emergency that threatens the safety and health of site workers, the following procedure will be followed:

1. If the emergency originates within the work area covered by this Plan, the HRP Site Safety Officer shall act as the Emergency Coordinator. The emergency evacuation signal is an air horn or a loud yell. All emergency situations (including worker injuries, no matter how small) will be reported to the Site Safety Officer, who will determine the appropriate

emergency response, up to and including evacuation. The Site Safety Officer will be responsible for reporting any emergency situation to the appropriate authorities, using a telephone or other appropriate method.

2. In the case of an evacuation, site workers will exit the site along the safest route(s) and assemble with team members at a safe rally point. Those workers in the Exclusion Zone will follow the emergency decontamination procedures outlined in **Section 6.4**. Accounting for all site personnel will be conducted by the Site Safety Officer using the personnel log at a location determined by the Site Safety Officer.
3. HRP personnel are not permitted to participate in handling the emergency. Fire and medical emergencies will be handled by the local fire department and ambulance service. In the case of a spill of hazardous materials, a local commercial spill clean-up firm should be contacted.

   If the spill begins to flow overland and threatens to contaminate a storm drain or surface water, HRP personnel may attempt to contain and isolate the spill using any available resources, but only if, in the judgment of the Site Safety Officer, such action will not expose the workers to dangerous levels of hazardous substances and is necessary to preserve life or property. In the event that a spill of material of any amount threatens to reach navigable waters, the National Response Center (NRC) shall be contacted.
4. Once initial emergency procedures to protect worker safety and health have been addressed, and control of emergency has been completed, the Site Safety Officer will complete HRP's Incident Investigation Report and submit this form to the appropriate personnel (HRP and/or client contact).
5. All site workers will be familiarized with the above procedures during the pre-entry briefing to be conducted before site work begins.

In the event of an evacuation, meet at the following rally points (shown on **Figure 2**):

- Parking lot 6 Vine Street (south side of building).

## 2.3 Emergency Supplies and Equipment

**Table 3** presents the appropriate Emergency Supplies and Equipment List for the planned listed work. Select the appropriate supplies and equipment based on the proposed work. The information on **Table 3** should be revised, if necessary, upon review of the listed work and prior to initializing the activities.

**TABLE 3**
**EMERGENCY SUPPLIES/EQUIPMENT**

| SUPPLY ITEM | LOCATION ONSITE |
|---|---|
| ☒ First Aid Kit | In Vehicle/Site Building |
| ☒ Fire Extinguisher | In Vehicle/Site Building |
| ☒ Eye Wash (Bottle) | In Vehicle/Site Building |
| ☒ Spill Kit | In Vehicle/Site Building |

| TABLE 3<br>EMERGENCY SUPPLIES/EQUIPMENT | |
|---|---|
| **SUPPLY ITEM** | **LOCATION ONSITE** |
| ☒ Hand Sanitizer | In Vehicle/Site Building |
| ☒ Caution Tape, Cones | In Vehicle/Site Building |
| ☐ Air Horn | In Vehicle |
| ☒ Flashlight | In Vehicle/Site Building |
| ☒ Water or Other Fluid | In Vehicle/Site Building |
| ☒ Wash and Dry Towels | In Vehicle |
| ☒ Sunscreen | In Vehicle/Site Building |
| ☒ Insect Repellant | In Vehicle |
| ☒ Cooling Aids (cooling towels, vests, etc.) | In Vehicle/Site Building |
| ☐ Other | |

## 3.0 SCOPE OF WORK

### 3.1 Site's Background

The Vine Street Site is located in the southern portion of the Village of South Corning. It is bounded by Park Avenue to the west, an agricultural field to the north, a flood control levee and electrical transmission line to the east and an auto repair shop and baseball field to the south.

The Corning Fire Department Site consists of residential properties and a water treatment building at 6 Vine Street. The site is comprised of 20 individual tax parcels totaling 20.7 acres. 342 Park Avenue is a listed as a separate P-site (Site # 851078) and is not included as part of the Vine Street site.

The property was formerly an agricultural field with a farm road along its northern boundary and the levee of the Chemung River along its eastern boundary from 1944 to 1952. By 1952, a small residential development was being built and by 1955, the residence at [redacted] had been constructed. From 1955 to 1960, extensive ground disturbance occurred on the parcel east of 6 Vine Street. A large commercial complex was constructed south of the Vine Street site by 1971 and is currently occupied by The Corning Building Company, a large building supply and home improvement center.

**Figure 1** shows the site's location map.

## 3.2 Project's Description

The Site is currently utilized as residential and water supply for the water treatment parcel. Based on investigations conducted to date, on-site soils and groundwater are contaminated with metals and semi-volatile organic compounds at levels exceeding applicable standards, criteria, and guidance. Glass manufacturing waste material, including ash, brick, and/or glass (ABG), was also observed in Site soils. This investigation will further delineate the nature and extent of contamination identified in previous investigations to assist in the design of the presumed remedy of excavating contaminated surface soils and installing a site cover.

**Figure 2** shows the areas of environmental concern(s).

Refer to the Introduction (**Section 1.0**) for the site's information and contacts.

## 3.3 Site Type

| **TABLE 4**<br>**SITE TYPE**<br>(Check all that may apply to the site/project.) | |
|---|---|
| ☒ Active | ☐ Abandoned |
| ☐ Industrial | ☐ Landfill |
| ☐ Inactive | ☒ Unsecured |
| ☐ Well Field | ☐ Water Work |
| ☒ Residential | ☐ Railroad |
| ☐ Undeveloped | ☒ Commercial |
| ☐ Secure | ☐ Service Station |
| ☐ Other | |

## 3.4 Scope of Work

GPS Survey

The proposed sampling layout consists of 20 locations spread out across the Site. Specific sampling locations will be marked using a GPS unit to establish soil sampling coordinates prior to subsurface work. Any boring locations that were planned will be field-verified during the GPS survey to ensure that the proposed location can be accessed by a drill rig.

Soil Boring Installation and Surface Soil Sampling

In general, the work to be performed by HRP and/or HRP's subcontractors consists of investigative methods to evaluate the environmental condition of the Site. The fieldwork for this task includes the following subtasks:

All installed soil borings will be named in accordance with the established sampling plan (**Figure 2**). which was designed to provide adequate distribution and coverage across the Site area. Subsurface

anomalies and utilities as well as overhead utilities may affect planned soil boring locations prior to installation. A minimum 10-foot distance will be maintained for soil borings in close proximity to marked or observed utilities. A GPS unit will be used to locate the coordinates for each installed boring.

Soil borings will be installed to evaluate for the presence of ABG and SCO exceedances to support and determine the footprint of any remedial actions. Soil borings will be advanced using a direct push drilling method to confirm the degree and extent of surface soil impacts above the Commercial SCO. Soil cores will be advanced continuously until a depth of 15-20 feet below grade is achieved or until refusal.

Each soil core will be examined for the presence of ABG. If ABG is observed during soil boring installation, field personnel will describe and document the location, depth, and photograph the material. All soil samples will be screened for organic vapors using a photoionization detector (PID) and any evidence of contamination will be noted and/or used for selection of soil samples for laboratory analysis. All samples will be submitted to a NYSDOH ELAP certified laboratory for analysis of Target Compound List (TCL) SVOCs by EPA Method 8270 and Target Analyte List metals by EPA Methods 6010D & 6020B. Quality control samples will be collected during soil sampling to ensure precision and accuracy of results. Duplicate and matrix/matrix spike duplicates will be collected at a frequency of 1 per 20 samples. A summary of soil sample collection and analysis is provided in **Table 2**.

Up to three soil sample samples from each boring will be collected from the depths intervals summarized below and results will be compared against the Part 375 Commercial Use SCO. Soil samples will only be collected from native soils or fill that does not contain ABG. Any samples containing ABG will be considered to be contaminated in accordance with Commissioner Policy CP-51 Section G and do not require laboratory analysis. Up to two samples from each boring will be collected and sample intervals will be biased towards observable contamination.

To evaluate Site groundwater quality and obtain groundwater flow information, up to three soil boring locations may be converted to permanent overburden groundwater monitoring wells. The locations of the proposed monitoring wells will be selected based on the on-site observations of soil borings.

The wells will be installed to a depth based on soil sampling observations during soil boring installation. The wells will be constructed of 2-inch PVC with PVC 0.010-slot screens with an appropriately sized sand pack. All wells will be screened across the groundwater interface with the top of the screen extending at least two feet above the water table. A bentonite seal will be installed above the sand pack and allowed to hydrate.

Upon completion, each soil boring not converted to a monitoring well will be backfilled with clean sand and topped with topsoil or asphalt patch. The area surrounding each soil boring will be returned to match previous existing conditions prior to soil boring installation. Each well will be completed with a concrete collar around each flush mount road box.

Installed monitoring wells will be developed 24 hours after installation by pumping and surging until the field parameters (temperature, pH, and specific conductance) stabilize for a minimum of three

consecutive readings of 10 percent variability or less. Groundwater sampling will occur a minimum of one week after development has been completed. Groundwater samples will be collected from the newly installed wells and submitted to a NYSDOH ELAP and NYSDEC approved laboratory for analysis of Target Compound List (TCL) SVOCs by EPA Method 8270 and Target Analyte List metals by EPA Methods 6010D & 6020B. Groundwater samples from the newly installed wells will be collected in general accordance with low-flow groundwater sampling procedures.

Site Survey

The surveyor contractor will collect and incorporate all previously identified utilities and subsurface anomalies as a part of the Site survey. The corners of existing hardscapes (such as paved asphalt parking lots and sidewalks, and buildings) will be surveyed at the Site.

Check the box for the following topics that are applicable to the project being completed (**Table 5**).

| **TABLE 5 TASKS** | |
|---|---|
| ☐ Site Inspections (e.g., ESA) | ☒ Drum Sampling |
| ☐ Industrial Hygiene | ☒ Ground Water Sampling |
| ☐ Asbestos Survey | ☐ Landfill Sampling |
| ☐ Bridge Inspections | ☐ Product Sampling |
| ☒ Drilling/Probing | ☐ Remediation Monitoring (air/water) |
| ☐ Well Repair/Abandonment | ☐ Soil Gas Sampling |
| ☐ Stack Testing | ☐ Stormwater Sampling |
| ☐ Surface Water Sampling | ☒ Surveying |
| ☐ Wastewater Sampling/Benchmark Test | ☐ Confined Space Entry |
| ☐ Excavation | ☐ Emergency Spill Response Oversight |
| ☐ Chemical/Waste Exposure/Handling | ☒ Surface Soil Sampling |

Should conditions or the scope of work described herein change significantly; a HASP Addendum will be completed.

A Safety and Logistics Planning call will be held prior to conducting any intrusive activities at the site. Representatives from HRP and each subcontractor will attend the call to discuss logistical and safety challenges general to the scope of work and specific to the Site. This call is documented on the Safety and Logistics Planning Log in **Appendix A**.

Specific procedures may be needed for certain job tasks, include at the end of this HASP.

## 4.0 ROLES AND RESPONSIBILITIES

The following personnel on **Table 6** are designated to perform the stated project activities and to ensure that the requirements of this HASP are met. The same person may fill more than one role, and/or serve as an alternate in the absence of the designated team member.

A complete list of HRP employee and subcontractor responsibilities (as applicable) can be found in the HRP's H&S procedures.

**NOTE**: Any employee has the STOP WORK AUTHORITY (sometimes known as PAUSE WORK).

**TABLE 6**
**ROLES AND RESPONSIBILITIES**

| Project Team Member | Responsibilities and Tasks |
|---|---|
| **Shannon O'Malley, Consultant** | **HRP's Site Safety Officer:** Ensuring all site work is performed in accordance with HRP's H&S Programs, as well as in accordance with local, state, and federal regulations.<br>• Directing and implementing HRP's HASP.<br>• Reviewing the Subcontractor's HASP and being aware of the hazards detailed therein.<br>• Conduct a job orientation meeting and routine safety meetings for HRP employees and subcontractors, as applicable.<br>• Provide copies of these inspections, recordkeeping/personnel logs to the engineer/contractor as required.<br>• Ensuring all project personnel have been adequately trained in the recognition and avoidance of unsafe conditions.<br>• Address Stop Work Orders that shall be executed upon the determination of an imminent H&S concern and will notify the appropriate contacts upon issuance of this order.<br>• Authorizing work to resume, upon approval from the Contractor.<br>• Directing activities, as defined in the HRP's and the Contractor's written HASP, during emergency situations.<br>• Providing personnel monitoring where applicable.<br>• Ensuring that adequate personal protective equipment (PPE) and first aid supplies are available.<br>• Ensure site security, to the extent practicable.<br>• Ensure accident victims are promptly cared for, and the incident is investigated and properly reported.<br>• Communicating with HRP's PM, Office H&S Manager (OHSM), and others when needed.<br>• Report all injuries, illnesses, and other incidents to the PM. |
| **John Gorman – Project Manager**<br><br>**Mark Wright, DEC Contracts Manager** | **HRP's Site Supervisor/Project Manager**<br>• Monitor and assist the Site Safety Officer.<br>• Maintain appropriate rules, regulations, and codes at the job site.<br>• Provide advanced safety planning for all activities through the use of scheduling and administrative controls.<br>• Obtain site-specific H&S information and communicate that information with the appropriate personnel (i.e., contractors, client, etc.)<br>• Report all injuries, illnesses, and other incidents to the Regional Office Manager (ROM) and Corporate H&S Officer (CHSO). If ROM or CHSO cannot be reached, contact Chief Operating Officer (COO) or Human Resources.<br>• Ensure all HRP personnel are trained and qualified to perform site work. |

| TABLE 6<br>ROLES AND RESPONSIBILITIES | |
|---|---|
| **Project Team Member** | **Responsibilities and Tasks** |
| **Site Workers (Subcontractors)** | **Site Workers**<br>• Read and work in accordance with this HASP.<br>• Report all unsafe work practices to the Site Safety Officer.<br>• Report all incidents, including near-misses to the Site Safety Officer.<br>• Work in a safe manner.<br>• Provide designated Competent Person |

*A list of site workers will be maintained in the Personnel Log (**Appendix B**).

## 5.0 PROJECT HAZARDS AND CONTROL MEASURES

### 5.1 Identifying Hazards

The Site Supervisor/PM shall complete the Job Safety Analysis (JSA) in **Appendix C** prior to the start of the project. The JSA identifies the steps of the task to be performed with its hazards, unsafe conditions, and materials that are known or suspected to be onsite. The hazards that are listed in the JSA must be ranked using HIGH (H), MEDIUM (M), or LOW (L) based on current site knowledge. Use the results of this analysis to verify that controls in the JSA are adequate to mitigate task hazards.

Details of specific hazards associated with individual tasks will be discussed in the Toolbox Talk (formerly known as the Daily Job Brief Record (**Appendix D**)). **The Toolbox Talk is the key to the entire operation**. We are writing this HASP prior to going onsite and therefore cannot anticipate all of the site-specific hazards. The PM must do a thorough job on the Toolbox Talk, so we remain compliant. The Daily Toolbox Talk records will be reviewed by the PM at the conclusion of the field work.

### 5.2 Task Policy Reminders

Confined Spaces

Only properly trained HRP personnel are authorized to enter confined spaces. Confined space entry may be performed by subcontractors who have the proper training and experience to conduct this work.

Emergency Spill Response Oversight

HRP personnel are not permitted to participate in handling the emergency, only the oversight of such activities.

Excavations

It is HRP's policy to ensure that for excavation projects the subcontracted environmental contractor will provide a competent person to perform daily and as needed inspections of excavation sites. This policy will be conveyed through the subcontract agreement with the environmental contractor. At a minimum HRP will provide our employees involved with construction projects with awareness level

training regarding excavation hazards and notify the subcontracted firm if any obvious excavation safety hazard exists during the course of onsite activities.

Drilling

HRP employees will not perform drilling, rather HRP will use a competent subcontractor to perform drilling services. At a minimum, HRP will provide our employees involved with this type of project with awareness level training regarding drilling, the hazards of the equipment and distance of the drilling.

Chemical Hazards

Hazardous materials and/or chemicals are listed on **Table 9**. Contaminants that are known or suspected onsite are listed at the end of this document on **Table 13** includes Chemical name, odor threshold OSHA permissible exposure limit (PEL), the American Conference of Governmental Industrial Hygienists (ACGIH) threshold limit value (TLV), OSHA short-term exposure limit (STEL), Immediately Dangerous to Life or Health (IDLH) Concentrations, routes of exposure, and symptoms of acute exposure. Chemicals likely to be encountered during site work are highlighted.

Physical Hazards

Physical hazards known or suspected to be onsite are listed on **Table 8**. **Table 8** includes description of potential hazards, methods to identify/minimize them, potential for occurrence and potentially affected tasks.

Air Monitoring

In order to determine potential health hazards and to determine the level of personal protection needed during drilling, excavation, and sampling activities within the areas of concern, a photoionization detector (PID) will be periodically operated to monitor air quality for the purpose of ensuring minimal exposure to volatile organic compounds.

Background ambient air levels will be established outside the exclusion zone prior to commencement of site work. Ambient air sampling will occur in the breathing zone of site workers for comparison to the action levels (described below). Additionally, air sampling will be conducted in the vicinity of any intrusive exploration (i.e., near excavations, trenches, etc.) to determine if any contaminants are present. See **Table 7** for action levels to be used.

**TABLE 7**
**ACTION LEVELS**
Use the following Action Levels

| INSTRUMENT | ACTION LEVEL | LEVEL OF PROTECTION OR ACTION REQUIRED |
|---|---|---|
| PID | <5 ppm | • Continue to monitor<br>• Recheck levels after fifteen minutes<br>• If levels are sustained, reassess<br>• Use engineering controls to lower breathing zone vapors<br>• Level C protection (at the H&S Officer's (HSO) discretion) |

| | | |
|---|---|---|
| PID | >5 ppm | • Stop work and evacuate exclusion zone<br>• Recheck levels after fifteen mins<br>• Use engineering controls to lower breathing zone vapors<br>• If levels are sustained, contact CHSO and/or OHSM, and re-evaluate HASP |
| **NOTE:** When the background reading is >1 ppm, assess the area and equipment, but continue PID monitoring and wear Level D protection<br>ppm = parts per million | | |

When an action level is equaled or exceeded, the work area should be evacuated, and the area re-tested with the sampling device. If the appropriate action level continues to be exceeded, the Site Safety Officer will have to assess the use of engineering controls to lower vapor levels or availability of required increased personal protection equipment before authorizing re-entry.

## 5.3 Community Air Monitoring (required by DER 10)

**AWARENESS FOR NEW YORK ONLY:**

To ensure the protection of receptors surrounding the site HRP has developed and will implement a Community Air Monitoring Program (CAMP), which requires real time monitoring of volatile organics and dust during the remedial investigation. The CAMP will be implemented during all intrusive activities. The site-specific CAMP is included as **Appendix G**.

Particulate concentrations will be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring will be performed using real-time monitoring equipment capable of measuring particulate matter less than ten micrometers (10 µm) in size (PM-10) and capable of integrating over a period of fifteen minutes (or less) for comparison to the airborne particulate action level. The equipment will be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration will be visually assessed during all work activities.

If the downwind PM-10 particulate level is 100 micrograms per cubic meter($\mu g/m^3$) greater than the background (upwind perimeter) for the fifteen-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques will be employed. Work may continue with dust suppression techniques provided that no visible dust is migrating from the work area.

If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 $\mu g/m^3$ above the upwind level, work will be stopped, and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 $\mu g/m^3$ of the upwind level and in preventing visible dust migration.

**TABLE 8**
**HAZARDS KNOWN OR SUSPECTED ONSITE**
*Check all that may potentially apply to the tasks being performed. Chemical Hazards are included on **Table 8**.

| PHYSICAL HAZARDS | SAFETY HAZARDS | BIOLOGICAL HAZARDS | ERGONOMIC HAZARDS | PSYCHOLOGICAL HAZARDS |
|---|---|---|---|---|
| ☐ Structure Unsafe | ☒ Slipping/Tripping/Falling | ☐ Bacteria | ☒ Repetitive Movements | ☐ Workload |
| ☒ Uneven Floors/Surfaces | ☐ Improper Machine Guard | ☐ Viruses | ☐ Improper Work Setup | ☐ New Worker |
| ☐ Ceiling Unsafe | ☐ Equipment Malfunction | ☒ Insects | ☐ Poor Equipment Design | ☐ Lone Worker |
| ☐ Falling Objects/Loads | ☒ Struck By | ☒ Plants | ☐ Poor Workstation Design | ☐ Stress |
| ☐ Flying Debris | ☐ Homeless Encampments | ☒ Animals/Birds | ☒ Postural/Workflow | ☐ Harassment |
| ☒ Slippery Floor/Ground | ☐ Falling Into | ☐ Other (Specify) | ☒ Manual Handling | ☐ Communication Issue |
| ☐ Obstructed Walking Areas | ☐ Cave In/Collapses | | ☐ Other (Specify) | ☐ Other (Specify) |
| ☐ Misuse of Machinery | ☒ Underground Utilities | | | |
| ☐ Excessive/Loud Noise | ☐ Excavation Spoils | | | |
| ☐ Poor Lighting | ☐ Superimposed Loads | | | |
| ☐ Fire | ☒ Mobile Equipment/Machinery | | | |
| ☐ Radiation | ☐ Electrical | | | |
| ☐ Magnetic Fields | ☐ Poor Housekeeping | | | |
| ☐ Pressure Extremes | ☐ Suspicious Activity/Person | | | |
| ☒ Extreme Heat/Cold | ☐ Security | | | |
| ☒ Inclement Weather | ☒ Traffic | | | |
| ☐ Confined Space Entry | ☐ Other (Specify) | | | |
| ☐ Atmosphere | | | | |
| ☐ Drowning | | | | |
| ☒ Flooding | | | | |
| ☐ Poor Visibility | | | | |
| ☐ Other (Specify) | | | | |

**CONTROL MEASURES AND WORK PRACTICES**

**NOTE**: Hand signals are encouraged to communicate during a job where hearing is limited, but vision is not. These hand signals should be listed within the Toolbox Talk and JSA.

**REQUIRED PERMITS**

☒ None ☐ Excavation ☐ Encroachment ☐ Confined Space Entry ☐ Hot Tap ☐ Street Open/Closing ☐ Hot Work
☐ Energized Equipment ☐Other (Specify)

***These permits may not be issued by HRP employees. You may reference them as needed.**

**TABLE 9**
**HAZARDOUS MATERIAL SUMMARY**
Check all that may apply onsite. Attach Safety Data Sheets (SDS) in **Appendix F** for each chemical that will be brought to the site.

| HAZARDOUS MATERIAL LIST | | KNOWN CHEMICALS<br>List the actual chemical name that HRP employees are exposed to. |
|---|---|---|
| ☐ Acids | ☐ Diesel Fuel/Oil | Arsenic, barium, boron, cadmium, chromium, lead, mercury |
| ☐ Pickling Liquors | ☐ Lubricants | Benz(a)Anthracene, Benzo(a)Pyrene, Benzo(b)Fluroanthene, Benzo(k)Fluoranthene, Chrysene, Dibenz(a,h)Anthracene, and Indeno(1,2,3-C,D) |
| ☐ Caustics | ☐ PCBs | |
| ☒ Pesticides | ☒ PAHs | |
| ☐ Dyes/Inks | ☐ Kerosene | |
| ☐ Cyanides | ☐ Propane | |
| ☐ Phenols | ☒ PFAS | |
| ☐ Halogens | ☐ Mold | |
| ☐ Dioxins | ☐ Distillation Bottoms | |
| ☒ Fly Ash | ☐ Fecal Matter/Animal Waste | |
| ☐ Asbestos | ☐ Laboratory Waste | |
| ☐ Millings/Mine Tailings | ☐ Pharmaceuticals | |
| ☐ Ferrous Smelter | ☐ Hospital Waste | **CONTROL MEASURES:** |
| ☐ Non-Ferrous Smelter | ☐ Radiological Waste | |
| ☒ Metals | ☐ Municipal Waste | |
| ☐ Chlorinated Solvents | ☒ Construction Debris | |
| ☒ Hydrocarbons | ☐ Aluminum | |
| ☐ Alcohols | ☐ Paint | |
| ☐ Ketones | ☐ Pigments | Avoid skin contact with soil/sediment and groundwater. Wear nitrile gloves when sampling/handling soils and water. |
| ☐ Esters | ☐ Metal Sludges | |
| ☐ Ethers | ☐ POTW Sludges | |
| ☐ Oily Wastes | ☒ Glass | |
| ☐ Gasoline | | |

## 5.4 Equipment Usage

**Table 10** below lists the equipment that will be used for the above task(s). Equipment must be included in the JSA and/or Toolbox Talk for proper hazard identification of tasks being performed.

| TABLE 10<br>EQUIPMENT USAGE | | | |
|---|---|---|---|
| **EQUIPMENT/ INSTRUMENT** | **USED FOR** | **CALIBRATION BY** | **CALIBRATION DATE** |
| MiniRae 3000 PID | Screening Soils | | |
| MiniRae 3000 PID x 2 | CAMP - VOCs | | |
| DustTrak x 2 | CAMP – Particulates | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

## 6.0 SUSPECTED CONTAMINATION AND DECONTAMINATION

### 6.1 Suspected Contamination

Prior to commencement of work in the area of suspected contamination, protective zones specific for each phase of the HASP will be established by the Site Safety Officer, if necessary, prior to the start of field work. These zones will be defined during the Toolbox Talk.

The purpose of the protective zones is to prevent potential cross-contamination of adjacent areas as well as to protect project personnel from exposure to contaminated areas.

### 6.2 Protective Zones

Protective zones shall be delineated as follows:

- **Exclusion Zone:**

  This is the contaminated area in which intrusive activities are performed. The area of environmental concern (AOEC) is located within this area. A single access point for entrance and exit should be established and maintained, if possible. This zone should be delineated from the Contaminant Reduction Zone via perimeter cones or caution tape, or other applicable method. Work areas are shown on **Figure 2**. The Exclusion Zone delineation and any necessary modifications will be based onsite conditions.

- **Contaminant Reduction Zone:**

  This zone is a transition zone located between the Exclusion Zone and the Support Zone and is utilized to decontaminate personnel and equipment.

- **Support Zone:**

  This zone will be utilized by equipment and vehicle storage and will be kept free of contaminated material. The Site Safety Officer will determine the location of this zone. In the event of a site evacuation, see **Figure 2** and **Section 2.2** (Emergency Contacts/Planning) for the rally point. The designated rally point may be relocated by the Site Safety Officer based on project or site conditions. All site workers will be notified of any relocation prior to implementation.

**NOTE**: Protective zones are not anticipated for this project.

### 6.3 Decontamination Procedures

All personnel and equipment leaving the exclusion zone must be properly cleaned and decontaminated. When there is evidence of chemical contamination during the site operations, all personnel will be decontaminated under the direction of the Site Safety Officer. Clean-up and/or decontamination of personnel shall consist of washing off excessively soiled PPE with a disinfectant detergent scrub and water. At the very least, all personnel should wash their hands and face before leaving the exclusion zone. After washing, all disposable clothing (Tyvek, gloves, etc.) will be removed and placed in a double lined plastic bag.

Sampling tools and any other non-disposable items will be decontaminated between sampling points, and at the direction of HRP personnel, to prevent cross-contamination of work areas or environmental samples, as applicable.

## 6.4 Emergency Decontamination

If immediate medical attention is required in an emergency, decontamination will be performed after the victim has been stabilized. If a worker has been exposed to an extremely toxic or corrosive material, then emergency decontamination will consist of flushing with copious amounts of water. If the victim cannot be decontaminated because it will interfere with emergency medical aid being administered, then the victim should be wrapped with plastic or other available items (i.e., an uncontaminated coverall) to reduce potential contamination of other personnel or medical equipment.

If a site worker has been overcome by heat related illness, then any protective clothing should be removed immediately. In the case of non-medical emergency evacuation, decontamination should be performed as quickly as possible, unless instant evacuation is necessary to save life or prevent injury.

## 6.5 Personal Hygiene

All employees will be required to wash their hands and face prior to eating, smoking, drinking, and going to the bathroom. Workers will be required to remove contaminated PPE and clothing prior to leaving the Contaminant Reduction Zone. All field personnel should avoid contact with potentially contaminated substances such as puddles, pools, mud, etcetera.

## 7.0 PERSONAL PROTECTIVE EQUIPMENT

There is different equipment that is worn to minimize exposure to hazards that can cause serious work injuries and illnesses. **Table 11** will list out the PPE that is required onsite and for the job that needs to be performed.

**TABLE 11**
**PERSONAL PROTECTIVE EQUIPMENT**
Check all the PPE that may apply and give the description of PPE.

| TYPE of PPE | DESCRIPTION of PPE |
|---|---|
| **HEAD AND FACE:**<br>☐ Not Needed<br>☒ Safety Glasses<br>☐ Safety Goggles<br>☐ Face Shield<br>☒ Hard Hat<br>☐ Hearing<br>☐ Other | |
| **FEET:**<br>☐ Not Needed<br>☒ Steel Toes<br>☐ Overboots<br>☐ Disposable Booties<br>☐ Rubber Boots<br>☐ Electrostatic Discharge (ESD)<br>☐ Chemical Resistant<br>☐ Other | |
| **PROTECTIVE CLOTHING:**<br>☐ Not Needed<br>☐ Encapsulated Suit<br>☐ Splash Suit<br>☐ Apron<br>☒ High Visibility Vest<br>☐ Coveralls<br>☐ Other | |
| **HANDS:**<br>☐ Not Needed<br>☐ Cut Resistant<br>☐ Chemical Resistant<br>☐ Under Gloves<br>☐ Over Gloves<br>☐ Heat Resistant<br>☒ Other | Nitrile Gloves |
| **RESPIRATOR:**<br>☒ Not Needed<br>☐ Supplied Air<br>☐ APR | ☐ Filtering Face Piece (N95/Dust Mask)<br>☐ Half Face<br>☐ Full Face |

## 7.1 Levels of Personal Protective Equipment

As identified in **Section 5.0**, the overall H&S risk associated with chemical hazards for HRP, and associated contractors is considered significant. This is primarily due to the moderate concentrations of chemical contaminants expected based on minimal contact personnel will have with any potentially contaminated media. Therefore, the minimal level of protection for HRP personnel during the conduct of all the environmental work performed at the site will be Level D PPE. The following constitute Level D PPE; it may be used as appropriate:

- Coveralls
- Gloves, as applicable
- Chemical-resistant steel toe and shank shoes
- Boots, outer, chemical-resistant (disposable), as applicable
- Safety glasses or chemical splash goggles
- Hard hat, as applicable
- Escape mask, as applicable
- Face shield, as applicable

If site conditions warrant, an upgrade to Level C PPE may be required. If required, the Contractor will make Level C PPE readily available. The following constitute Level C PPE; it may be used as appropriate:

- Full-face or half-mask, air purifying respirators (National Institute for Occupational Safety and Health (NIOSH) approved)
- Hooded chemical-resistant clothing (e.g., Tyvek, overalls, two-piece chemical-splash suit, disposable chemical-resistant overalls)
- Coveralls, as applicable
- Gloves, outer, chemical-resistant
- Gloves, inner, chemical-resistant
- Boots (outer), chemical-resistant steel toe and shank, as applicable
- Boot-covers, outer, chemical-resistant (disposable), as applicable
- Hard hat, as applicable
- Escape mask, as applicable
- Face shield, as applicable

**NOTE**: Safety vest may or may not be required depending onsite conditions/location and will be addressed at the time of task assignment by the Site Safety Officer.

If the Toolbox Talk determines that protection beyond Level D is required, HRP will re-evaluate the HASP as well as the site conditions, and will revise the HASP as required.

**NOTE**: The level of protection identified here does not include the necessary equipment for entering confined spaces.

The following table provides a general description of potential field activity tasks to be performed and associated (recommended) PPE. The use of this PPE may or may not vary depending onsite conditions and will be addressed at the time of task assignment by the Site Safety Officer.

**TABLE 12**
**POTENTIAL FIELD ACTIVITY TASKS AND ASSOCIATED PPE**

| Task Description | Invasive (Y/N) | Protection Level |
|---|---|---|
| Site Mobilization - Surveying, fence and barrier installation, hay bale installation, decon and work zone set up, soil staging areas preparation | N | Level D |
| Soil and Water Sampling - Drilling, sampling, soil moving as needed. | Y | Modified Level D or Level C – Respirator as needed based on monitoring. Eye protection required during collection of any liquid sample |
| Soil Excavation, Staging and Load-Out | Y | Modified Level D – or Upgrade to Level C dependent on monitoring |
| Decontamination - Truck dry sweeping, decon pressure wash of equipment, PPE change out | Y | Modified Level D – or Upgrade to Level C dependent on monitoring |
| Waste Management - Soil load-out for offsite disposal, water removal for disposal, PPE disposal | Y | Modified Level D – or Upgrade to Level C dependent on monitoring |
| Site Control (Exclusion, Decontamination, Support Zones) | N | Modified Level D – or Upgrade to Level C dependent on monitoring |
| Communications - Use of hand signals, backup alarms, and voice | N | NA |
| Site Restoration | Y | Level D |

## 8.0 TRAINING/MEDICAL SURVEILLANCE

### 8.1 Training Requirements

All HRP and HRP subcontractor personnel who enter the work zone and/or Exclusion Zone must have successfully completed the 40-hour or 24-hour training requirement outlined in 29 CFR 1910.120(e). If the 40-hour or 24-hour training of any person occurred more than twelve months prior to commencement of work, then that person must have attended an 8-hour refresher course within the twelve months prior to commencement of work.

Short Service Employees (SSEs) may work unaccompanied on the Site, provided they have received all required health and safety training and have demonstrated confidence in safely performing assigned tasks. While working unaccompanied, SSEs will maintain communication with the Office Health and Safety Manager (OHSM) and a designated Safety Mentor. The Safety Mentor

If respirators are in use in the Exclusion Zone, then all personnel must have undergone respirator training and a fit test within the last twelve months.

Training certificates and records for HRP employee(s) are maintained by HRP. All other contractors will be required to supply written proof of training before being allowed into the Exclusion Zone.

## 8.2 Pre-Entry Briefing

Prior to commencement of work in an area of suspected contamination, HRP's HSO will conduct a pre-entry briefing with onsite contractors, which will include the following:

- Name of the Site Safety Officer and person responsible for the visitor log
- Description of the parcel as well as location of emergency telephones and the location/boundaries of the Exclusion Zone, Contamination Reduction Zone, and Support Zone, if established
- Review of hospital locations and directions
- Review of tasks to be conducted within the parcel by the site workers
- Review of the Emergency Action Plan and rally point, including the nearest emergency communications and telephone numbers
- The nature, level, and degree of anticipated hazards (physical and chemical) involved in the site work
- Required PPE
- Decontamination procedures

The Site Safety Officer should also, at this time, ensure that all onsite HRP and HRP subcontractor personnel have read the HASP and signed the Field Team Acknowledgement (**Section 12.0**). If additional information on the site becomes available, the Site Safety Officer will call additional briefings, as necessary.

## 8.3 Toolbox Talk (Daily Job Brief)

The HRP Site Safety Officer will conduct a safety overview meeting at the beginning of each workday on the site. The meeting will be given in addition to any safety meetings that the subcontractor conducts. A summary of the meeting topics signed by the personnel attending the meeting is included in **Appendix D**.

## 8.4 Medical Surveillance

All HRP and HRP subcontractor personnel entering the Exclusion Zone must have had a physical within the twelve months prior to commencement of site work. A physician's written opinion regarding fitness for work for each employee including work limitations, if any, is on file at HRP, as applicable. A written opinion for all other site personnel must be supplied prior to commencement of site work to the HRP Site Safety Officer. Any work limitations for site personnel, or relevant medical information (i.e., allergic reactions to medication) should be included in this Plan.

# 9.0 AUTHORIZATION

Personnel authorized to enter the Exclusion Zone include the personnel listed from **Table 6** of this plan. Persons not listed on **Table 6** may enter the Exclusion Zone only if the appropriate training and medical fitness certifications have been supplied to either the HRP PM or OHSM and the Site

Safety Officer or his/her designee onsite has approved site entry. All personnel entering or leaving the Exclusion Zone must sign in and sign out with the recordkeeper.

## 10.0 RECORDKEEPING

By the completion of the Project this Site-Specific HASP document, and all associated records (Toolbox Talks, JSA, Monitoring data, etc.) must be provided to the appropriate personnel at the office that implemented the Project. The appropriate personnel will then electronically store these records into the project folder. It is expected that some scanning will be necessary.

## 11.0 SITE-SPECIFIC HEALTH AND SAFETY PLAN APPROVAL

This plan meets the minimum requirements of 29 CFR 1910.120 and 29 CFR 1929.65 and has been written for specified site conditions, dates, and personnel, and must be amended if conditions change. By their signature, the undersigned certify that this HASP is approved and will be utilized during activities at the project.

04/08/2026

Shannon O'Malley — Date
Site Safety Officer / Consultant

Bryan Sherman — Date
Office Health and Safety Manager

**Subcontractor:**
I have been provided a copy of this HASP for review.

[Name] — Date

Representing _____

The Designated Competent person representing [subcontractor] at the site will be:

_____.

Any alternate Competent Person will be noted in the Toolbox Talk (**Appendix D**).

| **ADDITIONAL APPROVALS (or Re-Approvals)** | |
|---|---|
| **Name:** | **Date:** |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

## 12.0 FIELD TEAM ACKNOWLEDGMENT

All HRP personnel shall sign below after reading this HASP and shall agree with the following statement:

*"I have read and understand this Site-Specific Health and Safety Plan.
I will comply with the provisions set forth therein."*

| Printed Name | Signature | Date |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

# FIGURES

# Figure 1
## Site Location Map

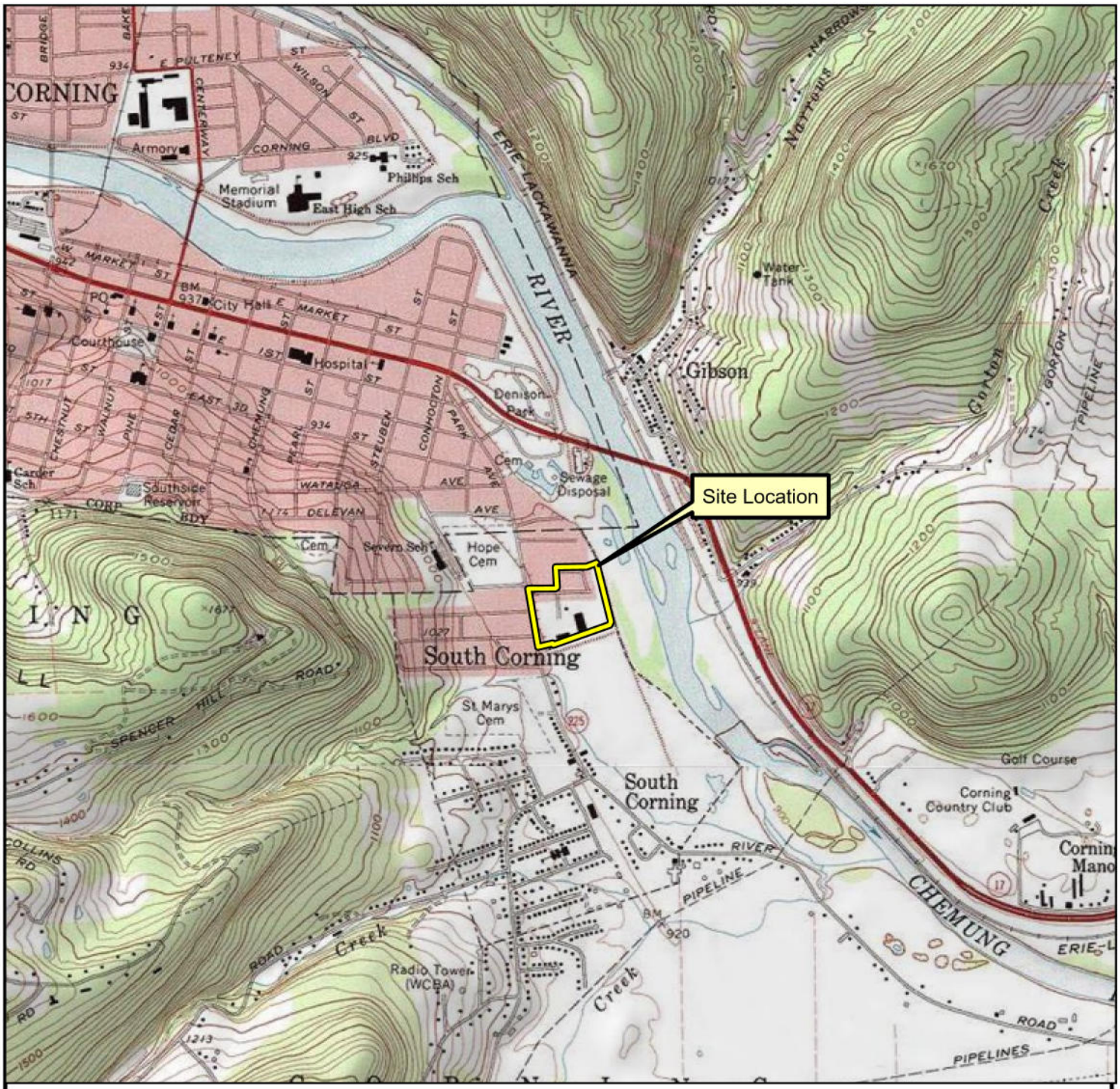



**Figure 1**
**Site Location**
**Vine Street - Corning ABG**
**Corning, New York**
**HRP # DEC1063.P2**
**Scale 1" = 2,000'**

USGS Quadrangle Information
Quad ID: 741-W22
Name: Corning, New York
Date Rev: 1977
Date Pub: 1969


HRP
MOVE YOUR ENVIRONMENT FORWARD
ONE FAIRCHILD SQUARE
SUITE 110
CLIFTON PARK, NY 12065
(518) 877-7101
HRPASSOCIATES.COM


Path: \\hrp-ny-fs2.hrp.local\shared\Data\NNYDEC - NYSDEC\CORNING ABG\DEC1063P2 - Vine Street\GIS\Vine Street\Vine Street.aprx

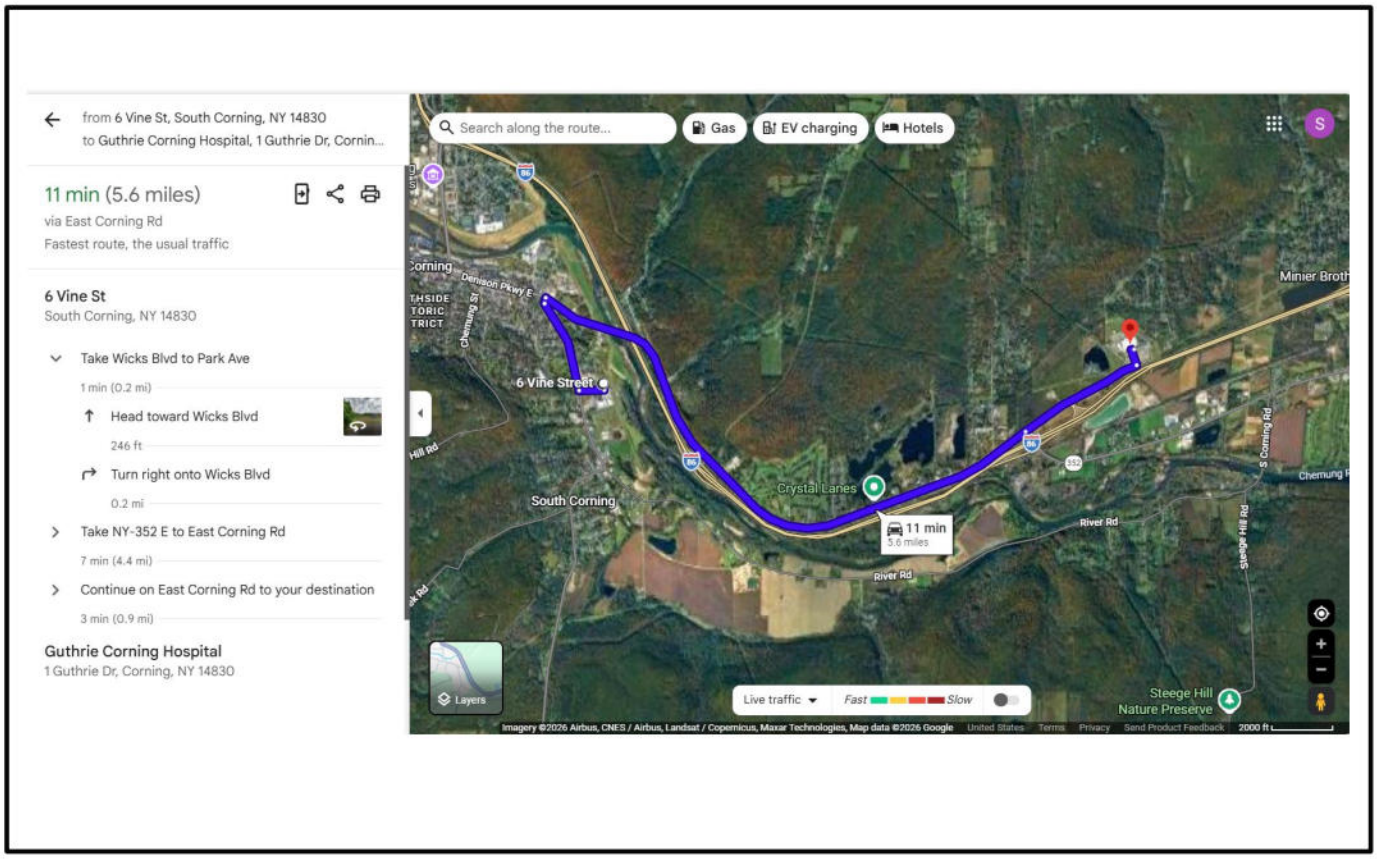
# Figure 2
## Site Plan with Areas of Environmental Concern

# Figure 3
## Route and Map to Nearest Hospital

## Directions to Guthrie Corning Hospital

**Starting Address:** 6 Vine Street, South Corning, NY
**Ending Address:** 1 Guthrie Drive, Corning, NY

**Total Estimated Time:** 11 minutes
**Total Estimated Distance:** 5.6 miles



# TABLES

**TABLE 13**
**CONTAMINANTS OF CHEMICALS KNOWN OR SUSPECTED ONSITE**
*HIGHLIGHT THOSE THAT APPLY TO THE TASK BEING PERFORMED.

| CONTAMINANT | ODOR THRESHOLD | OSHA PEL[1] | TLV (ACGIH) | OSHA CEILING[2] /STEL | IDLH CONC. | ROUTES OF EXPOSURE | SYMPTOMS OF ACUTE EXPOSURE[3] |
|---|---|---|---|---|---|---|---|
| 1,1,1 Trichloroethane | 44 ppm | 350 ppm | 350 ppm | --- | 700 ppm | Inh, Ing, Con | Head, Lass, CNS, Derm |
| 1,1,2-Trichloroethane | --- | 10 ppm | 10 ppm | ---- | [100 ppm] | Inh, Ing, Abs, Con | Eyes, Nose Irrit, Resp Irrit, CNS, Liver, Kidney Damage, Derm, [Carc] |
| 1,2,4 Trimethylbenzene<br>1,3,5 Trimethylbenzene | | 25 mg/m$^3$ | 25 ppm | 25 mg/m$^3$ | ND | Inh, Ing, Con | Irrit Eyes, Skin, Nose, Throat, Resp Sys, Bron, Hyprochronic Anemia, Head, Drow, Ftg, Dizz, Nau, Inco, Vomit, Conf, Chemical Pneu (aspir lig) |
| 1,1' Biphenyl | 0.0062 mg/m$^3$ | 0.2 ppm | 0.2 ppm | --- | 100 mg/m$^3$ | Inh | |
| 1,1-Dichloroethane | 120 ppm | 100 ppm | 100 ppm | --- | 3,000 ppm | Inh, Ing, Con | CNS Depres, Skin Irrit, Liver, Lung, and Kidney Damage |
| 1,1-Dichloroethylene*** | 500 ppm | --- | 5 ppm | --- | --- | Inh, Con | CNS depress, Resp, [Carc] |
| 1,2-Dichlorobenzene | 50 ppm | 50 ppm | 25 ppm | | 200 ppm | Inh, Ing, Abs, Con | Irrit, Resp |
| 1,2-Dichloroethylene | 26-87 ppm | 200 ppm | 200 ppm | --- | 1,000 ppm | Inh, Ing, Con | Vomit, Irrit Eyes, Resp Sys; CNS Depres |
| 1,2-Dichloropropane | 130-190 ppm | 75 ppm | 75 ppm | --- | [400 ppm] | Inh, Con, Ing | Eye irritation, Drow, light-headedness; irritated skin, [Carc] |
| 1,3-Dichlorobenzene | --- | ---- | --- | ---- | --- | ---- | ---- |
| 1,4-Dichlorobenzene | 20 ppm | 75 ppm | 10 ppm | ---- | [150 ppm] | Inh, Ing | [Carc], Eye Irrit, swelling around eye, headache, nausea, vomiting |
| 1-Methylnaphthalene | 0.02 ppm | --- | --- | --- | --- | --- | --- |
| 2,4-Dichlorophenol | 1.4007 mg/m$^3$ | --- | --- | --- | --- | --- | --- |
| 2,4-Dimethylphenol | 0.001 mg/m$^3$ | --- | --- | --- | --- | --- | --- |
| 2-Methylnaphthalene | 0.01 ppm | --- | --- | --- | --- | --- | --- |
| 2-Methylphenol (o-cresol) [skin] | 1.4 mg/L | 5 ppm | 5 ppm | --- | 250 ppm | Inh, Abs, Ing, Con | Confusion, depression, Resp Fail; difficulty breathing, irregular rapid respiration, weak pulse; skin, eye burns; dermatitis |

**TABLE 13**
**CONTAMINANTS OF CHEMICALS KNOWN OR SUSPECTED ONSITE**
*HIGHLIGHT THOSE THAT APPLY TO THE TASK BEING PERFORMED.

| CONTAMINANT | ODOR THRESHOLD | OSHA PEL[1] | TLV (ACGIH) | OSHA CEILING[2] /STEL | IDLH CONC. | ROUTES OF EXPOSURE | SYMPTOMS OF ACUTE EXPOSURE[3] |
|---|---|---|---|---|---|---|---|
| 3, 3'-Dichlorobenzidine | --- | None | --- | --- | --- | Inh, Abs, Ing, Con | Sens, Derm, Head, Dizz, Burns, GI Upset, [Carc] |
| 4-Isopropyltoluene | --- | --- | --- | --- | --- | Con, Inh, Ing | Defat, Eryt |
| Acenephthene | 0.5048 mg/m$^3$ | --- | --- | --- | --- | --- | --- |
| Acenaphthylene | --- | --- | --- | --- | --- | --- | --- |
| Acetone | 47.5 mg/m$^3$ | 1,000 ppm | 500 ppm | | 2,500 ppm | Ing, Inh, Con | Head, Dizz; Irrit Eyes, Nose, Throat; Derm, CNS, Depress, Derm |
| Acetonitrile | 70 mg/m$^3$ | 40 ppm | 20 ppm | --- | 500 ppm | Inh, Ing, Abs, Con | Asphy; Nau, Vomit; Chest Pain; Weak, Stupor, Convuls; Eye Irrit |
| Aldrin | --- | 0.25 mg/m$^3$ | 0.25 mg/m$^3$ | --- | 25 mg/m$^3$ | Inh, Abs, Ing, Con | Head, Dizz, Nau, Vomit, Mal, Myo, [Carc] |
| Anthracene (Coal Tar Pitch) | --- | 0.2 mg/m$^3$ | | | [80 mg/m$^3$] | Inh, Con | Derm, bron, [carc] |
| Antifreeze | | 50 ppm | 100 mg/m$^3$ (aerosol) | --- | ND | Inh, Ing, Con | Irrit Eyes, Skin, Nose, Throat, Nau, Vomit, Abdom Pain, Lass, Dizz, Stup, Conv, CNS, Depres, Skin Sen |
| Arsenic | ---- | 0.010 mg/m$^3$ | 0.01 mg/m$^3$ | ---- | [5 mg/m$^3$] | Abs, Inh, Con, Ing | Derm; GI; Resp Irrit; ulceration of nasal septum; Resp, Irrit, Hyper Pig of Skin, [Carc] |
| Barium (elemental) | --- | 0.5 mg/m$^3$ | 0.5 mg/m$^3$ | | 50 mg/m$^3$ (barium components) | Inh, Ing, Con | Resp. Irrit, GI, Muscle Spasm, Eye Irrit, Slow Pulse; skin burns |
| Benzene* | 4.7 ppm | 1 ppm | 0.5 ppm | 5 ppm | [500 ppm] | Inh, Ing, Abs, Con | Irrit Eyes, Nose, Throat; Head, Nau, Derm, Ftg, Anor, Lass, [Carc] |
| Benzo(a)anthracene (coal tar pitch) | --- | 0.2 mg/m$^3$ | | | [80 mg/m$^3$] | Inh, Con | [Carc], Derm, Bron |
| Benzo(a)pyrene (coal tar pitch) | --- | 0.2 mg/m$^3$ | --- | | [80 mg/m$^3$] | Inh, Con | [Carc], Derm, Bron |

**TABLE 13**
**CONTAMINANTS OF CHEMICALS KNOWN OR SUSPECTED ONSITE**
*HIGHLIGHT THOSE THAT APPLY TO THE TASK BEING PERFORMED.

| CONTAMINANT | ODOR THRESHOLD | OSHA PEL[1] | TLV (ACGIH) | OSHA CEILING[2] /STEL | IDLH CONC. | ROUTES OF EXPOSURE | SYMPTOMS OF ACUTE EXPOSURE[3] |
|---|---|---|---|---|---|---|---|
| Benzo(b)fluoranthene (coal tar pitch) | --- | 0.2 mg/m$^3$ | --- | | [80 mg/m$^3$] | Inh, Con | [Carc], Derm, Bron |
| Benzo(g,h,i)perylene (coal tar pitch) | --- | 0.2 mg/m$^3$ | | | [80 mg/m$^3$] | Inh, Con | [Carc], Derm, Bron |
| Benzo(k)fluoranthene (coal tar pitch) | --- | 0.2 mg/m$^3$ | | | [80 mg/m$^3$] | Inh, Con | [Carc], Derm, Bron |
| Bis (2-ethylhexyl) Phthalate** | N/A | 5 mg/m$^3$ | 5 mg/m$^3$ | 10 mg/m$^3$ | [5,000 mg/m$^3$] | Inh, Ing, Con | [Carc], Irrit Eyes |
| Cadmium (dust) | --- | 0.005 mg/m$^3$ | Lowest concentration feasible 0.01 mg/m$^3$ | --- | [9 mg/m$^3$] | Inh, Ing | CNS, Resp, Irrit, Vomit, Cough, Head, Chills, Nau, Diarr, Pulm Edema, Dysp, Chest Tight, [Carc] |
| Carbazole | --- | --- | --- | --- | --- | Inh | --- |
| Carbon disulfide | 0.1-0.2 ppm | 20 ppm | 1 ppm | 30 ppm | 500 ppm | Inh, Abs, Ing, Con | Diz, Head,Ftg, Ner, anorexia, trembling hands, loss of fine motor coord, gastritis, eye, skin burns, Derm |
| Carbon Tetrachloride*** | 21.4 ppm | 10 ppm | 5 ppm | 25 ppm | [200 ppm] | Inh, Abs, Con, Ing | CNS Depres, Nau, Vomit, Irrit, Irrit Eyes, Skin, Drow, Dizz, [Carc] |
| Chlorobenzene*** | 0.98 mg/m$^3$ | 75 ppm | 10 ppm | --- | 1,000 ppm | Inh, Ing, Con | Irrit, Drow, CNS, Depres, Eyes, Skin, Nose, Inco. |
| Chloroform*** | 85 ppm | 50 ppm | 10 ppm | 50 ppm | [500 ppm] | Inh, Ing. Con, Abs | Dizz, Dullness, Nau, Head, Ftg, Irrit Eyes, Skin, Conf, [Carc] |
| Chromium | --- | 1 mg/m$^3$ | 0.5 mg/m$^3$ | --- | 250 mg/m$^3$ | Inh, Ing, Con | Irrit Eyes, Sens Derm |
| Chrysene (coal tar pitch) | | 0.2 mg/m$^3$ | --- | | [80 mg/m$^3$] | Inh, Con | Derm, Bron, [Carc] |
| Cis-1-2-Dichloroethylene | --- | 200 ppm | 200 ppm | ---- | 1000 ppm | Inh, Con, Ing | Irrit Eyes, Resp, CNS Depress |
| Copper (dusts and mists) (fumes) | | 1 mg/m$^3$ 0.1 mg/m$^3$ | 1 mg/m$^3$ 0.2 mg/m$^3$ | ---- | 100 mg/m$^3$ | Inh, Ing, Con | Vomit, Derm, CNS, Irrit, Derm, Nau, Taste (metallic) |

**TABLE 13**
**CONTAMINANTS OF CHEMICALS KNOWN OR SUSPECTED ONSITE**
*HIGHLIGHT THOSE THAT APPLY TO THE TASK BEING PERFORMED.

| CONTAMINANT | ODOR THRESHOLD | OSHA PEL[1] | TLV (ACGIH) | OSHA CEILING[2] /STEL | IDLH CONC. | ROUTES OF EXPOSURE | SYMPTOMS OF ACUTE EXPOSURE[3] |
|---|---|---|---|---|---|---|---|
| Cyanide | 0.9 mg/m$^3$ | 5 mg/m$^3$ | 5 mg/m$^3$ (10 min) | 5 mg/m$^3$ | 25 mg/m$^3$ | Inh, Ing, Abs, Con | Weak, Head, Nau, Conf, Cyan |
| Dibenzo(a,h)anthracene | | | | | | Inh, Ing | |
| Dichloromethane | 540 mg/m$^3$ | 25 ppm | 50 ppm | 125 ppm | [2,300 ppm] | Inh, Abs, Ing, Con | Irrit Eyes, Skin, lass, drow, dizz, Numb, tingl, Nau, [Carc] |
| Diethylphthalate** | --- | None | 5 mg/m$^3$ | --- | N.D. | Inh, Ing, Con | Irrit Eyes, Skin, Nose, Throat, Head, Dizz, Nau, Lac, Possible Polyneur, Vestibular Dysfunc, Pain, Numb, lass, Spasms in Arms and Legs |
| Di-n-octylphthalate | --- | --- | --- | --- | --- | Inh, Ing, Con | --- |
| Dimethylpthalate | --- | 5 mg/m$^3$ | 5 mg/m$^3$ | --- | 2,000 mg/m$^3$ | Inh, Ing, Con | Irrit, Resp, Abdom |
| Ethyl Benzene* | 8.7 mg/m$^3$ | 100 ppm | 100 ppm | 125 ppm | 700 ppm | Inh, Abs, Con | Head. Irrit, Derm, Narc., Irrit Eyes, Skin; Coma |
| Fluoranthene | | 0.2 mg/m$^3$ | 0.2 mg/m$^3$ | | | Ing, Inh | [Carc] |
| Fluorine* | 6 mg/m$^3$ | 0.1 ppm | 1 ppm | 2 ppm | 25 ppm | Inh, Con | |
| Fuel Oil/#2 | ---- | ---- | 300 ppm | ---- | | Inh, Abs, Ins, Con | Irrit Eyes, Skin, Derm, Head, Ftg, Blurred Vision, Dizz, Conf |
| Ideno(1,2,3-cd)pyrene | | 0.2 mg/m$^3$ | | | | Ing, Inh | |
| Lead (inorganic forms and dust as Pb)**** | | 0.05 mg/m$^3$ | 0.05 mg/m$^3$ | | 100 mg/m$^3$ | Inh, Ing, Con | Irrit, Cns, Vomit, Narco, Weak, Pall, Insom, Lass, Abdom, Constip |
| Mercury (organic alkyl compounds) [skin] | | 0.01 mg/m$^3$ | 0.01 mg/m$^3$ | 0.03 mg/m$^3$ | 2 mg/m$^3$ | Inh, Abs, Ing, Con | Irrit Eyes, Skin; Cough & Chest Pain, Bron Pneu, Tremor, Insom, Irrty, Indecision, Head, Ftg, Weak, Stomatitis, Salv, GI Dist, Anor, Low-wgt, Ataxia |

**TABLE 13**
**CONTAMINANTS OF CHEMICALS KNOWN OR SUSPECTED ONSITE**
*HIGHLIGHT THOSE THAT APPLY TO THE TASK BEING PERFORMED.

| CONTAMINANT | ODOR THRESHOLD | OSHA PEL[1] | TLV (ACGIH) | OSHA CEILING[2] /STEL | IDLH CONC. | ROUTES OF EXPOSURE | SYMPTOMS OF ACUTE EXPOSURE[3] |
|---|---|---|---|---|---|---|---|
| Mercury (compounds) | ---- | 0.1 mg/m$^3$ | 0.025 mg/m$^3$ | 0.1 mg/m$^3$ | 10 mg/m$^3$ | Inh, Abs, Ing, Con | Irrit Eyes, Skin; Cough & Chest Pain, Bron Pneu, Tremor, Insom, Irrty, Indecision, Head, Ftg, Weak, Stomatitis, Salv, GI Dist, Anor, Low-wgt, Ataxia |
| Methanol | 13.1150 mg/m$^3$ | 200 ppm | 200 ppm | --- | 6,000 ppm | Inh, Abs, Ing, Con | Irrit Eyes, Skin, Resp, Head, drow, dizz, Nau, Vomit, vis dist, Optic, derm |
| Methyl Ether | ---- | ---- | --- | ---- | --- | Inh | Poison |
| Methyl Ethyl Ketone (2-Butanone)*** | 0.7375 mg/m$^3$ | 200 ppm | 200 ppm | 300 ppm | 3,000 ppm | Inh, Con, Ing | Irrit Eyes, Skin, Nose, Throat, Head, Dizz, Vomit, Derm |
| Methylene Chloride | 540 mg/m$^3$ | 25 ppm | 50 ppm | 125 ppm | [2,300 ppm] | Inh, Ing, Con, Abs | Ftg, Weak, dizz, drow, Numb, Tingle [carc], Irrit Eyes, Skin, Nau |
| Mineral Spirit | 20 ppm | 500 ppm | 100 ppm | --- | 20,000 mg/m$^3$ | Inh, Ing, Con | Irrit Eyes, Nose, Throat, Dizz, Derm, Chemical pneu |
| Methyl tert butyl ether (MTBE) | --- | --- | 50 ppm | --- | | Inh, Abs | |
| Naphtha | 0.86 ppm | 100 ppm | 400 ppm | --- | 1,000 ppm | Inh, Con, Ing | Light Head, Drow, Irrit, Derm, Irrit Eyes, Skin, Nose |
| Naphthalene* | 0.084 ppm | 10 ppm | 10 ppm | 15 ppm | 250 ppm | Inh, Abs, Ing, Con | Eye irritation; headache; confusion, excitement, malaise (vague feeling of ill-being); nausea, vomiting, abdominal pain; irritated bladder; profuse sweating; renal shutdown; dermatitis |
| Nickel (metal) | --- | 1 mg/m$^3$ | 1.5 mg/m$^3$ | --- | [10 mg/m$^3$] | Inh, Ing, Con | Head, Verti, Nau, Vomit, Pain, Cough, Weak, Convuls, Delirium, Pneu, ,[Carc] |
| Nitrobenzene | 0.0235 mg/m$^3$ | 1 ppm | 1 ppm | --- | 200 ppm | Inh, Abs, Ing, Con | Irrit Eyes, Skin, Anoxia, Derm, Anem, Methem |

**TABLE 13**
**CONTAMINANTS OF CHEMICALS KNOWN OR SUSPECTED ONSITE**
*HIGHLIGHT THOSE THAT APPLY TO THE TASK BEING PERFORMED.

| CONTAMINANT | ODOR THRESHOLD | OSHA PEL[1] | TLV (ACGIH) | OSHA CEILING[2] /STEL | IDLH CONC. | ROUTES OF EXPOSURE | SYMPTOMS OF ACUTE EXPOSURE[3] |
|---|---|---|---|---|---|---|---|
| n-Butylbenzene | --- | --- | --- | --- | --- | --- | --- |
| n-Propylbenzene | --- | --- | --- | --- | --- | --- | --- |
| PCBs 42% chlorine (Aroclor 1242) | --- | 1 $mg/m^3$ (skin) | 1 $mg/m^3$ (skin) | --- | [5 $mg/m^3$] | Inh, Abs, Ing, Con | Irrit Eyes, Chloracne, Liver Damage [carc] |
| PCBs 54% chlorine (Aroclor 1254) | --- | 0.5 $mg/m^3$ (skin) | 0.5 $mg/m^3$ (skin) | --- | [5 $mg/m^3$] | Inh, Abs, Ing, Con | Irrit Eyes; Chloracne, Liver Damage [carc] |
| PFAS | There are currently no established exposure limits for PFAS. If your project involves potential exposure to PFAS, reach out to the CHSO or OHSM about current best practices relative to exposure controls. | | | | | | |
| Petroleum Distillates | --- | 500 ppm | 100 ppm | | [1,100 ppm] | Inh, Ing, Con | Dizz, Drow, Head, Dry Skin, Nau, Irrit Eyes, Nose, Throat, [Carc] |
| Phenanthrene (Coal Tar Pitch) | | 0.2 $mg/m^3$ | 0.2 $mg/m^3$ | | [80 $mg/m^3$] | Inh, Con | Derm, bron, (carc) |
| Phenol** | 0.1786 $mg/m^3$ | 5 ppm | 5 ppm | --- | 250 ppm | Inh, Abs, Ing, Con | Irrit Eyes, Nose, Throat, Anor, Low Wgt, Weak Musc Ache, Pain, Dark Urine, Cyan, Liver, Kidney Damage, Skin, Burns, Derm, Ochronosis, Tremor, Convuls, Twitch |
| Pyrene | | 0.2 $mg/m^3$ | | | [80 $mg/m^3$] | Inh, Con | [Carc] |
| Sec-Butylbenzene | --- | --- | --- | --- | --- | --- | --- |
| Selenium | N/A | 0.2 $mg/m^3$ | 0.2 $mg/m^3$ | Unknown | 1 $mg/m^3$ | Inh, Ing, Con | Irrit, Head, Fever, Chills, Skin/Eye Burns, Metallic Taste, GI, Dysp, Bron |
| Silver (metal and soluble compounds as Ag) | ---- | 0.01 $mg/m^3$ | Metal = 0.1 $mg/m^3$ Soluble 0.01 $mg/m^3$ | | 10 $mg/m^3$ | Inh, Ing, Con | Blue-gray Eyes, Nasal Septum, Throat, Skin; Irrit, Ulcer, Skin, GI Dist |
| Tetrachloroethylene (a.k.a. perchloroethylene)*** | 4.68 ppm | 100 ppm | 25 ppm | 200 ppm | [150 ppm] | Inh, Ing, Con, Abs | Irrit Eyes, Skin, Nose, throat, Resp. Nau, flush face, Neck, dizz, inco, head, drow, eryth, [Carc] |

**TABLE 13**
**CONTAMINANTS OF CHEMICALS KNOWN OR SUSPECTED ONSITE**
*HIGHLIGHT THOSE THAT APPLY TO THE TASK BEING PERFORMED.

| CONTAMINANT | ODOR THRESHOLD | OSHA PEL[1] | TLV (ACGIH) | OSHA CEILING[2] /STEL | IDLH CONC. | ROUTES OF EXPOSURE | SYMPTOMS OF ACUTE EXPOSURE[3] |
|---|---|---|---|---|---|---|---|
| Toluene* | 2.14 ppm | 200 ppm | 50 ppm | 300 ppm | 500 ppm | Inh, Abs, Ins, Con | Resp, Irrit, Ftg, Conf, Dizz, Head, Derm, Euph, Head, Dilated Pupils, Lac, Ner, Musc FTg, Insom, Pares, Derm, lass |
| Petroleum Distillates (naphtha) | 10 ppm | 100 ppm | 400 ppm | --- | 1,000 ppm | Con, Inh, Ing | --- |
| Trans 1,2-Dichloroethylene | 0.3357 mg/m$^3$ | 200 ppm | 200 ppm | --- | 1,000 ppm | Inh, Con | Irrit, Resp, CNS depress |
| Trichloroethylene*** | 21.4 ppm | 100 ppm | 50 ppm | 200 ppm | [1,000 ppm] | Inh, Con, Abs, Ing | Head, Vert, Nau, Vomit, Derm, Vis Dist, Tremors, Som, Nau, Irrit Eyes, Skin, Card Acc., Ftg, [Carc] |
| Trichlorofluoromethane | 28 mg/m$^3$ | 1,000 ppm | 1,000 ppm | | 2,000 ppm | Inh, Con, Ing | Inco, trem, derm, card, asph, frost |
| Trichlorotrifluoroethane | 45 ppm | 1,000 ppm | 1,000 ppm | 1,250 ppm | 2,000 ppm | Inh, Con, Ing | Irrit Skin, throat, Drow, Derm, CSN, Depress |
| Vinyl Chloride*** | 10-20 ppm | 1 ppm | 1 ppm | 5 ppm | ND | Inh, Con | Lass, Abdom, Gi Bleeding; Hepatomegaly; Pallor or Cyan of Extremities; Liq: Frostbite; [Carc] |
| VM&P Naphtha (petroleum naphtha) | --- | --- | 300 ppm | --- | ND | Con, Ing, Inh | Irrit Eyes, Nose, Throat, Dizz, drow, head, nau, dry skin, chem. Pneumonitis |
| Xylene* | 4.5 mg/m$^3$ | 100 ppm | 100 ppm | 150 ppm | 900 ppm | Inh, Ing, Abs, Con | Dizz, Drow, Irrit, Excite, Nau, Vomit, Eyes, Skin, Nose, Throat |
| Zinc (oxide) | --- | 5 mg/m$^3$ | 2 mg/m$^3$ | --- | 500 mg/m$^3$ | Inh | Dry Throat, Cough, Chills, Tight Chest, Blurred Vision |
| 4,4' DDD | --- | --- | --- | --- | --- | Ing, Inh, Con | --- |
| 4,4' DDE | --- | --- | --- | --- | --- | Ing, Inh, Con | --- |
| 4,4' DDT | 5.0725 mg/m$^3$ | 1 mg/m$^3$ | 1 mg/m$^3$ | --- | [500 mg/m$^3$] | Inh, Abs, Ing, Con | Irrit Eyes, Skin, Pares, Tongue, Lips, Face, Trem, Anxi, Dizz, Conf, Mal, Head, Lass, Conv, Paresi Hands, Vomit, [Carc] |

**TABLE 13**
**CONTAMINANTS OF CHEMICALS KNOWN OR SUSPECTED ONSITE**
*HIGHLIGHT THOSE THAT APPLY TO THE TASK BEING PERFORMED.

| CONTAMINANT | ODOR THRESHOLD | OSHA PEL[1] | TLV (ACGIH) | OSHA CEILING[2] /STEL | IDLH CONC. | ROUTES OF EXPOSURE | SYMPTOMS OF ACUTE EXPOSURE[3] |
|---|---|---|---|---|---|---|---|
| Aldrin | | 0.25 $mg/m^3$ | 0.25 $mg/m^3$ | --- | [25 $mg/m^3$] | Inh, Abs, Ing, Con | Head, Dizz, Nau, Vomit, Mal, Myo [Carc] |
| Chlordane [skin] | 0.0084 $mg/m^3$ | 0.5 $mg/m^3$ | 0.5 $mg/m^3$ | | [100 $mg/m^3$] | Inh, Abs, Ing, Con | Blurred vision, confusion, delirium, cough; abdominal pian, nausea, vomiting diarrhea; irritability, tremor, convulsions [Carc] |
| EDB | 76.8 $mg/m^3$ | 20 ppm | | 30 ppm | [100 ppm] | Inh, Abs | Resp. Irr, Eye Irr. [Carc] |
| Endosulfan I<br>Endosulfan II | --- | 0.1 $mg/m^3$ | 0.1 $mg/m^3$ | --- | N.D. | Inh, Abs, Ing, Con | Irrit, Skin, Nau, Conf, Agit, Flush, Dry, Trem, Conv, Head |
| Endosulfan Sulfate | | --- | 0.1 $mg/m^3$ | --- | --- | Ing, Con | --- |
| Endrin | 1.8 x $10^{-2}$ ppm | 0.1 $mg/m^3$ | 0.1 $mg/m^{-3}$ | --- | 2 $mg/m^3$ | Inh, Abs, Ing, Con | Epil Conv, Stup, Head, Dizz, Abdom, Nau, Vomit, Insom, Agress, Conf, Drow, Lass, Anor |
| Endrin Aldehyde | 1.8 x $10^{-2}$ ppm | --- | --- | --- | --- | Inh, Con | --- |
| Endrin Ketone | --- | --- | --- | --- | --- | --- | --- |
| Heptachlor | 0.02 ppm | 0.5 $mg/m^3$ | 0.05 $mg/m^3$ | --- | [35 $mg/m^3$] | Inh, Abs, Ing, Con | In animals, Trem, Conv, [Carc] |
| Heptachlor epoxide | 0.02 ppm | --- | 0.05 $mg/m^3$ | --- | --- | Ing, Inh | Trem, Conv, [Carc] |
| Hydrogen Cyanide(Hydrocyanic Acid) | 0.9 $mg/m^3$ | 10 ppm (11 $mg/m^3$) | 4.7 ppm | 4.7 ppm | 50 ppm | Con, Inh, Ing, Abs | Asphy & death at high levels; Weak, Head, Conf, Nau, Vomit, Incr. Rate and Depth of Respiration or Respiration Slow and Gasping |

**TABLE 13**
**CONTAMINANTS OF CHEMICALS KNOWN OR SUSPECTED ONSITE**
*HIGHLIGHT THOSE THAT APPLY TO THE TASK BEING PERFORMED.

| CONTAMINANT | ODOR THRESHOLD | OSHA PEL[1] | TLV (ACGIH) | OSHA CEILING[2] /STEL | IDLH CONC. | ROUTES OF EXPOSURE | SYMPTOMS OF ACUTE EXPOSURE[3] |
|---|---|---|---|---|---|---|---|

**NOTES**

* = Constituent found in ETPH

**=Constituent found in Acid/Base/Neutral Extractable Compounds

***=Constituent found in Volatile Organic Compounds

****=Constituent found in Leaching Lead

[1]PEL = Permissible Exposure Limit. If no PEL is available, then the NIOSH Threshold Limit Value (TLV) should be used, if available.

[2]Ceiling limit or Short-Term Exposure Limit (STEL), if available. Again, the NIOSH TLV may be used if no OSHA standard exists.

[3]Abbreviations are contained on the next page

[ ] = Potential Occupational Carcinogen

ND = Not Been Determined

## ABBREVIATIONS

abdom = Abdominal
abs = Absorption
aggress = Aggressiveness
agit = Agitation
anor = Anorexia
anos = Anosmia (loss of the sense of smell)
Anxi = anxiety
anem – Anemia
aspir = Aspiration
asph – asphyxia
bron = Bronchitis
bron pneu = Bronchitis pneumonitis
[carc] = Potential occupational carcinogen
Card = Cardiac arrhythmias
CNS = Central nervous system
conf = Confusion
constip = Constipation
con = Skin and/or eye contact
conv = Convulsions
corn = Corneal
cyan = Cyanosis
defat = Defatting
depres = Depressant/Depression
derm = Dermatitis
diarr = Diarrhea
dist = Disturbance
dizz = Dizziness
drow = Drowsiness
dry = Dry mouth
dysp = Dyspnea (breathing difficulty)
emphy = Emphysema
epil-conv = Epileptiform convulsions
eryth = Erythema
euph = Euphoria
fib = Fibrosis
frost = frostbite
ftg = Fatigue
flush = Flushing
GI = Gastrointestinal
head = Headache
hyperpig = Hyperpigmentation
inco = Incoordination
ing = Ingestion
inh = Inhalation
inj = Injury
insom = Insomnia
irrit = Irritation
irrty = Irritability
lac = Lacrimination (discharge of tears)
lass = Lassitude (weakness, exhaustion)
li-head = Lightheadedness
liq = Liquid
low-wgt = Weight loss
mal = Malaise (vague feeling of discomfort)
malnut = Malnutrition
methem = Methemoglobinemia
myo = Myochonic (jerks of limbs)
mg/m = milligrams/cubic meter
muc memb = Mucous membrane
mus ftg = Muscle fatigue
narco = Narcosis
nau = Nausea
ner = Nervousness
numb = Numbness
optic = Optic nerve damage (blindness)
pall = Facial pallor
parap = Paralysis
ppm = Parts per million
pares = Paresthesia
paresi = Paresis
peri neur = Peripheral neuropathy
pneu = Pneumonitis
prot = Proteinuria
pulm = Pulmonary
peri neur = Peripheral neuropathy
pneu = Pneumonia
prot = Proteinuria
pulm = Pulmonary
repro = Reproductive
resp = Respiratory
skin sen = skin sensitization
salv = Salvation
som = Somnolence (sleepiness unnatural drowsiness)
subs = Substernal (occurring beneath the sternum)
stup = Stupor
sys = System
tingle = tingle limbs
trem – Tremors
verti = Vertigo
vis dist = Visual disturbance
vomit = Vomiting
weak = Weakness

# APPENDIX A

## Safety and Logistics Planning Log

# Safety and Logistics Planning Log
# DEC009808

| | |
|---|---|
| **Date of Call** | |
| **Work Assignment Number / Task** | |
| **DEC Site Name and Number** | |

| **ATTENDEES** | | |
|---|---|---|
| **HRP** | | |
| **POSITION** | **NAME** | **NUMBER** |
| HRP PM | | |
| HRP SSO | | |
| HRP Other: | | |
| HRP Other: | | |
| **SUBCONTRACTORS** | | |
| **POSITION** | **NAME** | **NUMBER** |
| Driller Contact | | |
| Utility Survey | | |
| Surveyor | | |
| Construction | | |
| Other | | |
| **DEC** | | |
| **POSITION** | **NAME** | **NUMBER** |
| DEC PM | | |
| DEC Other: | | |
| DEC Other: | | |

| **BRIEF DESCRIPTION: SCOPE OF WORK (Task Specific)** | *Use additional forms for additional tasks |
|---|---|
| | |
| | |
| | |
| | |
| | |
| | |

| **LOGISTICS** | | | |
|---|---|---|---|
| Date of Work | | Time to Meet | |
| Site Contact (phone) | | | |
| Notification of Site Contact made by | | | |
| Describe any unusual site-specific conditions/logistics here (if any): | | | |

| **QUESTIONS** | **Y/N** | **NOTES** |
|---|---|---|
| Water Needed? Source Confirmed? | Y / N | |
| Electricity Needed? Source Confirmed? | Y / N | |
| Water Storage Needed? | Y / N | |
| Water Discharges? Permits Needed/Attained? | Y / N | |
| Air Monitoring – CAMP? | Y / N | |
| Will there be intrusive work? | Y / N | |
| Locations marked in the field? | Y / N | |
| NYS Code Rule 753/Dig Safe System | Y / N | Ticket Number: |
| Confirmed that mark-out complete? | Y / N | |
| Anticipated Subsurface Conditions (Geology, Utilities, etc.): | | |
| Anticipated Depth to Groundwater: | | |
| Will NAPL/Product be Present? | Y / N Describe: | |
| Will there be any other parties entering the work zones? Describe control measures. | | |

# APPENDIX B
## Personnel Log

| PERSONNEL LOG | | | | |
|---|---|---|---|---|
| **Name** | **Representing** | **Date** | **Time In** | **Time Out** |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

# APPENDIX C
## Job Safety Analysis (JSA)

| JSA Completed By | |
|---|---|

**HAZARD RANKING CHART**

| SEVERITY | CONSEQUENCE | PROBABILITY | | | | |
|---|---|---|---|---|---|---|
| | **Injury** | **Frequent** | **Likely** | **Occasional** | **Seldom** | **Unlikely** |
| | Fatality | **H** | **H** | **H** | **H** | **M** |
| | Injury Requiring Hospitalization | **H** | **H** | **H** | **M** | **L** |
| | Injury Requiring Medical Treatment Beyond First Aid | **H** | **M** | **M** | **L** | **L** |
| | Injury Requiring First Aid | **M** | **L** | **L** | **L** | **L** |

| TASK | | | |
|---|---|---|---|
| **LOCATION OF TASK PERFORMED** | | **DATE OF JSA** | |

**TASK DESCRIPTION**

*There are different categories of hazards to include: Biological, Physical, Safety, Chemicals, and Ergonomics

| STEPS | HAZARD | CONTROL MEASURES | RISK RATING |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

# APPENDIX D
## Toolbox Talk

**TOOLBOX TALK**

| GENERAL INFORMATION | | |
|---|---|---|
| **Person Conducting** | **Site Name/Address** | **HRP Client Name/Job #** |
| | | |
| **Client Contact/Phone** | **HRP H&S Rep.** | **HRP Supervisor** |
| | | |
| **Date/Time** | **Number Attending** | **Weather** |
| | | |
| **Designated Competent Person:** | | |
| **Description of Work** | | |
| | | |

| ATTENDEES (Use additional sheets as needed) | | |
|---|---|---|
| **Name** | **Company** | **Signature** |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

| EMERGENCY CONTACT INFORMATION | | |
|---|---|---|
| **Emergency Telephone Numbers** | FIRE / POLICE / AMBULANCE: 911 | |
| Hospital Name & Location: | | |
| NYSDEC Spill Line: 1-518-457-7362 | National Response Center: 800-424-8802 | CBYD: 800-922-4455 |
| Health & Safety Manager: | | |

| HAZARDS | | |
|---|---|---|
| ☐ Toxic | ☐ Extreme Cold/Heat | ☐ Soil Excavation |
| ☐ Corrosive | ☐ Drains/Sumps | ☐ Tank Excavation |
| ☐ Flammable | ☐ Sharp Objects | ☐ Trenching |
| ☐ Combustible | ☐ Drilling in Soil | ☐ Floor Holes |
| ☐ Reactive | ☐ Lighting | ☐ Working on/near Water |
| ☐ Path Waste | ☐ Slips/Trips/Falls | ☐ Underground/Overhead Utilities |
| ☐ Asbestos | ☐ Lead | ☐ Power washing |
| ☐ Abrasive Blasting | ☐ Abrasive Blasting | ☐ Lifting |
| ☐ Drum Handling | ☐ Live Electrical Circuits | ☐ Noise |
| ☐ Pneumatic Tools | ☐ Elevated Work Area | ☐ Ladders |
| ☐ Vac Truck | ☐ Hot Work | ☐ Vehicle Traffic |
| ☐ Other (s): | | |

**TOOLBOX TALK**

| PERSONAL SAFETY / PERSONAL PROTECTIVE EQUIPMENT (PPE) | | | |
|---|---|---|---|
| ☐ Supplied Air Respirator | ☐ SAR w/Egress Bottle | ☐ SCBA | ☐ Air Purifying Respirator Cartridge: |
| ☐ Fully Encapsulating Suit | ☐ Flash Suit | ☐ NOMEX (flam resistant) | ☐ Protected Coveralls, Type: |
| ☐ Overboots | ☐ Lifebelt/Lanyard | ☐ Hardhats | ☐ Outer Gloves, Type: |
| ☐ Safety Glasses | ☐ Chemical Goggles | ☐ Face Shield | ☐ Inner Gloves, Type: |
| ☐ Reflective Vests | ☐ Eye Wash | ☐ Safety Shower | ☐ First Aid Kit |
| ☐ Hearing Protection | ☐ Evacuation Plan | ☐ Communications | ☐ Properly Sloped Excavation/ Trench |
| ☐ PFD's | ☐ Ventilation | ☐ Steel Toe Boots | |

| FIRE SAFETY | | | |
|---|---|---|---|
| ☐ Fire Extinguishers | ☐ Hot Work Permit | ☐ Fire Blanket | ☐ Explosion-Proof Equipment |
| ☐ Equipment Grounded & Bonded | ☐ Non-Sparking Tools | ☐ Eliminate Ignition Sources | ☐ Area Kept Wet |
| ☐ Smoking Area Designated Location: | ☐ Fire Hose Laid Out | ☐ Alarm Box in Area, Location: | |

| ISOLATE EQUIPMENT & ELECTRICAL EQUIPMENT | | | |
|---|---|---|---|
| ☐ Establish Exclusion Zone/Traffic Cones | ☐ Work Signs | ☐ LockOut/TagOut | ☐ Non-Conductive Tools |
| ☐ Stop Transfers | ☐ Caution Tape Area | ☐ Equipment Grounded | ☐ FR Suits/Coveralls |
| ☐ GFCIS | ☐ Temporary Fencing | | |

| AIR MONITORING | | | |
|---|---|---|---|
| Type of Meter: | | Date last calibrated: | |
| **SUBSTANCE** | **LEVEL B MAX.** | **ACTION LEVEL/LEVEL C MAX.** | **LEVEL D MAX.** |
| | | | |
| | | | |
| | | | |

| HEALTH & SAFETY COMMENTS-QUESTIONS-CONCERNS / TOPICS & SAFET RULES REVIEWED |
|---|
| |
| |
| |
| |

| | | | |
|---|---|---|---|
| Contaminants of Concern: | | | |
| HEALTH & SAFETY SIGNATURE: | | Date: | |

Is there a Health & Safety Plan available on-site? Yes ☐ No ☐

☐ HAZARD ZONES NOT APPLICABLE, GENERAL WORK AREA Level D ☐ Modified Level D ☐ Level C ☐

Anything above Level C, foreman should use a Confined Space Permit/Form.

Note: HOT WORK requires a hot work permit and minimum 20# fire extinguisher. Foreman or HSM must record at least one contaminant of concern above. Toxic plants may be considered a COC if no chemical hazards are expected.

**LEVEL C**

| | |
|---|---|
| Respirator Type: | |

| Name | Zone | Time In | Time Out | Decon Type |
|---|---|---|---|---|
| | | | | |
| | | | | |

Before performing Level C work, ALL employees must review HRP's Respiratory Protection Program - a copy of which must be on-site along with a HASP.

# APPENDIX E
## Specific Procedures

# APPENDIX F

## Safety Data Sheets
(for chemicals brought to the site)

# APPENDIX G

## Community Air Monitoring Program (CAMP)

# Community Air Monitoring Plan
## *Vine Street Site, Corning, New York*

This Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress during remedial activities at the site. The CAMP is not intended for use in establishing action levels for workers respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

Reliance on the CAMP should not preclude simple, common sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Depending on the nature of known or potential contaminants at the site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary.

**Continuous monitoring** will be required for all ground intrusive activities. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching.

**Periodic monitoring** for VOCs will be required during non-intrusive activities such as the collection of soil samples. "Periodic" monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuing monitoring may be required during sampling activities.

## Particulate Monitoring, Response Levels, and Actions

Particulate concentrations will be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. A third CAMP monitor station will be setup and ran if receptors are determined to be in close proximity to any active work areas as any added measure of protection. The particulate monitoring will be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment will be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration will be visually assessed during all work activities. Work will be completed in accordance with Appendix 1B: Fugitive Dust and Particulate Monitoring of DER-10.

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter ($mcg/m^3$) greater than the background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques will be employed. Work may continue with dust suppression techniques provided that no visible dust is migrating from the work area.

- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 $mcg/m^3$ above the upwind level, work will be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures

and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/$m^3$ of the upwind level and in preventing visible dust migration.

All readings will be recorded and be available for State (DEC and DOH) personnel to review.

**VOC Monitoring, Response Levels, and Actions**

VOCs will be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations will be measured at the start of each workday and periodically thereafter to establish background conditions. The monitoring work will be performed using a photo ionization detector (PID) equipped with a 10.2 eV bulb. The PID will be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment will be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities will be halted, the source of the vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less- but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities will be shutdown.

All 15-minute readings will be recorded and be available for State (NYSDEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes will also be recorded. Readings are to be provided at least on a weekly basis with all exceedances reported to the NYSDEC and NYSDOH on the same day, or next business day if exceedances are identified after work hours, along with any suspected reasoning, any corrective measures executed, and a conclusion if the corrective measures were effective.

## Appendix 1B Fugitive Dust and Particulate Monitoring

A program for suppressing fugitive dust and particulate matter monitoring at hazardous waste sites is a responsibility on the remedial party performing the work. These procedures must be incorporated into appropriate intrusive work plans. The following fugitive dust suppression and particulate monitoring program should be employed at sites during construction and other intrusive activities which warrant its use:

1. Reasonable fugitive dust suppression techniques must be employed during all site activities which may generate fugitive dust.

2. Particulate monitoring must be employed during the handling of waste or contaminated soil or when activities on site may generate fugitive dust from exposed waste or contaminated soil. Remedial activities may also include the excavation, grading, or placement of clean fill. These control measures should not be considered necessary for these activities.

3. Particulate monitoring must be performed using real-time particulate monitors and shall monitor particulate matter less than ten microns (PM10) with the following minimum performance standards:

(a) Objects to be measured: Dust, mists or aerosols;
(b) Measurement Ranges: 0.001 to 400 mg/m3 (1 to 400,000 :ug/m3);
(c) Precision (2-sigma) at constant temperature: +/- 10 :g/m3 for one second averaging; and +/- 1.5 g/m3 for sixty second averaging;
(d) Accuracy: +/- 5% of reading +/- precision (Referred to gravimetric calibration with SAE fine test dust (mmd= 2 to 3 :m, g= 2.5, as aerosolized);
(e) Resolution: 0.1% of reading or 1g/m3, whichever is larger;
(f) Particle Size Range of Maximum Response: 0.1-10;
(g) Total Number of Data Points in Memory: 10,000;
(h) Logged Data: Each data point with average concentration, time/date and data point number
(i) Run Summary: overall average, maximum concentrations, time/date of maximum, total number of logged points, start time/date, total elapsed time (run duration), STEL concentration and time/date occurrence, averaging (logging) period, calibration factor, and tag number;
(j) Alarm Averaging Time (user selectable): real-time (1-60 seconds) or STEL (15 minutes), alarms required;
(k) Operating Time: 48 hours (fully charged NiCd battery); continuously with charger;
(l) Operating Temperature: -10 to 50 degrees C (14 to 122 degrees F);
(m) Particulate levels will be monitored upwind and immediately downwind at the working site and integrated over a period not to exceed 15 minutes.
4. In order to ensure the validity of the fugitive dust measurements performed, there must be appropriate Quality Assurance/Quality Control (QA/QC). It is the responsibility of the remedial party to adequately supplement QA/QC Plans to include the following critical features: periodic instrument calibration, operator training, daily instrument performance (span) checks, and a record keeping plan.

5. The action level will be established at 150 ug/m3 (15 minutes average). While conservative this short-term interval will provide a real-time assessment of on-site air quality to assure both health and safety. If particulate levels are detected in excess of 150 ug/m3, the upwind background level must be confirmed immediately. If the working site particulate measurement is greater than 100 ug/m3 above the background level, additional dust suppression techniques must be implemented to

reduce the generation of fugitive dust and corrective action taken to protect site personnel and reduce the potential for contaminant migration. Corrective measures may include increasing the level of personal protection for on-site personnel and implementing additional dust suppression techniques (see paragraph 7). Should the action level of 150 ug/m3 continue to be exceeded work must stop and DER must be notified as provided in the site design or remedial work plan. The notification shall include a description of the control measures implemented to prevent further exceedances.

6. It must be recognized that the generation of dust from waste or contaminated soil that migrates off-site, has the potential for transporting contaminants off-site. There may be situations when dust is being generated and leaving the site and the monitoring equipment does not measure PM10 at or above the action level. Since this situation has the potential to allow for the migration of contaminants off-site, it is unacceptable. While it is not practical to quantify total suspended particulates on a real-time basis, it is appropriate to rely on visual observation. If dust is observed leaving the working site, additional dust suppression techniques must be employed. Activities that have a high dusting potential-- such as solidification and treatment involving materials like kiln dust and lime--will require the need for special measures to be considered.

7. The following techniques have been shown to be effective for the controlling of the generation and migration of dust during construction activities:
(a) Applying water on haul roads;
(b) Wetting equipment and excavation faces;
(c) Spraying water on buckets during excavation and dumping;
(d) Hauling materials in properly tarped or watertight containers;
(e) Restricting vehicle speeds to 10 mph;
(f) Covering excavated areas and material after excavation activity ceases; and
(g) Reducing the excavation size and/or number of excavations.
Experience has shown that the chance of exceeding the 150ug/m3 action level is remote when the above-mentioned techniques are used. When techniques involving water application are used, care must be taken not to use excess water, which can result in unacceptably wet conditions. Using atomizing sprays will prevent overly wet conditions, conserve water, and provide an effective means of suppressing the fugitive dust.

8. The evaluation of weather conditions is necessary for proper fugitive dust control. When extreme wind conditions make dust control ineffective, as a last resort remedial actions may need to be suspended. There may be situations that require fugitive dust suppression and particulate monitoring requirements with action levels more stringent than those provided above. Under some circumstances, the contaminant concentration and/or toxicity may require additional monitoring to protect site personnel and the public. Additional integrated sampling and chemical analysis of the dust may also be in order. This must be evaluated when a health and safety plan is developed and when appropriate suppression and monitoring requirements are established for protection of health and the environment.

## Special Requirements for Work Within 20 Feet of Potentially Exposed Individuals or Structures

When work areas are within 20 feet of potentially exposed populations or occupied structures, the continuous monitoring locations for VOCs and particulates must reflect the nearest potentially exposed individuals and the location of ventilation system intakes for nearby structures. The use of engineering controls such as vapor/dust barriers, temporary negative- pressure enclosures, or special ventilation devices should be considered to prevent exposures related to the work activities and to control dust and odors. Consideration should be given to implementing the planned activities when potentially exposed populations are at a minimum, such as during weekends or evening hours in non-residential settings.

If total VOC concentrations opposite the walls of occupied structures or next to intake vents exceed 1 ppm, monitoring should occur within the occupied structure(s). Depending upon the nature of contamination, chemical-specific colorimetric tubes of sufficient sensitivity may be necessary for comparing the exposure point concentrations with appropriate pre-determined response levels (response actions should also be pre-determined). Background readings in the occupied spaces must be taken prior to commencement of the planned work. Any unusual background readings should be discussed with NYSDOH prior to commencement of the work.

If total particulate concentrations opposite the walls of occupied structures or next to intake vents exceed 150 mcg/m3, work activities should be suspended until controls are implemented and are successful in reducing the total particulate concentration to 150 mcg/m3 or less at the monitoring point.

Depending upon the nature of contamination and remedial activities, other parameters (e.g., explosivity, oxygen, hydrogen sulfide, carbon monoxide) may also need to be monitored. Response levels and actions should be pre-determined, as necessary, for each site.

## Special Requirements for Indoor Work With Co-Located Residences or Facilities

Unless a self-contained, negative-pressure enclosure with proper emission controls will encompass the work area, all individuals not directly involved with the planned work must be absent from the room in which the work will occur. Monitoring requirements shall be as stated above under "Special Requirements for Work Within 20 Feet of Potentially Exposed Individuals or Structures" except that in this instance "nearby/occupied structures" would be adjacent occupied rooms. Additionally, the location of all exhaust vents in the room and their discharge points, as well as potential vapor pathways (openings, conduits, etc.) relative to adjoining rooms, should be understood and the monitoring locations established accordingly. In these situations, it is strongly recommended that exhaust fans or other engineering controls be used to create negative air pressure within the work area during remedial activities. Additionally, it is strongly recommended that the planned work be implemented during hours (e.g. weekends or evenings) when building occupancy is at a minimum.

## REVISION HISTORY

| REVISION AND APPROVAL LOG | | | |
|---|---|---|---|
| **REVISION DATE** | **REVISION CONTENT** | **REVISED BY** | **APPROVED BY** |
| 1/18/2021 | Initiation of document/Reviewed by Jackie Baxley | SF | TAG |
| 6/6/2024 | - Update formatting<br>- Update order of headers<br>- Implemented tables within HASP, not as Appendix<br>- Combining NY and other states – generic HASP to make site-specific<br>- Checkbox formatting<br>- Updated Action Levels Table | JLE | TAG |
| | | | |
| | | | |
| | | | |