

Site Management Plan

Former Nepera Chemical Company Superfund Site

Hamptonburgh, Orange County, NY

April 2023 FINAL

Prepared for:

Nepera, Inc. and Warner-Lambert Company LLC



REPORT CERTIFICATION

Site Management Plan

Former Nepera Chemical Company Superfund Site Hamptonburgh, Orange County, NY

The material and data in this report were prepared under the supervision and direction of the undersigned.

I, Erich Zimmerman, certify that I am currently a New York State registered professional engineer and that this Site Management Plan was prepared in accordance with applicable statutes, regulations and guidance.

Cornerstone Engineering and Geology, PLLC



04/05/2023

Erich Zimmerman, P.E.
NY PE License No. 08182401

Date

It is a violation of Article 145 of the New York State Education Law; unless acting under the direction of a licensed Professional Engineer who affixes signature, date, seal and the words "altered by"; for any person to alter this document in any way.

TABLE OF CONTENTS

REPORT CERTIFICATION	II
1 INTRODUCTION.....	5
1.1 GENERAL.....	5
1.2 REVISIONS	7
1.3 NOTIFICATIONS.....	7
2 SUMMARY OF PREVIOUS INVESTIGATIONS AND REMEDIAL ACTIONS	9
2.1 SITE OWNERSHIP.....	9
2.2 SITE LOCATION AND DESCRIPTION	9
2.3 PHYSICAL SETTING.....	9
2.3.1 LAND USE	9
2.3.2 GEOLOGY.....	10
2.3.3 HYDROGEOLOGY.....	10
2.4 INVESTIGATION AND REMEDIAL HISTORY	11
2.5 REMEDIAL ACTION OBJECTIVES	16
2.6 REMAINING CONSTITUENTS OF CONCERN.....	17
2.6.1 ON-SITE SOIL	17
2.6.2 OFF-SITE SOILS	18
2.6.3 GROUNDWATER	18
2.6.4 SOIL VAPOR	19
3 INSTITUTIONAL AND ENGINEERING CONTROL PLAN	20
3.1 GENERAL.....	20
3.2 INSTITUTIONAL CONTROLS.....	20
3.3 ENGINEERING CONTROLS.....	21
3.3.1 MONITORING WELLS.....	21
3.3.2 SITE FENCING	21
4 MONITORING AND SAMPLING PLAN	22
4.1 GENERAL.....	22
4.2 SITE-WIDE INSPECTION.....	22
4.3 GROUNDWATER MONITORING.....	22
4.4 PRIVATE WATER SUPPLY WELL MONITORING.....	26
5 OPERATION AND MAINTENANCE	27

6	PERIODIC ASSESSMENTS/EVALUATIONS.....	28
6.1	OXYGEN RELEASE COMPOUND	28
6.2	VULNERABILITY ASSESSMENT.....	28
7	REPORTING	30
8	REFERENCES.....	31
	LIMITATIONS.....	33

ATTACHMENTS:

ATTACHMENT A SITE LOCATION AND DISPERSED MATERIALS MAPS

ATTACHMENT B SITE SURVEY MAP

ATTACHMENT C DECLARATION OF COVENANTS AND RESTRICTIONS

ATTACHMENT D TAX MAP

ATTACHMENT E HYDROGEOLOGIC CROSS SECTIONS

ATTACHMENT F PRIVATE WATER SUPPLY WELL LOCATION MAP

ATTACHMENT G GROUNDWATER CONTOUR MAPS

ATTACHMENT H REMEDIAL ACTION APPROVAL LETTERS

ATTACHMENT I POST-EXCAVATION SAMPLE RESULTS AND LOCATION MAP

**ATTACHMENT J APRIL 2021 GROUNDWATER MONITORING DATA AND
MONITORING WELL LOCATION MAP**

ATTACHMENT K EXCAVATION WORK PLAN

ATTACHMENT L QUALITY ASSURANCE PROJECT PLAN AND FIELD SAMPLING PLAN

ATTACHMENT M INSPECTION FORM

1 INTRODUCTION

1.1 General

This Site Management Plan (SMP) is an element of the remedial program for the Nepera Chemical Company Superfund Site located in the Town of Hamptonburgh, Orange County, NY 10916 (the Site). This SMP provides information regarding site management activities following completion of the active remediation. See Figure 2-1 from the Remedial Action Work Plan (WRSScompass, 2011) for a Site location map (Attachment A). The Site is being remediated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund) which is administered by the United States Environmental Protection Agency (USEPA). The New York State Department of Environmental Conservation (NYSDEC) historically provided input to the USEPA during the remediation and for completion of this SMP.

Nepera, Inc., Cambrex Corporation, Warner-Lambert Company LLC., and Pfizer Inc (Settling Defendants) entered into a Consent Decree with the USEPA on October 3, 2008, for the remediation of the Site. A figure showing the Site property and boundaries is provided in Attachment B. Attachment B is a survey of the Site prepared by Lanc and Tully Engineering and Surveying, Inc. on April 28, 2009. The boundaries of the Site are shown on this drawing including the metes and bounds descriptions, and this drawing is part of the Declaration of Covenants and Restrictions provided in Attachment C.

Based on the completion of a Remedial Investigation (RI) and Feasibility Study (FS), the USEPA issued a Record of Decision (ROD) on September 28, 2007. The soil remedy in the 2007 ROD included biodegradation of Site-related constituents of concern (COCs) in source soils through construction of a biocell. However, upon further evaluation, it was concluded that off-site treatment/disposal would meet the remedial action objectives at a lower cost and the Settling Defendants submitted information to the USEPA to modify the soil remedy. The USEPA subsequently issued an amended ROD on July 22, 2011 for an excavation and off-site treatment/disposal remedial action. The Settling Defendants and USEPA intend to enter into an Amended Consent Decree memorializing this SMP and the Amended ROD.

After the completion of remedial activities, which included the excavation and off-site treatment/disposal remedy as described in the amended ROD, some COCs remain above cleanup levels identified for the Site by the USEPA in the ROD. These COCs are hereafter referred to as “remaining COCs”. Remaining COCs are associated with groundwater transport and not source material and have been identified as dispersed materials, as more particularly described in Section 2.4. Dispersed materials exist north

of former Lagoon No. 5, in the on-Site access road adjacent to former Lagoon No. 4, and along the southern perimeter of former Lagoon Nos. 1 and 3. On July 12, 2012, the USEPA issued a letter confirming the approach for continued management of the dispersed materials which indicated that the dispersed materials would be addressed as a component of the groundwater remedy rather than be excavated and treated off Site.

Institutional and Engineering Controls (ICs and ECs) have been incorporated into the Site remedy to control exposure to remaining COCs for protection of public health and the environment. A Declaration of Covenants and Restrictions has been recorded with the Orange County Clerk, which requires the current property owner, and the property owner's successors and assigns, to comply with this SMP and maintain the ECs and ICs placed on the Site.

This SMP was prepared to manage remaining COCs at the site until the Declaration of Covenants and Restrictions is terminated. This plan has been approved by the USEPA, and compliance with this plan is required by the Declaration of Covenants and Restrictions and the covenant runs with the land until such time as the USEPA or other relevant agency, if any, approves termination of the Declaration of Covenants and Restrictions. This SMP may only be revised with the approval of the USEPA.

The USEPA, its agents, employees, or other representatives of the government may enter and inspect the Site in a reasonable manner and at reasonable times to check for compliance with the above-stated requirements.

This SMP has been prepared as a mechanism for consistent inspection, monitoring, and enforcement activities currently and in the future throughout the Site. The objectives will be achieved primarily through the implementation of EC/ICs and long-term monitoring. Future owners of any portion of the Site will be bound by the provisions of this SMP relevant to the portion of the property owned or controlled on the Site.

Reports associated with the Site can be reviewed at the two following locations:

U.S. Environmental Protection Agency
290 Broadway - 18th floor
New York, NY 10007
Superfund Records Center

Hamptonburgh Town Hall
18 Bull Road
Campbell Hall, NY, 10916

Certain documents are also available on line at www.epa.gov/superfund/nepera-chemical. A list of contacts for persons involved with the site is provided in Section 1.3 below.

This SMP was prepared by Cornerstone Engineering and Geology PLLC (Cornerstone), on behalf of Nepera, Inc. and Warner-Lambert Company LLC.

1.2 Revisions

Revisions will be submitted to the USEPA, the NYSDEC and the NYSDOH for review and approval if there is a change in media monitoring requirements, post-remedial soil is removed from the Site, or other significant change to the Site conditions.

If a revision affects the Declaration of Covenants and Restrictions for the site, the Settling Defendants will amend the Declaration of Covenants and Restrictions accordingly and provide the USEPA, the NYSDEC and the NYSDOH with an updated document.

1.3 Notifications

Notifications will be submitted by the property owner to the USEPA, the NYSDEC and the NYSDOH, as needed, in accordance with the Order on Consent and per the following:

- 10-day advance notice of a field activity associated with the remedial program.
- 15-day advance notice of a proposed ground-intrusive activity.
- Verbal notice by noon of the following day of any emergency, such as a fire; flood; or earthquake, with written confirmation within 7 days that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public, if any.
- Follow-up status reports on actions taken to respond to any emergency event requiring ongoing responsive action submitted to the USEPA within 45 days describing and documenting actions taken.

Any change in the ownership of the site or the responsibility for implementing this SMP will include the following notifications:

- At least 30 days prior to the change, the USEPA will be notified in writing of the proposed change. This will include a certification that the prospective purchaser/Remedial Party has been provided with a copy of the Order on Consent, and the approved work plans and reports, including this SMP.
- Within 15 days after the transfer of all or part of the site, the new owner’s name, contact representative, and contact information will be confirmed in writing to the USEPA.

The table found below includes current contact information for the Site. The information on this table will be updated as necessary.

Name	Contact Information
Seth Levine, Nepera, Inc., Project Coordinator	Phone: (201) 804-3038 E-mail address: seth.levine@cambrex.com
Christopher Clark, Warner Lambert Company, LLC Alternate Project Coordinator	Phone: (212) 733-5997 E-mail address: christopher.j.clark@pfizer.com
Damian Duda, USEPA, Remedial Project Manager	Phone: (212) 637-4269 E-mail address: duda.damian@epa.gov
Justin Starr NYSDEC Representative	Phone: 518-402-9662 E-Mail Address: Justin.Starr@dec.ny.gov

* Note: Notifications are subject to change and will be updated as necessary.

2 SUMMARY OF PREVIOUS INVESTIGATIONS AND REMEDIAL ACTIONS

2.1 Site Ownership

The Nepera Property was purchased by the Nepera Chemical Company in 1952. The Nepera Chemical Company itself was purchased by Warner-Lambert Corporation in 1956 and reincorporated as Nepera, Inc. The Site is currently owned by Nepera, Inc.

2.2 Site Location and Description

The site is located in Hamptonburgh, Orange County, New York (1.5 miles southwest of the Town of Maybrook) and is identified as Section 6, Block 1, and Lot 31 on the Town of Hamptonburgh Tax Map (see Attachment D). The lagoon area of the Site is an approximately 5-acre area that was affected by historical operations on the overall 29.3-acre property. The property is bounded by Orange County Highway 4 to the north, the Otter Kill to the south, an undeveloped tract of land to the east, and Beaver Dam Brook to the west (see the Site Location Map in Attachment A). The boundaries of the Site are shown on the survey map provided as Attachment B. The owner of the Site parcel at the time of preparation of this SMP is Nepera, Inc.

The topography of the Nepera Site consists primarily of low-lying lands and rolling hills with the Site situated on a saddle with drainage to both the north and south. The majority of the site other than the completed remediation area and borrow area is forested. The Site is located within a 4.5 square mile watershed which consists of Beaver Dam Brook and its tributaries, which discharge into the Otter Kill which is located approximately 500-feet south of the Site.

2.3 Physical Setting

2.3.1 Land Use

The property is zoned Rural Preserve (zoning designation R-4A) with permitted residential and agricultural uses and is currently vacant with the exception of a temporary trailer that is used to support ongoing groundwater monitoring activities. The properties surrounding the Site include primarily agricultural and residential uses. There are four residences nearby to the property. These residences are approximately 175 feet (two residences combined), 250 feet, and 450 feet to the north, west and northeast, respectively.

2.3.2 Geology

The two lithologic units (overburden and bedrock) at the Site are divided into three hydrogeologic units. The overburden units include a shallow aquifer underlain by a localized overburden aquitard. The bedrock aquifer resides in competent bedrock below the Site. The overburden aquitard unit consists of silt and clay (till) and is discontinuous over the Site. Where present, the till acts as a confining unit and results in isolated or perched pockets of groundwater. The bedrock aquifer occurs in the competent portion of the shale bedrock with groundwater traveling through open fractures.

Hydrogeologic cross sections from the Remedial Investigation are provided in Attachment E, which were prepared by Conestoga-Rovers and Associates (CRA) in June, 2006.

2.3.3 Hydrogeology

Three hydro-stratigraphic components were identified for the Site: two aquifers and one aquitard. In order of increasing depth, these are the water table aquifer (shallow aquifer), the localized, discontinuous overburden aquitard unit, and the bedrock aquifer.

The depth to groundwater in the shallow aquifer varies between approximately 5 and 25 feet below ground surface and the groundwater flow is divided into north-northeast and southwest-southeast flows. In the shallow aquifer, the water table is typically 3-6 feet higher in elevation from January to early June (wet season) as compared to between late June to August (dry season). The shallow aquifer is generally under unconfined conditions. The hydraulic conductivity in the shallow aquifer is approximately 8.75×10^{-4} centimeters per second (cm/sec) across the Site (CRA, 2006).

The overburden aquitard is primarily located at the south end of the site. Where it is present, the aquitard layer exists between overlying sand deposits and the upper fractured bedrock. The overburden aquitard reduces direct recharge to the underlying zones where present.

The depth to groundwater in the bedrock aquifer is typically 10-20 feet, and the groundwater flow is divided into a north-northwest direction as well as a south-southwest direction. The depth to groundwater is less (typically 5 feet or less) in the low-lying areas to the north along Maybrook Road. In addition, the final Site grading following remediation included a low-lying area in the south-central portion of the Site adjacent to the former railroad bed. This low-lying area is at an elevation below both the overburden and bedrock groundwater elevations and typically contains standing water that is a manifestation of the groundwater table. The seasonal fluctuations of the water level in the bedrock aquifer are typically small. The hydraulic conductivity in the bedrock aquifer is approximately 1.93×10^{-4} cm/sec across the Site (CRA, 2006).

Drinking water for the residences near the Site is provided by private supply wells. The domestic water supply wells for the residences adjacent to the Site are tested annually, as discussed further in Section 4. The locations of these residences are shown on the figure provided in Attachment F. Public water supply wells for the Village of Maybrook are located approximately 800 feet to the east-northeast of the Site.

Groundwater contour maps for the overburden and bedrock aquifers are shown in the figures provided in Attachment G, respectively. Groundwater elevation data for these contour maps are provided directly on the figures.

2.4 Investigation and Remedial History

The following narrative provides a remedial history timeline and a brief summary of the available project records to document key investigative and remedial milestones for the Site. References are provided in Section 8.

From 1953 through 1967, wastewaters from chemical production processes conducted at the Nepera plant facility located in Harriman, New York, were trucked to the Site and discharged into lagoons on the Site. The lagoons comprised an area of approximately five acres. The total volume of wastewater disposed of and the original constituents are unknown. No wastewater disposal has taken place at the Site since December 1967. The lagoons were back-filled with soil by 1974. The former lagoon area is enclosed by a perimeter fence. Apart from a temporary storage trailer used to support site inspections and groundwater monitoring activities, no other structures exist at the Site.

Beginning in 1967, investigations were conducted by various consultants to Nepera to assess the extent of COCs at the Site. Based on the results of these investigations, the NYSDEC placed the Site on the New York Registry of Inactive Hazardous Waste Disposal Sites. On August 17, 1984, the State of New York entered into a Consent Decree with Nepera to conduct a remedial investigation to assess the type and extent of COCs at the Site.

On June 1, 1986, the USEPA placed the Site on the National Priorities List (NPL) of sites under CERCLA. USEPA subsequently designated the NYSDEC as the lead regulatory agency for overseeing the implementation of a Remedial Investigation and Feasibility Study (RI/FS) at the Site.

The original Remedial Investigation/Feasibility Study (RI/FS) program was conducted in accordance with a Stipulation Agreement entered into by Nepera, Inc. and Warner-Lambert Company with the NYSDEC in March 1988. A Consent Decree lodged in 1998 by the NYSDEC subsequently superseded the Stipulation Agreement. Beginning in 1988, under the NYSDEC-issued order, Nepera, Inc. hired a contractor to conduct the remedial

investigation. The investigation of groundwater was expanded in 1993, and, again, in 2001 with the installation of additional groundwater monitoring wells. Subsequent groundwater monitoring was conducted in 2001 and 2002. Additional soil sampling activities were conducted in 2002 and a wetland delineation survey was conducted in 2003.

During the several phases of the RI, a total of 38 monitoring wells were installed at the Site. The first draft RI Report was submitted in March 1996. NYSDEC and USEPA directed the performance of further work to define the type and extent of soil COCs at the site and to further characterize the groundwater plume. In March 2005, an updated draft RI Report was submitted to NYSDEC and USEPA. This document was further revised, and an approved Final RI Report was submitted on June 16, 2006. NYSDEC and USEPA agreed that the USEPA would be designated as the lead agency for the Site at the conclusion of the RI/FS process in 2007.

The primary soil COCs identified during the RI were volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs). The VOCs included benzene, toluene, ethylbenzene and xylene (BTEX), acetone and chlorobenzene. The SVOCs included 2-aminopyridine, alpha picoline, pyridine, aniline and 2,4'bipyridine (resulting from a Tentatively Identified Compound [TIC] study). The primary groundwater COCs identified were also VOCs and SVOCs. The VOCs detected in either the overburden or bedrock aquifer included BTEX, acetone and chlorobenzene. The Site-related SVOC predominantly detected in the shallow and bedrock aquifers was 2-aminopyridine.

A Record of Decision was issued on September 28, 2007 (2007 ROD), calling for, among other things, excavation of the soil in the source area (former lagoon area), the design and construction of an on-Site biocell to contain the excavated soil, the installation of a soil vapor extraction (SVE) system within the biocell, and operation of the SVE and the biocell systems to remediate soil affected by COCs. In addition, the 2007 ROD included a groundwater remedy consisting of the use of oxygen release compound to promote biodegradation, institutional controls, and long-term groundwater monitoring.

EPA and the Settling Defendants signed a Consent Decree to carry out the remedial design (RD), construction of the selected remedy, and to implement the Remedial Action (RA); the Consent Decree was entered in U.S. District Court in October 2008.

The Remedial Design Work Plan was approved in June 2009, a Preliminary Remedial Design Report was submitted in July 2009 and a Final Remedial Design Report was submitted in November 2010. The Final Remedial Design was conditionally approved by the USEPA in February 2011.

During the process of selecting a Remedial Action Contractor, following the Remedial Design, the Settling Defendants concluded that off-site treatment/disposal would meet the remedial action objectives at a lower cost and submitted information to the USEPA to

modify the soil remedy. The USEPA subsequently amended the ROD in July 2011 and an amendment to the Consent Decree was presented in draft form for review in the spring of 2021 (the amendment remains in draft form as of the date of this SMP). The remedial action implemented under the Amended ROD may be summarized as follows:

Soils:

- Excavate soils in the source areas of the Site (lagoons) and transport impacted soil with concentrations of COCs above the Site-specific cleanup levels, off site for treatment/disposal.
- Perform post-excavation soil sampling and analysis for comparison to the Site-specific cleanup criteria.
- Backfill excavated areas with soil meeting the requirements of 6NYCRR 375-6.

Groundwater:

- Use oxygenating compound within the excavations to enhance bioremediation of Site-related groundwater COCs.
- Apply additional oxygenating compound, if necessary, based on groundwater monitoring results.
- Implement a groundwater monitoring program, in accordance with an approved Site Management Plan.
- Use institutional controls to restrict the use of groundwater at the Site as a source of potable or process water until groundwater quality standards are met.

A Remedial Action Work Plan, which provided the procedures for implementation of the remedy, was then prepared and finalized in 2011. Implementation of the remedy described in the Remedial Action Work Plan occurred from August 2011 through January 2013. The initial phase which included excavation, characterization, post-excavation sampling and backfill, was ongoing from September 2011 through December 2011. Drums were discovered in the Lagoon No. 1 area on September 30, 2012 and as a result, a Drum Handling Plan was prepared and submitted to the USEPA on November 28, 2011. The drum removal work was completed in January 2012. The drummed wastes were characterized, and the characterized drums were disposed at the Environmental Quality Company (EQ) facility in Belleville, MI.

As the soil excavation continued, it became apparent that there was a component of black staining (which was previously thought to be an indicator of source material) that was

associated with groundwater transport and not source material. Test pit and Geoprobe investigations to assess the material that was dispersed to the north of Lagoon No. 5 and adjacent to Lagoon No. 4 in the access road occurred From December 28, 2011 through December 30, 2011. An off-site test pit investigation in an adjacent property (Section 6, Block 1, Lot 61) was conducted on January 20, 2012. From March 2012 through July 2012, an evaluation of the materials dispersed to the north of Lagoon No. 5 was conducted. The soil stained through this dispersion mechanism often met the Site-specific cleanup levels, and when it did not, the contaminant found marginally above the Site-specific cleanup levels was typically 2-aminopyridine. In addition, groundwater data collected from overburden and bedrock wells down-gradient of these areas did not indicate contamination from source material by 2-aminopyridine (i.e., concentrations were “j” qualified [below the practical quantitation limit], or were non-detect). This dispersion of the Site-specific COCs, principally 2-aminopyridine, through groundwater was observed north of Lagoon No. 5, in the on-Site access road adjacent to Lagoon No. 4, and along the southern perimeter of Lagoon Nos. 1 and 3. Based on this improved understanding of the inter-relationship between soil and groundwater, agreement was reached with the USEPA that the dispersed materials would be more appropriately managed through the groundwater component of the remedy because these materials were not behaving as a source as originally conceived in the ROD.

From the data collected for the RI, the estimated quantity of impacted source material was 16,000 cubic yards (or 21,600 tons at the estimated density of 1.35 tons/cubic yard). The excavation of source soils in each lagoon, with the exception of Lagoon No. 6 where source soils were not found, expanded both laterally and vertically beyond that originally planned. At the conclusion of the soil remediation, a total of 83,210 tons of source material had been transported off-Site for treatment/disposal. Thermal treatment/disposal was performed at the ESMI facility in Fort Edward, New York and the Clean Earth of Southeast Pennsylvania facility in Morrisville, Pennsylvania.

The restoration plan for the Site included backfilling with soil to restore original grades. Based on the expanded volume of excavation, the final grades were modified. The basis for the modification was that it would be environmentally acceptable if a portion of the former lagoon area was at lower grades. The USEPA agreed with this approach to modifying the final grades at the Site, so that additional resources would not have to be expended for off-site importation of backfill. Based on the modifications to the final grades, a low-lying area was created in the former Lagoon Nos. 3, 4, and 5 areas, and this area typically has standing water.

The soil remedy was completed as of January 13, 2013, when equipment was fully demobilized from the site. The USEPA approved a Groundwater Monitoring Well Installation Plan on February 21, 2013 and the additional monitoring wells were installed from July 22, 2013 through August 13, 2013. The USEPA conducted a Final Site Inspection

on August 19, 2013, and an Interim Remedial Action Report was submitted to the USEPA on September 27, 2013. The USEPA subsequently approved the September 27, 2013 Interim Remedial Action Report via email dated June 28, 2018 (Attachment H).

In addition to the above, in a letter dated November 2, 2018, the New York State Department of Environmental Conservation (NYSDEC) requested the preparation of a work plan for groundwater sampling and analyses for 1,4-dioxane and per- and polyfluoroalkyl substances (PFAS) as part of its state-wide evaluation of these compounds at remediation sites. Per the NYSDEC-approved work plan, this additional sampling was completed on April 22, 2019, and the overall sampling results indicated low-level detections of 1,4-dioxane and PFAS compounds, generally (with one exception) below the USEPA guidance values and the Drinking Water Quality Council's recommended MCLs at that time. Based on these data, no further on-Site investigation or sampling was recommended. However, following the October 2020 residential well sampling results discussed below, additional sampling of on-Site wells was voluntarily proposed and subsequently completed on April 27, 2021. The wells sampled for PFAS compounds included DW-2-95, MW-1D-91, MW-5D-91, MW-10D-01, MW-16D-13 and MW-17D-13 (see Attachment J for monitoring well locations). The combined PFOA and PFOS concentrations in all samples were below the USEPA's lifetime health advisory level of 70 ng/L with the results ranging from 1.6 ng/l to 30.1 ng/L. In addition, the individual PFOA and PFOS concentrations were below the NY MCL of 10 ng/L each with the exception of the PFOA concentration in monitoring well MW-17D-13 at 24.9 ng/L.

As discussed in Sections 2.6.3 and 4.4, groundwater monitoring associated with the Site also includes annual sampling of four residential wells within the vicinity of the Site for volatile organic compounds (VOCs) and the Site-specific parameters of 2-aminopyridine, alpha-picoline, and pyridine, all of which consistently document non-detectable concentrations. In October 2020, at the request of the NYSDEC, the annual sampling event also included the collection of samples for analysis of 1,4-dioxane and per- and polyfluoroalkyl substances (PFAS) compounds. These results were non-detect with the exception of the presence of PFAS compounds at two parcels identified as Section 6, Block 1, Lot 33 and Section 6, Block 1, Lot 34, and a PFOA result of 12.6 ng/L at one residence (Section 6, Block 1, Lot 33). See Attachment F for property locations. This result was above the standard of 10 ng/L and re-sampling was recommended. The NYSDEC resampled the Section 6, Block 1, Lot 33 potable well on April 21, 2021 and the results for both PFOS and PFOA were below the NY MCL of 10 ng/L. In addition, the Settling Defendants resampled all four private wells in May 2021, confirming the non-detectable concentrations in two wells and the presence of PFAS compounds at the Section 6, Block 1, Lot 33 and Section 6, Block 1, Lot 34 residences, with all results below the NY MCL of 10 ng/L.

2.5 Remedial Action Objectives

The Remedial Action Objectives (RAOs) for the Site as listed in the original ROD dated September 2007 and in the Amended ROD in July 2011 are as follows:

- Prevent exposure of human receptors to soils and groundwater affected by COCs.
- Minimize migration of COCs from soils to groundwater.
- Ensure that hazardous constituents within the soil meet acceptable levels consistent with reasonably anticipated future use.
- Minimize potential human contact with waste constituents.

The Site-specific, compound-specific cleanup levels for soils specified in the ROD for unrestricted use were developed by the NYSDEC, based on potential impact to groundwater. The site-specific cleanup levels for groundwater were based on the lower of the Federal Maximum Contaminant Levels and the New York State Ambient Groundwater Standards and Guidance Values (NYSDEC Part 703 Standards and Technical and Operational Guidance Series (TOGS) 1.1.1). The site-specific cleanup levels are as follows:

Site COC	Site-Specific Groundwater Cleanup Level (µg/L)	Site-Specific Soil Cleanup Level (µg/kg)
Benzene	1	60 ¹
Chlorobenzene	5	1,100 ¹
Ethylbenzene	5	1,000 ¹
Toluene	5	700 ¹
Xylenes	5	260 ¹
2-aminopyridine	1	400 ²
Pyridine	50	400 ²
Alpha picoline	50	575 ²
Acetone	50	50 ¹
Aniline	5	1,510 ²
2,4-bipyridine ³	50	400 ²

¹ The values shown are from *NYSDEC Subpart 375: Remedial Program Soil Cleanup Objectives*.

² The values shown were derived by NYSDEC based on the *Division Technical and Administrative Guidance Memorandum: Determination of Soil Cleanup Objectives and Cleanup Levels, Division of Hazardous Waste Remediation, January 24, 1994*.

³ The parameter was determined to be present in Site soils as a result of soil sampling activities performed in 2010.

The above remedial action objectives and site-specific cleanup levels form the basis for establishing institutional controls.

2.6 Remaining Constituents of Concern

2.6.1 On-Site Soil

Following removal of the source materials, post-excavation soil samples were collected and analyzed for comparison of the results to the Site-specific soil cleanup objectives, and these results were reported in the Interim Remedial Action Report (Cornerstone, 2013). The post-excavation sample results have been excerpted and are presented in the tables in Attachment I of this SMP. The post-excavation sample locations are shown on the Record Drawing, Sheet 2, which has also been excerpted from the Interim Remedial Action Report and is provided in Attachment I.

As shown by the data presented in Attachment I, 2-aminopyridine is a Site-related COC that remains in soil at concentrations marginally above the Site-specific soil cleanup objective based on potential impact to groundwater. In addition, a single post-excavation sample result for 2,4'-bipyridine and three post-excavation sample results for acetone, co-located with 2-aminopyridine, were detected above the Site-specific cleanup objective for potential impact to groundwater. In each case, these detected compounds are associated with dispersed materials, as described in Section 2.4 of this SMP. On July 12, 2012, the USEPA issued a letter (Attachment H) confirming the approach for continued management of the dispersed materials which indicated that the dispersed materials would be addressed as a component of the groundwater remedy rather than be excavated and treated off Site. Per this approval from the USEPA, monitoring has continued, and if indicated by the monitoring data, additional oxygen release compound may be used to promote biodegradation of the dispersed materials.

A statistical analysis based on five years of groundwater monitoring data was presented in the fourth quarter 2017 progress report. Overall, the groundwater monitoring data have consistently demonstrated that following the soil remedy implementation groundwater impacts are confined to the Site and the positive influences of remedy implementation (source material removal and ORC placement) are maintaining control of residual COC transport (e.g., in dispersed materials) and the statistical analysis shows longer term declining trends in concentrations of site-related COCs.

The USEPA also completed a five-year review in August 2018 (Attachment H). In its five-year review report, the USEPA issued the following protectiveness statement:

“The remedy protects human health and the environment in the short-term because contaminated soils have been excavated and Orange County well restrictions

prevent exposure to contaminated groundwater. In order to be protective in the long term, on-property deed restrictions need to be implemented.”

The institutional controls are described Section 3 of this SMP.

2.6.2 Off-Site Soils

As described in Section 2.4 above, dispersed materials, represented by black staining of soils at the water table, were identified in Geoprobe borings and test pits north of Lagoon No. 5 and adjacent to Lagoon No. 4 in the access road, and on the adjacent property (Section 6, Block 1, Lot 61). Figures 2-1 and 2-2 (Attachment A) illustrate the location of the historical lagoons and test locations with evidence of dispersed materials, with Test Pits (TP) TP-35 through TP-38 completed on the adjacent property (Section 6, Block 1, Lot 61). The stained soil found throughout the Site often met the Site-specific impact to groundwater cleanup levels, and when it did not, the contaminant found marginally above the Site-specific cleanup levels was typically 2-aminopyridine. In addition, groundwater data collected from overburden and bedrock wells down-gradient of these areas did not indicate contamination from source material by 2-aminopyridine (i.e., concentrations were “j” qualified [below the practical quantitation limit] or were non-detect).

The investigation indicates that stained soils with concentrations of 2-aminopyridine may be encountered off-site (i.e. on the adjacent Section 6, Block 1, Lot 61 property) at depths that closely follows the water table (approximately 5 to 25 feet below ground surface). Given that intrusive activities on the Section 6, Block 1, Lot 61 property adjacent to the Site may encounter these soils, the property owner (current or future owner) will be provided with a copy of this SMP and the Settling Defendants will follow up with the property owner with respect to potential Site activities within the affected area. In addition, the property owner should notify one of the individuals on the contact list in Section 1.3 of this document if excavation activities to depths greater than five feet are planned or if such activities encounter stained soils. The Settling Defendants will then provide a qualified environmental professional to determine if contamination was encountered, and if so, appropriately manage any excavated soils at no cost to the property owner. Guidance on soil excavation and management of soils for on-Site excavation can be found within the Excavation Work Plan provided in Attachment K to this SMP, and may be used, as needed, to guide similar off-Site activity.

2.6.3 Groundwater

Routine groundwater monitoring has been performed semi-annually starting in October 2012 (baseline event) and continuing through the most recent event in April 2021, as of the preparation of this SMP. In addition, private water supply well sampling is performed annually at the four residences adjacent to the Site (provided access is granted by the

residents). The results of the groundwater and private water supply well sampling have consistently demonstrated that:

- Off site wells continue to have either non-detectable concentrations of Site-related constituents or concentrations of parameters below NYS class GA groundwater standards; and
- The residential wells, analyzed for the full suite of volatile organic compounds and the Site-specific parameters of 2-aminopyridine, alpha-picoline, and pyridine, continue to have non-detectable concentrations for these parameters.

On-Site groundwater monitoring indicates the presence of COCs detected above the Site-specific cleanup levels in both overburden and bedrock wells. These COCs are benzene, chlorobenzene, ethylbenzene, xylene, phenol, 4-chloroaniline, and 2-aminopyridine. A tabulation of groundwater monitoring results from the most recent April 2021 sampling report have been excerpted and are provided in Attachment J along with a map showing the locations of the monitoring wells.

In addition, while not identified as site constituents of concern, PFAS compounds have also been detected in Site monitoring wells, and at concentrations below applicable water quality standards in two potable wells near the Site.

2.6.4 Soil Vapor

The April 2021 Groundwater Monitoring Report prepared by RNC Environmental Geology, P.C., indicates benzene concentrations in on-Site groundwater above the USEPA vapor intrusion (VI) screening level (see Attachment J for details). However, the Site is vacant and there is no current or planned development at the Site. Thus, there is no current VI issue related to benzene on the Site. However, if development were considered for the Site, the VI pathway due to benzene concentrations in groundwater may have to be considered in the future depending on the actual concentrations at the time. Currently, and as indicated in Figure J-1 in Attachment J, the water quality data indicate that much of the Site could be developed without concerns for Vapor Intrusion.

3 INSTITUTIONAL AND ENGINEERING CONTROL PLAN

3.1 General

This Institutional Controls (ICs) and Engineering Controls (ECs) Plan describes the procedures for the implementation and management of IC/ECs at the Site. The only EC for the Site are the maintenance of groundwater monitoring wells. There are otherwise no operational facilities or other ECs present on the Site. The IC for the Site is a Declaration of Covenants and Restrictions to limit use and/or exposure to groundwater that may contain COCs above the Site-specific cleanup levels, among other provisions as described below. This plan provides:

- A description of the IC/ECs on the site;
- The basic implementation and intended role of each IC/EC;
- A description of the key components of the ICs set forth in the Draft Declaration of Covenants and Restrictions (as provided in Attachment C);
- A description of the inspections to be performed;
- A description of procedures for implementation of IC/ECs, such as the implementation of the Excavation Work Plan (EWP) (as provided in Attachment K) for the proper handling of remaining COCs that may be disturbed if intrusive work is performed on the site.

3.2 Institutional Controls

In accordance with the Consent Decree for the implementation of the remedial action at the Site, the ICs for the Site provide for:

- Restriction of new construction at the Site unless an evaluation of the potential for vapor mitigation is conducted and mitigation, if necessary, is performed;
- Restriction on the use of groundwater on the Site as a source of potable or process water until groundwater quality standards are met; and
- Restriction on excavation unless the excavation is in compliance with the provisions of this SMP (see Attachment K).

In addition to the ICs defined in the Consent Decree, the following ICs are also covered by the Declaration of Covenants and Restrictions:

- Inspections at a frequency and in a manner defined in this SMP;
- Groundwater and private, potable water supply well monitoring as defined in this SMP; and
- Site access for agents, employees or other representatives of the USEPA with reasonable prior notice to the property owner to assess compliance with the restrictions identified by the Declaration of Covenants and Restrictions.

Adherence to these ICs on the Site is required by the Declaration of Covenants and Restrictions and will be implemented under this SMP. ICs identified in the Declaration of Covenants and Restrictions may not be discontinued without an amendment to or termination of the Declaration of Covenants and Restrictions. The IC boundaries are shown on the attachment to the Declaration of Covenants and Restrictions and include the entire property.

3.3 Engineering Controls

3.3.1 Monitoring Wells

Groundwater monitoring wells will be maintained and secured to control potential exposure to COCs that remain within the groundwater, as well as to prevent vandalism. Monitoring activities will continue as described in Section 4, until residual groundwater concentrations are found to be below ambient water quality standards, the Site-specific cleanup objectives, or have become asymptotic at an acceptable level over an extended period. Monitoring will be discontinued after submittal of data to the USEPA supporting a request for termination, and with the approval of the USEPA.

Groundwater monitoring data will be used to assess trends in groundwater quality as well as to assess the potential need for the introduction of additional oxygen release compound to promote aerobic biodegradation of remaining COCs in groundwater.

3.3.2 Site Fencing

In addition to the required Institutional and Engineering Controls described above, the perimeter of the Site is also fenced. While not required, the objective of the fence is to limit access to the property, and it will be maintained and remain in place as appropriate and as dictated by current or potential future use.

4 MONITORING AND SAMPLING PLAN

4.1 General

This Monitoring and Sampling Plan describes the procedures for evaluating the overall performance and effectiveness of the remedy. Details regarding the sampling procedures, data quality usability objectives, analytical methods, etc. for samples collected as part of site management are included in the Field Sampling Plan and The Quality Assurance Project Plan (QAPP), which are provided in Attachment L. The Field Sampling Plan is taken from the Groundwater Monitoring Plan, Section 5 of the previously approved Sampling and Analysis Plan. The QAPP Appendix includes portions applicable to routine monitoring excerpted from the original and previously USEPA-approved QAPP which was prepared in November 2011.

4.2 Site-Wide Inspection

Site-wide inspections will be performed annually, or in response to specific conditions such as a severe weather event. During these inspections, an inspection form will be completed as provided in Attachment M. The form will compile sufficient information to assess the following:

- Compliance with ICs, including site use;
- General site conditions at the time of the inspection.

The condition of monitoring wells will be inspected during each monitoring event.

The Settling Defendants will also monitor notices from the USEPA or NYSDEC pertaining to special circumstances such as an emergency related to a natural disaster and perform additional inspections, as necessary based on such notices.

4.3 Groundwater Monitoring

Based on the groundwater monitoring performed since 2012, with the approval of this SMP, groundwater monitoring will be performed on a five-quarters basis (i.e., an overall annual program but using five quarters so that monitoring occurs at different times of the year) to continue to assess the performance of the remedy. Modification to the frequency or sampling requirements will be only with the approval of the USEPA.

A total of 26 groundwater monitoring wells are monitored on-Site and off-Site (19 and 7, respectively) to evaluate the performance and effectiveness of the remedy. The locations of monitoring wells are shown on the figure in Attachment J.

The analytical program for the groundwater monitoring is as shown in the following table.

Analytical Parameters, Groundwater Sampling
TCL VOCs
TCL SVOCs
Site-Specific Compounds: 2-aminopyridine Pyridine Alpha picoline Aniline 2,4'bipyridine
Field Parameters: Temperature Redox Turbidity Specific conductance pH Dissolved oxygen
General/Biodegradation Parameters: Ferrous Iron COD Calcium Magnesium Alkalinity Nitrate

Overburden monitoring wells have been installed near the base of the overburden at the top of competent bedrock, with depths ranging from approximately 15 to 20 feet below grade and generally consist of two-inch, PVC pipe with 10 feet of 0.010 slot screen. Monitoring wells installed in bedrock consist of a 20-foot cored open rock borehole extending from 5-ft below top of competent rock with the overburden cased off, and an inner casing and 10 feet of screen per the same specifications as the overburden wells, as described above. The approximate completion depths of bedrock wells varies between 35 and 55 feet below grade.

The following table summarizes the well identification number, measuring point elevation, well diameter and depth, and whether the well is screened in overburden or bedrock.

Monitoring Well Information Table				
Well Name	Type	Measuring Point Elevation (Feet Above MSL)	Well Depth (Feet)	Well Diameter (Inches)
DW-1-95	Bedrock	370.04	121.00	2.00
DW-2-95	Bedrock	368.65	108.20	2.00
MW-1	Overburden	366.62	17.10	2.00
MW-1D-91	Bedrock	380.54	35.00	2.00
MW-2	Overburden	372.35	14.45	2.00
MW-4D-91	Bedrock	375.21	26.15	4.00
MW-5D-91	Bedrock	364.00	101.00	2.00
MW-5U-91	Overburden	363.31	19.00	2.00
MW-6D-95	Bedrock	351.73	60.00	4.00
MW-7	Overburden	372.41	16.50	2.00
MW-7U-95	Overburden	366.76	15.00	2.00
MW-10D-01	Bedrock	359.71	72.60	2.00
MW-10U-01	Overburden	359.60	26.03	2.00
MW-11D-01	Bedrock	348.66	37.20	2.00
MW-11U-01	Overburden	348.59	11.35	2.00
MW-16D-13	Bedrock	376.76	42.10	2.00
MW-17D-13	Bedrock	374.98	24.35	2.00
MW-18D-13	Bedrock	376.31	23.80	2.00
MW-19D-13	Bedrock	382.69	24.25	2.00
MW-20D-13	Bedrock	379.41	52.35	2.00
MW-21D-13	Bedrock	375.00	34.55	2.00
MW-22D-13	Bedrock	371.75	33.20	2.00
SW-2	Overburden	368.23	14.00	4.00
SW-3	Overburden	380.30	18.20	4.00
SW-8	Overburden	374.64	17.80	4.00
SW-9	Overburden	396.20	18.40	4.00

If biofouling or silt accumulation occurs in the on-Site and/or off-Site monitoring wells, the wells will be physically agitated/surged and redeveloped. Additionally, monitoring wells will be properly decommissioned and replaced, if an event renders the wells unusable.

Repairs and/or replacement of wells in the monitoring well network will be performed based on assessments of structural integrity and overall condition that occurs with each monitoring event.

The USEPA will be notified prior to decommissioning of a monitoring well, and the decommissioning and/or replacement process will be documented in the next progress report. Well decommissioning will be performed in accordance with NYSDEC's guidance entitled "CP-43: Groundwater Monitoring Well Decommissioning Procedures." Monitoring wells that are decommissioned because they have been rendered unusable will be replaced in kind in the nearest available location, unless otherwise approved by the USEPA.

Prior to sampling, the wells will be opened, and head-space VOC readings will be collected using a photoionization detector (PID). The wells will then be purged using per-well dedicated tubing using low-flow sampling methodology. The purge water will be containerized for proper off-Site disposal.

Samples are collected following the stabilization of measured and recorded field parameters oxidation-reduction potential, pH, conductivity, temperature, dissolved oxygen and turbidity. Field parameters will be measured via a Horiba U-22XD multi-parameter water quality monitoring system and flow-through cell or equivalent. In addition, ferrous iron testing will be performed in the field using a Hach 1R-18C Test Kit or equivalent.

After purging, the samples will be transferred immediately to the appropriate laboratory-supplied containers. Once filled, the containers will be placed immediately in ice-filled coolers for shipment to the laboratory. No filtered groundwater samples will be collected.

The samples will be submitted to a NYSDOH Environmental Laboratory Approval Program (ELAP) approved New York State certified laboratory under standard chain of custody procedures along with a blind field duplicate, trip blank and a field blank; as well as sufficient sample quantity for Site-specific matrix spike/matrix spike duplicate analysis. The groundwater samples will be shipped to a NYSDOH certified laboratory following the NYSDEC/USEPA Analytical Protocols. Based on analytical results, the frequency of sampling may be changed. After achieving groundwater standards for two consecutive years, the monitoring frequency will be re-evaluated in concert with USEPA.

Groundwater levels will be used to develop a potentiometric map for both shallow and deep groundwater zones. Groundwater contour maps will be provided with the annual groundwater monitoring reports.

In addition, analytical data for the COCs in the groundwater at the Site will be evaluated on an ongoing basis. In the fourth quarter 2017 progress report for the Site, a detailed statistical analysis of five years of analytical data was performed. This statistical analysis supported the remedy effectiveness and the generally declining concentrations of Site-related COCs in groundwater. This conclusion was further confirmed through a similar statistical analysis conducted again using data collected through October 2020. Statistical analyses will be updated as appropriate based on the results of continued groundwater

monitoring, and the results of statistical analysis updates will be presented in the Site progress reports.

4.4 Private Water Supply Well Monitoring

On an annual basis four private, potable water supply wells (private homeowner access being granted) will be sampled and tested for the Target Compound List volatile organics and the Site-specific parameters of 2-aminopyridine, alpha-picoline, and pyridine. The homeowner well sampling is coordinated by the Settling Defendants, and the sampling will be performed by a sampling technician qualified to sample in accordance with the Safe Drinking Water Act. These private water supply samples will be collected from the homeowner water supply system prior to any treatment equipment (e.g., water softener). The samples will be placed directly into the laboratory-supplied containers and will be preserved, transported, and analyzed, as described above for the groundwater samples.

The results of the private water supply sampling will be reported directly to the New York State Department of Health (NYSDOH), and the NYSDOH in turn will provide the results to the home owners with a copy to the Settling Defendants. Upon receipt, the results of the private water supply well sampling will be reported to the USEPA in the annual report (see Section 7).

The Amended ROD also includes the Town of Maybrook water supply wells in the routine monitoring program. Based on off-site groundwater monitoring and private water supply well monitoring performed on a regular basis, there is no impact to off-site groundwater and on this basis, there would be no need to continue sampling of the Town of Maybrook water supply wells. The Town of Maybrook at its discretion may choose to sample its wells for site-related COCs; however, the Settling Defendants would coordinate with the Town on such sampling only if the results of directly adjacent off-site groundwater monitoring were to indicate a need to do so, which is not the case as of the preparation of this SMP.

In addition to the above, the NYSDEC has committed to conduct sampling at the Section 6, Block 1, Lot 33 residence for PFAS compounds and will provide and maintain a point of use treatment system for PFAS as needed.

5 OPERATION AND MAINTENANCE

The site remedy does not rely on any mechanical systems, such as a groundwater treatment system or a sub-slab depressurization system, to protect public health and the environment. Therefore, there are no routine operation and maintenance requirements for such components, and none are included in this SMP.

The condition of the monitoring wells will be inspected with each monitoring event, and maintenance will be performed, as necessary, as described in Section 4 of this SMP.

6 PERIODIC ASSESSMENTS/EVALUATIONS

As there are no routine operations at the Site, assessments such as remedial system optimization or a sustainability evaluation would not apply. Only two periodic assessments would apply: (1) the potential for introducing additional oxygen release compound for groundwater remediation, and (2) a vulnerability assessment based on potential climate change impacts. Each of these assessments is discussed below.

6.1 Oxygen Release Compound

As noted in Section 2, based on supplemental site investigations and field observations dispersed materials were encountered at the Site, and the USEPA agreed that these materials would not be excavated and, instead, would be managed as a part of the groundwater monitoring and remediation. The routine groundwater monitoring data were subjected to statistical analyses as first reported in the fourth quarter of 2017 progress report, and generally indicated declining trends in COCs in groundwater. As such, and as supported by further statistical assessment using data through October 2020, the monitoring data has not indicated the need for the use of supplemental oxygen release compound to reduce COC concentrations by supporting aerobic biodegradation. Ongoing monitoring data will be reviewed, and additional statistical analyses performed based on the results of monitoring (e.g., assess the potential evidence of increasing trends). If so, indicated by the monitoring data, introduction of supplemental oxygen release compound will be considered in concert with the USEPA.

6.2 Vulnerability Assessment

Increases in both the severity and frequency of storms/ weather events along with accompanying potential flooding impacts, shifting precipitation patterns and wide temperature fluctuation, resulting from global climatic change and instability, have the potential to impact the performance, effectiveness and protectiveness of a given site and associated remedial systems. Vulnerability assessments provide information so that a site and associated remedial systems are prepared for the impacts of the increasing frequency and intensity of severe storms/ weather events and associated flooding.

As previously noted, with the exception of a temporary trailer which is not essential to the protectiveness of the Site remedy but rather is a convenience for ongoing groundwater monitoring, there are no structures or remedial systems on site that are potentially vulnerable to changes in weather severity and patterns.

As of the preparation of this SMP, the Site is well vegetated, stable, and shows no signs of erosion, or potential flooding. The Site is on a ridge with well drained slopes toward the

low-lying wetlands to the north and Beaver Dam Brook to the south-southeast. In addition, Beaver Dam Brook is at an elevation some 30 to 50 feet lower than the Site elevations. Therefore, the Site is not prone to flooding from the adjacent stream during an extreme weather event.

The USEPA in its 2018 five-year review also states:

“Potential site impacts from climate change have been assessed, and the performance of the remedy is currently not at risk due to the expected effects of climate change in the region and near the site.”

Overall, the Site is not considered vulnerable to the potential impacts from climate change. However, annual inspections will be performed to confirm that conditions do not change.

7 REPORTING

Under the purview of the USEPA, as of the preparation of this SMP, the Site is subject to submittal of quarterly progress reports that document site activities, groundwater monitoring results, and community participation. Prior to the USEPA agreeing, on July 9, 2014, to reducing the frequency of reporting to quarterly, progress reports were submitted to the USEPA monthly. The monthly and quarterly progress reporting since inception of the remedial action has been in place for approximately seven years, and during that period of time the soils remedial action was successfully completed, and groundwater monitoring continues to support the conclusion that the remedial action is effective and concentrations of COCs in groundwater are declining.

Based on the consistency of Site conditions and groundwater monitoring results, with the approval of this SMP, reporting will be performed annually. The format and content of an annual report will be as follows:

- Site management activities undertaken during the annual reporting period;
- Results of monitoring performed, including statistical analyses as applicable;
- Deliverables completed during the reporting period, if any;
- Site management activities planned during the next year;
- Modifications to the SMP proposed or implemented during the reporting period;
and
- Community relations activities, if any.

In addition to the above annual report, the results of the private, potable water supply well testing will be reported directly from the laboratory to the New York State Department of Health (NYSDOH). The NYSDOH in turn will provide the results to the adjacent residents.

Under the Federal Superfund program, and because COCs remain in groundwater above Site-specific cleanup levels and monitoring continues, the Site is subject to five-year reviews. The USEPA is the lead agency responsible for preparing and issuing the five-year review reports. The Settling Defendants will provide support to the USEPA, as requested, for the five-year reviews.

8 REFERENCES

6 CRR-NY Part 375, Environmental Remediation Programs. December 14, 2006.

Conestoga-Rovers & Associates, June 2006. Remedial Investigation Report: Maybrook Lagoon Site.

Conestoga-Rovers and Associates, June 2007. Feasibility Study Report, Maybrook Lagoon Site.

Consent Decree between State of New York and Estate of William S. Lasdon, Nepera, Inc., and Warner-Lambert Company and Order of Dismissal, May 1, 1998.

Cornerstone Engineering and Land Surveying, PLLC, September 27, 2013. Interim Remedial Action Report.

NYSDEC DER-10 – “Technical Guidance for Site Investigation and Remediation”

NYSDEC, 1998. Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1. June 1998 (April 2000 addendum).

R & C Formation, Ltd., April, 2021. Groundwater Monitoring Report: Nepera Chemical Company Superfund Site.

Stipulation Agreement between the New York State Department of Environmental Conservation and the Respondents (Nepera, Inc., Warner-Lambert Company, Estate of William S. Lasdon), March 21, 1988.

USEPA, August 23, 2018. First Five-Year Review Report for Nepera Chemical Company Superfund Site.

USEPA, July 2011. Amendment to The Record of Decision: Nepera Chemical Company Superfund Site.

USEPA, September 2007. Record of Decision: Nepera Chemical Company Superfund Site.

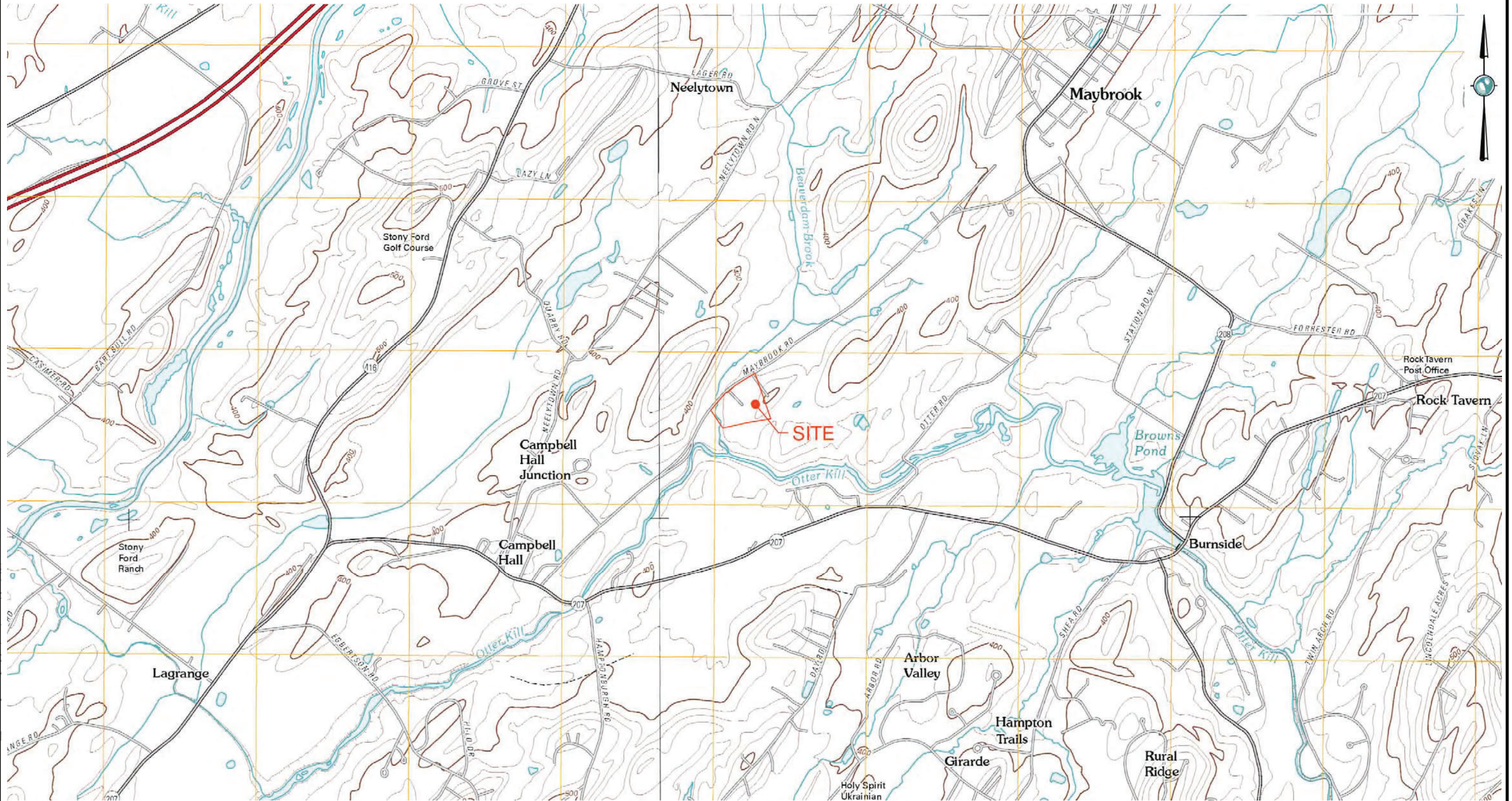
WRS Compass, August 2011. Remedial Action Work Plan: Nepera Chemical Company Superfund Site, Soils and Groundwater Remedy.

LIMITATIONS

The work product included in the attached was undertaken in full conformity with generally accepted professional consulting principles and practices and to the fullest extent as allowed by law we expressly disclaim all warranties, expressed or implied, including warranties of merchantability or fitness for a particular purpose. The work product was completed in full conformity with the contract with our client and this document is solely for the use and reliance of the regulatory authorities and our client (unless previously agreed upon that a third party could rely on the work product) and any reliance on this work product by an unapproved outside party is at such party's risk.

The work product herein (including opinions, conclusions, suggestions, etc.) was prepared based on the situations and circumstances as found at the time, location, scope and goal of our performance and thus should be relied upon and used by our client recognizing these considerations and limitations. Cornerstone shall not be liable for the consequences of any change in environmental standards, practices, or regulations following the completion of our work and there is no warrant to the veracity of information provided by third parties, or the partial utilization of this work product.

ATTACHMENT A
SITE LOCATION AND DISPERSED MATERIALS MAPS



1" = 1/2" 0"

SOURCE:
USGS 7.5' QUADRANGLE MAPS:
"GOSHEN, NEW YORK", DATED 2010
"MAYBROOK, NEW YORK", DATED 2010

Scale: NTS

CORNERSTONE
Engineering and Land Surveying, PLLC

This drawing is the property of Cornerstone Engineering and Land Surveying, PLLC (Cornerstone). Any modification to the original by other than Cornerstone personnel violates its original purpose and as such is rendered void. Cornerstone will not be held liable for any changes made to this document without express written consent of the original.

NEPERA CHEMICAL COMPANY SUPERFUND SITE
TOWN OF HAMPTONBURGH, NEW YORK

SITE LOCATION MAP

FIGURE NO.
1-1

PROJECT NO.
110083



COUNTY HIGHWAY No. 4

SITE ACCESS ROAD

DISPERSED MATERIAL AREA

LEGEND:

- TEST PIT, EVIDENCE OF STAINING
- TEST PIT, NO EVIDENCE OF STAINING
- GEOPROBE, NO EVIDENCE OF STAINING
- GEOPROBE, EVIDENCE OF STAINING
- LAGOONS, 1963 AERIAL PHOTOGRAPH
- SOURCE MATERIAL REMOVAL AREA
- THICKNESS, DISPERSED MATERIAL
- 2-AMINOPYRIDINE, UG/KG

CONCRETE CULVERT

CONCRETE BRIDGE

PROPERTY LINE

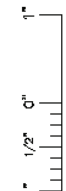
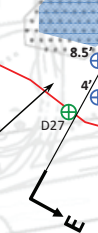
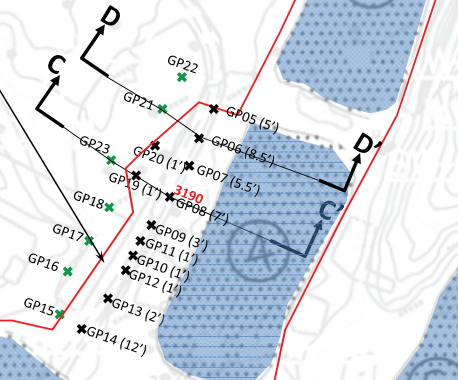
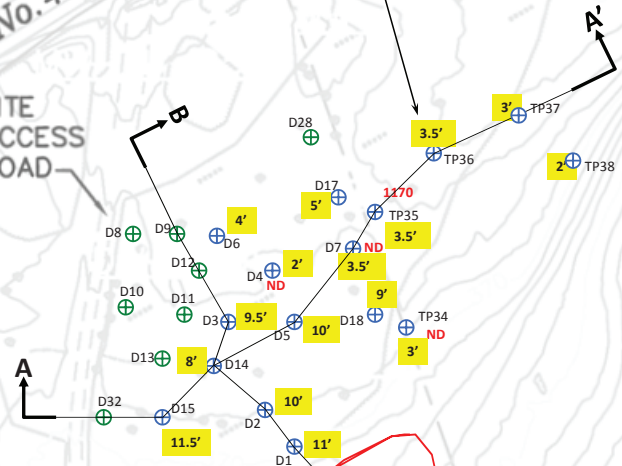
BEAVER DAM CREEK

VERDAM BROOK

FORMER LAGOON AREAS

DISPERSED MATERIAL AREAS

DISPERSED MATERIAL AREA



CORNERSTONE
Engineering and Land Surveying, PLLC

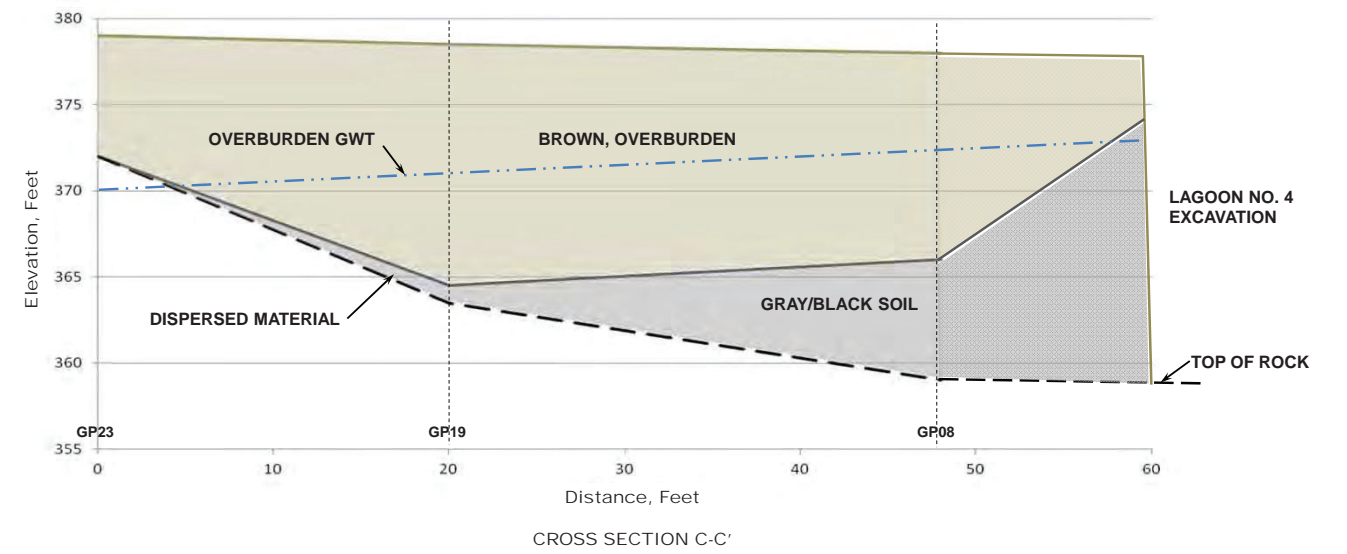
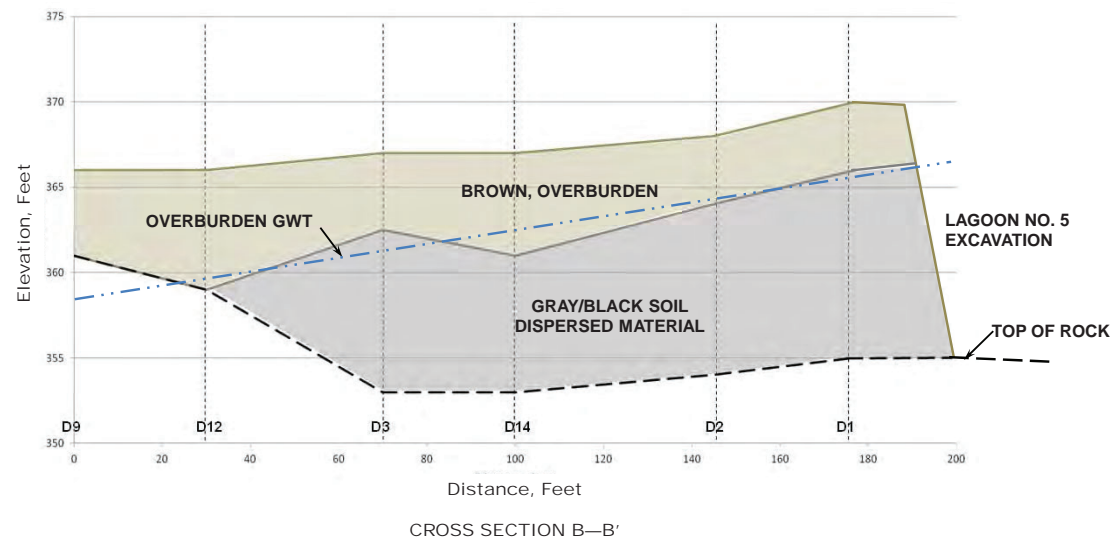
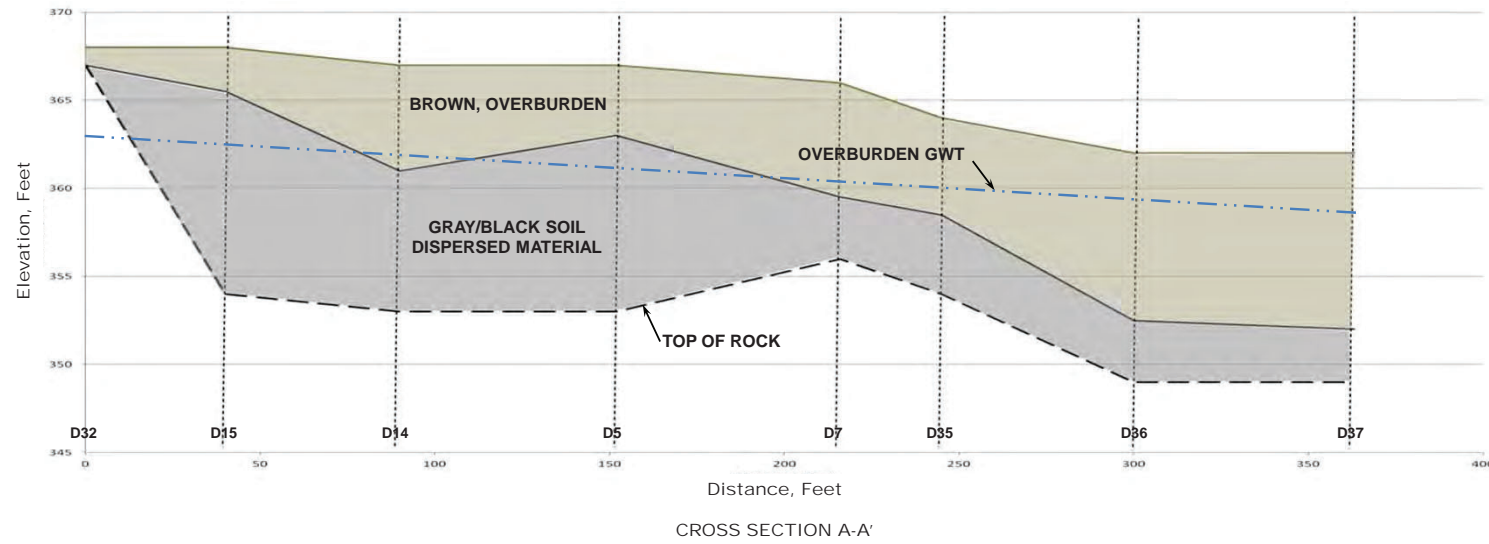
This drawing is the property of Cornerstone Engineering and Land Surveying, PLLC (Cornerstone). Any modification to the original by other than Cornerstone personnel violates its original purpose and as such is rendered void. Cornerstone will not be held liable for any changes made to this document without express written consent of the originator.

NEPERA CHEMICAL COMPANY SUPERFUND SITE
TOWN OF HAMPTONBURGH, NEW YORK

TEST PIT & GEOPROBE AND
CROSS SECTION LOCATIONS

FIGURE NO.
2-1

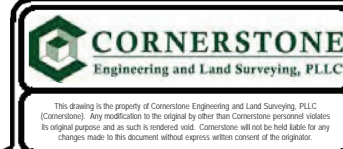
PROJECT NO.
110083



1" 1/2" 0" 1"

File: C:\PROJECTS\WATERBURY\110083-110083-110083\110083-110083-110083.dwg Layer: msp\mshades.msp 24, 2012 - 3:08pm

Scale: As Shown



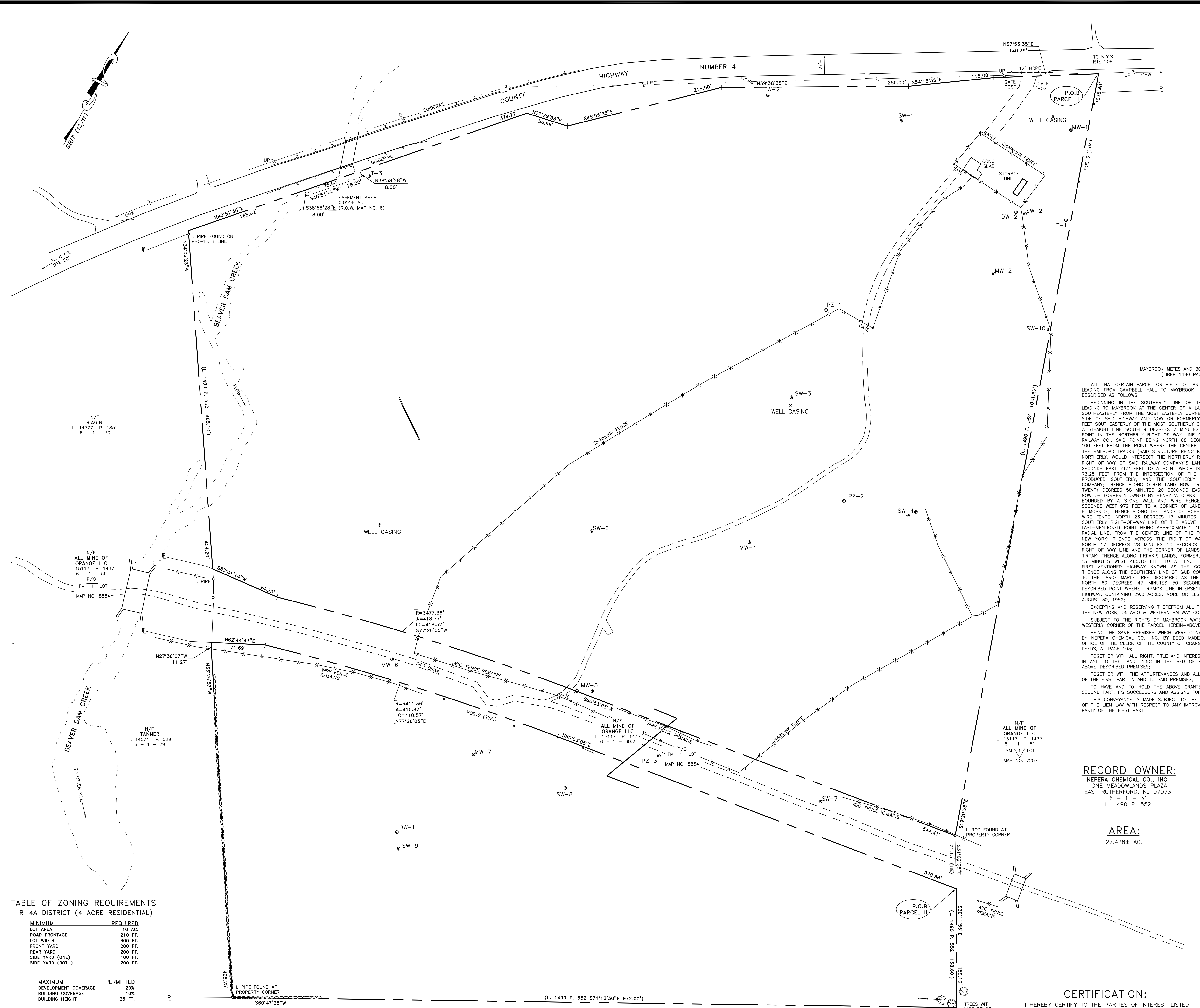
NEPERA CHEMICAL COMPANY SUPERFUND SITE
TOWN OF HAMPTONBURGH, NEW YORK

**CROSS SECTIONS
A-A', B-B' AND C-C'**

FIGURE NO.
2-2

PROJECT NO.
110083

ATTACHMENT B
SITE SURVEY MAP



- NOTES:**
- THIS SURVEY IS SUBJECT TO ANY FINDINGS OF A TITLE SEARCH.
 - SUBSURFACE STRUCTURES AND UTILITIES NOT VISIBLE AT THE TIME OF SURVEY HAVE NOT BEEN SHOWN.
 - REFERENCES:
 - MAP ENTITLED "SURVEY & SUBDIVISION MAP OF LANDS OF JACOB MOSCOW, TOWN OF HAMPTONBURGH, ORANGE COUNTY, NEW YORK," DATED JUNE 18, 1985 AND FILED IN THE ORANGE COUNTY CLERK'S OFFICE ON JULY, 23 1985 AS FILED MAP NO. 7257.
 - MAP ENTITLED "SUBDIVISION (SKETCH PLAN) C & C STEWART, TOWN OF HAMPTONBURGH, ORANGE COUNTY, NEW YORK," DATED JANUARY 29, 1987, LAST REVISED JANUARY 15, 1988 AND FILED IN THE ORANGE COUNTY CLERK'S OFFICE ON MAY 12, 1988 AS FILED MAP NO. 8854.
 - MAP ENTITLED "CAMPBELL HALL-MAYBROOK, COUNTY ROAD NO. 4, R.O.W. MAP NO. 5/8," DATED AUGUST 2, 1962.
 - MAP ENTITLED "CAMPBELL HALL-MAYBROOK, COUNTY HIGHWAY, NO. 4, TOWN OF HAMPTONBURGH, ORANGE COUNTY, NEW YORK," R.O.W. MAP NO. 5 AND 6, DATED APRIL 23, 1928.
 - MAP ENTITLED "NEPERA CHEMICAL SUPERFUND SITE DRAFT FINAL REMEDIAL DESIGN WORK PLAN, LIMITS OF EXCAVATION, TOWN OF HAMPTONBURGH, ORANGE COUNTY, NEW YORK," DATED NOVEMBER 2010, AS PREPARED BY SCOTT A. UNDERHILL, P.E.
 - ABSTRACT OF TITLE, ABSTRACT NO. MA-1575, PREPARED BY ASSURANCE ABSTRACT & TITLE SERVICES.
 - SITE ADDRESS: CO HWY 4, CAMPBELL HALL, NY 10916
 - PROPERTY IS LOCATED WITHIN AN AREA HAVING A ZONE DESIGNATION OF X AND AS BY THE SECRETARY OF HOUSING AND URBAN DEVELOPMENT, ON FLOOD INSURANCE RATE MAP NO. 36071C0303E, WITH A DATE OF IDENTIFICATION OF AUGUST 3, 2009, FOR COMMUNITY NUMBER 360617 IN ORANGE COUNTY, STATE OF NEW YORK, WHICH IS THE CURRENT FLOOD INSURANCE RATE MAP FOR THE COMMUNITY IN WHICH PROPERTY IS LOCATED.
 - NO EVIDENCE OF UNDERGROUND UTILITIES EXISTING ON OR SERVING THE PROPERTY FOUND AT THE TIME OF SURVEY
 - NO EVIDENCE OF EARTH MOVING WORK, CONSTRUCTION, OR BUILDING ADDITIONS OBSERVED IN THE PROCESS OF CONDUCTING FIELD WORK.
 - ZONING REQUIREMENTS BASED ON INFORMATION PROVIDED BY TETRA TECH.
 - METES AND BOUNDS DESCRIPTION SHOWN BELOW AS PROVIDED BY TETRA TECH.

MAYBROOK METES AND BOUNDS DESCRIPTION
(LIBER 1490 PAGE 552)

ALL THAT CERTAIN PARCEL OR PIECE OF LAND LYING SOUTH OF THE COUNTY HIGHWAY LEADING FROM CAMPBELL HALL TO MAYBROOK, BEING MORE ACCURATELY BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING IN THE SOUTHERLY LINE OF THE ABOVE-MENTIONED COUNTY HIGHWAY LEADING TO MAYBROOK AT THE CENTER OF A LARGE MAPLE TREE WHICH IS 197.95 FEET SOUTHEASTERLY FROM THE MOST EASTERLY CORNER OF A HOUSE STANDING ON THE NORTH SIDE OF SAID HIGHWAY AND NOW OR FORMERLY OWNED BY MAGRI, ALSO BEING 224.50 FEET SOUTHEASTERLY OF THE MOST SOUTHERLY CORNER OF THE SAME HOUSE; THENCE ON A STRAIGHT LINE SOUTH 9 DEGREES 22 MINUTES 50 SECONDS EAST 1041.87 FEET TO A POINT IN THE NORTHERLY RIGHT-OF-WAY LINE OF THE NEW YORK ONTARIO & WESTERN RAILWAY CO., SAID POINT BEING NORTH 88 DEGREES 56 MINUTES WEST A DISTANCE OF 100 FEET FROM THE POINT WHERE THE CENTER LINE OF A CONCRETE STRUCTURE UNDER THE RAILROAD TRACKS (SAID STRUCTURE BEING KNOWN AS BRIDGE NO. 37), IF PRODUCED NORTHERLY WOULD INTERSECT THE NORTHERLY RIGHT-OF-WAY LINE; THENCE ACROSS THE RIGHT-OF-WAY OF SAID RAILWAY COMPANY'S LANDS SOUTH 20 DEGREES 58 MINUTES 20 SECONDS EAST 71.2 FEET TO A POINT WHICH IS NORTH 88 DEGREES 56 MINUTES WEST 73.28 FEET FROM THE INTERSECTION OF THE CENTER LINE OF SAID BRIDGE NO. 37 PRODUCED SOUTHERLY, AND THE SOUTHERLY RIGHT-OF-WAY LINE OF SAID RAILWAY COMPANY; THENCE ALONG OTHER LAND NOW OR FORMERLY OF ANELLO GENTILE, SOUTH TWENTY DEGREES 58 MINUTES 20 SECONDS EAST 158.6 FEET TO A CORNER OF LANDS NOW OR FORMERLY OWNED BY HENRY V. CLARK; THENCE ALONG THE LANDS OF CLARK, AS BOUNDED BY A STONE WALL AND WIRE FENCE, SOUTH 71 DEGREES 13 MINUTES 30 SECONDS WEST 972 FEET TO A CORNER OF LANDS NOW OR FORMERLY OWNED BY WILBER E. MCBRIDE; THENCE ALONG THE LANDS OF MCBRIDE, AS BOUNDED BY A STONE WALL AND WIRE FENCE, NORTH 23 DEGREES 17 MINUTES WEST 485.25 FEET TO A POINT IN THE SOUTHERLY RIGHT-OF-WAY LINE OF THE ABOVE FIRST-MENTIONED RAILWAY COMPANY; THE LAST-MENTIONED POINT BEING APPROXIMATELY 40 FEET SOUTHERLY, AS MEASURED ON A RADIAL LINE, FROM THE CENTER LINE OF THE FORMER SOUTHERLY OWNED BY MICHAEL NEW YORK; THENCE ACROSS THE RIGHT-OF-WAY OF SAID RAILWAY COMPANY'S LANDS NORTH 17 DEGREES 28 MINUTES 10 SECONDS WEST 105.56 FEET TO THE NORTHERLY RIGHT-OF-WAY LINE AND THE CORNER OF LANDS NOW OR FORMERLY OWNED BY MICHAEL TIRPAK; THENCE ALONG TIRPAK'S LANDS, FORMERLY GEORGE MCBRIDE, NORTH 24 DEGREES 13 MINUTES WEST 485.10 FEET TO A FENCE POST IN THE SOUTHERLY LINE OF THE FIRST-MENTIONED HIGHWAY KNOWN AS THE COUNTY HIGHWAY LEADING TO MAYBROOK; THENCE ALONG THE SOUTHERLY LINE OF SAID COUNTY HIGHWAY IN AN EASTERLY DIRECTION TO THE LARGE MAPLE TREE DESCRIBED AS THE POINT OF BEGINNING; SAID TREE BEING NORTH 60 DEGREES 47 MINUTES 50 SECONDS EAST 1238 FEET FROM THE LAST DESCRIBED POINT WHERE TIRPAK'S LINE INTERSECTS THE SOUTHERLY LINE OF SAID COUNTY HIGHWAY, CONTAINING 29.3 ACRES, MORE OR LESS; ALL BEARINGS BEING MAGNETIC AS OF AUGUST 30, 1952;

MAP METES AND BOUNDS DESCRIPTION
(LIBER 1490 PAGE 552)

All that certain plot, piece or parcel of land, situate in the Town of Hamptonburgh, County of Orange, State of New York, said lands being more particularly bounded and described as follows:

Parcel I
BEGINNING at a point being the northeasterly corner of lands herein described and lying at an angle on the southeasterly line of County Highway No. 4; THENCE running along a westerly line of said County Highway No. 4 and continuing along a westerly line of lands now or formerly All Mine of Orange LLC being the easterly line of lands herein described, 3) South 19 degrees, 20' 25" East, as per Grid North State Plane Coordinate System New York East, a distance of 1,038.40 feet, to an iron rod being a southeasterly corner of lands herein described; THENCE running along a northerly line of lands of said All Mine of Orange LLC being a southerly line of lands herein described on the following three (3) courses and distances: 2) South 80 degrees, 53' 04" West, a distance of 544.41 feet, to a point of curvature; 3) On a curve to the left, having a radius of 3,477.36 feet, an arc length of 418.77 feet, as defined by the chord South 77 degrees, 26' 05" West, 418.52 feet; and 4) South 83 degrees, 41' 14" West, a distance of 94.25 feet, to a point being the southeasterly corner of lands herein described and the southeasterly corner of lands now or formerly Biagini; THENCE running along the northeasterly line of lands of said Biagini and continuing along a northeasterly line of County Highway No. 4, being the southeasterly line of lands herein described, 5) North 34 degrees, 06' 23" West, a distance of 454.20 feet, to a point being the westerly corner of lands herein described and lying at an angle on the southeasterly line of County Highway No. 4; THENCE running along the southeasterly line of said County Highway No. 4, being the northeasterly line of lands herein described on the following six (6) courses and distances: 6) North 40 degrees, 51' 35" East, a distance of 479.72 feet; 7) North 77 degrees, 29' 53" East, a distance of 56.95 feet; 8) North 45 degrees, 56' 35" East, a distance of 213.00 feet; 9) North 59 degrees, 13' 35" East, a distance of 250.00 feet; 10) North 54 degrees, 55' 35" East, a distance of 115.00 feet; and 11) North 57 degrees, 55' 35" East, a distance of 140.39 feet, to the point or place of BEGINNING.

Parcel II
Also including a second parcel of lands being more particularly bounded and described as follows:

BEGINNING at a point being the northeasterly corner of lands herein described, said point being South 31 degrees, 02' 38" East, as per Grid North State Plane Coordinate System New York East, 71.15 feet from an iron rod being the terminus of the first course of the parcel I described above; THENCE running along a southeasterly line of lands now or formerly All Mine of Orange LLC being the northeasterly line of lands herein described, 1) South 30 degrees, 11' 55" East, a distance of 159.10 feet, to a point being the easterly corner of lands herein described and a northeasterly corner of lands now or formerly Otterkill Ridge LLC; THENCE running along a portion of a northwesterly line of lands of said Otterkill Ridge LLC being the southeasterly line of lands herein described, 2) South 60 degrees, 47' 35" West, a distance of 969.91 feet, to an iron pipe at a stone wall corner being the southerly corner of lands herein described and the easterly corner of lands now or formerly Tanner; THENCE running along the northwesterly line of lands of said Tanner being the southeasterly line of lands herein described on the following two (2) courses and distances: 3) North 33 degrees, 26' 57" West, a distance of 465.25 feet; and 4) North 27 degrees, 38' 07" West, a distance of 11.27 feet, to a point being the northerly corner of lands of said Tanner, the westerly corner of lands herein described and lying on a southerly line of lands now formerly All Mine of Orange LLC; THENCE running along the southerly line of lands of said All Mine of Orange LLC being the northerly line of lands herein described on the following three (3) courses and distances: 5) North 62 degrees, 44' 43" East, a distance of 71.69 feet; 6) On a curve to the right, having a radius of 3,411.36 feet, an arc length of 410.82 feet, as defined by the chord North 77 degrees, 26' 05" East, 410.57 feet; and 7) North 80 degrees, 53' 05" East, a distance of 570.98 feet, to the point or place of BEGINNING;

Containing (both parcels I & II) 27.428± acres

EXCEPTING AND RESERVING THEREFROM ALL THE LAND NOW OWNED AND OCCUPIED BY THE NEW YORK, ONTARIO & WESTERN RAILWAY CO.;

SUBJECT TO THE RIGHTS OF MAYBROOK WATER DEPARTMENT TO 1.76 ACRES ON THE WESTERLY CORNER OF THE PARCEL HEREIN-ABOVE DESCRIBED;

BEING THE SAME PREMISES WHICH WERE CONVEYED TO THE PARTY OF THE FIRST PART BY NEPERA CHEMICAL CO., INC. BY DEED MADE MAY 3, 1957, AND RECORDED IN THE OFFICE OF THE CLERK OF THE COUNTY OF ORANGE ON JUNE 17, 1957 IN LIBER 1429 OF DEEDS, AT PAGE 103.

TOGETHER WITH ALL RIGHT, TITLE AND INTEREST OF THE PARTY OF THE FIRST PART OF IN AND TO THE LAND LYING IN THE BED OF ANY STREETS AND ROADS ADJUTING THE ABOVE-DESCRIBED PREMISES;

TOGETHER WITH THE APPURTENANCES AND ALL THE ESTATE AND RIGHTS OF THE PARTY OF THE FIRST PART IN AND TO SAID PREMISES;

TO HAVE AND TO HOLD THE ABOVE GRANTED PREMISES UNTO THE PARTY OF THE SECOND PART, ITS SUCCESSORS AND ASSIGNS FOREVER.

THIS CONVEYANCE IS MADE SUBJECT TO THE TRUST FUND PROVISIONS OF SECTION 13 OF THE LIEN LAW WITH RESPECT TO ANY IMPROVEMENT ON SAID PREMISES MADE BY THE PARTY OF THE FIRST PART.

RECORD OWNER:
NEPERA CHEMICAL CO., INC.
ONE MEADOWLANDS PLAZA,
EAST RUTHERFORD, NJ 07073
6 1 31
L 1490 P. 552

AREA:
27.428± AC.

CERTIFICATION:

I HEREBY CERTIFY TO THE PARTIES OF INTEREST LISTED BELOW THAT THIS MAP SHOWS THE RESULTS OF AN ACTUAL FIELD SURVEY COMPLETED ON FEBRUARY 23, 2022.

NEPERA CHEMICAL CO., INC.

BY: RODNEY C. KNOWLTON, L.S.
NEW YORK STATE LICENSE NO. 50276

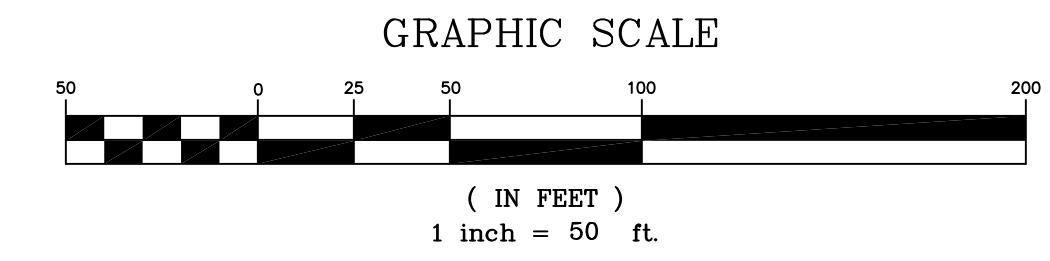


TABLE OF ZONING REQUIREMENTS
R-4A DISTRICT (4 ACRE RESIDENTIAL)

MINIMUM	REQUIRED
LOT AREA	10 AC.
ROAD FRONTAGE	210 FT.
LOT WIDTH	300 FT.
FRONT YARD	200 FT.
REAR YARD	200 FT.
SIDE YARD (ONE)	100 FT.
SIDE YARD (BOTH)	200 FT.
MAXIMUM PERMITTED	
DEVELOPMENT COVERAGE	20%
BUILDING COVERAGE	10%
BUILDING HEIGHT	35 FT.

COPIES FROM THE ORIGINAL OF THIS DOCUMENT NOT MARKED WITH AN ORIGINAL OF THE PROFESSIONAL ENGINEER'S AND/OR LAND SURVEYOR'S STAMP OR EMBOSSED SEAL SHALL NOT BE CONSIDERED VALID, TRUE COPIES.

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF SECTION 7209-2 OF THE NEW YORK STATE EDUCATION LAW.

COPYRIGHT 2022, LANC & TULLY, P.C.

LANC & TULLY
ENGINEERING AND SURVEYING, P.C.

P.O. Box 687, Rt. 207
Goshen, N.Y. 10924
(845) 294-3700

DATE: MARCH 24, 2022
REVISIONS: AUGUST 23, 2022
NOVEMBER 15, 2022

SURVEY PREPARED FOR
NEPERA CHEMICAL CO., INC.
TOWN OF HAMPTONBURGH
ORANGE COUNTY, NEW YORK

Drawn By: EK
Checked By:
Scale: 1" = 50'
Date: 6-1-31
Drawing No.: A-22-0022-01

ATTACHMENT C
DECLARATION OF COVENANTS AND RESTRICTIONS



ORANGE COUNTY – STATE OF NEW YORK
 KELLY A. ESKEW, COUNTY CLERK
 255 MAIN STREET
 GOSHEN, NEW YORK 10924

COUNTY CLERK'S RECORDING PAGE

THIS PAGE IS PART OF THE DOCUMENT – DO NOT DETACH



BOOK/PAGE: 15400 / 315
 INSTRUMENT #: 20230020935
 Receipt#: 3145510
 Clerk: AV
 Rec Date: 03/29/2023 03:28:55 PM
 Doc Grp: D
 Descrip: RT WY
 Num Pgs: 19
 Rec'd Frm: Faegre Drinker Biddle & Reath LLP

Party1: NEPERA CHEMICAL CO INC
 Party2: PEOPLE OF STATE OF NY
 Town: HAMPTONBURGH (TN)
 6-1-31

Recording:

Recording Fee	115.00
Cultural Ed	14.25
Records Management - Coun	1.00
Records Management - Stat	4.75
TP584	5.00

Sub Total: 140.00

Transfer Tax	
Transfer Tax - State	0.00

Sub Total: 0.00

Total: 140.00

**** NOTICE: THIS IS NOT A BILL ****

***** Transfer Tax *****
 Transfer Tax #: 7457
 Transfer Tax
 Consideration: 0.00

Total: 0.00

Payment Type: Check ___
 Cash ___
 Charge ___
 No Fee ___

Comment: _____

Kelly A. Eskew
 Orange County Clerk

Record and Return To:

ELECTRONICALLY RECORDED BY SIMPLIFILE

**DECLARATION OF COVENANTS, RESTRICTIONS
AND ENVIRONMENTAL EASEMENT**

This Declaration of Covenants, Restrictions and Environmental Easement is made this 7th day of February 2022. By and between Nepera Chemical Co. Inc. (N/K/A Nepera, Inc.), organized and existing under the laws of the State of New York, having its principal office at One Meadowlands Plaza, East Rutherford, NJ 07073 ("Grantor"), and the People of the State of New York acting through their Commissioner of the New York State Department of Environmental Conservation with its Central Office, located at 625 Broadway, Albany, New York 12233 ("Grantee").

WITNESSETH:

WHEREAS, Grantor is the owner of parcels of land located in the Town of Hamptonburgh, County of Orange, State of New York, known and designated on the tax map of the County Clerk of Orange as Tax Map Number 6-1-31, and recorded in the Orange County Clerk's Office in Liber 1490 and Page 552 (hereinafter, the "Property"). The Property subject to this Declaration of Covenants, Restrictions and Environmental Easement comprises approximately 27.428 +/- acres, and is hereinafter more fully described in Exhibit A and depicted in Exhibit B. The Property includes any buildings and improvements thereon and appurtenances thereto and is part of the Nepera Chemical Company Superfund Site ("Site"), which the United States Environmental Protection Agency ("EPA"), pursuant to Section 105 of the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), 42 U.S.C. § 9605, placed on the National Priorities List, as set forth in Appendix B of the National Oil and Hazardous Substances Pollution Contingency Plan ("NCP"), 40 C.F.R. Part 300, by publication in the Federal Register on June 10, 1986; and

WHEREAS, in a Record of Decision dated September 28, 2007 ("ROD"), EPA selected, and the New York State Department of Environmental Conservation ("NYSDEC") concurred with, a remedial action for the Site pursuant to CERCLA, which provided for, in pertinent part: excavation and treatment of contaminated soils ("Affected Soils") in the Biocell and backfilling of excavated areas; bioremediation of groundwater contaminants of concern and implementation of a long-term groundwater monitoring program; implementation of certain Site institutional and engineering controls and development of a Site Management Plan ("SMP"); and development of a contingency plan in the event Village of Maybrook public water supply wells have been impacted by Site-related contaminants above health-based levels; and

WHEREAS, EPA issued a ROD Amendment, dated July 11, 2011 ("2011 ROD Amendment") that modified and supplemented the original remedy; and

WHEREAS, the 2011 ROD Amendment authorized the following remedial activities, without limitation: excavation of Affected Soils throughout former lagoon areas; transport of excavated Affected Soils that exceed the NYSDEC Soil Cleanup Objectives to a permitted treatment, storage, and disposal facility; post-excavation confirmatory sampling; and backfilling the excavated areas with clean fill; and

WHEREAS, the Parties anticipate requesting the Court to approve a modification of the Consent Decree for Design/Remedial Action, *U.S. v. Cambrex Corp. et al.*, No. 8 Civ. 5815 (RMB), entered October 3, 2008 (the "Consent Decree"), including the statement of work ("SOW") of the Consent Decree, to reflect the 2011 ROD Amendment; and

WHEREAS, the parties hereto have agreed that in accordance with the terms of a modified Consent Decree, Grantor shall grant to the Grantee a permanent Environmental Easement pursuant to Article 71, Title 36 of the NYS Environmental Conservation Law, covenant with respect to the restrictions on the use of the Property, and provide a right of access to the Property in favor of Grantee, all of which shall run with the land, for purposes of implementing, facilitating and monitoring the CERCLA response action in order to protect human health and the environment; and WHEREAS, Grantor wishes to cooperate fully with the Grantee in the implementation of all response actions at the Site.

NOW, THEREFORE:

1. **Grant:** Grantor, on behalf of itself, its successors and assigns, for ten dollars and other good and valuable consideration, receipt whereof is hereby acknowledged, does hereby give, grant, covenant and declare in favor of the Grantee that the Property shall be subject to this Declaration of Covenants, Restrictions and Environmental Easement, and Grantor does further give, grant and convey to the Grantee the perpetual right to enforce said restrictions, covenants, right of access and Declaration of Covenants, Restrictions and Environmental Easement, all of which shall be of the nature and character, and for the purposes hereinafter set forth, with respect to the Property.
2. **Purpose:** It is the purpose of this instrument to convey to the Grantee real property rights, which will run with the land, facilitate the remediation of past environmental contamination and to impose use restrictions and covenants to protect human health and the environment by reducing the risk of exposure to contaminants.
3. **Restrictions on Use and Maintenance of Engineering Controls:** The following restrictions, as more comprehensively established in the SMP on file with EPA and NYSDEC and as may, from time to time, be amended, apply to the use of the Property, as provided below, run with the land, and are binding on the Grantor and its successors in title and assigns:
 - a) **Industrial Use.** The Property may be used for only industrial use as described in 6 NYCRR Part 375-1.8(g)(2)(iv). This industrial use restriction will remain in place unless a further soil remediation action is conducted to reduce potential risks associated with alternate land uses.
 - b) **Control of Excavation of Soils.** Future excavation or other disturbance of soils that were not remediated is prohibited unless required to ensure that soils are properly tested and managed to protect workers and the community pursuant to the SMP with EPA approval. The SMP details the requirements for any excavation/disturbance, management and disposal of any excavated materials including, but not limited to:

- i. Erosion and sedimentation controls (e.g., silt fence)
 - ii. Dust control (e.g., water)
 - iii. Management of soils (e.g., reuse or disposal)
 - iv. Restoration of site (e.g., backfilling)
 - c) **Restriction of Use of Groundwater.** The use of groundwater underlying the Property is prohibited until applicable groundwater standards are satisfied and as otherwise determined by the New York State Department of Health NYSDOH or the Orange County Department of Health to be safe for use as drinking water or for industrial purposes.
 - d) **Vapor Intrusion Evaluation for New Construction.** Construction of buildings of any kind is prohibited unless (1) an evaluation of the potential for vapor intrusion into such for any buildings is conducted in full conformance with NYSDEC and EPA vapor intrusion guidance and regulations in effect at the time such development is under consideration and (2) mitigation, if necessary, is implemented in accordance with the SMP.
 - e) **Inspections and Monitoring.** The owner of the Property will implement, or permit implementation by other responsible entities, monitoring of groundwater and private potable water supply, site inspections, and maintenance of fencing and signs on the Property in accordance with the provisions of the SMP.
4. Modification or termination of restrictions and covenants: The restrictions specified in the preceding paragraph of this instrument may only be modified or terminated, in whole or in part, in writing, by the Grantee with approval of EPA, provided, however, that any modification or termination of said restrictions shall not adversely affect the remedy selected by EPA and NYSDEC for the Site. If requested by the Grantor, such writing will be executed by Grantee in recordable form. Any request by Grantor for a modification or termination of this instrument shall be made, not less than 30-days in advance of any modification or termination, in writing by Grantor to NYSDEC and to EPA in accordance with paragraph 15 of this instrument.
5. Right of access: Grantors hereby convey to Grantee and to EPA a right of access to the Property at all reasonable times for the following purposes, which right of access shall run with the land and be binding on Grantor, its successors and /or assigns, and on any tenants or any other parties having an interest and/or rights to any portion of the Property:
 - a) Implementing the response actions selected in the 2011 ROD Amendment.
 - b) Verifying any data or information relating to the Site;
 - c) Verifying that no action is being taken at the Site in violation of the terms of this instrument or of any federal or state environmental laws or regulations;

-
- d) Conducting investigations under CERCLA relating to contamination on or near the Site, including, without limitation, sampling of air, water, sediments, soils; and
- e) Implementing additional or new response actions under CERCLA.
6. Reserved rights of Grantor: Grantor hereby reserves unto itself, its successors, and assigns, all rights and privileges in and to the use of the Property which are not incompatible with the restrictions, rights, covenants and easements granted herein.
7. Federal authority: Nothing in this document shall limit or otherwise affect EPA's rights of entry and access or EPA's authority to take response actions under CERCLA, the NCP, or other federal law.
8. State authority: Nothing herein shall constitute a waiver of any rights the State may have pursuant to the Environmental Conservation Law, regulations and/or relevant provisions of statutory or common law.
9. No public access and use: No right of access or use by the general public to any portion of the Site is conveyed by this instrument.
10. Public notice: Grantor, on behalf of itself, its successors and assigns, agrees to include in each instrument conveying any interest in any portion of the Property, including but not limited to deeds, leases and mortgages, a notice which is in substantially the following form:

NOTICE: THIS PROPERTY IS SUBJECT TO A DECLARATION OF COVENANTS, RESTRICTIONS AND ENVIRONMENTAL EASEMENT DATED _____, 20__ , RECORDED IN THE ORANGE COUNTY CLERK'S OFFICE ON _____, 20__ , IN BOOK _____, PAGE _____, AND HELD BY THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION PURSUANT TO TITLE 36, ARTICLE 71 OF THE ENVIRONMENTAL CONSERVATION LAW. THE DECLARATION OF COVENANTS, RESTRICTIONS AND ENVIRONMENTAL EASEMENT SHALL BE ENFORCEABLE BY THE PEOPLE OF THE STATE OF NEW YORK AND BY THE UNITED STATES OF AMERICA AS THIRD-PARTY BENEFICIARY.

Within thirty (30) days of the date any such instrument of conveyance is executed, Grantor agrees to provide Grantee and EPA with a certified true copy of said instrument and, if it has been recorded in the public land records, its recording reference.

11. Enforcement: The Grantee shall be entitled to enforce the terms of this instrument by resort to specific performance. All remedies available hereunder shall be in addition to any and all other remedies at law or in equity, including CERCLA. Any forbearance, delay or omission to exercise Grantee's rights under this instrument in the event of a breach of any

term of this instrument shall not be deemed to be a waiver by the Grantee of such term or of any of the rights of the Grantee under this instrument.

12. Damages: Grantee shall also be entitled to recover damages for breach of any covenant or violation of the terms of this instrument including any impairment to the remedial action that increases the cost of the selected response action for the Site as a result of such breach or violation.
13. Waiver of certain defenses: Grantor hereby waives any defense of laches, estoppel, or prescription.
14. Covenants: Grantor hereby covenants that the Grantor is lawfully seized in fee simple of the real property at the Site, that the Grantor has a good and lawful right and power to sell and convey it or any interest therein and that the Site is free and clear of encumbrances.
15. Notices: Any notice, demand, request, consent, approval, or communication under this instrument that either party desires or is required to give to the other shall be in writing and shall either be served personally or sent by first class mail, postage prepaid, addressed as follows:

To Grantor:

Nepera, Inc.
One Meadowlands Plaza
East Rutherford, NJ 07073

To Grantee:

Office of General Counsel
NYS Department of Environmental
Conservation
625 Broadway
Albany, New York 12233-5500

NYS Department of Environmental
Conservation
Division of Environmental Remediation
Bureau of Site Control
625 Broadway
Albany, New York 12233

A copy of each such communication shall also be sent to EPA in the same manner as to Grantor or Grantee, and addressed to the following two addressees:

U.S. Environmental Protection Agency
Superfund and Emergency Management Division
Attention: Nepera Chemical Company Superfund Site Remedial Project
290 Broadway, 19th Floor,
New York, New York 10007-1866

U.S. Environmental Protection Agency
Office of Regional Counsel
Attention: Nepera Chemical Company Superfund Site Attorney
290 Broadway, 17th Floor,

New York, New York 10007-1866

16. General provisions:

- a) Controlling law: The interpretation and performance of this instrument shall be governed by the laws of the State of New York, and with respect to other matters, shall be governed by the laws of the United States or, if there are no applicable federal laws, by the law of the State of New York.
- b) Liberal construction: Any general rule of construction to the contrary notwithstanding, this instrument shall be liberally construed in favor of the grant to affect the purpose of this instrument and the policy and purpose of CERCLA. If any provision of this instrument is found to be ambiguous, an interpretation consistent with the purpose of this instrument that would render the provision valid shall be favored over any interpretation that would render it invalid.
- c) Severability: If any provision of this instrument, or the application of it to any person or circumstance, is found to be invalid, the remainder of the provisions of this instrument, or the application of such provisions to persons or circumstances other than those to which it is found to be invalid, as the case may be, shall not be affected thereby.
- d) No forfeiture: Nothing contained herein will result in a forfeiture or reversion of Grantors' title in any respect.
- e) Joint obligation: If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.
- f) Successors: The covenants, easements, terms, conditions, and restrictions of this instrument shall be binding upon, and inure to the benefit of, the parties hereto and their respective personal representatives, heirs, successors, and assigns and shall continue as a servitude running in perpetuity with the real property at the Site. The term "Grantor", wherever used herein, and any pronouns used in place thereof, shall include the persons and/or entities named at the beginning of this document, identified as "Grantor" and their personal representatives, heirs, successors, and assigns. The term "Grantee", wherever used herein, and any pronouns used in place thereof, shall mean the People of the State of New York acting through their Commissioner of NYSDEC or through any successor department or agency of the State of New York.
- g) Captions: The captions in this instrument have been inserted solely for convenience of reference and are not a part of this instrument and shall have no effect upon construction or interpretation.
- h) Counterparts: The parties may execute this instrument in two or more counterparts, which shall, in the aggregate, be signed by both parties; each counterpart shall be deemed an original instrument as against any party who has signed it. In the event

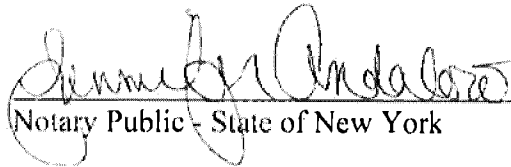
THIS DECLARATION OF COVENANTS, RESTRICTIONS AND ENVIRONMENTAL EASEMENT IS HEREBY ACCEPTED BY THE PEOPLE OF THE STATE OF NEW YORK, Acting By and Through the Department of Environmental Conservation as Designee of the Commissioner.

By: 
Janet Brown, Assistant Director
Division of Environmental Remediation

Grantee's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF Albany)

On the 8th day of February, in the year 202~~2~~³, before me, the undersigned, personally appeared Janet Brown, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity as designee of the Commissioner of the State of New York Department of Environmental Conservation, and that by his signature on the instrument, the People of the State of New York, upon behalf of which the individual acted, executed the instrument.


Notary Public - State of New York

JENNIFER ANDALORO
Notary Public, State of New York
No. 02AN6098246
Qualified in Albany County 24
Commission Expires January 14, 20

DESCRIPTION
LANDS OF NEPERA CHEMICAL Co., INC.
TOWN OF HAMPTONBURGH
ORANGE COUNTY, NEW YORK

OCTOBER 21, 2022

All that certain plot, piece or parcel of land, situate in the Town of Hamptonburgh, County of Orange, State of New York, said lands being more particularly bounded and described as follows:

Parcel I

BEGINNING at a point being the northeasterly corner of lands herein described and lying at an angle in the southeasterly line of County Highway No. 4;

THENCE running along a westerly line of said County Highway No. 4 and continuing along a westerly line of lands now or formerly All Mine of Orange LLC being the easterly line of lands herein described,

- (1) South 19 degrees, 20' 25" East, as per Grid North State Plane Coordinate System New York East, a distance of 1,038.40 feet, to an iron rod being a southeasterly corner of lands herein described;

THENCE running along a northerly line of lands of said All Mine of Orange LLC being a southerly line of lands herein described on the following three (3) courses and distances:

- (2) South 80 degrees, 53' 04" West, a distance of 544.41 feet, to a point of curvature;
- (3) On a curve to the left, having a radius of 3,477.36 feet, an arc length of 418.77 feet, as defined by the chord South 77 degrees, 26' 05" West, 418.52 feet; and
- (4) South 83 degrees, 41' 14" West, a distance of 94.25 feet, to a point being the southwesterly corner of lands herein described and the southeasterly corner of lands now or formerly Biagini;

THENCE running along the northeasterly line of lands of said Biagini and continuing along a northeasterly line of County Highway No. 4, being the southwesterly line of lands herein described,

- (5) North 34 degrees, 06' 23" West, a distance of 454.20 feet, to a point being the westerly corner of lands herein described and lying at an angle on the southeasterly line of County Highway No. 4;

THENCE running along the southeasterly line of said County Highway No. 4 being the northwesterly line of lands herein described on the following six (6) courses and distances:

- (6) North 40 degrees, 51' 35" East, a distance of 479.72 feet;
- (7) North 77 degrees, 29' 53" East, a distance of 56.96 feet;

- (8) North 45 degrees, 56' 35" East, a distance of 213.00 feet;
- (9) North 59 degrees, 38' 35" East, a distance of 250.00 feet;
- (10) North 54 degrees, 13' 35" East, a distance of 115.00 feet; and
- (11) North 57 degrees, 55' 35" East, a distance of 140.39 feet, to the point or place of BEGINNING.

Parcel II

Also including a second parcel of lands being more particularly bounded and described as follows:

BEGINNING at a point being the northeasterly corner of lands herein described, said point being South 31 degrees, 02' 38" East, as per Grid North State Plane Coordinate System New York East, 71.15 feet from an iron rod being the terminus of the first course of the parcel I described above;

THENCE running along a southwesterly line of lands now or formerly All Mine of Orange LLC being the northeasterly line of lands herein described,

- (1) South 30 degrees, 11' 55" East, a distance of 159.10 feet, to a point being the easterly corner of lands herein described and a northeasterly corner of lands now or formerly Otterkill Ridge LLC;

THENCE running along a portion of a northwesterly line of lands of said Otterkill Ridge LLC being the southeasterly line of lands herein described,

- (2) South 60 degrees, 47' 35" West, a distance of 969.91 feet, to an iron pipe at a stone wall corner being the southerly corner of lands herein described and the easterly corner of lands now or formerly Tanner;

THENCE running along the northeasterly line of lands of said Tanner being the southwesterly line of lands herein described on the following two (2) courses and distances:

- (3) North 33 degrees, 26' 57" West, a distance of 465.25 feet; and
- (4) North 27 degrees, 38' 07" West, a distance of 11.27 feet, to a point being the northerly corner of lands of said Tanner, the westerly corner of lands herein described and lying on a southerly line of lands now formerly All Mine of Orange LLC;

THENCE running along the southerly line of lands of said All Mine of Orange LLC being the northerly line of lands herein described on the following three (3) courses and distances:

- (5) North 62 degrees, 44' 43" East, a distance of 71.69 feet;

**DESCRIPTION
LANDS OF NEPERA CHEMICAL CO., INC.
TOWN OF HAMPTONBURGH
ORANGE COUNTY, NEW YORK**

OCTOBER 21, 2022

- (6) On a curve to the right, having a radius of 3,411.36 feet, an arc length of 410.82 feet, as defined by the chord North 77 degrees, 26' 05" East, 410.57 feet to a point of tangency; and
- (7) North 80 degrees, 53' 05" East, a distance of 570.98 feet, to the point or place of BEGINNING;

All as shown on a map entitled "Survey Prepared For Napara Chemical Co., Inc., Town of Hamptonburgh, Orange County, New York", dated March 24, 2022, last revised August 23, 2022, prepared by Lanc & Tully Engineering and Surveying, P.C.

Containing (both parcels I & II) 27.428± acres

Premises herein described being Tax Map Lot No. 31, in Block 1, within Section 6, as shown on the Tax Maps of the Town of Hamptonburgh, Orange County, New York dated 2021.

Premises herein described being the same premises as described in Liber 1490 of Deeds at Pages 552, as filed in the Orange County Clerk's Office.

Premises herein described being subject to a drainage and access easement, as shown on a map entitled "Campbell Hall – Maybrook County Road No. 4, R.O.W. Map No. 6", dated April 23, 1928.

Premises herein described being subject to any other easements, rights-of-way, covenants or restrictions of record.

NOTES:

1. THIS SURVEY IS SUBJECT TO ANY PROVISIONS OF A TITLE INSURANCE POLICY WHICH MAY BE APPLICABLE TO THE TITLE OF SAID PROPERTY.
2. THE SURVEY IS SUBJECT TO ANY PROVISIONS OF A TITLE INSURANCE POLICY WHICH MAY BE APPLICABLE TO THE TITLE OF SAID PROPERTY.
3. THE SURVEY IS SUBJECT TO ANY PROVISIONS OF A TITLE INSURANCE POLICY WHICH MAY BE APPLICABLE TO THE TITLE OF SAID PROPERTY.
4. THE SURVEY IS SUBJECT TO ANY PROVISIONS OF A TITLE INSURANCE POLICY WHICH MAY BE APPLICABLE TO THE TITLE OF SAID PROPERTY.
5. THE SURVEY IS SUBJECT TO ANY PROVISIONS OF A TITLE INSURANCE POLICY WHICH MAY BE APPLICABLE TO THE TITLE OF SAID PROPERTY.
6. THE SURVEY IS SUBJECT TO ANY PROVISIONS OF A TITLE INSURANCE POLICY WHICH MAY BE APPLICABLE TO THE TITLE OF SAID PROPERTY.
7. THE SURVEY IS SUBJECT TO ANY PROVISIONS OF A TITLE INSURANCE POLICY WHICH MAY BE APPLICABLE TO THE TITLE OF SAID PROPERTY.
8. THE SURVEY IS SUBJECT TO ANY PROVISIONS OF A TITLE INSURANCE POLICY WHICH MAY BE APPLICABLE TO THE TITLE OF SAID PROPERTY.
9. THE SURVEY IS SUBJECT TO ANY PROVISIONS OF A TITLE INSURANCE POLICY WHICH MAY BE APPLICABLE TO THE TITLE OF SAID PROPERTY.
10. THE SURVEY IS SUBJECT TO ANY PROVISIONS OF A TITLE INSURANCE POLICY WHICH MAY BE APPLICABLE TO THE TITLE OF SAID PROPERTY.

THE PROPERTY IS SUBJECT TO AN ENVIRONMENTAL EASEMENT HELD BY THE STATE OF NEW YORK, DEPARTMENT OF ENVIRONMENTAL CONSERVATION PURSUANT TO TITLE 26 OF ARTICLE 71 OF THE NEW YORK ENVIRONMENTAL CONSERVATION LAW, THE ENGINEERING AND INSTITUTIONAL CONTROLS FOR THE PROTECTION OF THE ENVIRONMENT, AND THE SITE MANAGEMENT PLAN (SMP) FOR THE PROPERTY. THE SMP CAN BE OBTAINED FROM THE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, DIVISION OF ENVIRONMENTAL PLANNING AND CONTROL, SECTION 825 BROADWAY, ALBANY, NY 12243 OR BY TELEPHONE AT 518-474-2100.

RECORD OWNER:
 NEPERA CHEMICAL CO., INC.
 1100 WEST 10TH AVENUE
 DENVER, COLORADO 80202
 1-303-733-1000

AREA:
 274,889 SQ. FT.



LANC & TULLY
 ENGINEERS AND ARCHITECTS, P.C.
 1100 WEST 10TH AVENUE
 DENVER, COLORADO 80202
 1-303-733-1000

SURVEY PREPARED FOR
NEPERA CHEMICAL CO., INC.
 1100 WEST 10TH AVENUE
 DENVER, COLORADO 80202

CERTIFICATION:
 I, [Name], being duly sworn, depose and say that I am a duly Licensed Professional Engineer in the State of New York, and that I am the author of the above described Survey, and that the same is a true and correct copy of the original Survey as shown to me by the Record Owner, and that I have not been furnished with any information which would cause me to believe that the same is not a true and correct copy of the original Survey.

DATE: [Date]
BY: [Signature]

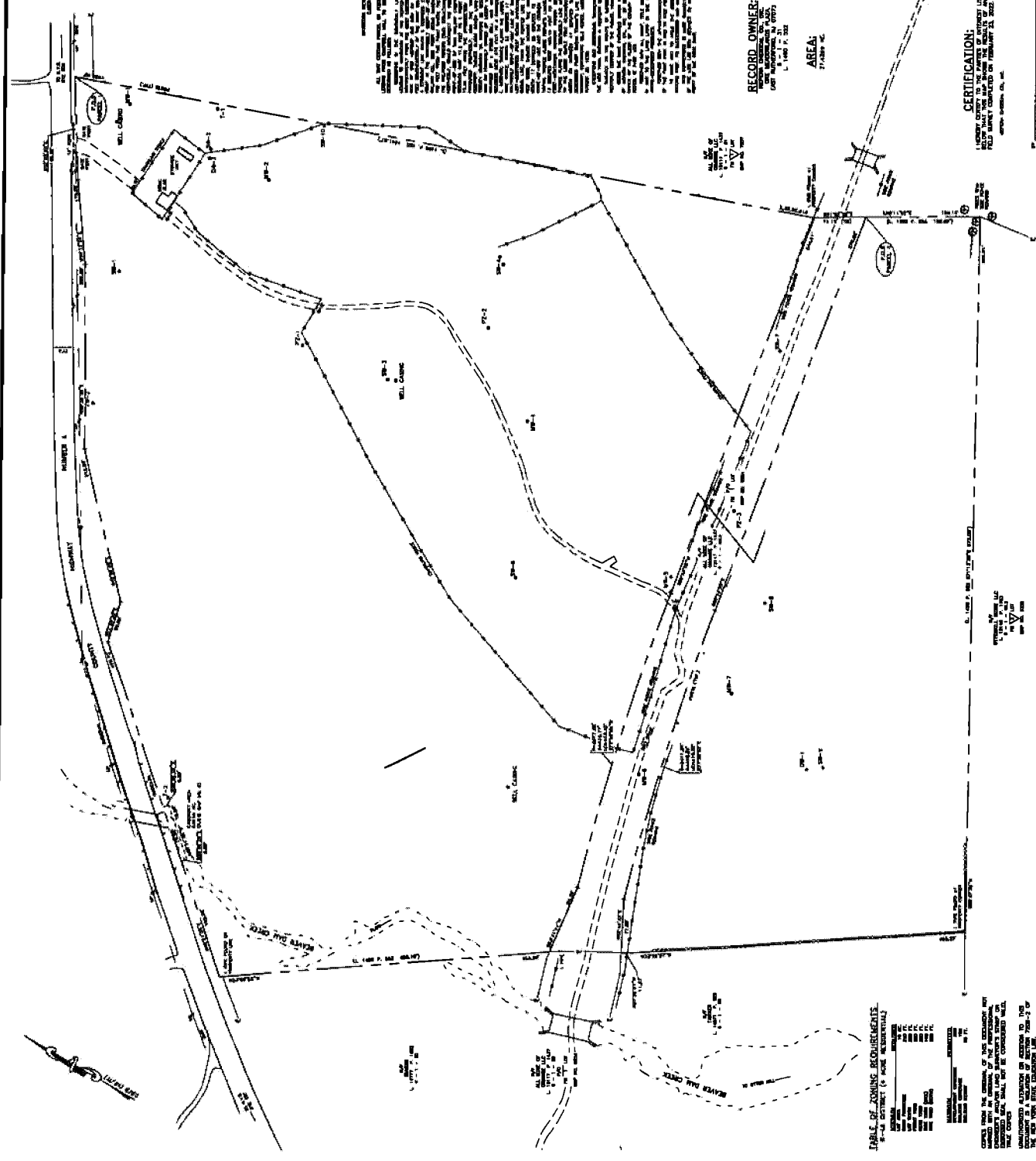


TABLE OF ZONING REQUIREMENTS
 8-14 DISTRICT (A HOME NEIGHBORHOOD)

USE	PERMITTED	PROHIBITED
Single-Family Detached Dwelling	Yes	No
Single-Family Attached Dwelling	Yes	No
Two-Family Detached Dwelling	Yes	No
Two-Family Attached Dwelling	Yes	No
Three-Family Detached Dwelling	Yes	No
Three-Family Attached Dwelling	Yes	No
Four-Family Detached Dwelling	Yes	No
Four-Family Attached Dwelling	Yes	No
Five-Family Detached Dwelling	Yes	No
Five-Family Attached Dwelling	Yes	No
Six-Family Detached Dwelling	Yes	No
Six-Family Attached Dwelling	Yes	No
Seven-Family Detached Dwelling	Yes	No
Seven-Family Attached Dwelling	Yes	No
Eight-Family Detached Dwelling	Yes	No
Eight-Family Attached Dwelling	Yes	No
Nine-Family Detached Dwelling	Yes	No
Nine-Family Attached Dwelling	Yes	No
Ten-Family Detached Dwelling	Yes	No
Ten-Family Attached Dwelling	Yes	No
Commercial	No	Yes
Industrial	No	Yes
Office	No	Yes
Warehouse	No	Yes
Manufacturing	No	Yes
Automotive	No	Yes
Auto Sales	No	Yes
Auto Repair	No	Yes
Auto Wash	No	Yes
Auto Detailing	No	Yes
Auto Storage	No	Yes
Auto Leasing	No	Yes
Auto Financing	No	Yes
Auto Insurance	No	Yes
Auto Sales and Service	No	Yes
Auto Parts and Accessories	No	Yes
Auto Tires	No	Yes
Auto Batteries	No	Yes
Auto Radios	No	Yes
Auto Stereo	No	Yes
Auto Antennas	No	Yes
Auto Air Conditioning	No	Yes
Auto Heating	No	Yes
Auto Cooling	No	Yes
Auto Lighting	No	Yes
Auto Sound System	No	Yes
Auto Alarm System	No	Yes
Auto Security System	No	Yes
Auto Fire Alarm System	No	Yes
Auto Smoke Alarm System	No	Yes
Auto Carbon Monoxide Alarm System	No	Yes
Auto Gas Leak Alarm System	No	Yes
Auto Flood Alarm System	No	Yes
Auto Burglar Alarm System	No	Yes
Auto Panic Alarm System	No	Yes
Auto Remote Control System	No	Yes
Auto Keychain System	No	Yes
Auto Sticker System	No	Yes
Auto Decal System	No	Yes
Auto Window Tint System	No	Yes
Auto Window Film System	No	Yes
Auto Window Treatment System	No	Yes
Auto Window Blinds System	No	Yes
Auto Window Shades System	No	Yes
Auto Window Curtains System	No	Yes
Auto Window Drapes System	No	Yes
Auto Window Valances System	No	Yes
Auto Window Treatments System	No	Yes
Auto Window Coverings System	No	Yes
Auto Window Linings System	No	Yes
Auto Window Interiors System	No	Yes
Auto Window Accessories System	No	Yes
Auto Window Hardware System	No	Yes
Auto Window Fasteners System	No	Yes
Auto Window Trim System	No	Yes
Auto Window Molding System	No	Yes
Auto Window Casings System	No	Yes
Auto Window Frames System	No	Yes
Auto Window Sashes System	No	Yes
Auto Window Panes System	No	Yes
Auto Window Glass System	No	Yes
Auto Window Lenses System	No	Yes
Auto Window Prisms System	No	Yes
Auto Window Mirrors System	No	Yes
Auto Window Reflectors System	No	Yes
Auto Window Filters System	No	Yes
Auto Window Coatings System	No	Yes
Auto Window Treatments System	No	Yes
Auto Window Finishes System	No	Yes
Auto Window Colors System	No	Yes
Auto Window Patterns System	No	Yes
Auto Window Designs System	No	Yes
Auto Window Styles System	No	Yes
Auto Window Trends System	No	Yes
Auto Window Fashions System	No	Yes
Auto Window Decor System	No	Yes
Auto Window Accessories System	No	Yes
Auto Window Hardware System	No	Yes
Auto Window Fasteners System	No	Yes
Auto Window Trim System	No	Yes
Auto Window Molding System	No	Yes
Auto Window Casings System	No	Yes
Auto Window Frames System	No	Yes
Auto Window Sashes System	No	Yes
Auto Window Panes System	No	Yes
Auto Window Glass System	No	Yes
Auto Window Lenses System	No	Yes
Auto Window Prisms System	No	Yes
Auto Window Mirrors System	No	Yes
Auto Window Reflectors System	No	Yes
Auto Window Filters System	No	Yes
Auto Window Coatings System	No	Yes
Auto Window Treatments System	No	Yes
Auto Window Finishes System	No	Yes
Auto Window Colors System	No	Yes
Auto Window Patterns System	No	Yes
Auto Window Designs System	No	Yes
Auto Window Styles System	No	Yes
Auto Window Trends System	No	Yes
Auto Window Fashions System	No	Yes
Auto Window Decor System	No	Yes

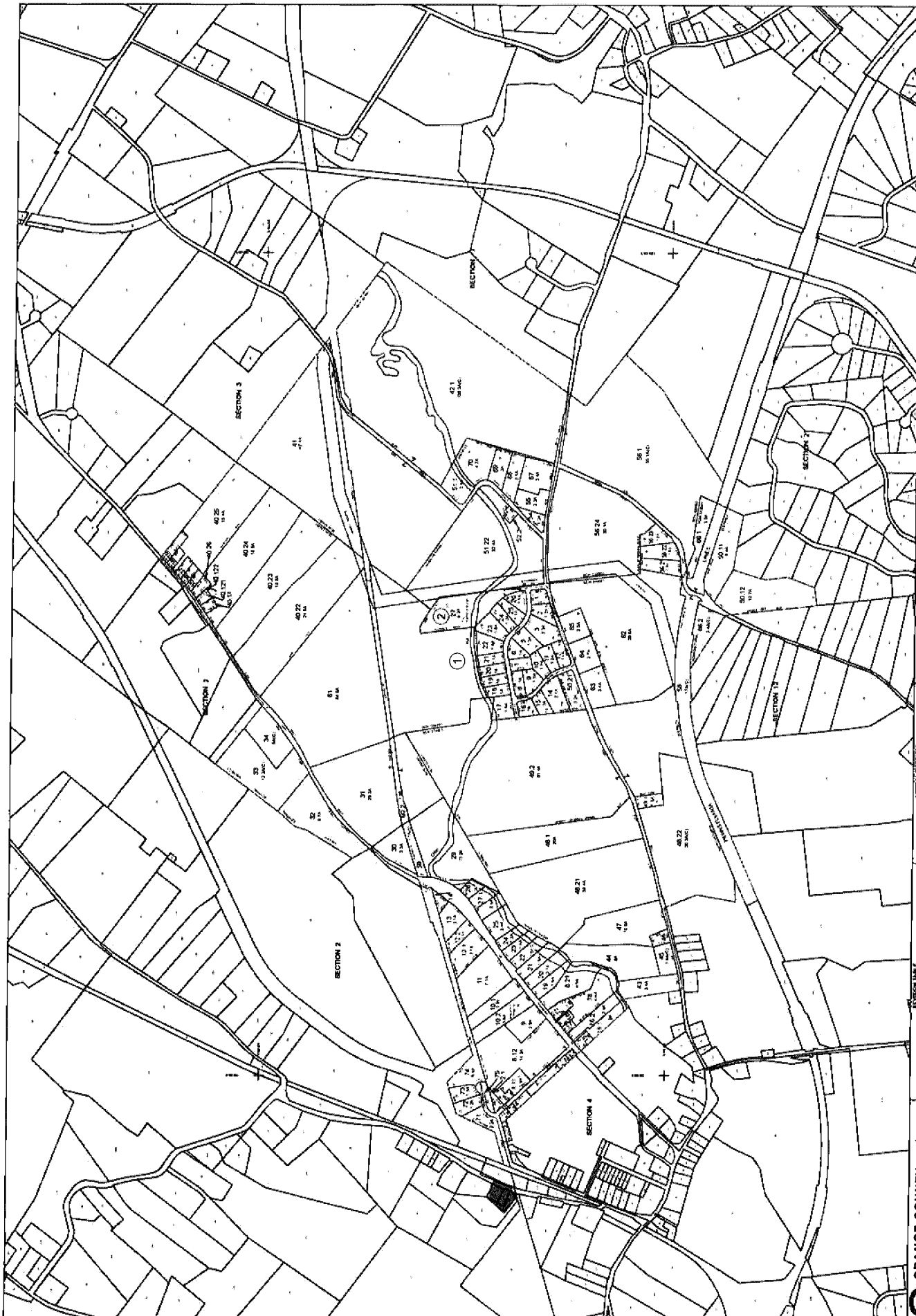
County: Orange

Site No: 336010

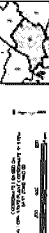
Order No:

EXHIBIT B
Declaration of Covenants, Restrictions and Environmental Easement
Nepera Chemical Company Superfund Site

Property Map / Orange County Interactive Map with Parcel Number



TOWN OF HAMPTONBURGH
SECTION NO. 6



DATE OF RECORDING: 11/11/2014
 COUNTY: ORANGE COUNTY, NY
 TOWN: HAMPTONBURGH
 SECTION: 6
 MAP NO.: 14-004-001

OWNER: [Name obscured]
 ADDRESS: [Address obscured]
 CITY: [City obscured]

PROPERTY: [Property description obscured]

ASSESSOR: [Assessor name obscured]

DATE OF ASSESSMENT: [Date obscured]

ORANGE COUNTY
NEW YORK





Combined Real Estate Transfer Tax Return, Credit Line Mortgage Certificate, and Certification of Exemption from the Payment of Estimated Personal Income Tax

See Form TP-584-I, Instructions for Form TP-584, before completing this form. Print or type.

Schedule A - Information relating to conveyance

Form with sections for Grantor/Transferor and Grantee/Transferee, including fields for Name, Mailing address, City, State, ZIP code, Social Security number (SSN), and Employer Identification Number (EIN).

Location and description of property conveyed

Table with 5 columns: Tax map designation - Section, block & lot, SWIS code (six digits), Street address, City, town, or village, County. Row 1: 6-1-31, 333489, Maybrook Road /County Road No. 4, Hamptonburgh, Orange.

Type of property conveyed (mark an X in applicable box)

Form with checkboxes for property types (1-9) and a date of conveyance field (2/8/2023). Includes a percentage of real property conveyed field (0%).

Condition of conveyance (mark an X in all that apply)

Form with checkboxes a-s for various conditions of conveyance, such as fee interest, acquisition of controlling interest, cooperative housing, syndication, etc.

Table for recording officer's use with columns: Amount received (\$0.00), Date received (03/29/2023), Transaction number (# 7457). Includes rows for Schedule B, Part 1 and Part 2.

Schedule B – Real estate transfer tax return (Tax Law Article 31)

Part 1 – Computation of tax due

1	Enter amount of consideration for the conveyance (if you are claiming a total exemption from tax, mark an X in the Exemption claimed box, enter consideration and proceed to Part 3) <input type="checkbox"/> Exemption claimed	1.	0	00
2	Continuing lien deduction (see instructions if property is taken subject to mortgage or lien)	2.	0	00
3	Taxable consideration (subtract line 2 from line 1)	3.	0	00
4	Tax: \$2 for each \$500, or fractional part thereof, of consideration on line 3	4.	0	00
5	Amount of credit claimed for tax previously paid (see instructions and attach Form TP-584.1, Schedule G)	5.	0	00
6	Total tax due* (subtract line 5 from line 4)	6.	0	00

Part 2 – Computation of additional tax due on the conveyance of residential real property for \$1 million or more

1	Enter amount of consideration for conveyance (from Part 1, line 1)	1.		
2	Taxable consideration (multiply line 1 by the percentage of the premises which is residential real property, as shown in Schedule A)	2.		
3	Total additional transfer tax due* (multiply line 2 by 1% (.01))	3.		

Part 3 – Explanation of exemption claimed on Part 1, line 1 (mark an X in all boxes that apply)

The conveyance of real property is exempt from the real estate transfer tax for the following reason:

- a. Conveyance is to the United Nations, the United States of America, New York State, or any of their instrumentalities, agencies, or political subdivisions (or any public corporation, including a public corporation created pursuant to agreement or compact with another state or Canada) a
- b. Conveyance is to secure a debt or other obligation..... b
- c. Conveyance is without additional consideration to confirm, correct, modify, or supplement a prior conveyance..... c
- d. Conveyance of real property is without consideration and not in connection with a sale, including conveyances conveying realty as bona fide gifts..... d
- e. Conveyance is given in connection with a tax sale..... e
- f. Conveyance is a mere change of identity or form of ownership or organization where there is no change in beneficial ownership. (This exemption cannot be claimed for a conveyance to a cooperative housing corporation of real property comprising the cooperative dwelling or dwellings.) Attach Form TP-584.1, Schedule F f
- g. Conveyance consists of deed of partition g
- h. Conveyance is given pursuant to the federal Bankruptcy Act..... h
- i. Conveyance consists of the execution of a contract to sell real property, without the use or occupancy of such property, or the granting of an option to purchase real property, without the use or occupancy of such property..... i
- j. Conveyance of an option or contract to purchase real property with the use or occupancy of such property where the consideration is less than \$200,000 and such property was used solely by the grantor as the grantor's personal residence and consists of a one-, two-, or three-family house, an individual residential condominium unit, or the sale of stock in a cooperative housing corporation in connection with the grant or transfer of a proprietary leasehold covering an individual residential cooperative apartment..... j
- k. Conveyance is not a conveyance within the meaning of Tax Law, Article 31, § 1401(e) (attach documents supporting such claim) k

* The total tax (from Part 1, line 6 and Part 2, line 3 above) is due within 15 days from the date of conveyance. Make check(s) payable to the county clerk where the recording is to take place. For conveyances of real property within New York City, use Form TP-584-NYC. If a recording is not required, send this return and your check(s) made payable to the **NYS Department of Taxation and Finance**, directly to the NYS Tax Department, RETT Return Processing, PO Box 5045, Albany NY 12205-0045. If not using U.S. Mail, see Publication 55, *Designated Private Delivery Services*.

Schedule C – Credit Line Mortgage Certificate (Tax Law Article 11)

Complete the following only if the interest being transferred is a fee simple interest.

This is to certify that: (mark an X in the appropriate box)

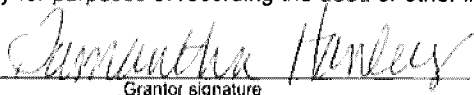

1. The real property being sold or transferred is not subject to an outstanding credit line mortgage.
2. The real property being sold or transferred is subject to an outstanding credit line mortgage. However, an exemption from the tax is claimed for the following reason:
 - a The transfer of real property is a transfer of a fee simple interest to a person or persons who held a fee simple interest in the real property (whether as a joint tenant, a tenant in common or otherwise) immediately before the transfer.
 - b The transfer of real property is (A) to a person or persons related by blood, marriage or adoption to the original obligor or to one or more of the original obligors or (B) to a person or entity where 50% or more of the beneficial interest in such real property after the transfer is held by the transferor or such related person or persons (as in the case of a transfer to a trustee for the benefit of a minor or the transfer to a trust for the benefit of the transferor).
 - c The transfer of real property is a transfer to a trustee in bankruptcy, a receiver, assignee, or other officer of a court.
 - d The maximum principal amount secured by the credit line mortgage is \$3 million or more, and the real property being sold or transferred is **not** principally improved nor will it be improved by a one- to six-family owner-occupied residence or dwelling.

Note: for purposes of determining whether the maximum principal amount secured is \$3 million or more as described above, the amounts secured by two or more credit line mortgages may be aggregated under certain circumstances. See TSB-M-96(6)-R for more information regarding these aggregation requirements.

- e Other (attach detailed explanation).
3. The real property being transferred is presently subject to an outstanding credit line mortgage. However, no tax is due for the following reason:
 - a A certificate of discharge of the credit line mortgage is being offered at the time of recording the deed.
 - b A check has been drawn payable for transmission to the credit line mortgagee or mortgagee's agent for the balance due, and a satisfaction of such mortgage will be recorded as soon as it is available.
4. The real property being transferred is subject to an outstanding credit line mortgage recorded in _____ (insert liber and page or reel or other identification of the mortgage). The maximum principal amount of debt or obligation secured by the mortgage is _____. No exemption from tax is claimed and the tax of _____ is being paid herewith. (Make check payable to county clerk where deed will be recorded.)

Signature (both the grantors and grantees must sign)

The undersigned certify that the above information contained in Schedules A, B, and C, including any return, certification, schedule, or attachment, is to the best of their knowledge, true and complete, and authorize the person(s) submitting such form on their behalf to receive a copy for purposes of recording the deed or other instrument effecting the conveyance.

 _____ Grantor signature	Vice President an _____ Title	 _____ Grantee signature	Asst. Director _____ Title
Samantha Hanley		Janet Brown	
Grantor signature	Title	Grantee signature	Title

Reminder: Did you complete all of the required information in Schedules A, B, and C? Are you required to complete Schedule D? If you marked e, f, or g in Schedule A, did you complete Form TP-584.1? Have you attached your check(s) made payable to the county clerk where recording will take place? If no recording is required, send this return and your check(s), made payable to the **NYS Department of Taxation and Finance**, directly to the NYS Tax Department, RETT Return Processing, PO Box 5045, Albany NY 12205-0045. If not using U.S. Mail, see Publication 55, *Designated Private Delivery Services*.

Schedule D – Certification of exemption from the payment of estimated personal income tax (Tax Law, Article 22, § 663)

Complete the following only if a fee simple interest or a cooperative unit is being transferred by an individual or estate or trust.

If the property is being conveyed by a referee pursuant to a foreclosure proceeding, proceed to Part 2, mark an X in the second box under *Exemption for nonresident transferors/sellers*, and sign at bottom.

Part 1 – New York State residents

If you are a New York State resident transferor/seller listed in Form TP-584, Schedule A (or an attachment to Form TP-584), you must sign the certification below. If one or more transferor/seller of the real property or cooperative unit is a resident of New York State, each resident transferor/seller must sign in the space provided. If more space is needed, photocopy this Schedule D and submit as many schedules as necessary to accommodate all resident transferors/sellers.

Certification of resident transferors/sellers

This is to certify that at the time of the sale or transfer of the real property or cooperative unit, the transferor/seller as signed below was a resident of New York State, and therefore is not required to pay estimated personal income tax under Tax Law § 663(a) upon the sale or transfer of this real property or cooperative unit.

Signature	Print full name	Date
Signature	Print full name	Date
Signature	Print full name	Date
Signature	Print full name	Date

Note: A resident of New York State may still be required to pay estimated tax under Tax Law § 685(c), but not as a condition of recording a deed.

Part 2 – Nonresidents of New York State

If you are a nonresident of New York State listed as a transferor/seller in Form TP-584, Schedule A (or an attachment to Form TP-584) but are not required to pay estimated personal income tax because one of the exemptions below applies under Tax Law § 663(c), mark an X in the box of the appropriate exemption below. If any one of the exemptions below applies to the transferor/seller, that transferor/seller is not required to pay estimated personal income tax to New York State under Tax Law § 663. Each nonresident transferor/seller who qualifies under one of the exemptions below must sign in the space provided. If more space is needed, photocopy this Schedule D and submit as many schedules as necessary to accommodate all nonresident transferors/sellers.

If none of these exemption statements apply, you must complete Form IT-2663, *Nonresident Real Property Estimated Income Tax Payment Form*, or Form IT-2664, *Nonresident Cooperative Unit Estimated Income Tax Payment Form*. For more information, see *Payment of estimated personal income tax*, on Form TP-584-I, page 1.

Exemption for nonresident transferors/sellers

This is to certify that at the time of the sale or transfer of the real property or cooperative unit, the transferor/seller (grantor) of this real property or cooperative unit was a nonresident of New York State, but is not required to pay estimated personal income tax under Tax Law § 663 due to one of the following exemptions:

- The real property or cooperative unit being sold or transferred qualifies in total as the transferor's/seller's principal residence (within the meaning of Internal Revenue Code, section 121) from _____ Date to _____ Date (see instructions).
- The transferor/seller is a mortgagor conveying the mortgaged property to a mortgagee in foreclosure, or in lieu of foreclosure with no additional consideration.
- The transferor or transferee is an agency or authority of the United States of America, an agency or authority of New York State, the Federal National Mortgage Association, the Federal Home Loan Mortgage Corporation, the Government National Mortgage Association, or a private mortgage insurance company.

Signature	Print full name	Date
Signature	Print full name	Date
Signature	Print full name	Date
Signature	Print full name	Date

ATTACHMENT D
TAX MAP

REVISION
03/01/03
10/22/03
07/06/05
LR
07/08/05
LR
10/01/09
TS
02/04/13
LR



LEGEND

STATE OR COUNTY LINE	FILED PLAN LOT LINE	TAX MAP BLOCK NO.	④	FILED PLAN BLOCK NO.	②
CITY TOWN OR VILLAGE	EASEMENT LINE	TAX MAP PARCEL NO.	32	FILED PLAN LOT NO.	(3) or (P/O 2)
BLOCK OR SECTION LIMIT	MATCH LINE	AREAS	(DEED) 11.1A or (CALCULATED) 11.6A(C)	STATE HIGHWAYS	N Y STATE HWY NO 17
SPECIAL DISTRICT LINE	WATER FEATURES	DIMENSIONS	(DEED) 66 or (CALCULATED) 75S	COUNTY HIGHWAYS	COUNTY ROAD NO 4
PROPERTY LINE	GRID COORDINATE/CENTROID	PORTION OF TAX LOT	P/O 1-1-1	TOWN ROADS	TOWN ROAD 1

ORANGE COUNTY—NEW YORK

Prepared by
Orange County Tax Map Department
124 Main Street, Goshen, N.Y. 10924
Phone 845.291.2498 Fax 845.291.2499

NOTICE
MAINTENANCE, ALTERATION, SALE OR DISTRIBUTION
OF ANY PORTION OF THE ORANGE COUNTY TAX
MAP IS PROHIBITED WITHOUT WRITTEN PERMISSION
OF THE O.C. REAL PROPERTY TAX SERVICE AGENCY



TOWN OF HAMPTONBURGH

Scale 1" = 400' Section No. 6

ADJOINING REFERENCE TAX YEAR 2018

CODE	SPECIAL DISTRICT
SCH-333001	GOSHEN CENTRAL SCHOOL DISTRICT
SCH-334201	VALLEY CENTRAL SCHOOL DISTRICT
SCH-332002	WASHINGTONVILLE CENTRAL SCHOOL DISTRICT
FDO20	HAMPTONBURGH FIRE DISTRICT

ATTACHMENT E
HYDROGEOLOGIC CROSS SECTIONS

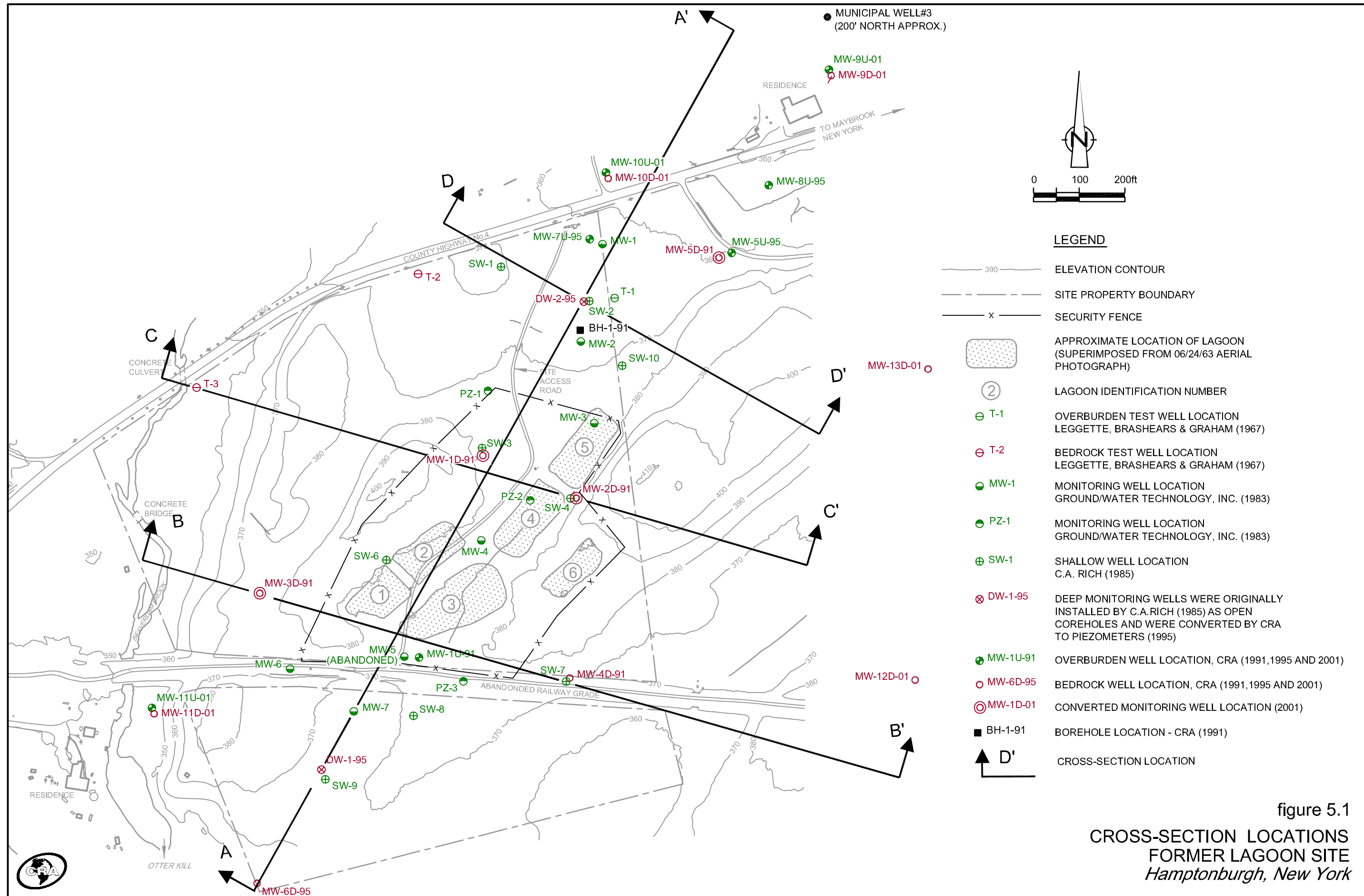


figure 5.1
CROSS-SECTION LOCATIONS
FORMER LAGOON SITE
Hamptonburgh, New York

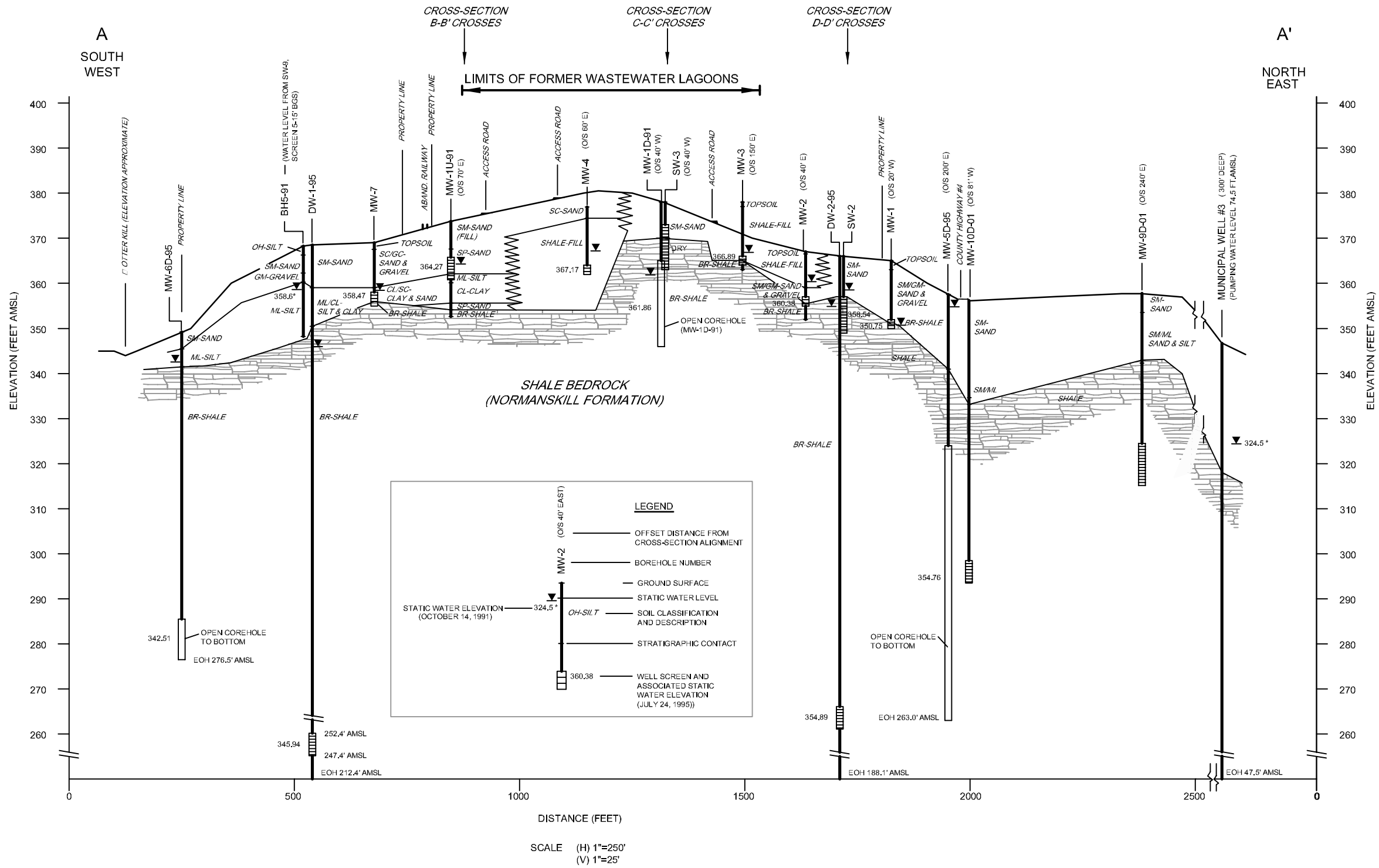


figure 5.2
 HYDROGEOLOGIC CROSS - SECTION A-A'
 FORMER LAGOON SITE
 Hamptonburgh, New York



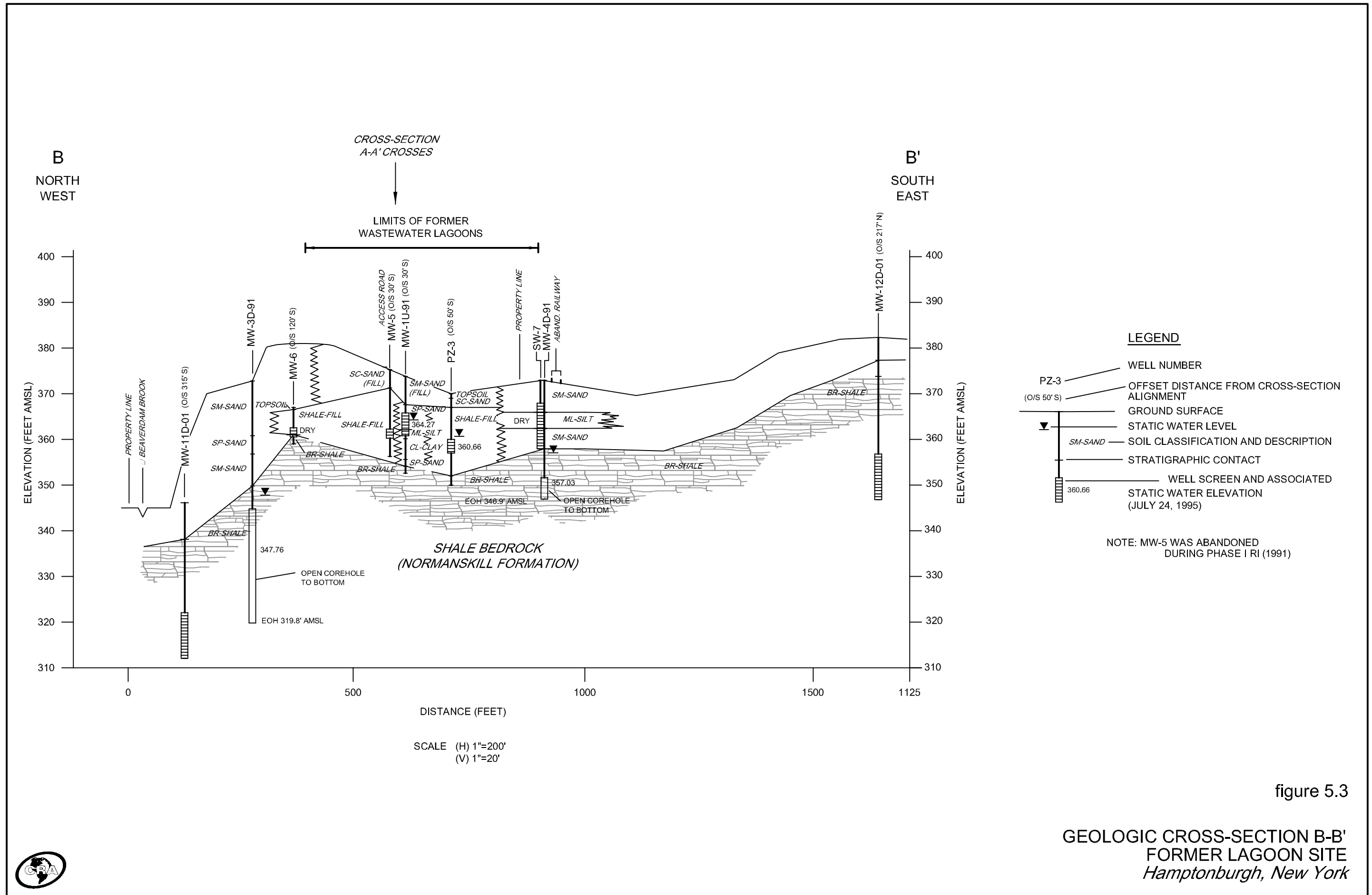
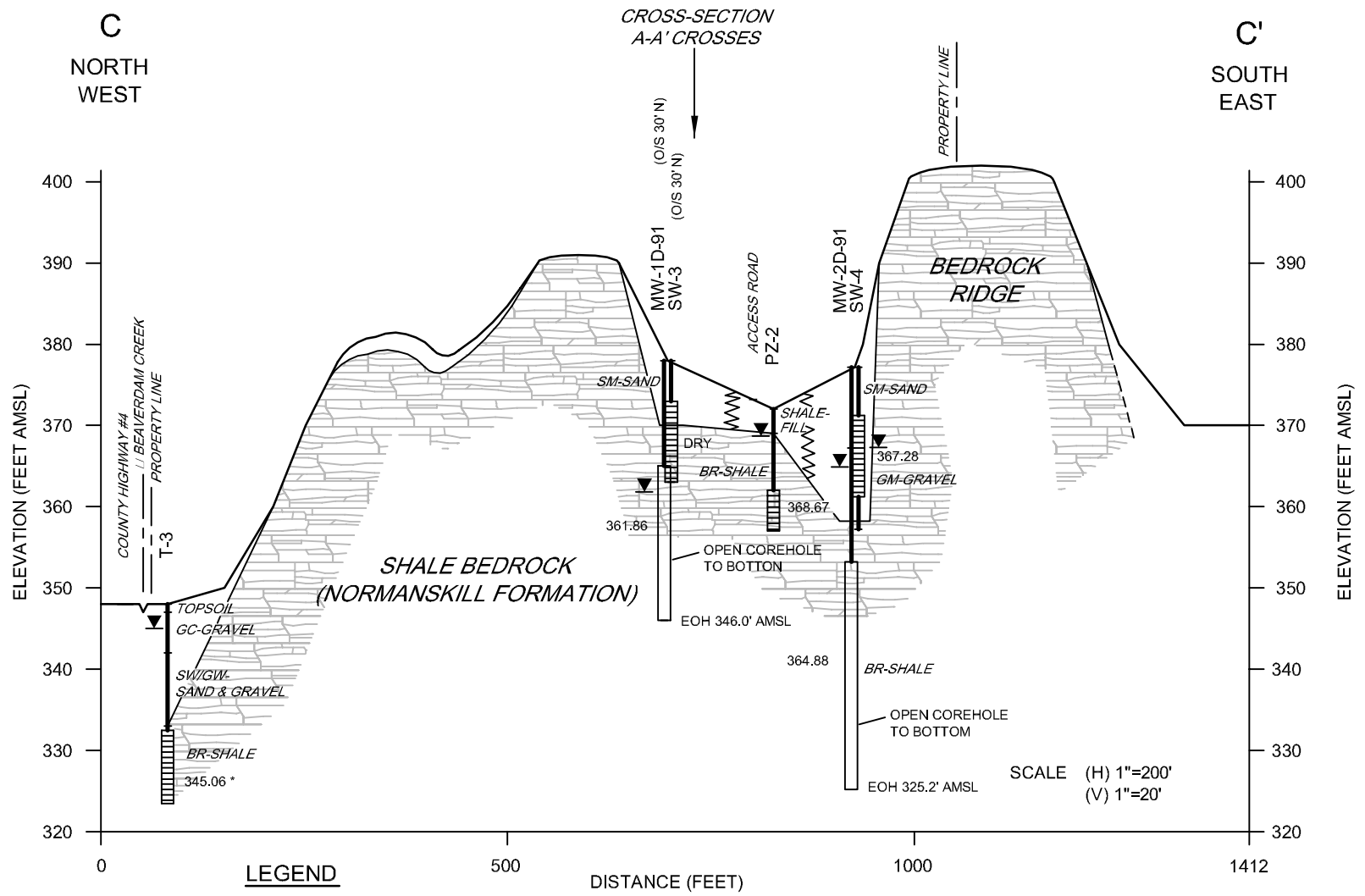


figure 5.3

GEOLOGIC CROSS-SECTION B-B'
FORMER LAGOON SITE
Hamptonburgh, New York





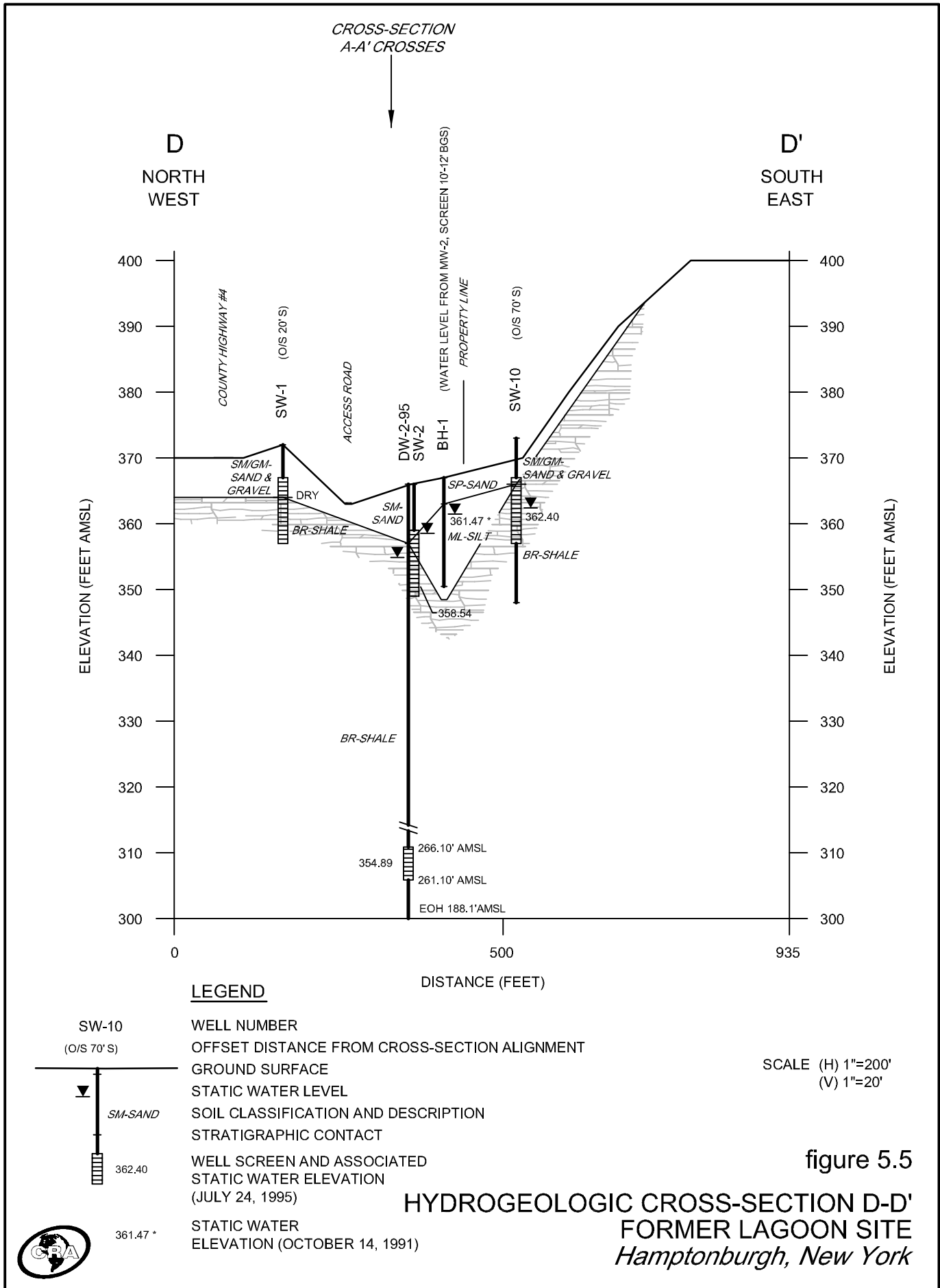
LEGEND

- SW-4
 - (O/S 30' S)
 - ▼
 - SM-SAND
 - 367.28
 - 345.06 *
- WELL NUMBER
 - OFFSET DISTANCE FROM CROSS-SECTION ALIGNMENT
 - GROUND SURFACE
 - STATIC WATER LEVEL
 - SOIL CLASSIFICATION AND DESCRIPTION
 - STRATIGRAPHIC CONTACT
 - WELL SCREEN AND ASSOCIATED
 - STATIC WATER ELEVATION (JULY 24, 1995)
 - STATIC WATER ELEVATION (AUGUST 14, 1995)

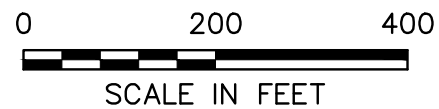
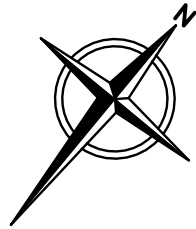
figure 5.4

HYDROGEOLOGIC CROSS-SECTION C-C'
FORMER LAGOON SITE
Hamptonburgh, New York





ATTACHMENT F
PRIVATE WATER SUPPLY WELL LOCATION MAP



Unauthorized alteration or addition to this plan bearing a licensed professional's seal is a violation of Section 7209, Sub-Division 2, of the New York Education Law. Only copies from the original of this plan marked with an original professional's seal shall be considered to be valid true copies.

This drawing represents intellectual property of Cornerstone Engineering Geology and Land Surveying, PLLC. Any modification to the original by other than Cornerstone Engineering Geology and Land Surveying, PLLC personnel violates its original purpose and as such is rendered void. Cornerstone Engineering Geology and Land Surveying, PLLC will not be held liable for any changes made to this document without express written consent of the originator.

cornerstone
PLLC

PREPARED BY:
CORNERSTONE ENGINEERING GEOLOGY AND LAND SURVEYING, PLLC

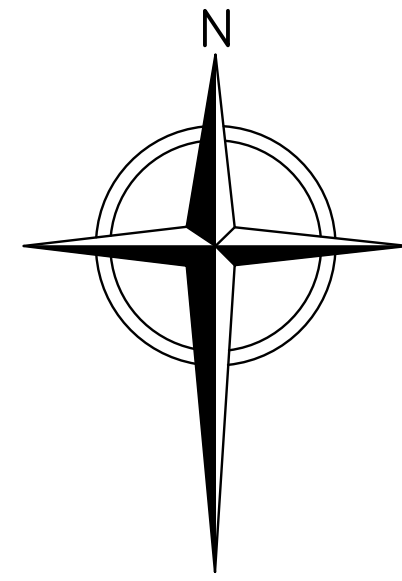
ALL PROFESSIONAL ENGINEERING WORK IS PERFORMED BY DULY LICENSED PROFESSIONAL ENGINEERS UNDER THE APPROPRIATE STATE REGISTERED PROFESSIONAL ENTITY.

MAYBROOK AND HARRIMAN ENVIRONMENTAL TRUST
FORMER NEPERA CHEMICAL SITE
HAMPTONBURGH, ORANGE COUNTY, NEW YORK

**NEARBY RESIDENCES AND
RESIDENTIAL MONITORING LOCATIONS**

FIGURE NO.
1
PROJECT NO.
180543

ATTACHMENT G
GROUNDWATER CONTOUR MAPS

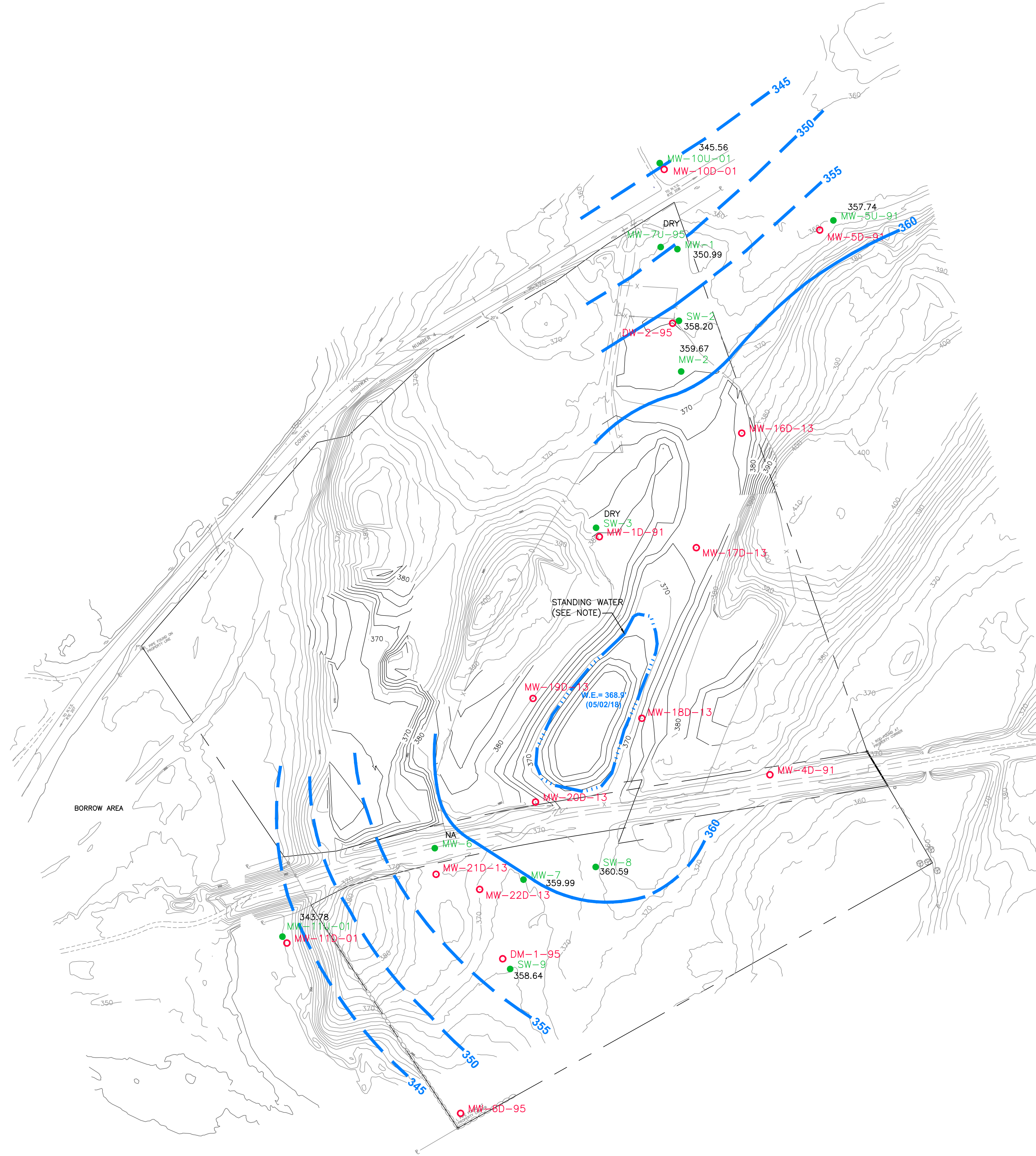


LEGEND:

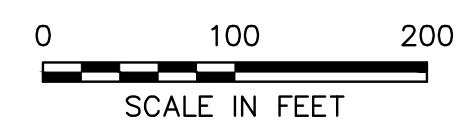
- 400 — FINAL GRADE CONTOUR
- X — X — FENCE LINE
- - - - - PROPERTY LINE
- GROUNDWATER CONTOUR
DASHED WHERE INFERRED
- SW-3 OVERBURDEN MONITORING WELL LOCATION
- MW-1D-91 BEDROCK MONITORING WELL LOCATION
- - - - - APPROXIMATE EXTENT OF RESTORED AREA
SUBJECT TO STANDING WATER

NOTE:

STANDING WATER ELEVATION IS A REFLECTION OF ANTECEDENT RAINFALL/ RUNOFF AND GROUNDWATER INTERSECTION WITH GROUND SURFACE AND IS PROVIDED FOR INFORMATION BUT SHOULD NOT BE USED FOR GROUNDWATER ELEVATION MAPPING.



File: \\c:\projects\110083\110083-01-SITE-OVERBURDEN\DW-01.dwg Layout: Layout1 User: leinac@cornerstone.com May 14, 2018 8:50am



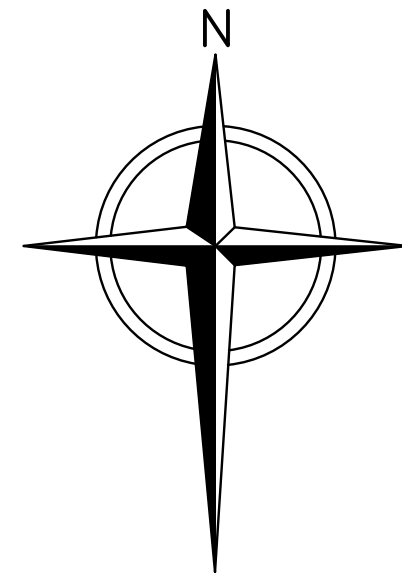
This drawing represents intellectual property of Cornerstone. Any modification to the original by other than Cornerstone personnel violates its original purpose and as such is rendered void. Cornerstone will not be held liable for any changes made to this document without express written consent of the originator.

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY



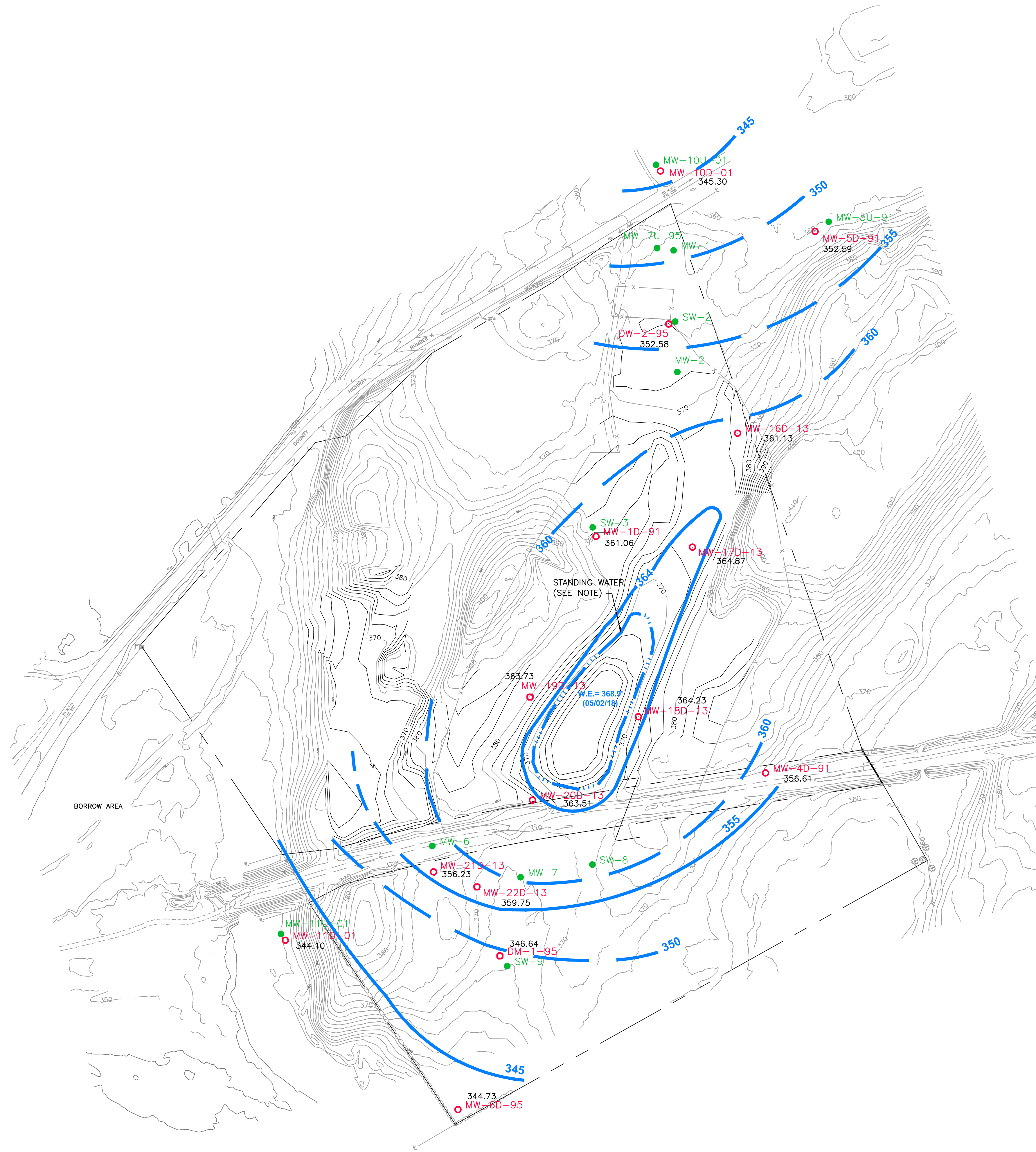
NEPERA CHEMICAL COMPANY SUPERFUND SITE
TOWN OF HAMPTONBURGH, NEW YORK
SOIL AND GROUNDWATER REMEDIAL ACTION
OVERBURDEN GROUNDWATER CONTOUR MAP
OCTOBER 2017

SHEET NO.
1
PROJECT NO.
110083

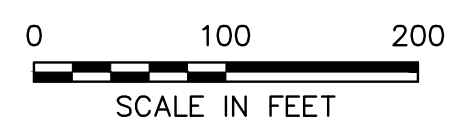


- LEGEND:**
- 400 FINAL GRADE CONTOUR
 - FENCE LINE
 - PROPERTY LINE
 - GROUNDWATER CONTOUR
DASHED WHERE INFERRED
 - SW-3 OVERBURDEN MONITORING WELL LOCATION
 - MW-1D-91 BEDROCK MONITORING WELL LOCATION
 - APPROXIMATE EXTENT OF RESTORED AREA
SUBJECT TO STANDING WATER

NOTE:
STANDING WATER ELEVATION IS A REFLECTION OF ANTECEDENT RAINFALL/ RUNOFF AND GROUNDWATER INTERSECTION WITH GROUND SURFACE AND IS PROVIDED FOR INFORMATION BUT SHOULD NOT BE USED FOR GROUNDWATER ELEVATION MAPPING.



File: \\s:\projects\110083\110083-SITE-BEDROCK-9W-02.dwg Layout: Layout1 User: lamda\shahar May 14, 2018 - 8:49am
 1" = 100'



This drawing represents intellectual property of Cornerstone. Any modification to the original by other than Cornerstone personnel violates its original purpose and as such is rendered void. Cornerstone will not be held liable for any changes made to this document without express written consent of the originator.

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY



NEPERA CHEMICAL COMPANY SUPERFUND SITE
 TOWN OF HAMPTONBURGH, NEW YORK
 SOIL AND GROUNDWATER REMEDIAL ACTION
BEDROCK GROUNDWATER CONTOUR MAP
 OCTOBER 2017

SHEET NO.
2
 PROJECT NO.
 110083

ATTACHMENT H
REMEDIAL ACTION APPROVAL LETTERS



Roeper, Tim

From: Dannenberg, Mark <Dannenberg.Mark@epa.gov>
Sent: Thursday, June 28, 2018 6:12 PM
To: DiPippo, Gary
Subject: RE: Former Nepera Site Follow up
Attachments: NYSDEC TAGM _ 4046.pdf; PCOR - Sept27 2013.pdf

Hi Gary.

Thank you for following-up with me with your email. In addition, thank you (and Seth and Christopher) for meeting our team at the Site on April 26th to escort us on the site visit and answer our questions. Your earlier email discusses three issues, which I address below.

1. The EPA is currently performing an internal review of the Five Year Review (FYR) Report. I have shared your request to review a draft of the FYR Report, and am awaiting guidance. I will follow-up with you on this when I receive guidance.
2. Regarding the basis for NYSDEC's calculation of the 400ppb Soil Cleanup Objective for 2-aminopyridine, the process used to develop the value is explained in 4046 (see attached), which was incorporated directly into the Technical Support Document: http://www.dec.ny.gov/docs/remediation_hudson_pdf/techsuppdoc.pdf.

Using that process, if we assume 1% organic carbon (f), a groundwater criteria of 50 ppb (.050 ppm) (Cw), and a dilution/attenuation factor (DAF) of 100 that would suggest that the Koc used was 8000.

SCO= (f*Koc*Cw*DAF)
400= (.01*Koc*.050)*100
Koc= 400/0.050
8000

3. Regarding the Interim Remedial Action Report, the EPA notes that the final Interim Remedial Action Report was prepared consistent with USEPA's comments, dated, September 24, 2013. As such, the EPA approves the Interim Remedial Action Report, dated September 27, 2013. The activities that remain to be performed for the Site include finalization of the Site Management Plan, implementation of the institutional controls, performance of long-term groundwater monitoring, and additional application of oxygenating compounds (if deemed necessary). Any future decision regarding the need to conduct subsequent application(s) of oxygenating compounds (e.g., oxygen releasing compounds) to restore contaminated groundwater will continue to be assessed based on an evaluation of future groundwater monitoring data. I am also attaching EPA's Preliminary Site Closeout Report for your records.

I hope that this email adequately responds to your questions and concerns.

Regards,
Mark

From: DiPippo, Gary [mailto:Gary.DiPippo@Cornerstoneeg.com]
Sent: Friday, June 15, 2018 12:10 PM

To: Dannenberg, Mark <Dannenberg.Mark@epa.gov>

Subject: RE: Former Nepera Site Follow up

Hello Mark. Just following up on my e-mail below.

Any response?

Thanks, Gary

Gary DiPippo

Client Services Manager



100 Crystal Run Road, Suite 101, Middletown, NY 10941

P: 845.695.0251 | **M:** 973.809.2581 | [Follow us on LinkedIn!](#)

Gary.DiPippo@CornerstoneEG.com

www.CornerstoneEG.com

From: DiPippo, Gary

Sent: Thursday, June 7, 2018 3:37 PM

To: Mark Dannenberg(dannenberg.mark@epa.gov) <dannenberg.mark@epa.gov>

Subject: Former Nepera Site Follow up

Good afternoon Mark.

Thought I would follow up on the conversations at our five-year review site visit.

One of the things you mentioned was the possibility of reviewing a draft of the five-year review report. I am probably going to be in the City over the next week or two, and I can probably arrange my trip at a time to stop by and review a draft, if that makes it easier for you. Please advise.

Also, any chance you can send the calculation basis for the 400 ppb 2-aminopyridine cleanup level, and the letter regarding the 2013 Soils Remedial Action Report.

Thanks, Gary

Gary DiPippo

Client Services Manager



100 Crystal Run Road, Suite 101, Middletown, NY 10941

P: 845.695.0251 | **M:** 973.809.2581 | [Follow us on LinkedIn!](#)

Gary.DiPippo@CornerstoneEG.com

www.CornerstoneEG.com

ATTACHMENT I
POST-EXCAVATION SAMPLE RESULTS AND LOCATION
MAP

Table 2
Summary of Analytical Results - Volatile Organic Compounds
Nepera Chemical Company Superfund Site, Hamptonburgh, NY
Groundwater Sampled October 16-18, 2018

Reported in Micrograms per Liter (µg/L)

	Acetone	Benzene	Bromodichloro- methane	Bromoform	Bromomethane	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform
Comparative Standards	<i>50.0</i>	<i>1.0</i>	<i>50.0 GV</i>	<i>50.0 GV</i>	<i>5.0</i>	<i>5.0</i>	<i>5.0</i>	<i>5.0</i>	<i>7.0</i>
Overburden Wells									
MW-1	ND(6.00)	ND(0.43)	ND(0.58)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
MW-2	ND(6.00)	9.30	ND(0.58)	ND(0.63)	ND(1.60)	ND(0.55)	5.70	ND(0.73)	ND(0.50)
MW-4D-91	ND(6.00)	ND(0.43)	ND(0.58)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
MW-5U-91	ND(6.00)	ND(0.43)	ND(0.58)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
MW-7	ND(6.00)	35.30	ND(0.58)	ND(0.63)	ND(1.60)	ND(0.55)	2.40	ND(0.73)	ND(0.50)
MW-7U-95	ND(6.00)	ND(0.43)	ND(0.58)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
MW-10U-01	ND(6.00)	ND(0.43)	ND(0.58)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
MW-11U-01	ND(6.00)	ND(0.43)	ND(0.58)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
SW-2	ND(6.00)	10.20	ND(0.58)	ND(0.63)	ND(1.60)	ND(0.55)	4.40	ND(0.73)	ND(0.50)
SW-3	ND(6.00)	1.70	ND(0.58)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
SW-8	ND(6.00)	12.90	ND(0.58)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
SW-9	ND(6.00)	ND(0.43)	ND(0.58)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
Bedrock Wells									
DW-1-95	9.90 J	23.10	ND(0.58)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
DW-2-95	14.20	2.90	ND(0.58)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
MW-1D-91	ND(6.00)	8.50	ND(0.58)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
MW-5D-91	ND(6.00)	ND(0.43)	ND(0.58)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
MW-6D-95	ND(6.00)	ND(0.43)	ND(0.58)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
MW-10D-01	ND(6.00)	ND(0.43)	ND(0.58)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
MW-11D-01	ND(6.00)	ND(0.43)	ND(0.58)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
MW-16D-13	ND(6.00)	ND(0.43)	ND(0.58)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
MW-17D-13	ND(6.00)	30.30	ND(0.58)	ND(0.63)	ND(1.60)	ND(0.55)	3.20	ND(0.73)	ND(0.50)
MW-18D-13	ND(6.00)	ND(0.43)	ND(0.58)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
MW-19D-13	ND(6.00)	35.70	ND(0.58)	ND(0.63)	ND(1.60)	ND(0.55)	3.80	ND(0.73)	ND(0.50)
MW-20D-13	ND(6.00)	134.00	ND(0.58)	ND(0.63)	ND(1.60)	ND(0.55)	4.90	ND(0.73)	ND(0.50)
MW-21D-13	ND(6.00)	1.20	ND(0.58)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
MW-22D-13	ND(6.00)	236.00	ND(0.58)	ND(0.63)	ND(1.60)	ND(0.55)	6.70	ND(0.73)	ND(0.50)
QA/QC									
BD-1	ND(6.00)	63.70	ND(0.58)	ND(0.63)	ND(1.60)	ND(0.55)	3.00	ND(0.73)	ND(0.50)
FB-1	ND(6.00)	ND(0.43)	ND(0.58)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
IB (10/16/18)	ND(6.00)	ND(0.43)	ND(0.58)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
IB (10/17/18)	ND(6.00)	ND(0.43)	ND(0.58)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
IB (10/18/18)	ND(6.00)	ND(0.43)	ND(0.58)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)

Table 2 (continued)

	Chloromethane	Dibromo- chloromethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodi- fluoromethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene
Comparative Standards	5.0	50.0 GV	3.0	3.0	3.0	5.0	5.0	0.6	5.0
Overburden Wells									
MW-1	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(1.40)	ND(0.57)	ND(0.60)	ND(0.59)
MW-2	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(1.40)	ND(0.57)	ND(0.60)	ND(0.59)
MW-4D-91	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(1.40)	ND(0.57)	ND(0.60)	ND(0.59)
MW-5U-91	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(1.40)	ND(0.57)	ND(0.60)	ND(0.59)
MW-7	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(1.40)	ND(0.57)	ND(0.60)	ND(0.59)
MW-7U-95	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(1.40)	ND(0.57)	ND(0.60)	ND(0.59)
MW-10U-01	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(1.40)	ND(0.57)	ND(0.60)	ND(0.59)
MW-11U-01	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(1.40)	ND(0.57)	ND(0.60)	ND(0.59)
SW-2	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(1.40)	ND(0.57)	ND(0.60)	ND(0.59)
SW-3	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(1.40)	ND(0.57)	ND(0.60)	ND(0.59)
SW-8	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(1.40)	ND(0.57)	0.80 J	ND(0.59)
SW-9	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(1.40)	ND(0.57)	ND(0.60)	ND(0.59)
Bedrock Wells									
DW-1-95	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(1.40)	ND(0.57)	ND(0.60)	ND(0.59)
DW-2-95	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(1.40)	ND(0.57)	ND(0.60)	ND(0.59)
MW-1D-91	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(1.40)	ND(0.57)	0.71 J	ND(0.59)
MW-5D-91	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(1.40)	ND(0.57)	ND(0.60)	ND(0.59)
MW-6D-95	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(1.40)	ND(0.57)	ND(0.60)	ND(0.59)
MW-10D-01	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(1.40)	ND(0.57)	ND(0.60)	ND(0.59)
MW-11D-01	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(1.40)	ND(0.57)	ND(0.60)	ND(0.59)
MW-16D-13	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(1.40)	ND(0.57)	ND(0.60)	ND(0.59)
MW-17D-13	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(1.40)	ND(0.57)	ND(0.60)	ND(0.59)
MW-18D-13	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(1.40)	ND(0.57)	ND(0.60)	ND(0.59)
MW-19D-13	ND(0.76)	ND(0.56)	0.54 J	ND(0.54)	ND(0.51)	ND(1.40)	ND(0.57)	ND(0.60)	ND(0.59)
MW-20D-13	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(1.40)	ND(0.57)	ND(0.60)	ND(0.59)
MW-21D-13	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(1.40)	ND(0.57)	ND(0.60)	ND(0.59)
MW-22D-13	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(1.40)	ND(0.57)	ND(0.60)	ND(0.59)
QA/QC									
BD-1	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(1.40)	ND(0.57)	ND(0.60)	ND(0.59)
FB-1	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(1.40)	ND(0.57)	ND(0.60)	ND(0.59)
IB (10/16/18)	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(1.40)	ND(0.57)	ND(0.60)	ND(0.59)
IB (10/17/18)	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(1.40)	ND(0.57)	ND(0.60)	ND(0.59)
IB (10/18/18)	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(1.40)	ND(0.57)	ND(0.60)	ND(0.59)

Table 2 (continued)

	cis-1,2-Dichloroethene	trans-1,3-Dichloroethene	1,2-Dichloropropane	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene	Methylene chloride	1,1,2,2-Tetrachloroethane	Tetrachloroethene
Comparative Standards	5.0	5.0	1.0	0.4	0.4	5.0	5.0	5.0	5.0
Overburden Wells									
MW-1	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
MW-2	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
MW-4D-91	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
MW-5U-91	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
MW-7	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	1.80	ND(1.00)	ND(0.65)	ND(0.90)
MW-7U-95	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
MW-10U-01	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
MW-11U-01	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
SW-2	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
SW-3	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
SW-8	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
SW-9	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
Bedrock Wells									
DW-1-95	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
DW-2-95	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
MW-1D-91	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
MW-5D-91	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
MW-6D-95	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
MW-10D-01	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
MW-11D-01	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
MW-16D-13	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
MW-17D-13	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
MW-18D-13	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
MW-19D-13	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
MW-20D-13	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	0.98 J	ND(1.00)	ND(0.65)	ND(0.90)
MW-21D-13	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
MW-22D-13	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	10.2	ND(1.00)	ND(0.65)	ND(0.90)
QA/QC									
BD-1	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	3.60	ND(1.00)	ND(0.65)	ND(0.90)
FB-1	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
IB (10/16/18)	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
IB (10/17/18)	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
IB (10/18/18)	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)

Table 2 (continued)

	Toluene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Trichloro-fluoromethane	Vinyl chloride	Xylene (total)
Comparative Standards	<i>5.0</i>	<i>5.0</i>	<i>1.0</i>	<i>5.0</i>	<i>5.0</i>	<i>2.0</i>	<i>5.0</i>
Overburden Wells							
MW-1	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.84)	ND(0.79)	ND(0.59)
MW-2	0.96 J	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.84)	ND(0.79)	ND(0.59)
MW-4D-91	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.84)	ND(0.79)	ND(0.59)
MW-5U-91	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.84)	ND(0.79)	ND(0.59)
MW-7	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.84)	ND(0.79)	1.30
MW-7U-95	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.84)	ND(0.79)	ND(0.59)
MW-10U-01	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.84)	ND(0.79)	ND(0.59)
MW-11U-01	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.84)	ND(0.79)	ND(0.59)
SW-2	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.84)	ND(0.79)	ND(0.59)
SW-3	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.84)	ND(0.79)	ND(0.59)
SW-8	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.84)	ND(0.79)	ND(0.59)
SW-9	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.84)	ND(0.79)	ND(0.59)
Bedrock Wells							
DW-1-95	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.84)	ND(0.79)	ND(0.59)
DW-2-95	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.84)	ND(0.79)	ND(0.59)
MW-1D-91	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.84)	ND(0.79)	ND(0.59)
MW-5D-91	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.84)	ND(0.79)	ND(0.59)
MW-6D-95	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.84)	ND(0.79)	ND(0.59)
MW-10D-01	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.84)	ND(0.79)	ND(0.59)
MW-11D-01	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.84)	ND(0.79)	ND(0.59)
MW-16D-13	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.84)	ND(0.79)	ND(0.59)
MW-17D-13	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.84)	ND(0.79)	ND(0.59)
MW-18D-13	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.84)	ND(0.79)	ND(0.59)
MW-19D-13	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.84)	ND(0.79)	ND(0.59)
MW-20D-13	0.53 J	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.84)	ND(0.79)	5.20
MW-21D-13	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.84)	ND(0.79)	ND(0.59)
MW-22D-13	0.72 J	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.84)	ND(0.79)	9.90
QA/QC							
BD-1	0.66 J	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.84)	ND(0.79)	2.80
FB-1	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.84)	ND(0.79)	ND(0.59)
FB (10/16/18)	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.84)	ND(0.79)	ND(0.59)
FB (10/17/18)	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.84)	ND(0.79)	ND(0.59)
FB (10/18/18)	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.84)	ND(0.79)	ND(0.59)

Notes:

ND(): Compound not detected at Method Detection limit

NA: Data not available; minimal or no water column

Comparative Standards: New York State Department of Environmental Conservation Class GA

Ambient Water Quality Standards for Source of Drinking Water Title 6 Part 703

J: Indicates estimated value

and site specific cleanup levels (Record of Decision, July, 2011)

Benzene, Chlorobenzene, ethylbenzene, toluene, xylene, and acetone

GV: NYSDEC Class GA Guidance Value for Source of Drinking Water

Table 3
Summary of Analytical Results - Semi-Volatile Organic Compounds
Nepera Chemical Company Superfund Site, Hamptonburgh, NY
Groundwater Sampled October 16-18, 2018

Reported in Micrograms per Liter (µg/L)

	2-Chlorophenol	4-Chloro-3-methyl phenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	4,6-Dinitro-o-cresol	2-Methylphenol	3&4-Methylphenol	2-Nitrophenol	4-Nitrophenol
Comparative Standards	<i>NS</i>	<i>NS</i>	<i>5.0</i>	<i>50.0</i>	<i>10.0</i>	<i>NS</i>	<i>NS</i>	<i>NS</i>	<i>NS</i>	<i>NS</i>
Overburden Wells										
MW-1	ND(0.80)	ND(0.87)	ND(1.20)	ND(2.40)	ND(1.50)	ND(1.30)	ND(0.86)	ND(0.52)	ND(0.93)	ND(1.10)
MW-2	ND(0.80)	ND(0.87)	ND(1.20)	ND(2.40)	ND(1.50)	ND(1.30)	ND(0.86)	ND(0.52)	ND(0.93)	ND(1.10)
MW-4D-91	ND(0.80)	ND(0.87)	ND(1.20)	ND(2.40)	ND(1.50)	ND(1.30)	ND(0.86)	ND(0.52)	ND(0.93)	ND(1.10)
MW-5U-91	ND(0.80)	ND(0.87)	ND(1.20)	ND(2.40)	ND(1.50)	ND(1.30)	ND(0.86)	ND(0.52)	ND(0.93)	ND(1.10)
MW-7	ND(0.82)	ND(0.89)	ND(1.30)	ND(2.40)	ND(1.60)	ND(1.30)	ND(0.89)	ND(0.88)	ND(0.96)	ND(1.20)
MW-7U-95	ND(0.80)	ND(0.87)	ND(1.20)	ND(2.40)	ND(1.50)	ND(1.30)	ND(0.86)	ND(0.85)	ND(0.93)	ND(1.10)
MW-10U-01	ND(0.78)	ND(0.85)	ND(1.20)	ND(2.30)	ND(1.50)	ND(1.20)	ND(0.85)	ND(0.84)	ND(0.91)	ND(1.10)
MW-11U-01	ND(0.82)	ND(0.89)	ND(1.30)	ND(2.40)	ND(1.60)	ND(1.30)	ND(0.89)	ND(0.88)	ND(0.96)	ND(1.20)
SW-2	ND(0.80)	ND(0.87)	ND(1.20)	ND(2.40)	ND(1.50)	ND(1.30)	ND(0.86)	ND(0.52)	ND(0.93)	ND(1.10)
SW-3	ND(0.80)	ND(0.87)	ND(1.20)	ND(2.40)	ND(1.50)	ND(1.30)	ND(0.86)	ND(0.52)	ND(0.93)	ND(1.10)
SW-8	ND(0.80)	ND(0.87)	ND(1.20)	ND(2.40)	ND(1.50)	ND(1.30)	ND(0.86)	ND(0.52)	ND(0.93)	ND(1.10)
SW-9	ND(0.79)	ND(0.86)	ND(1.20)	ND(2.30)	ND(1.50)	ND(1.20)	ND(0.85)	ND(0.85)	ND(0.92)	ND(1.10)
Bedrock Wells										
DW-1-95	ND(0.79)	ND(0.86)	ND(1.20)	ND(2.30)	ND(1.50)	ND(1.20)	ND(0.85)	ND(0.85)	ND(0.92)	ND(1.10)
DW-2-95	ND(0.79)	ND(0.86)	ND(1.20)	ND(2.30)	ND(1.50)	ND(1.20)	ND(0.85)	ND(0.85)	ND(0.92)	ND(1.10)
MW-1D-91	ND(0.80)	ND(0.87)	ND(1.20)	ND(2.40)	ND(1.50)	ND(1.30)	ND(0.86)	ND(0.52)	ND(0.93)	ND(1.10)
MW-5D-91	ND(0.80)	ND(0.87)	ND(1.20)	ND(2.40)	ND(1.50)	ND(1.30)	ND(0.86)	ND(0.52)	ND(0.93)	ND(1.10)
MW-6D-95	ND(0.79)	ND(0.86)	ND(1.20)	ND(2.30)	ND(1.50)	ND(1.20)	ND(0.85)	ND(0.85)	ND(0.92)	ND(1.10)
MW-10D-01	ND(3.90)	ND(4.20)	ND(6.00)	ND(12.00)	ND(7.40)	ND(6.20)	ND(4.20)	ND(4.20)	ND(4.60)	ND(5.50)
MW-11D-01	ND(0.79)	ND(0.86)	ND(1.20)	ND(2.30)	ND(1.50)	ND(1.20)	ND(0.85)	ND(0.85)	ND(0.92)	ND(1.10)
MW-16D-13	ND(0.80)	ND(0.87)	ND(1.20)	ND(2.40)	ND(1.50)	ND(1.30)	ND(0.86)	ND(0.85)	ND(0.93)	ND(1.10)
MW-17D-13	ND(0.79)	ND(0.86)	ND(1.20)	ND(2.30)	ND(1.50)	ND(1.20)	ND(0.85)	ND(0.85)	ND(0.92)	ND(1.10)
MW-18D-13	ND(0.79)	ND(0.86)	ND(1.20)	ND(2.30)	ND(1.50)	ND(1.20)	ND(0.85)	ND(0.85)	ND(0.92)	ND(1.10)
MW-19D-13	ND(0.79)	ND(0.86)	ND(1.20)	ND(2.30)	ND(1.50)	ND(1.20)	ND(0.85)	ND(0.85)	ND(0.92)	ND(1.10)
MW-20D-13	ND(0.79)	ND(0.86)	ND(1.20)	ND(2.30)	ND(1.50)	ND(1.20)	ND(0.85)	ND(0.85)	ND(0.92)	ND(1.10)
MW-21D-13	ND(0.80)	ND(0.87)	ND(1.20)	ND(2.40)	ND(1.50)	ND(1.30)	ND(0.86)	ND(0.52)	ND(0.93)	ND(1.10)
MW-22D-13	ND(0.79)	ND(0.86)	ND(1.20)	ND(2.30)	ND(1.50)	ND(1.20)	ND(0.85)	ND(0.85)	ND(0.92)	ND(1.10)
QA/QC										
BD-1	ND(0.82)	ND(0.89)	ND(1.30)	ND(2.40)	ND(1.60)	ND(1.30)	ND(0.89)	ND(0.88)	ND(0.96)	ND(1.20)

Table 3 (continued)

	Pentachloro-phenol	Phenol	2,3,4,6-Tetrachlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	Acenaphthene	Acenaphthylene	Acetophenone	Anthracene	Atrazine
Comparative Standards	<i>1.0</i>	<i>1.0</i>	<i>NS</i>	<i>NS</i>	<i>NS</i>	<i>20.0 GP</i>	<i>NS</i>	<i>NS</i>	<i>50.0 GP</i>	<i>7.5</i>
Overburden Wells										
MW-1	ND(1.30)	ND(0.38)	ND(1.40)	ND(1.30)	ND(0.90)	ND(0.19)	ND(0.13)	ND(0.20)	ND(0.20)	ND(0.43)
MW-2	ND(1.30)	ND(0.38)	ND(1.40)	ND(1.30)	ND(0.90)	ND(0.19)	ND(0.13)	ND(0.20)	ND(0.20)	ND(0.43)
MW-4D-91	ND(1.30)	ND(0.38)	ND(1.40)	ND(1.30)	ND(0.90)	ND(0.19)	ND(0.13)	ND(0.20)	ND(0.20)	ND(0.43)
MW-5U-91	ND(1.30)	ND(0.38)	ND(1.40)	ND(1.30)	ND(0.90)	ND(0.19)	ND(0.13)	ND(0.20)	ND(0.20)	ND(0.43)
MW-7	ND(1.40)	ND(0.39)	ND(1.50)	ND(1.30)	ND(0.92)	ND(0.19)	ND(0.14)	ND(0.21)	ND(0.21)	ND(0.45)
MW-7U-95	ND(1.30)	ND(0.38)	ND(1.40)	ND(1.30)	ND(0.90)	ND(0.19)	ND(0.13)	ND(0.20)	ND(0.20)	ND(0.43)
MW-10U-01	ND(1.30)	ND(0.37)	ND(1.40)	ND(1.30)	ND(0.88)	ND(0.18)	ND(0.13)	ND(0.20)	ND(0.20)	ND(0.43)
MW-11U-01	ND(1.40)	ND(0.39)	ND(1.50)	ND(1.30)	ND(0.92)	ND(0.19)	ND(0.14)	ND(0.21)	ND(0.21)	ND(0.45)
SW-2	ND(1.30)	ND(0.38)	ND(1.40)	ND(1.30)	ND(0.90)	ND(0.19)	ND(0.13)	ND(0.20)	ND(0.20)	ND(0.43)
SW-3	ND(1.30)	ND(0.38)	ND(1.40)	ND(1.30)	ND(0.90)	ND(0.19)	ND(0.13)	ND(0.20)	ND(0.20)	ND(0.43)
SW-8	ND(1.30)	ND(0.38)	ND(1.40)	ND(1.30)	ND(0.90)	ND(0.19)	ND(0.13)	ND(0.20)	ND(0.20)	ND(0.43)
SW-9	ND(1.30)	ND(0.38)	ND(1.40)	ND(1.30)	ND(0.89)	ND(0.18)	ND(0.13)	ND(0.20)	ND(0.20)	ND(0.43)
Bedrock Wells										
DW-1-95	ND(1.30)	3.2	ND(1.40)	ND(1.30)	ND(0.89)	ND(0.18)	ND(0.13)	0.43 J	ND(0.20)	ND(0.43)
DW-2-95	ND(1.30)	2.1	ND(1.40)	ND(1.30)	ND(0.89)	ND(0.18)	ND(0.13)	0.76 J	ND(0.20)	ND(0.43)
MW-1D-91	ND(1.30)	ND(0.38)	ND(1.40)	ND(1.30)	ND(0.90)	ND(0.19)	ND(0.13)	ND(0.20)	ND(0.20)	ND(0.43)
MW-5D-91	ND(1.30)	ND(0.38)	ND(1.40)	ND(1.30)	ND(0.90)	ND(0.19)	ND(0.13)	ND(0.20)	ND(0.20)	ND(0.43)
MW-6D-95	ND(1.30)	ND(0.38)	ND(1.40)	ND(1.30)	ND(0.89)	ND(0.18)	ND(0.13)	ND(0.20)	ND(0.20)	ND(0.43)
MW-10D-01	ND(6.60)	ND(1.90)	ND(7.00)	ND(6.30)	ND(4.40)	ND(0.91)	ND(0.65)	ND(0.99)	ND(1.00)	ND(2.10)
MW-11D-01	ND(1.30)	ND(0.38)	ND(1.40)	ND(1.30)	ND(0.89)	ND(0.18)	ND(0.13)	ND(0.20)	ND(0.20)	ND(0.43)
MW-16D-13	ND(1.30)	ND(0.38)	ND(1.40)	ND(1.30)	ND(0.90)	ND(0.19)	ND(0.13)	0.39 JB	ND(0.20)	ND(0.43)
MW-17D-13	ND(1.30)	ND(0.38)	ND(1.40)	ND(1.30)	ND(0.89)	ND(0.18)	ND(0.13)	ND(0.20)	ND(0.20)	ND(0.43)
MW-18D-13	ND(1.30)	ND(0.38)	ND(1.40)	ND(1.30)	ND(0.89)	ND(0.18)	ND(0.13)	ND(0.20)	ND(0.20)	ND(0.43)
MW-19D-13	ND(1.30)	ND(0.38)	ND(1.40)	ND(1.30)	ND(0.89)	ND(0.18)	ND(0.13)	ND(0.20)	ND(0.20)	ND(0.43)
MW-20D-13	ND(1.30)	ND(0.38)	ND(1.40)	ND(1.30)	ND(0.89)	ND(0.18)	ND(0.13)	ND(0.20)	ND(0.20)	ND(0.43)
MW-21D-13	ND(1.30)	ND(0.38)	ND(1.40)	ND(1.30)	ND(0.90)	ND(0.19)	ND(0.13)	ND(0.20)	ND(0.20)	ND(0.43)
MW-22D-13	ND(1.30)	ND(0.38)	ND(1.40)	ND(1.30)	ND(0.89)	ND(0.18)	ND(0.13)	ND(0.20)	ND(0.20)	ND(0.43)
QA/QC										
BD-1	ND(1.40)	ND(0.39)	ND(1.50)	ND(1.30)	ND(0.92)	ND(0.19)	ND(0.14)	ND(0.21)	ND(0.21)	ND(0.45)

Table 3 (continued)

	Benzaldehyde	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	4-Bromophenyl phenyl ether	Butyl benzyl phthalate	1,1'-Biphenyl	2-Chloronaphthalene
Comparative Standards	<i>NS</i>	<i>0.002 GV</i>	<i>ND</i>	<i>0.002 GV</i>	<i>NS</i>	<i>0.002 GV</i>	<i>NS</i>	<i>50.0 GV</i>	<i>5.0</i>	<i>10.0 GV</i>
Overburden Wells										
MW-1	ND(0.28)	ND(0.20)	ND(0.21)	ND(0.20)	ND(0.33)	ND(0.20)	ND(0.39)	ND(0.44)	ND(0.21)	ND(0.23)
MW-2	ND(0.28)	ND(0.20)	ND(0.21)	ND(0.20)	ND(0.33)	ND(0.20)	ND(0.39)	ND(0.44)	ND(0.21)	ND(0.23)
MW-4D-91	ND(0.28)	ND(0.20)	ND(0.21)	ND(0.20)	ND(0.33)	ND(0.20)	ND(0.39)	ND(0.44)	ND(0.21)	ND(0.23)
MW-5U-91	ND(0.28)	ND(0.20)	ND(0.21)	ND(0.20)	ND(0.33)	ND(0.20)	ND(0.39)	ND(0.44)	ND(0.21)	ND(0.23)
MW-7	0.45 J	ND(0.20)	ND(0.21)	ND(0.21)	ND(0.34)	ND(0.21)	ND(0.40)	ND(0.46)	ND(0.21)	ND(0.24)
MW-7U-95	ND(0.28)	ND(0.20)	ND(0.21)	ND(0.20)	ND(0.33)	ND(0.20)	ND(0.39)	ND(0.44)	ND(0.21)	ND(0.23)
MW-10U-01	ND(0.28)	ND(0.19)	ND(0.20)	ND(0.20)	ND(0.32)	ND(0.20)	ND(0.38)	ND(0.44)	ND(0.20)	ND(0.22)
MW-11U-01	ND(0.29)	ND(0.20)	ND(0.21)	ND(0.21)	ND(0.34)	ND(0.21)	ND(0.40)	ND(0.46)	ND(0.21)	ND(0.24)
SW-2	ND(0.28)	ND(0.20)	ND(0.21)	ND(0.20)	ND(0.33)	ND(0.20)	ND(0.39)	ND(0.44)	ND(0.21)	ND(0.23)
SW-3	ND(0.28)	ND(0.20)	ND(0.21)	ND(0.20)	ND(0.33)	ND(0.20)	ND(0.39)	ND(0.44)	ND(0.21)	ND(0.23)
SW-8	ND(0.28)	ND(0.20)	ND(0.21)	ND(0.20)	ND(0.33)	ND(0.20)	ND(0.39)	ND(0.44)	ND(0.21)	ND(0.23)
SW-9	ND(0.28)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.33)	ND(0.20)	ND(0.39)	ND(0.44)	ND(0.20)	ND(0.23)
Bedrock Wells										
DW-1-95	ND(0.28)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.33)	ND(0.20)	ND(0.39)	ND(0.44)	ND(0.20)	ND(0.23)
DW-2-95	ND(0.28)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.33)	ND(0.20)	ND(0.39)	ND(0.44)	ND(0.20)	ND(0.23)
MW-1D-91	ND(0.28)	ND(0.20)	ND(0.21)	ND(0.20)	ND(0.33)	ND(0.20)	ND(0.39)	ND(0.44)	ND(0.21)	ND(0.23)
MW-5D-91	ND(0.28)	ND(0.20)	ND(0.21)	ND(0.20)	ND(0.33)	ND(0.20)	ND(0.39)	ND(0.44)	ND(0.21)	ND(0.23)
MW-6D-95	ND(0.28)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.33)	ND(0.20)	ND(0.39)	ND(0.44)	ND(0.20)	ND(0.23)
MW-10D-01	ND(1.20)	ND(0.97)	ND(1.00)	ND(0.98)	ND(1.60)	ND(0.98)	ND(1.90)	ND(2.20)	ND(1.00)	ND(1.10)
MW-11D-01	ND(0.28)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.33)	ND(0.20)	ND(0.39)	ND(0.44)	ND(0.20)	ND(0.23)
MW-16D-13	ND(0.28)	ND(0.20)	ND(0.21)	ND(0.20)	ND(0.33)	ND(0.20)	ND(0.39)	ND(0.44)	ND(0.21)	ND(0.23)
MW-17D-13	ND(0.28)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.33)	ND(0.20)	ND(0.39)	ND(0.44)	ND(0.20)	ND(0.23)
MW-18D-13	ND(0.28)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.33)	ND(0.20)	ND(0.39)	ND(0.44)	ND(0.20)	ND(0.23)
MW-19D-13	0.49 J	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.33)	ND(0.20)	ND(0.39)	ND(0.44)	ND(0.20)	ND(0.23)
MW-20D-13	ND(0.28)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.33)	ND(0.20)	ND(0.39)	ND(0.44)	ND(0.20)	ND(0.23)
MW-21D-13	ND(0.28)	ND(0.20)	ND(0.21)	ND(0.20)	ND(0.33)	ND(0.20)	ND(0.39)	ND(0.44)	ND(0.21)	ND(0.23)
MW-22D-13	0.50 J	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.33)	ND(0.20)	ND(0.39)	ND(0.44)	ND(0.20)	ND(0.23)
QA/QC										
BD-1	ND(0.29)	ND(0.20)	ND(0.21)	ND(0.21)	ND(0.34)	ND(0.21)	ND(0.40)	ND(0.46)	ND(0.21)	ND(0.24)

Table 3 (continued)

	4-Chloroaniline	Carbazole	Caprolactam	Chrysene	bis(2-Chloroethoxy) methane	bis(2-Chloroethyl) ether	bis(2- Chloroisopropyl) ether	4-Chlorophenyl ether	2,4- Dinitrotoluene	2,6- Dinitrotoluene
Comparative Standards	5.0	NS	NS	0.002 GV	5.0	1.0	5.0	NS	5.0	5.0
Overburden Wells										
MW-1	ND(0.33)	ND(0.22)	ND(0.63)	ND(0.17)	ND(0.27)	ND(0.24)	ND(0.39)	ND(0.36)	ND(0.54)	ND(0.46)
MW-2	ND(0.33)	ND(0.22)	ND(0.63)	ND(0.17)	ND(0.27)	ND(0.24)	ND(0.39)	ND(0.36)	ND(0.54)	ND(0.46)
MW-4D-91	ND(0.33)	ND(0.22)	ND(0.63)	ND(0.17)	ND(0.27)	ND(0.24)	ND(0.39)	ND(0.36)	ND(0.54)	ND(0.46)
MW-5U-91	ND(0.33)	ND(0.22)	ND(0.63)	ND(0.17)	ND(0.27)	ND(0.24)	ND(0.39)	ND(0.36)	ND(0.54)	ND(0.46)
MW-7	5.60	ND(0.23)	ND(0.65)	ND(0.18)	ND(0.28)	ND(0.25)	ND(0.40)	ND(0.37)	ND(0.55)	ND(0.48)
MW-7U-95	ND(0.33)	ND(0.22)	ND(0.63)	ND(0.17)	ND(0.27)	ND(0.24)	ND(0.39)	ND(0.36)	ND(0.54)	ND(0.46)
MW-10U-01	ND(0.32)	ND(0.22)	ND(0.62)	ND(0.17)	ND(0.26)	ND(0.24)	ND(0.38)	ND(0.35)	ND(0.53)	ND(0.45)
MW-11U-01	ND(0.34)	ND(0.23)	ND(0.65)	ND(0.18)	ND(0.28)	ND(0.25)	ND(0.40)	ND(0.37)	ND(0.55)	ND(0.48)
SW-2	ND(0.33)	ND(0.22)	ND(0.63)	ND(0.17)	ND(0.27)	ND(0.24)	ND(0.39)	ND(0.36)	ND(0.54)	ND(0.46)
SW-3	ND(0.33)	ND(0.22)	ND(0.63)	ND(0.17)	ND(0.27)	ND(0.24)	ND(0.39)	ND(0.36)	ND(0.54)	ND(0.46)
SW-8	ND(0.33)	ND(0.22)	ND(0.63)	ND(0.17)	ND(0.27)	ND(0.24)	ND(0.39)	ND(0.36)	ND(0.54)	ND(0.46)
SW-9	0.75 J	ND(0.22)	ND(0.62)	ND(0.17)	ND(0.27)	ND(0.24)	ND(0.39)	ND(0.35)	ND(0.53)	ND(0.46)
Bedrock Wells										
DW-1-95	ND(0.33)	ND(0.22)	ND(0.62)	ND(0.17)	ND(0.27)	ND(0.24)	ND(0.39)	ND(0.35)	ND(0.53)	ND(0.46)
DW-2-95	ND(0.33)	ND(0.22)	ND(0.62)	ND(0.17)	ND(0.27)	ND(0.24)	ND(0.39)	ND(0.35)	ND(0.53)	ND(0.46)
MW-1D-91	ND(0.33)	ND(0.22)	ND(0.63)	ND(0.17)	ND(0.27)	ND(0.24)	ND(0.39)	ND(0.36)	ND(0.54)	ND(0.46)
MW-5D-91	ND(0.33)	ND(0.22)	ND(0.63)	ND(0.17)	ND(0.27)	ND(0.24)	ND(0.39)	ND(0.36)	ND(0.54)	ND(0.46)
MW-6D-95	ND(0.33)	ND(0.22)	ND(0.62)	ND(0.17)	ND(0.27)	ND(0.24)	ND(0.39)	ND(0.35)	ND(0.53)	ND(0.46)
MW-10D-01	ND(1.60)	ND(1.10)	ND(3.10)	ND(0.84)	ND(1.30)	ND(1.20)	ND(1.90)	ND(1.70)	ND(2.60)	ND(2.30)
MW-11D-01	ND(0.33)	ND(0.22)	ND(0.62)	ND(0.17)	ND(0.27)	ND(0.24)	ND(0.39)	ND(0.35)	ND(0.53)	ND(0.46)
MW-16D-13	ND(0.33)	ND(0.22)	ND(0.63)	ND(0.17)	ND(0.27)	ND(0.24)	ND(0.39)	ND(0.36)	ND(0.54)	ND(0.46)
MW-17D-13	ND(0.33)	ND(0.22)	ND(0.62)	ND(0.17)	ND(0.27)	ND(0.24)	ND(0.39)	ND(0.35)	ND(0.53)	ND(0.46)
MW-18D-13	ND(0.33)	ND(0.22)	ND(0.62)	ND(0.17)	ND(0.27)	ND(0.24)	ND(0.39)	ND(0.35)	ND(0.53)	ND(0.46)
MW-19D-13	ND(0.33)	ND(0.22)	ND(0.62)	ND(0.17)	ND(0.27)	ND(0.24)	ND(0.39)	ND(0.35)	ND(0.53)	ND(0.46)
MW-20D-13	181.00	ND(0.22)	ND(0.62)	ND(0.17)	ND(0.27)	ND(0.24)	ND(0.39)	ND(0.35)	ND(0.53)	ND(0.46)
MW-21D-13	4.50 J	ND(0.22)	ND(0.63)	ND(0.17)	ND(0.27)	ND(0.24)	ND(0.39)	ND(0.36)	ND(0.54)	ND(0.46)
MW-22D-13	439.00	ND(0.22)	ND(0.62)	ND(0.17)	ND(0.27)	ND(0.24)	ND(0.39)	ND(0.35)	ND(0.53)	ND(0.46)
QA/QC										
BD-1	6.20	ND(0.23)	ND(0.65)	ND(0.18)	ND(0.28)	ND(0.25)	ND(0.40)	ND(0.37)	ND(0.55)	ND(0.48)

Table 3 (continued)

	3,3'-Dichlorobenzidine	Dibenzo(a,h)anthracene	Dibenzofuran	Di-n-butyl phthalate	Di-n-octyl phthalate	Diethyl phthalate	Dimethyl phthalate	bis(2-Ethylhexyl) phthalate	Fluoranthene	Fluorene
Comparative Standards	5.0	NS	NS	50.0	NS	50.0 GV	50.0 GV	5.0	50.0 GV	50.0 GV
Overburden Wells										
MW-1	ND(0.49)	ND(0.32)	ND(0.21)	ND(0.48)	ND(0.23)	ND(0.25)	ND(0.21)	ND(1.60)	ND(0.17)	ND(0.17)
MW-2	ND(0.49)	ND(0.32)	ND(0.21)	ND(0.48)	ND(0.23)	ND(0.25)	ND(0.21)	ND(1.60)	ND(0.17)	ND(0.17)
MW-4D-91	ND(0.49)	ND(0.32)	ND(0.21)	ND(0.48)	ND(0.23)	ND(0.25)	ND(0.21)	ND(1.60)	ND(0.17)	ND(0.17)
MW-5U-91	ND(0.49)	ND(0.32)	ND(0.21)	ND(0.48)	ND(0.23)	ND(0.25)	ND(0.21)	ND(1.60)	ND(0.17)	ND(0.17)
MW-7	ND(0.51)	ND(0.33)	ND(0.22)	ND(0.50)	ND(0.23)	ND(0.26)	ND(0.22)	ND(1.70)	ND(0.17)	ND(0.17)
MW-7U-95	ND(0.49)	ND(0.32)	ND(0.21)	ND(0.48)	ND(0.23)	ND(0.25)	ND(0.21)	ND(1.60)	ND(0.17)	ND(0.17)
MW-10U-01	ND(0.48)	ND(0.32)	ND(0.21)	ND(0.47)	ND(0.22)	ND(0.25)	ND(0.21)	ND(1.60)	ND(0.16)	ND(0.16)
MW-11U-01	ND(0.51)	ND(0.33)	ND(0.22)	ND(0.50)	ND(0.23)	ND(0.26)	ND(0.22)	ND(1.70)	ND(0.17)	ND(0.17)
SW-2	ND(0.49)	ND(0.32)	ND(0.21)	ND(0.48)	ND(0.23)	ND(0.25)	ND(0.21)	ND(1.60)	ND(0.17)	ND(0.17)
SW-3	ND(0.49)	ND(0.32)	ND(0.21)	ND(0.48)	ND(0.23)	ND(0.25)	ND(0.21)	ND(1.60)	ND(0.17)	ND(0.17)
SW-8	ND(0.49)	ND(0.32)	ND(0.21)	ND(0.48)	ND(0.23)	ND(0.25)	ND(0.21)	ND(1.60)	ND(0.17)	ND(0.17)
SW-9	ND(0.49)	ND(0.32)	ND(0.21)	ND(0.48)	ND(0.22)	ND(0.25)	ND(0.21)	1.80 J	ND(0.16)	ND(0.16)
Bedrock Wells										
DW-1-95	ND(0.49)	ND(0.32)	ND(0.21)	ND(0.48)	ND(0.22)	ND(0.25)	ND(0.21)	ND(1.60)	ND(0.16)	ND(0.16)
DW-2-95	ND(0.49)	ND(0.32)	ND(0.21)	ND(0.48)	0.75 J	ND(0.25)	ND(0.21)	ND(1.60)	ND(0.16)	ND(0.16)
MW-1D-91	ND(0.49)	ND(0.32)	ND(0.21)	ND(0.48)	ND(0.23)	ND(0.25)	ND(0.21)	ND(1.60)	ND(0.17)	ND(0.17)
MW-5D-91	ND(0.49)	ND(0.32)	ND(0.21)	ND(0.48)	ND(0.23)	ND(0.25)	ND(0.21)	ND(1.60)	ND(0.17)	ND(0.17)
MW-6D-95	ND(0.49)	ND(0.32)	ND(0.21)	ND(0.48)	ND(0.22)	ND(0.25)	ND(0.21)	ND(1.60)	ND(0.16)	ND(0.16)
MW-10D-01	ND(2.40)	ND(1.60)	ND(1.00)	ND(2.40)	ND(1.10)	ND(1.20)	ND(1.00)	ND(7.90)	ND(0.81)	ND(0.81)
MW-11D-01	ND(0.49)	ND(0.32)	ND(0.21)	ND(0.48)	ND(0.22)	ND(0.25)	ND(0.21)	ND(1.60)	ND(0.16)	ND(0.16)
MW-16D-13	ND(0.49)	ND(0.32)	ND(0.21)	ND(0.48)	ND(0.23)	ND(0.25)	ND(0.21)	ND(1.60)	ND(0.17)	ND(0.17)
MW-17D-13	ND(0.49)	ND(0.32)	ND(0.21)	ND(0.48)	ND(0.22)	ND(0.25)	ND(0.21)	ND(1.60)	ND(0.16)	ND(0.16)
MW-18D-13	ND(0.49)	ND(0.32)	ND(0.21)	ND(0.48)	ND(0.22)	ND(0.25)	ND(0.21)	ND(1.60)	ND(0.16)	ND(0.16)
MW-19D-13	ND(0.49)	ND(0.32)	ND(0.21)	ND(0.48)	ND(0.22)	ND(0.25)	ND(0.21)	ND(1.60)	ND(0.16)	ND(0.16)
MW-20D-13	ND(0.49)	ND(0.32)	ND(0.21)	ND(0.48)	ND(0.22)	14.70	ND(0.21)	ND(1.60)	ND(0.16)	ND(0.16)
MW-21D-13	ND(0.49)	ND(0.32)	ND(0.21)	ND(0.48)	ND(0.23)	ND(0.25)	ND(0.21)	ND(1.60)	ND(0.17)	ND(0.17)
MW-22D-13	ND(0.49)	ND(0.32)	ND(0.21)	ND(0.48)	ND(0.22)	ND(0.25)	ND(0.21)	ND(1.60)	ND(0.16)	ND(0.16)
QA/QC										
BD-1	ND(0.51)	ND(0.33)	ND(0.22)	ND(0.50)	ND(0.23)	ND(0.26)	ND(0.22)	ND(1.70)	ND(0.17)	ND(0.17)

Table 3 (continued)

	Hexachloro-benzene	Hexachloro-butadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-cd)pyrene	Isophorone	2-Methylnaphthalene	2-Nitroaniline	3-Nitroaniline	4-Nitroaniline
Comparative Standards	<i>0.04</i>	<i>0.5</i>	<i>5.0</i>	<i>5.0</i>	<i>0.002 GV</i>	<i>50.0 GV</i>	<i>NS</i>	<i>5.0</i>	<i>5.0</i>	<i>5.0</i>
Overburden Wells										
MW-1	ND(0.32)	ND(0.48)	ND(2.70)	ND(0.38)	ND(0.32)	ND(0.27)	ND(0.20)	ND(0.27)	ND(0.38)	ND(0.43)
MW-2	ND(0.32)	ND(0.48)	ND(2.70)	ND(0.38)	ND(0.32)	ND(0.27)	ND(0.20)	ND(0.27)	ND(0.38)	ND(0.43)
MW-4D-91	ND(0.32)	ND(0.48)	ND(2.70)	ND(0.38)	ND(0.32)	ND(0.27)	ND(0.20)	ND(0.27)	ND(0.38)	ND(0.43)
MW-5U-91	ND(0.32)	ND(0.48)	ND(2.70)	ND(0.38)	ND(0.32)	ND(0.27)	ND(0.20)	ND(0.27)	ND(0.38)	ND(0.43)
MW-7	ND(0.33)	ND(0.49)	ND(2.80)	ND(0.39)	ND(0.33)	ND(0.28)	ND(0.21)	ND(0.28)	ND(0.39)	ND(0.44)
MW-7U-95	ND(0.32)	ND(0.48)	ND(2.70)	ND(0.38)	ND(0.32)	ND(0.27)	ND(0.20)	ND(0.27)	ND(0.38)	ND(0.43)
MW-10U-01	ND(0.31)	ND(0.47)	ND(2.60)	ND(0.37)	ND(0.32)	ND(0.26)	ND(0.20)	ND(0.26)	ND(0.37)	ND(0.42)
MW-11U-01	ND(0.33)	ND(0.49)	ND(2.80)	ND(0.39)	ND(0.33)	ND(0.28)	ND(0.21)	ND(0.28)	ND(0.39)	ND(0.44)
SW-2	ND(0.32)	ND(0.48)	ND(2.70)	ND(0.38)	ND(0.32)	ND(0.27)	ND(0.20)	ND(0.27)	ND(0.38)	ND(0.43)
SW-3	ND(0.32)	ND(0.48)	ND(2.70)	ND(0.38)	ND(0.32)	ND(0.27)	ND(0.20)	ND(0.27)	ND(0.38)	ND(0.43)
SW-8	ND(0.32)	ND(0.48)	ND(2.70)	ND(0.38)	ND(0.32)	ND(0.27)	ND(0.20)	ND(0.27)	ND(0.38)	ND(0.43)
SW-9	ND(0.31)	ND(0.47)	ND(2.70)	ND(0.37)	ND(0.32)	ND(0.27)	ND(0.20)	ND(0.27)	ND(0.37)	ND(0.42)
Bedrock Wells										
DW-1-95	ND(0.31)	ND(0.47)	ND(2.70)	ND(0.37)	ND(0.32)	ND(0.27)	ND(0.20)	ND(0.27)	ND(0.37)	ND(0.42)
DW-2-95	ND(0.31)	ND(0.47)	ND(2.70)	ND(0.37)	ND(0.32)	ND(0.27)	ND(0.20)	ND(0.27)	ND(0.37)	ND(0.42)
MW-1D-91	ND(0.32)	ND(0.48)	ND(2.70)	ND(0.38)	ND(0.32)	ND(0.27)	ND(0.20)	ND(0.27)	ND(0.38)	ND(0.43)
MW-5D-91	ND(0.32)	ND(0.48)	ND(2.70)	ND(0.38)	ND(0.32)	ND(0.27)	ND(0.20)	ND(0.27)	ND(0.38)	ND(0.43)
MW-6D-95	ND(0.31)	ND(0.47)	ND(2.70)	ND(0.37)	ND(0.32)	ND(0.27)	ND(0.20)	ND(0.27)	ND(0.37)	ND(0.42)
MW-10D-01	ND(1.50)	ND(2.30)	ND(13.00)	ND(1.90)	ND(1.60)	ND(1.30)	ND(1.00)	ND(1.30)	ND(1.80)	ND(2.10)
MW-11D-01	ND(0.31)	ND(0.47)	ND(2.70)	ND(0.37)	ND(0.32)	ND(0.27)	ND(0.20)	ND(0.27)	ND(0.37)	ND(0.42)
MW-16D-13	ND(0.32)	ND(0.48)	ND(2.70)	ND(0.38)	ND(0.32)	ND(0.27)	ND(0.20)	ND(0.27)	ND(0.38)	ND(0.43)
MW-17D-13	ND(0.31)	ND(0.47)	ND(2.70)	ND(0.37)	ND(0.32)	ND(0.27)	ND(0.20)	ND(0.27)	ND(0.37)	ND(0.42)
MW-18D-13	ND(0.31)	ND(0.47)	ND(2.70)	ND(0.37)	ND(0.32)	ND(0.27)	ND(0.20)	ND(0.27)	ND(0.37)	ND(0.42)
MW-19D-13	ND(0.31)	ND(0.47)	ND(2.70)	ND(0.37)	ND(0.32)	ND(0.27)	ND(0.20)	ND(0.27)	ND(0.37)	ND(0.42)
MW-20D-13	ND(0.31)	ND(0.47)	ND(2.70)	ND(0.37)	ND(0.32)	ND(0.27)	ND(0.20)	ND(0.27)	ND(0.37)	ND(0.42)
MW-21D-13	ND(0.32)	ND(0.48)	ND(2.70)	ND(0.38)	ND(0.32)	ND(0.27)	ND(0.20)	ND(0.27)	ND(0.38)	ND(0.43)
MW-22D-13	ND(0.31)	ND(0.47)	ND(2.70)	ND(0.37)	ND(0.32)	ND(0.27)	ND(0.20)	ND(0.27)	ND(0.37)	ND(0.42)
QA/QC										
BD-1	ND(0.33)	ND(0.49)	ND(2.80)	ND(0.39)	ND(0.33)	ND(0.28)	ND(0.21)	ND(0.28)	ND(0.39)	ND(0.44)

Table 3 (continued)

	Naphthalene	Nitrobenzene	N-Nitroso-di-n-propylamine	N-Nitrosodi-phenylamine	Phenanthrene	Pyrene	1,2,4,5-Tetrachlorobenzene
Comparative Standards	<i>10.0 GV</i>	<i>0.4</i>	<i>NS</i>	<i>50.0 GV</i>	<i>50.0 GV</i>	<i>50.0 GV</i>	<i>5.0</i>
Overburden Wells							
MW-1	ND(0.23)	ND(0.62)	ND(0.47)	ND(0.22)	ND(0.17)	ND(0.21)	ND(0.36)
MW-2	ND(0.23)	ND(0.62)	ND(0.47)	ND(0.22)	ND(0.17)	ND(0.21)	ND(0.36)
MW-4D-91	ND(0.23)	ND(0.62)	ND(0.47)	ND(0.22)	ND(0.17)	ND(0.21)	ND(0.36)
MW-5U-91	ND(0.23)	ND(0.62)	ND(0.47)	ND(0.22)	ND(0.17)	ND(0.21)	ND(0.36)
MW-7	ND(0.23)	ND(0.64)	ND(0.48)	ND(0.22)	ND(0.18)	ND(0.22)	ND(0.37)
MW-7U-95	ND(0.23)	ND(0.62)	ND(0.47)	ND(0.22)	ND(0.17)	ND(0.21)	ND(0.36)
MW-10U-01	ND(0.22)	ND(0.61)	ND(0.46)	ND(0.21)	ND(0.17)	ND(0.21)	ND(0.35)
MW-11U-01	ND(0.23)	ND(0.64)	ND(0.48)	ND(0.22)	ND(0.18)	ND(0.22)	ND(0.37)
SW-2	ND(0.23)	ND(0.62)	ND(0.47)	ND(0.22)	ND(0.17)	ND(0.21)	ND(0.36)
SW-3	ND(0.23)	ND(0.62)	ND(0.47)	ND(0.22)	ND(0.17)	ND(0.21)	ND(0.36)
SW-8	ND(0.23)	ND(0.62)	ND(0.47)	ND(0.22)	ND(0.17)	ND(0.21)	ND(0.36)
SW-9	ND(0.22)	ND(0.62)	ND(0.46)	ND(0.21)	ND(0.17)	ND(0.21)	ND(0.36)
Bedrock Wells							
DW-1-95	ND(0.22)	ND(0.62)	ND(0.46)	ND(0.21)	ND(0.17)	ND(0.21)	ND(0.36)
DW-2-95	ND(0.22)	ND(0.62)	ND(0.46)	ND(0.21)	ND(0.17)	ND(0.21)	ND(0.36)
MW-1D-91	ND(0.23)	ND(0.62)	ND(0.47)	ND(0.22)	ND(0.17)	ND(0.21)	ND(0.36)
MW-5D-91	ND(0.23)	ND(0.62)	ND(0.47)	ND(0.22)	ND(0.17)	ND(0.21)	ND(0.36)
MW-6D-95	ND(0.22)	ND(0.62)	ND(0.46)	ND(0.21)	ND(0.17)	ND(0.21)	ND(0.36)
MW-10D-01	ND(1.10)	ND(3.10)	ND(2.30)	ND(1.10)	ND(0.83)	ND(1.00)	ND(1.80)
MW-11D-01	ND(0.22)	ND(0.62)	ND(0.46)	ND(0.21)	ND(0.17)	ND(0.21)	ND(0.36)
MW-16D-13	ND(0.23)	ND(0.62)	ND(0.47)	ND(0.22)	ND(0.17)	ND(0.21)	ND(0.36)
MW-17D-13	ND(0.22)	ND(0.62)	ND(0.46)	ND(0.21)	ND(0.17)	ND(0.21)	ND(0.36)
MW-18D-13	ND(0.22)	ND(0.62)	ND(0.46)	ND(0.21)	ND(0.17)	ND(0.21)	ND(0.36)
MW-19D-13	ND(0.22)	ND(0.62)	ND(0.46)	ND(0.21)	ND(0.17)	ND(0.21)	ND(0.36)
MW-20D-13	ND(0.22)	ND(0.62)	ND(0.46)	ND(0.21)	ND(0.17)	ND(0.21)	ND(0.36)
MW-21D-13	ND(0.23)	ND(0.62)	ND(0.47)	ND(0.22)	ND(0.17)	ND(0.21)	ND(0.36)
MW-22D-13	ND(0.22)	ND(0.62)	ND(0.46)	ND(0.21)	ND(0.17)	ND(0.21)	ND(0.36)
QA/QC							
BD-1	ND(0.23)	ND(0.64)	ND(0.48)	ND(0.22)	ND(0.18)	ND(0.22)	ND(0.37)

Notes:

ND(): Compound not detected at Method Detection Limit

Comparative Standards: New York State Department of Environmental Conservation Class GA

Ambient Water Quality Standards for Source of Drinking Water Title 6 Part 703 and site specific cleanup levels (Record of Decision, July, 2011)

NA: Data not available; minimal or no water column

NS: No Standard

GV: NYSDEC Class GA Guidance Value for Source of Drinking Water

J: Indicates an estimated value

B: Indicates analyte found in associated method blank

Table 4
Summary of Analytical Results - Site-Specific Compounds
Nepera Chemical Company Superfund Site, Hamptonburgh, NY
Groundwater Sampled October 16-18, 2018

Reported in Micrograms per Liter (µg/L)

	2-Aminopyridine	Aniline	2,4'-Bipyridine	Alpha picoline	Pyridine
Comparative Standards	<i>1.0</i>	<i>5.0</i>	<i>50.0</i>	<i>50.0</i>	<i>50.0</i>
Overburden Wells					
MW-1	ND(0.34)	ND(0.31)	ND(0.75)	ND(0.80)	ND(0.38)
MW-2	26.90	ND(0.31)	1.60 J	ND(0.80)	ND(0.36)
MW-4D-91	ND(0.34)	ND(0.31)	ND(0.75)	ND(0.80)	ND(0.38)
MW-5U-91	ND(0.34)	ND(0.31)	ND(0.75)	ND(0.80)	ND(0.38)
MW-7	120.00	3.40	11.60	6.80	1.40 J
MW-7U-95	ND(0.34)	ND(0.31)	ND(0.75)	ND(0.80)	ND(0.38)
MW-10U-01	ND(0.34)	ND(0.30)	ND(0.74)	ND(0.79)	ND(0.37)
MW-11U-01	ND(0.35)	ND(0.32)	ND(0.77)	ND(0.83)	ND(0.39)
SW-2	23.50	ND(0.31)	3.80 J	ND(0.80)	ND(0.38)
SW-3	2.60 J	ND(0.31)	2.40 J	ND(0.80)	ND(0.38)
SW-8	64.30	ND(0.31)	0.94 J	ND(0.80)	ND(0.38)
SW-9	1.30 J	ND(0.31)	ND(0.74)	ND(0.79)	ND(0.37)
Bedrock Wells					
DW-1-95	11.40	0.45 J	ND(0.74)	0.89 J	ND(0.37)
DW-2-95	39.20	2.40	ND(0.74)	ND(0.79)	ND(0.37)
MW-1D-91	2.00 J	ND(0.31)	3.50 J	ND(0.80)	ND(0.38)
MW-5D-91	ND(0.34)	ND(0.31)	ND(0.75)	ND(0.80)	ND(0.38)
MW-6D-95	ND(0.34)	ND(0.32)	ND(0.74)	ND(0.79)	ND(0.37)
MW-10D-01	ND(1.70)	ND(1.50)	ND(3.70)	ND(3.90)	ND(1.80)
MW-11D-01	ND(0.34)	ND(0.31)	ND(0.74)	ND(0.79)	ND(0.37)
MW-16D-13	ND(0.34)	ND(0.31)	ND(0.75)	ND(0.80)	ND(0.38)
MW-17D-13	5.90	ND(0.31)	ND(0.74)	ND(0.79)	ND(0.37)
MW-18D-13	0.52 J	ND(0.31)	0.89 J	ND(0.79)	ND(0.37)
MW-19D-13	30.20	0.47 J	3.50 J	ND(0.79)	ND(0.37)
MW-20D-13	262.00	1.10 J	19.00	25.50	0.72 J
MW-21D-13	1.80 J	ND(0.31)	ND(0.75)	ND(0.80)	ND(0.38)
MW-22D-13	229.00	0.65 J	4.20 J	4.00 J	ND(0.37)
QA/QC					
BD-1	185.00	4.10	13.00	7.60	1.80 J

Notes:

ND(): *Compound not detected at Method Detection Limit*

Comparative Standards: New York State Department of Environmental Conservation Class GA

Ambient Water Quality Standards for Source of Drinking Water Title 6 Part 703 and site specific cleanup levels (Record of Decision, July, 2011)

NA: Data not available; minimal or no water column

J: Indicates an estimated value

B: Indicates analyte found in associated method blank

2-aminopyridine, pyridine, alpha picoline, aniline, and 2,4-bipyridine are site specific per the Record of Decision, July, 2011

Table 5
Summary of Analytical Results - General/Biodegradation Parameters
Nepera Chemical Company Superfund Site, Hamptonburgh, NY
Groundwater Sampled October 16-18, 2018

Reported in Milligrams per Liter (mg/L)

	Calcium	Magnesium	Alkalinity (Total as CaCO ₃)	Chemical Oxygen Demand	Ferrous Iron	Nitrogen, Nitrate
Comparative Standards	<i>NS</i>	<i>35.0</i>	<i>NS</i>	<i>NS</i>	<i>0.3</i>	<i>10.0</i>
Overburden Wells						
MW-1	14.00	ND(10.00)	275.00	ND(20.0)	ND(0.20)	4.30
MW-2	38.20	8.50	506.00	33.30	0.63	ND(0.11)
MW-4D-91	39.20	7.77	188.00	ND(20.0)	ND(0.20)	ND(0.11)
MW-5U-91	12.60	ND(5.00)	95.70	ND(20.0)	ND(0.20)	1.30
MW-7	54.40	6.08	319.00	28.90	ND(0.20)	ND(0.11)
MW-7U-95	15.60	ND(5.00)	146.00	ND(20.0)	ND(0.20)	0.73
MW-10U-01	14.50	ND(5.00)	197.00	ND(20.0)	ND(0.20)	3.30
MW-11U-01	43.00	ND(5.00)	123.00	ND(20.0)	ND(0.20)	0.63
SW-2	20.50	5.15	470.00	28.9	ND(0.20)	1.70
SW-3	23.80	ND(5.00)	94.60	26.30	3.00	ND(0.11)
SW-8	10.90	ND(5.00)	318.00	ND(20.0)	ND(0.20)	ND(0.11)
SW-9	16.70	ND(5.00)	74.30	ND(20.0)	ND(0.20)	ND(0.11)
Bedrock Wells						
DW-1-95	49.70	ND(5.00)	254.00	21.00	ND(0.20)	ND(0.11)
DW-2-95	76.40	ND(5.00)	561.00	39.50	ND(0.20)	ND(0.11)
MW-1D-91	31.20	5.06	109.00	23.70	4.30	ND(0.11)
MW-5D-91	115.00	43.80	424.00	23.70	ND(0.20)	ND(0.11)
MW-6D-95	ND(5.00)	ND(5.00)	211.00	ND(20.0)	ND(0.20)	4.10
MW-10D-01	62.70	24.00	371.00	ND(20.0)	ND(0.20)	ND(0.11)
MW-11D-01	55.10	11.70	169.00	ND(20.0)	ND(0.20)	ND(0.11)
MW-16D-13	169.00	8.95	52.30	41.00	ND(0.20)	ND(0.11)
MW-17D-13	14.20	5.25	760.00	64.10	ND(0.20)	ND(0.11)
MW-18D-13	23.30	ND(5.00)	117.00	ND(20.0)	ND(0.20)	0.34
MW-19D-13	48.40	7.35	331.00	30.80	2.90	0.13
MW-20D-13	13.60	ND(5.00)	358.00	43.60	ND(0.20)	ND(0.11)
MW-21D-13	27.70	ND(5.00)	127.00	ND(20.0)	ND(0.20)	ND(0.11)
MW-22D-13	ND(5.00)	ND(5.00)	514.00	57.90	ND(0.20)	ND(0.11)
QA/QC						
BD-1	55.60	6.04	341.00	31.6	ND(0.20)	ND(0.11)

Notes:

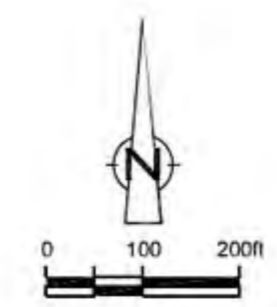
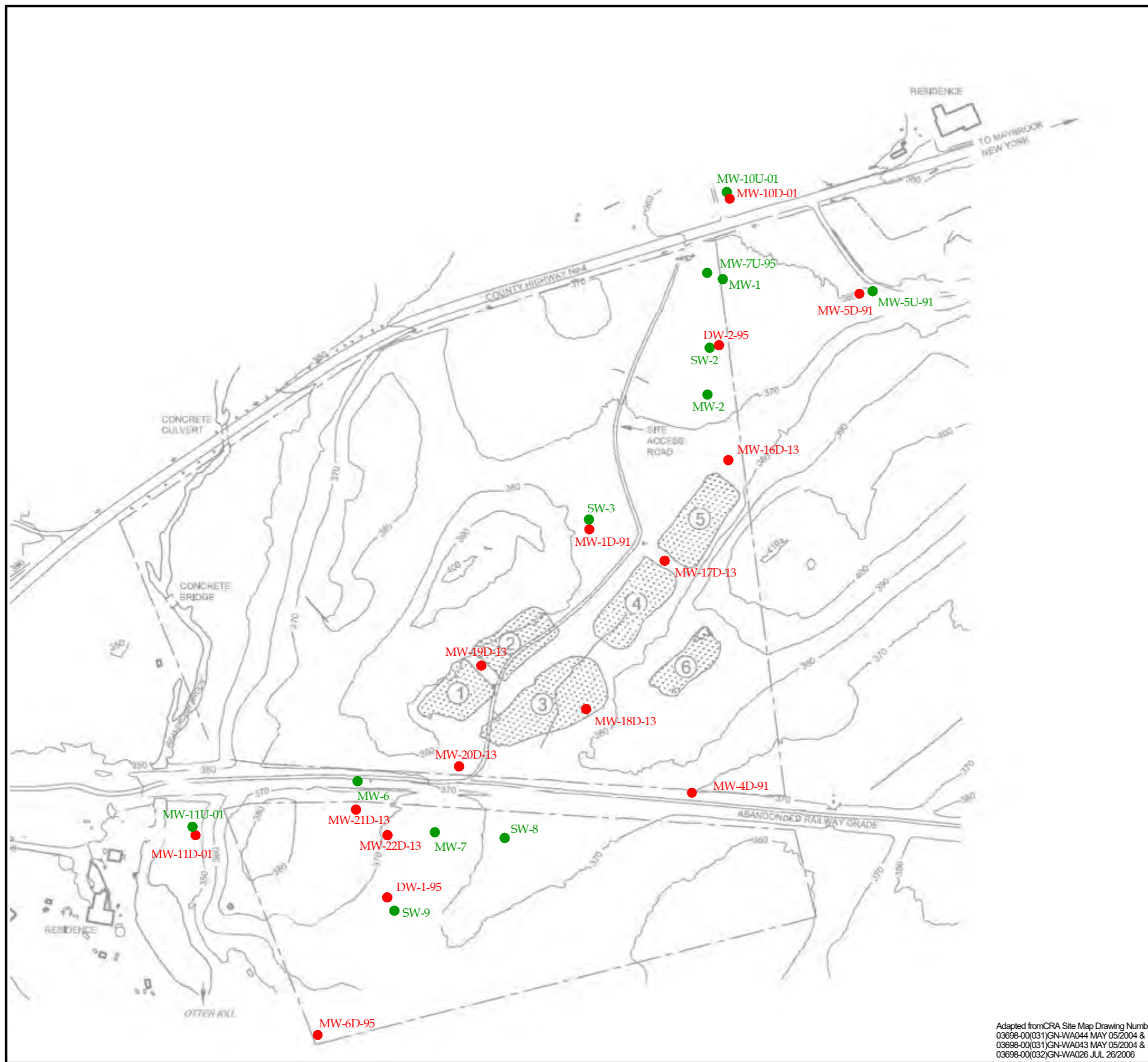
ND(): Compound not detected at Reporting Limit

Comparative Standards: New York State Department of Environmental Conservation Class GA







Ambient Water Quality Standards for Source of Drinking Water Title 6 Part 703 (per August 1999 Amendment)

NA: Data not available; minimal or no water column

NS: No Standard



LEGEND

-  ELEVATION CONTOUR
-  SITE PROPERTY BOUNDARY
-  APPROXIMATE LOCATION OF LAGOON (SUPERIMPOSED FROM 6/24/63 AERIAL PHOTOGRAPH)
-  LAGOON IDENTIFICATION NUMBER
-  MW-11U-01 OVERBURDEN MONITORING WELL LOCATION
-  MW-5D-91 BEDROCK MONITORING WELL LOCATION

Adapted from CRA Site Map Drawing Numbers
 03698-00(031)GN-WA044 MAY 05/2004 &
 03698-00(031)GN-WA043 MAY 05/2004 &
 03698-00(032)GN-WA026 JUL 26/2006

Title: Monitoring Well Location Map	
Project: Nepera Chemical Company Superfund Site Hamptonburgh, New York	Date: 11/27/13
	Figure: 1
R & C Formation, Ltd. Professional Groundwater and Environmental Services 171 Deer Park Ave., Suite 3 Babylon, New York 11702	Scale: As Shown
	Drawing No.: FLS1113-03
	Prepared By: MAC
	Appr. By: RNC

ATTACHMENT J
APRIL 2021 GROUNDWATER MONITORING DATA AND
MONITORING WELL LOCATION MAP

Table 2
Summary of Analytical Results - Volatile Organic Compounds
Nepera Chemical Company Superfund Site, Hamptonburgh, NY
Groundwater Sampled April 28-29, 2021

Reported in Micrograms per Liter (µg/L)

	Acetone	Benzene	Bromodichloro- methane	Bromoform	Bromomethane	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform
Comparative Standards	<i>50.0</i>	<i>1.0</i>	<i>50.0 GV</i>	<i>50.0 GV</i>	<i>5.0</i>	<i>5.0</i>	<i>5.0</i>	<i>5.0</i>	<i>7.0</i>
Overburden Wells									
MW-1	ND(3.10)	ND(0.43)	ND(0.45)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
MW-2	ND(3.10)	6.20	ND(0.45)	ND(0.63)	ND(1.60)	ND(0.55)	3.70	ND(0.73)	ND(0.50)
MW-4D-91	ND(3.10)	ND(0.43)	ND(0.45)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
MW-5U-91	ND(3.10)	ND(0.43)	ND(0.45)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
MW-7	ND(3.10)	5.60	ND(0.45)	ND(0.63)	ND(1.60)	ND(0.55)	1.70	ND(0.73)	ND(0.50)
MW-7U-95	ND(6.00)	ND(0.43)	ND(0.45)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
MW-10U-01	ND(6.00)	ND(0.43)	ND(0.45)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
MW-11U-01	ND(3.10)	ND(0.43)	ND(0.45)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
SW-2	ND(3.10)	5.20	ND(0.45)	ND(0.63)	ND(1.60)	ND(0.55)	2.80	ND(0.73)	ND(0.50)
SW-3	ND(3.10)	ND(0.43)	ND(0.45)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
SW-8	ND(3.10)	13.40	ND(0.45)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
SW-9	ND(3.10)	ND(0.43)	ND(0.45)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
Bedrock Wells									
DW-1-95	10.40	14.30	ND(0.45)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
DW-2-95	7.50 J	2.00	ND(0.45)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
MW-1D-91	ND(3.10)	7.60	ND(0.45)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
MW-5D-91	ND(3.10)	ND(0.43)	ND(0.45)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
MW-6D-95	ND(3.10)	ND(0.43)	ND(0.45)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
MW-10D-01	ND(6.00)	ND(0.43)	ND(0.45)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
MW-11D-01	ND(3.10)	ND(0.43)	ND(0.45)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
MW-16D-13	ND(3.10)	ND(0.43)	ND(0.45)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
MW-17D-13	ND(3.10)	20.20	ND(0.45)	ND(0.63)	ND(1.60)	ND(0.55)	2.20	ND(0.73)	ND(0.50)
MW-18D-13	ND(3.10)	ND(0.43)	ND(0.45)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
MW-19D-13	ND(3.10)	23.20	ND(0.45)	ND(0.63)	ND(1.60)	ND(0.55)	2.10	ND(0.73)	ND(0.50)
MW-20D-13	ND(3.10)	107.00	ND(0.45)	ND(0.63)	ND(1.60)	ND(0.55)	3.70	ND(0.73)	ND(0.50)
MW-21D-13	ND(3.10)	0.77	ND(0.45)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
MW-22D-13	ND(3.10)	190.00	ND(0.45)	ND(0.63)	ND(1.60)	ND(0.55)	5.50	ND(0.73)	ND(0.50)
QA/QC									
DUP	ND(3.10)	20.40	ND(0.45)	ND(0.63)	ND(1.60)	ND(0.55)	2.00	ND(0.73)	ND(0.50)
FB-1	ND(3.10)	ND(0.43)	ND(0.45)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
TB-1	ND(3.10)	ND(0.43)	ND(0.45)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)
TB-2	ND(3.10)	ND(0.43)	ND(0.45)	ND(0.63)	ND(1.60)	ND(0.55)	ND(0.56)	ND(0.73)	ND(0.50)

Table 2 (continued)

	Chloromethane	Dibromo- chloromethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodi- fluoromethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene
Comparative Standards	<i>5.0</i>	<i>50.0 GV</i>	<i>3.0</i>	<i>3.0</i>	<i>3.0</i>	<i>5.0</i>	<i>5.0</i>	<i>0.6</i>	<i>5.0</i>
Overburden Wells									
MW-1	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(0.56)	ND(0.57)	ND(0.60)	ND(0.59)
MW-2	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(0.56)	ND(0.57)	ND(0.60)	ND(0.59)
MW-4D-91	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(0.56)	ND(0.57)	ND(0.60)	ND(0.59)
MW-5U-91	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(0.56)	ND(0.57)	ND(0.60)	ND(0.59)
MW-7	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(0.56)	ND(0.57)	ND(0.60)	ND(0.59)
MW-7U-95	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(1.40)	ND(0.57)	ND(0.60)	ND(0.59)
MW-10U-01	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(1.40)	ND(0.57)	ND(0.60)	ND(0.59)
MW-11U-01	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(0.56)	ND(0.57)	ND(0.60)	ND(0.59)
SW-2	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(0.56)	ND(0.57)	ND(0.60)	ND(0.59)
SW-3	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(0.56)	ND(0.57)	ND(0.60)	ND(0.59)
SW-8	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(0.56)	ND(0.57)	ND(0.60)	ND(0.59)
SW-9	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(0.56)	ND(0.57)	ND(0.60)	ND(0.59)
Bedrock Wells									
DW-1-95	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(0.56)	ND(0.57)	ND(0.60)	ND(0.59)
DW-2-95	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(0.56)	ND(0.57)	ND(0.60)	ND(0.59)
MW-1D-91	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(0.56)	ND(0.57)	ND(0.60)	ND(0.59)
MW-5D-91	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(0.56)	ND(0.57)	ND(0.60)	ND(0.59)
MW-6D-95	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(0.56)	ND(0.57)	ND(0.60)	ND(0.59)
MW-10D-01	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(1.40)	ND(0.57)	ND(0.60)	ND(0.59)
MW-11D-01	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(1.40)	ND(0.57)	ND(0.60)	ND(0.59)
MW-16D-13	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(0.56)	ND(0.57)	ND(0.60)	ND(0.59)
MW-17D-13	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(0.56)	ND(0.57)	ND(0.60)	ND(0.59)
MW-18D-13	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(0.56)	ND(0.57)	ND(0.60)	ND(0.59)
MW-19D-13	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(0.56)	ND(0.57)	ND(0.60)	ND(0.59)
MW-20D-13	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(0.56)	ND(0.57)	ND(0.60)	ND(0.59)
MW-21D-13	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(0.56)	ND(0.57)	ND(0.60)	ND(0.59)
MW-22D-13	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(0.56)	ND(0.57)	ND(0.60)	ND(0.59)
QA/QC									
DUP	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(0.56)	ND(0.57)	ND(0.60)	ND(0.59)
FB-1	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(0.56)	ND(0.57)	ND(0.60)	ND(0.59)
TB-1	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(0.56)	ND(0.57)	ND(0.60)	ND(0.59)
TB-2	ND(0.76)	ND(0.56)	ND(0.53)	ND(0.54)	ND(0.51)	ND(0.56)	ND(0.57)	ND(0.60)	ND(0.59)

Table 2 (continued)

	cis-1,2-Dichloroethene	trans-1,3-Dichloroethene	1,2-Dichloropropane	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene	Methylene chloride	1,1,2,2-Tetrachloroethane	Tetrachloroethene
Comparative Standards	5.0	5.0	1.0	0.4	0.4	5.0	5.0	5.0	5.0
Overburden Wells									
MW-1	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
MW-2	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
MW-4D-91	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
MW-5U-91	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
MW-7	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
MW-7U-95	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
MW-10U-01	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
MW-11U-01	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
SW-2	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
SW-3	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
SW-8	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
SW-9	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
Bedrock Wells									
DW-1-95	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
DW-2-95	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
MW-1D-91	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
MW-5D-91	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
MW-6D-95	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
MW-10D-01	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
MW-11D-01	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
MW-16D-13	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
MW-17D-13	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
MW-18D-13	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
MW-19D-13	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
MW-20D-13	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
MW-21D-13	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
MW-22D-13	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	5.00	ND(1.00)	ND(0.65)	ND(0.90)
QA/QC									
DUP	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
FB-1	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
TB-1	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)
TB-2	ND(0.51)	ND(0.54)	ND(0.51)	ND(0.47)	ND(0.43)	ND(0.60)	ND(1.00)	ND(0.65)	ND(0.90)

Table 2 (continued)

	Toluene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Trichloro-fluoromethane	Vinyl chloride	Xylene (total)
Comparative Standards	<i>5.0</i>	<i>5.0</i>	<i>1.0</i>	<i>5.0</i>	<i>5.0</i>	<i>2.0</i>	<i>5.0</i>
Overburden Wells							
MW-1	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.40)	ND(0.79)	ND(0.59)
MW-2	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.40)	ND(0.79)	ND(0.59)
MW-4D-91	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.40)	ND(0.79)	ND(0.59)
MW-5U-91	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.40)	ND(0.79)	ND(0.59)
MW-7	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.40)	ND(0.79)	ND(0.59)
MW-7U-95	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.40)	ND(0.79)	ND(0.59)
MW-10U-01	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.40)	ND(0.79)	ND(0.59)
MW-11U-01	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.40)	ND(0.79)	ND(0.59)
SW-2	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.40)	ND(0.79)	ND(0.59)
SW-3	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.40)	ND(0.79)	ND(0.59)
SW-8	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.40)	ND(0.79)	ND(0.59)
SW-9	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.40)	ND(0.79)	ND(0.59)
Bedrock Wells							
DW-1-95	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.40)	ND(0.79)	ND(0.59)
DW-2-95	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.40)	ND(0.79)	ND(0.59)
MW-1D-91	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.40)	ND(0.79)	ND(0.59)
MW-5D-91	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.40)	ND(0.79)	ND(0.59)
MW-6D-95	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.40)	ND(0.79)	ND(0.59)
MW-10D-01	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.40)	ND(0.79)	ND(0.59)
MW-11D-01	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.40)	ND(0.79)	ND(0.59)
MW-16D-13	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.40)	ND(0.79)	ND(0.59)
MW-17D-13	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.40)	ND(0.79)	ND(0.59)
MW-18D-13	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.40)	ND(0.79)	ND(0.59)
MW-19D-13	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.40)	ND(0.79)	ND(0.59)
MW-20D-13	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.40)	ND(0.79)	3.60
MW-21D-13	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.40)	ND(0.79)	ND(0.59)
MW-22D-13	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.40)	ND(0.79)	5.70
QA/QC							
DUP	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.40)	ND(0.79)	ND(0.59)
FB-1	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.40)	ND(0.79)	ND(0.59)
TB-1	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.40)	ND(0.79)	ND(0.59)
TB-2	ND(0.53)	ND(0.54)	ND(0.53)	ND(0.53)	ND(0.40)	ND(0.79)	ND(0.59)

Notes:

ND(): Compound not detected at Method Detection limit

NA: Data not available

Comparative Standards: New York State Department of Environmental Conservation Class GA

Ambient Water Quality Standards for Source of Drinking Water Title 6 Part 703
and site specific cleanup levels (Record of Decision, July, 2011)

J: Indicates estimated value

Benzene, Chlorobenzene, ethylbenzene, toluene, xylene, and
acetone

GV: NYSDEC Class GA Guidance Value for Source of Drinking Water

Table 3
Summary of Analytical Results - Semi-Volatile Organic Compounds
Nepera Chemical Company Superfund Site, Hamptonburgh, NY
Groundwater Sampled April 28-29, 2021

Reported in Micrograms per Liter (µg/L)

	2-Chlorophenol	4-Chloro-3-methyl phenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	4,6-Dinitro-o-cresol	2-Methylphenol	3&4-Methylphenol	2-Nitrophenol	4-Nitrophenol
Comparative Standards	<i>NS</i>	<i>NS</i>	<i>5.0</i>	<i>50.0</i>	<i>10.0</i>	<i>NS</i>	<i>NS</i>	<i>NS</i>	<i>NS</i>	<i>NS</i>
Overburden Wells										
MW-1	ND(0.86)	ND(0.94)	ND(1.30)	ND(2.60)	ND(1.60)	ND(1.40)	ND(0.93)	ND(0.93)	ND(1.00)	ND(1.20)
MW-2	ND(0.96)	ND(1.00)	ND(1.50)	ND(2.90)	ND(1.80)	ND(1.50)	ND(1.00)	ND(1.00)	ND(1.10)	ND(1.40)
MW-4D-91	ND(0.91)	ND(0.99)	ND(1.40)	ND(2.70)	ND(1.70)	ND(1.40)	ND(0.99)	ND(0.98)	ND(1.10)	ND(1.30)
MW-5U-91	ND(0.82)	ND(0.89)	ND(1.30)	ND(2.40)	ND(1.60)	ND(1.30)	ND(0.89)	ND(0.88)	ND(0.96)	ND(1.20)
MW-7	ND(0.91)	ND(0.99)	ND(1.40)	ND(2.70)	ND(1.70)	ND(1.40)	ND(0.99)	ND(0.98)	ND(1.10)	ND(1.30)
MW-7U-95	ND(0.86)	ND(0.94)	ND(1.30)	ND(2.60)	ND(1.60)	ND(1.40)	ND(0.93)	ND(0.93)	ND(1.00)	ND(1.20)
MW-10U-01	ND(0.80)	ND(0.87)	ND(1.20)	ND(2.40)	ND(1.50)	ND(1.30)	ND(0.87)	ND(0.86)	ND(0.94)	ND(1.10)
MW-11U-01	ND(0.82)	ND(0.89)	ND(1.30)	ND(2.40)	ND(1.60)	ND(1.30)	ND(0.89)	ND(0.88)	ND(0.96)	ND(1.20)
SW-2	ND(0.81)	ND(0.88)	ND(1.30)	ND(2.40)	ND(1.50)	ND(1.30)	ND(0.88)	ND(0.87)	ND(0.95)	ND(1.10)
SW-3	ND(1.00)	ND(1.10)	ND(1.50)	ND(3.00)	ND(1.90)	ND(1.60)	ND(1.10)	ND(1.10)	ND(1.20)	ND(1.40)
SW-8	ND(0.82)	ND(0.89)	ND(1.30)	ND(2.70)	ND(1.60)	ND(1.30)	ND(0.89)	1.10 J	ND(0.96)	ND(1.20)
SW-9	ND(0.85)	ND(0.93)	ND(1.30)	ND(2.50)	ND(1.60)	ND(1.40)	ND(0.93)	ND(0.92)	ND(1.00)	ND(1.20)
Bedrock Wells										
DW-1-95	ND(0.88)	ND(0.96)	ND(1.40)	ND(2.60)	ND(1.70)	ND(1.40)	ND(0.95)	ND(0.95)	ND(1.00)	ND(1.20)
DW-2-95	ND(0.82)	ND(0.89)	ND(1.30)	ND(2.40)	ND(1.60)	ND(1.30)	ND(0.89)	ND(0.88)	ND(0.96)	ND(1.20)
MW-1D-91	ND(0.82)	ND(0.89)	ND(1.30)	ND(2.40)	ND(1.60)	ND(1.30)	ND(0.89)	ND(0.88)	ND(0.96)	ND(1.20)
MW-5D-91	ND(0.82)	ND(0.89)	ND(1.30)	ND(2.40)	ND(1.60)	ND(1.30)	ND(0.89)	ND(0.88)	ND(0.96)	ND(1.20)
MW-6D-95	ND(0.82)	ND(0.89)	ND(1.30)	ND(2.40)	ND(1.60)	ND(1.30)	ND(0.89)	ND(0.88)	ND(0.96)	ND(1.20)
MW-10D-01	ND(0.84)	ND(0.91)	ND(1.30)	ND(2.50)	ND(1.60)	ND(1.30)	ND(0.91)	ND(0.90)	ND(0.98)	ND(1.20)
MW-11D-01	ND(0.80)	ND(0.87)	ND(1.20)	ND(2.60)	ND(1.50)	ND(1.30)	ND(0.86)	ND(0.85)	ND(0.93)	ND(1.10)
MW-16D-13	ND(0.82)	ND(0.89)	ND(1.30)	ND(2.40)	ND(1.60)	ND(1.30)	ND(0.89)	ND(0.88)	ND(0.96)	ND(1.20)
MW-17D-13	ND(0.91)	ND(0.99)	ND(1.40)	ND(2.70)	ND(1.70)	ND(1.40)	ND(0.99)	ND(0.98)	ND(1.10)	ND(1.30)
MW-18D-13	ND(0.82)	ND(0.89)	ND(1.30)	ND(2.40)	ND(1.60)	ND(1.30)	ND(0.89)	ND(0.88)	ND(0.96)	ND(1.20)
MW-19D-13	ND(0.91)	ND(0.99)	ND(1.40)	ND(2.70)	ND(1.70)	ND(1.40)	ND(0.99)	ND(0.98)	ND(1.10)	ND(1.30)
MW-20D-13	ND(0.91)	ND(0.99)	ND(1.40)	ND(2.70)	ND(1.70)	ND(1.40)	ND(0.99)	ND(0.98)	ND(1.10)	ND(1.30)
MW-21D-13	ND(0.82)	ND(0.89)	ND(1.30)	ND(2.40)	ND(1.60)	ND(1.30)	ND(0.89)	ND(0.88)	ND(0.96)	ND(1.20)
MW-22D-13	ND(0.91)	ND(0.99)	ND(1.40)	ND(2.70)	ND(1.70)	ND(1.40)	ND(0.99)	ND(0.98)	ND(1.10)	ND(1.30)
QA/QC										
DUP	ND(1.00)	ND(1.10)	ND(1.60)	ND(3.10)	ND(1.90)	ND(1.60)	ND(1.10)	ND(1.10)	ND(1.20)	ND(1.40)

Table 3 (continued)

	Pentachloro-phenol	Phenol	2,3,4,6-Tetrachlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	Acenaphthene	Acenaphthylene	Acetophenone	Anthracene	Atrazine
Comparative Standards	<i>1.0</i>	<i>1.0</i>	<i>NS</i>	<i>NS</i>	<i>NS</i>	<i>20.0 GP</i>	<i>NS</i>	<i>NS</i>	<i>50.0 GP</i>	<i>7.5</i>
Overburden Wells										
MW-1	ND(1.50)	ND(0.41)	ND(1.50)	ND(1.40)	ND(0.97)	ND(0.20)	ND(0.14)	ND(0.22)	ND(0.22)	ND(0.47)
MW-2	ND(1.60)	ND(0.46)	ND(1.70)	ND(1.60)	ND(1.10)	ND(0.22)	ND(0.16)	ND(0.24)	ND(0.25)	ND(0.53)
MW-4D-91	ND(1.50)	ND(0.44)	ND(1.60)	ND(1.50)	ND(1.00)	ND(0.21)	ND(0.15)	ND(0.23)	ND(0.23)	ND(0.50)
MW-5U-91	ND(1.40)	ND(0.39)	ND(1.50)	ND(1.30)	ND(0.92)	ND(0.19)	ND(0.14)	ND(0.21)	ND(0.21)	ND(0.45)
MW-7	ND(1.50)	ND(0.44)	ND(1.60)	ND(1.50)	ND(1.00)	ND(0.21)	ND(0.15)	ND(0.23)	ND(0.23)	ND(0.50)
MW-7U-95	ND(1.50)	ND(0.41)	ND(1.50)	ND(1.40)	ND(0.97)	ND(0.20)	ND(0.14)	ND(0.22)	ND(0.22)	ND(0.47)
MW-10U-01	ND(1.40)	ND(0.38)	ND(1.40)	ND(1.30)	ND(0.91)	ND(0.19)	ND(0.13)	ND(0.20)	ND(0.21)	ND(0.44)
MW-11U-01	ND(1.40)	ND(0.39)	ND(1.50)	ND(1.30)	ND(0.92)	ND(0.19)	ND(0.14)	ND(0.21)	ND(0.21)	ND(0.45)
SW-2	ND(1.40)	ND(0.39)	ND(1.40)	ND(1.30)	ND(0.91)	ND(0.19)	ND(0.13)	ND(0.21)	ND(0.21)	ND(0.44)
SW-3	ND(1.70)	ND(0.48)	ND(1.80)	ND(1.60)	ND(1.10)	ND(0.23)	ND(0.17)	ND(0.25)	ND(0.26)	ND(0.55)
SW-8	ND(1.40)	ND(0.39)	ND(1.50)	ND(1.30)	ND(0.92)	ND(0.19)	ND(0.14)	ND(0.21)	ND(0.21)	ND(0.45)
SW-9	ND(1.40)	ND(0.41)	ND(1.50)	ND(1.40)	ND(0.96)	ND(0.20)	ND(0.14)	ND(0.22)	ND(0.22)	ND(0.47)
Bedrock Wells										
DW-1-95	ND(1.50)	3.90	ND(1.60)	ND(1.40)	ND(0.99)	ND(0.21)	ND(0.15)	0.89 J	ND(0.23)	ND(0.48)
DW-2-95	ND(1.40)	1.90 J	ND(1.50)	ND(1.30)	ND(0.92)	ND(0.19)	ND(0.14)	0.70 J	ND(0.21)	ND(0.45)
MW-1D-91	ND(1.40)	ND(0.39)	ND(1.50)	ND(1.30)	ND(0.92)	ND(0.19)	ND(0.14)	ND(0.21)	ND(0.21)	ND(0.45)
MW-5D-91	ND(1.40)	ND(0.39)	ND(1.50)	ND(1.30)	ND(0.92)	ND(0.19)	ND(0.14)	ND(0.21)	ND(0.21)	ND(0.45)
MW-6D-95	ND(1.40)	ND(0.39)	ND(1.50)	ND(1.30)	ND(0.92)	ND(0.19)	ND(0.14)	ND(0.21)	ND(0.21)	ND(0.45)
MW-10D-01	ND(1.40)	ND(0.40)	ND(1.50)	ND(1.40)	ND(0.94)	ND(0.19)	ND(0.14)	ND(0.21)	ND(0.22)	ND(0.46)
MW-11D-01	ND(1.30)	ND(0.38)	ND(1.40)	ND(1.30)	ND(0.90)	ND(0.19)	ND(0.13)	ND(0.20)	ND(0.20)	ND(0.43)
MW-16D-13	ND(1.40)	ND(0.39)	ND(1.50)	ND(1.30)	ND(0.92)	ND(0.19)	ND(0.14)	ND(0.21)	ND(0.21)	ND(0.45)
MW-17D-13	ND(1.50)	ND(0.44)	ND(1.60)	ND(1.50)	ND(1.00)	ND(0.21)	ND(0.15)	ND(0.23)	ND(0.23)	ND(0.50)
MW-18D-13	ND(1.40)	ND(0.39)	ND(1.50)	ND(1.30)	ND(0.92)	ND(0.19)	ND(0.14)	ND(0.21)	ND(0.21)	ND(0.45)
MW-19D-13	ND(1.50)	ND(0.44)	ND(1.60)	ND(1.50)	ND(1.00)	ND(0.21)	ND(0.15)	ND(0.23)	ND(0.24)	ND(0.50)
MW-20D-13	ND(1.50)	ND(0.44)	ND(1.60)	ND(1.50)	ND(1.00)	ND(0.21)	ND(0.15)	ND(0.23)	ND(0.23)	ND(0.50)
MW-21D-13	ND(1.40)	ND(0.39)	ND(1.50)	ND(1.30)	ND(0.92)	ND(0.19)	ND(0.14)	ND(0.21)	ND(0.21)	ND(0.45)
MW-22D-13	ND(1.50)	ND(0.44)	ND(1.60)	ND(1.50)	ND(1.00)	ND(0.21)	ND(0.15)	ND(0.23)	ND(0.23)	ND(0.50)
QA/QC										
DUP	ND(1.70)	ND(0.49)	ND(1.80)	ND(1.70)	ND(1.20)	ND(0.24)	ND(0.17)	ND(0.26)	ND(0.26)	ND(0.56)

Table 3 (continued)

	Benzaldehyde	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	4-Bromophenyl phenyl ether	Butyl benzyl phthalate	1,1'-Biphenyl	2-Chloronaphthalene
Comparative Standards	NS	0.002 GV	ND	0.002 GV	NS	0.002 GV	NS	50.0 GV	5.0	10.0 GV
Overburden Wells										
MW-1	ND(0.30)	ND(0.21)	ND(0.22)	ND(0.22)	ND(0.36)	ND(0.22)	ND(0.43)	ND(0.48)	ND(0.22)	ND(0.25)
MW-2	0.40 J	ND(0.24)	ND(0.25)	ND(0.24)	ND(0.40)	ND(0.24)	ND(0.48)	ND(0.54)	ND(0.25)	ND(0.28)
MW-4D-91	ND(0.32)	ND(0.23)	ND(0.24)	ND(0.23)	ND(0.38)	ND(0.23)	ND(0.45)	ND(0.51)	ND(0.24)	ND(0.26)
MW-5U-91	ND(0.29)	ND(0.20)	ND(0.21)	ND(0.21)	ND(0.34)	ND(0.21)	ND(0.40)	ND(0.46)	ND(0.21)	ND(0.24)
MW-7	ND(0.32)	ND(0.23)	ND(0.24)	ND(0.23)	ND(0.38)	ND(0.23)	ND(0.45)	ND(0.51)	ND(0.24)	ND(0.26)
MW-7U-95	ND(0.30)	ND(0.21)	ND(0.22)	ND(0.22)	ND(0.36)	ND(0.22)	ND(0.43)	ND(0.48)	ND(0.22)	ND(0.25)
MW-10U-01	ND(0.28)	ND(0.20)	ND(0.21)	ND(0.20)	ND(0.33)	ND(0.20)	ND(0.40)	ND(0.45)	ND(0.21)	ND(0.23)
MW-11U-01	ND(0.29)	ND(0.20)	ND(0.21)	ND(0.21)	ND(0.34)	ND(0.21)	ND(0.40)	ND(0.46)	ND(0.21)	ND(0.24)
SW-2	ND(0.29)	ND(0.20)	ND(0.21)	ND(0.20)	ND(0.34)	ND(0.20)	ND(0.40)	ND(0.45)	ND(0.21)	ND(0.23)
SW-3	ND(0.35)	ND(0.25)	ND(0.26)	ND(0.25)	ND(0.42)	ND(0.25)	ND(0.49)	ND(0.56)	ND(0.26)	ND(0.29)
SW-8	ND(0.29)	ND(0.20)	ND(0.21)	ND(0.21)	ND(0.34)	ND(0.21)	ND(0.40)	ND(0.46)	ND(0.21)	ND(0.24)
SW-9	ND(0.30)	ND(0.21)	ND(0.22)	ND(0.21)	ND(0.36)	ND(0.21)	ND(0.42)	ND(0.48)	ND(0.22)	ND(0.25)
Bedrock Wells										
DW-1-95	ND(0.31)	ND(0.22)	ND(0.23)	ND(0.22)	ND(0.37)	ND(0.22)	ND(0.43)	ND(0.49)	ND(0.23)	ND(0.25)
DW-2-95	ND(0.29)	ND(0.20)	ND(0.21)	ND(0.21)	ND(0.34)	ND(0.21)	ND(0.40)	ND(0.46)	ND(0.21)	ND(0.24)
MW-1D-91	ND(0.29)	ND(0.20)	ND(0.21)	ND(0.21)	ND(0.34)	ND(0.21)	ND(0.40)	ND(0.46)	ND(0.21)	ND(0.24)
MW-5D-91	ND(0.29)	ND(0.20)	ND(0.21)	ND(0.21)	ND(0.34)	ND(0.21)	ND(0.40)	ND(0.46)	ND(0.21)	ND(0.24)
MW-6D-95	ND(0.29)	ND(0.20)	ND(0.21)	ND(0.20)	ND(0.34)	ND(0.21)	ND(0.40)	ND(0.46)	ND(0.21)	ND(0.24)
MW-10D-01	ND(0.29)	ND(0.21)	ND(0.22)	ND(0.21)	ND(0.35)	ND(0.21)	ND(0.41)	ND(0.47)	ND(0.22)	ND(0.24)
MW-11D-01	ND(0.28)	ND(0.20)	ND(0.21)	ND(0.20)	ND(0.33)	ND(0.20)	ND(0.39)	ND(0.44)	ND(0.21)	ND(0.23)
MW-16D-13	ND(0.29)	ND(0.20)	ND(0.21)	ND(0.21)	ND(0.34)	ND(0.21)	ND(0.40)	ND(0.46)	ND(0.21)	ND(0.24)
MW-17D-13	ND(0.32)	ND(0.23)	ND(0.24)	ND(0.23)	ND(0.38)	ND(0.23)	ND(0.45)	ND(0.51)	ND(0.24)	ND(0.26)
MW-18D-13	ND(0.29)	ND(0.20)	ND(0.21)	ND(0.21)	ND(0.34)	ND(0.21)	ND(0.40)	ND(0.46)	ND(0.21)	ND(0.24)
MW-19D-13	0.52 J	ND(0.23)	ND(0.24)	ND(0.23)	ND(0.38)	ND(0.23)	ND(0.45)	ND(0.51)	ND(0.24)	ND(0.26)
MW-20D-13	ND(0.32)	ND(0.23)	ND(0.24)	ND(0.23)	ND(0.38)	ND(0.23)	ND(0.45)	ND(0.51)	ND(0.24)	ND(0.26)
MW-21D-13	ND(0.29)	ND(0.20)	ND(0.21)	ND(0.21)	ND(0.34)	ND(0.21)	ND(0.40)	ND(0.46)	ND(0.21)	ND(0.24)
MW-22D-13	ND(0.32)	ND(0.23)	ND(0.24)	ND(0.23)	ND(0.38)	ND(0.23)	ND(0.45)	ND(0.51)	ND(0.24)	ND(0.26)
QA/QC										
DUP	ND(0.36)	ND(0.25)	ND(0.27)	ND(0.26)	ND(0.43)	ND(0.26)	ND(0.51)	ND(0.57)	ND(0.27)	ND(0.30)

Table 3 (continued)

	4-Chloroaniline	Carbazole	Caprolactam	Chrysene	bis(2-Chloroethoxy) methane	bis(2-Chloroethyl) ether	2,2'-Oxybis(1- chloropropane)	4-Chlorophenyl phenyl ether	2,4- Dinitrotoluene	2,6- Dinitrotoluene
Comparative Standards	5.0	NS	NS	0.002 GV	5.0	1.0	5.0	NS	5.0	5.0
Overburden Wells										
MW-1	ND(0.36)	ND(0.24)	ND(0.68)	ND(0.19)	ND(0.29)	ND(0.26)	ND(0.42)	ND(0.39)	ND(0.58)	ND(0.50)
MW-2	ND(0.40)	ND(0.27)	ND(0.76)	ND(0.21)	ND(0.33)	ND(0.29)	ND(0.47)	ND(0.43)	ND(0.65)	ND(0.56)
MW-4D-91	ND(0.38)	ND(0.25)	ND(0.72)	ND(0.20)	ND(0.31)	ND(0.28)	ND(0.45)	ND(0.41)	ND(0.61)	ND(0.53)
MW-5U-91	ND(0.34)	ND(0.23)	ND(0.65)	ND(0.18)	ND(0.28)	ND(0.25)	ND(0.40)	ND(0.37)	ND(0.55)	ND(0.48)
MW-7	6.70	ND(0.25)	ND(0.72)	ND(0.20)	ND(0.31)	ND(0.28)	ND(0.45)	ND(0.41)	ND(0.61)	ND(0.53)
MW-7U-95	ND(0.36)	ND(0.24)	ND(0.68)	ND(0.19)	ND(0.29)	ND(0.26)	ND(0.42)	ND(0.39)	ND(0.58)	ND(0.50)
MW-10U-01	ND(0.33)	ND(0.22)	ND(0.64)	ND(0.17)	ND(0.27)	ND(0.24)	ND(0.40)	ND(0.36)	ND(0.54)	ND(0.47)
MW-11U-01	ND(0.34)	ND(0.23)	ND(0.65)	ND(0.18)	ND(0.28)	ND(0.25)	ND(0.40)	ND(0.37)	ND(0.55)	ND(0.48)
SW-2	ND(0.34)	ND(0.23)	ND(0.64)	ND(0.17)	ND(0.28)	ND(0.25)	ND(0.40)	ND(0.36)	ND(0.55)	ND(0.47)
SW-3	ND(0.41)	ND(0.28)	ND(0.79)	ND(0.21)	ND(0.34)	ND(0.30)	ND(0.49)	ND(0.45)	ND(0.67)	ND(0.58)
SW-8	ND(0.34)	ND(0.23)	ND(0.65)	ND(0.18)	ND(0.28)	ND(0.25)	ND(0.40)	ND(0.37)	ND(0.55)	ND(0.48)
SW-9	ND(0.35)	ND(0.24)	ND(0.68)	ND(0.18)	ND(0.29)	ND(0.26)	ND(0.42)	ND(0.38)	ND(0.58)	ND(0.50)
Bedrock Wells										
DW-1-95	3.40 J	ND(0.25)	ND(0.70)	ND(0.19)	ND(0.30)	ND(0.27)	ND(0.43)	ND(0.39)	ND(0.59)	ND(0.51)
DW-2-95	ND(0.34)	ND(0.23)	ND(0.65)	ND(0.18)	ND(0.28)	ND(0.25)	ND(0.40)	ND(0.37)	ND(0.55)	ND(0.48)
MW-1D-91	ND(0.34)	ND(0.23)	ND(0.65)	ND(0.18)	ND(0.28)	ND(0.25)	ND(0.40)	ND(0.37)	ND(0.55)	ND(0.48)
MW-5D-91	ND(0.34)	ND(0.23)	ND(0.65)	ND(0.18)	ND(0.28)	ND(0.25)	ND(0.40)	ND(0.37)	ND(0.55)	ND(0.48)
MW-6D-95	ND(0.34)	ND(0.23)	ND(0.65)	ND(0.18)	ND(0.28)	ND(0.25)	ND(0.40)	ND(0.37)	ND(0.55)	ND(0.48)
MW-10D-01	ND(0.35)	ND(0.23)	ND(0.66)	ND(0.18)	ND(0.28)	ND(0.25)	ND(0.41)	ND(0.39)	ND(0.56)	ND(0.49)
MW-11D-01	ND(0.33)	ND(0.22)	ND(0.63)	ND(0.17)	ND(0.27)	ND(0.24)	ND(0.39)	ND(0.36)	ND(0.54)	ND(0.46)
MW-16D-13	ND(0.34)	ND(0.23)	ND(0.65)	ND(0.18)	ND(0.28)	ND(0.25)	ND(0.40)	ND(0.37)	ND(0.55)	ND(0.48)
MW-17D-13	ND(0.38)	ND(0.25)	ND(0.72)	ND(0.20)	ND(0.31)	ND(0.28)	ND(0.45)	ND(0.41)	ND(0.61)	ND(0.53)
MW-18D-13	ND(0.34)	ND(0.23)	ND(0.65)	ND(0.18)	ND(0.28)	ND(0.25)	ND(0.40)	ND(0.37)	ND(0.55)	ND(0.48)
MW-19D-13	ND(0.38)	ND(0.25)	ND(0.72)	ND(0.20)	ND(0.31)	ND(0.28)	ND(0.45)	ND(0.41)	ND(0.61)	ND(0.53)
MW-20D-13	137.00	ND(0.25)	ND(0.72)	ND(0.20)	ND(0.31)	ND(0.28)	ND(0.45)	ND(0.41)	ND(0.61)	ND(0.53)
MW-21D-13	7.60	ND(0.23)	ND(0.65)	ND(0.18)	ND(0.28)	ND(0.25)	ND(0.40)	ND(0.37)	ND(0.55)	ND(0.48)
MW-22D-13	509.00	ND(0.25)	ND(0.72)	ND(0.20)	ND(0.31)	ND(0.28)	ND(0.45)	ND(0.41)	ND(0.61)	ND(0.53)
QA/QC										
DUP	8.60	ND(0.29)	ND(0.81)	ND(0.22)	ND(0.35)	ND(0.31)	ND(0.50)	ND(0.46)	ND(0.69)	ND(0.60)

Table 3 (continued)

	3,3'- Dichlorobenzidine	Dibenzo(a,h) anthracene	Dibenzofuran	Di-n-butyl phthalate	Di-n-octyl phthalate	Diethyl phthalate	Dimethyl phthalate	bis(2-Ethylhexyl) phthalate	Fluoranthene	Fluorene
Comparative Standards	5.0	NS	NS	50.0	NS	50.0 GV	50.0 GV	5.0	50.0 GV	50.0 GV
Overburden Wells										
MW-1	ND(0.53)	ND(0.35)	ND(0.23)	ND(0.52)	ND(0.25)	ND(0.28)	ND(0.23)	ND(1.70)	ND(0.18)	ND(0.18)
MW-2	ND(0.60)	ND(0.39)	ND(0.26)	ND(0.58)	ND(0.28)	ND(0.31)	ND(0.26)	ND(1.90)	ND(0.20)	ND(0.20)
MW-4D-91	ND(0.56)	ND(0.37)	ND(0.24)	ND(0.55)	ND(0.26)	ND(0.29)	ND(0.24)	ND(1.80)	ND(0.19)	ND(0.19)
MW-5U-91	ND(0.51)	ND(0.33)	ND(0.22)	ND(0.50)	ND(0.23)	ND(0.26)	ND(0.22)	ND(1.70)	ND(0.17)	ND(0.17)
MW-7	ND(0.56)	ND(0.37)	ND(0.24)	ND(0.55)	ND(0.26)	ND(0.29)	ND(0.24)	ND(1.80)	ND(0.19)	ND(0.19)
MW-7U-95	ND(0.53)	ND(0.35)	ND(0.23)	ND(0.52)	ND(0.25)	ND(0.28)	ND(0.23)	ND(1.70)	ND(0.18)	ND(0.18)
MW-10U-01	ND(0.50)	ND(0.32)	ND(0.22)	ND(0.49)	ND(0.23)	ND(0.26)	ND(0.21)	ND(1.60)	ND(0.17)	ND(0.17)
MW-11U-01	ND(0.51)	ND(0.33)	ND(0.22)	ND(0.50)	ND(0.23)	ND(0.26)	ND(0.22)	ND(1.70)	ND(0.17)	ND(0.17)
SW-2	ND(0.50)	ND(0.33)	ND(0.22)	ND(0.49)	ND(0.23)	ND(0.26)	ND(0.22)	ND(1.60)	ND(0.17)	ND(0.17)
SW-3	ND(0.62)	ND(0.40)	ND(0.27)	ND(0.60)	ND(0.29)	ND(0.32)	ND(0.27)	ND(2.00)	ND(0.21)	ND(0.21)
SW-8	ND(0.51)	ND(0.33)	ND(0.22)	ND(0.50)	ND(0.23)	ND(0.26)	ND(0.22)	ND(1.70)	ND(0.17)	ND(0.17)
SW-9	ND(0.53)	ND(0.34)	ND(0.23)	ND(0.52)	ND(0.24)	ND(0.27)	ND(0.23)	ND(1.70)	ND(0.18)	ND(0.18)
Bedrock Wells										
DW-1-95	ND(0.55)	ND(0.36)	ND(0.24)	ND(0.53)	ND(0.25)	ND(0.28)	ND(0.23)	1.90 J	ND(0.18)	ND(0.18)
DW-2-95	ND(0.51)	ND(0.33)	ND(0.22)	ND(0.50)	ND(0.23)	ND(0.26)	ND(0.22)	ND(1.70)	ND(0.17)	ND(0.17)
MW-1D-91	ND(0.51)	ND(0.33)	ND(0.22)	ND(0.50)	ND(0.23)	ND(0.26)	ND(0.22)	ND(1.70)	ND(0.17)	ND(0.17)
MW-5D-91	ND(0.51)	ND(0.33)	ND(0.22)	ND(0.50)	ND(0.23)	ND(0.26)	ND(0.22)	ND(1.70)	ND(0.17)	ND(0.17)
MW-6D-95	ND(0.51)	ND(0.33)	ND(0.22)	ND(0.50)	ND(0.23)	ND(0.26)	ND(0.22)	ND(1.70)	ND(0.17)	ND(0.17)
MW-10D-01	ND(0.52)	ND(0.34)	ND(0.22)	ND(0.51)	ND(0.24)	ND(0.27)	ND(0.22)	ND(1.70)	ND(0.17)	ND(0.17)
MW-11D-01	ND(0.49)	ND(0.32)	ND(0.21)	ND(0.48)	ND(0.23)	ND(0.25)	ND(0.21)	ND(1.60)	ND(0.17)	ND(0.17)
MW-16D-13	ND(0.51)	ND(0.33)	ND(0.22)	ND(0.50)	ND(0.23)	ND(0.26)	ND(0.22)	ND(1.70)	ND(0.17)	ND(0.17)
MW-17D-13	ND(0.56)	ND(0.37)	ND(0.24)	ND(0.55)	ND(0.26)	ND(0.29)	ND(0.24)	ND(1.80)	ND(0.19)	ND(0.19)
MW-18D-13	ND(0.51)	ND(0.33)	ND(0.22)	ND(0.50)	ND(0.23)	ND(0.26)	ND(0.22)	ND(1.70)	ND(0.17)	ND(0.17)
MW-19D-13	ND(0.56)	ND(0.37)	ND(0.24)	ND(0.55)	ND(0.26)	ND(0.29)	ND(0.24)	ND(1.80)	ND(0.19)	ND(0.19)
MW-20D-13	ND(0.56)	ND(0.37)	ND(0.24)	ND(0.55)	ND(0.26)	ND(0.29)	ND(0.24)	ND(1.80)	ND(0.19)	ND(0.19)
MW-21D-13	ND(0.51)	ND(0.33)	ND(0.22)	ND(0.50)	ND(0.23)	ND(0.26)	ND(0.22)	ND(1.70)	ND(0.17)	ND(0.17)
MW-22D-13	ND(0.56)	ND(0.37)	ND(0.24)	ND(0.55)	ND(0.26)	ND(0.29)	ND(0.24)	ND(1.80)	ND(0.19)	ND(0.19)
QA/QC										
DUP	ND(0.63)	ND(0.41)	ND(0.28)	ND(0.62)	ND(0.29)	ND(0.33)	ND(0.27)	ND(2.10)	ND(0.21)	ND(0.21)

Table 3 (continued)

	Hexachloro-benzene	Hexachloro-butadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-cd)pyrene	Isophorone	2-Methylnaphthalene	2-Nitroaniline	3-Nitroaniline	4-Nitroaniline
Comparative Standards	<i>0.04</i>	<i>0.5</i>	<i>5.0</i>	<i>5.0</i>	<i>0.002 GV</i>	<i>50.0 GV</i>	<i>NS</i>	<i>5.0</i>	<i>5.0</i>	<i>5.0</i>
Overburden Wells										
MW-1	ND(0.34)	ND(0.52)	ND(2.90)	ND(0.41)	ND(0.35)	ND(0.29)	ND(0.22)	ND(0.29)	ND(0.41)	ND(0.46)
MW-2	ND(0.38)	ND(0.58)	ND(3.30)	ND(0.46)	ND(0.39)	ND(0.33)	ND(0.25)	ND(0.33)	ND(0.46)	ND(0.52)
MW-4D-91	ND(0.36)	ND(0.55)	ND(3.10)	ND(0.43)	ND(0.37)	ND(0.31)	ND(0.23)	ND(0.31)	ND(0.43)	ND(0.49)
MW-5U-91	ND(0.33)	ND(0.49)	ND(2.80)	ND(0.39)	ND(0.33)	ND(0.28)	ND(0.21)	ND(0.28)	ND(0.39)	ND(0.44)
MW-7	ND(0.36)	ND(0.55)	ND(3.10)	ND(0.43)	ND(0.37)	ND(0.31)	ND(0.23)	ND(0.31)	ND(0.43)	ND(0.49)
MW-7U-95	ND(0.34)	ND(0.52)	ND(2.90)	ND(0.41)	ND(0.35)	ND(0.29)	ND(0.22)	ND(0.29)	ND(0.41)	ND(0.46)
MW-10U-01	ND(0.32)	ND(0.48)	ND(2.70)	ND(0.38)	ND(0.33)	ND(0.27)	ND(0.21)	ND(0.27)	ND(0.38)	ND(0.43)
MW-11U-01	ND(0.33)	ND(0.49)	ND(2.80)	ND(0.39)	ND(0.33)	ND(0.28)	ND(0.21)	ND(0.28)	ND(0.39)	ND(0.44)
SW-2	ND(0.32)	ND(0.49)	ND(2.80)	ND(0.39)	ND(0.33)	ND(0.27)	ND(0.21)	ND(0.27)	ND(0.38)	ND(0.44)
SW-3	ND(0.40)	ND(0.60)	ND(3.40)	ND(0.48)	ND(0.40)	ND(0.34)	ND(0.26)	ND(0.34)	ND(0.47)	ND(0.54)
SW-8	ND(0.33)	ND(0.49)	ND(2.80)	ND(0.39)	ND(0.33)	ND(0.28)	ND(0.21)	ND(0.28)	ND(0.39)	ND(0.44)
SW-9	ND(0.34)	ND(0.51)	ND(2.90)	ND(0.41)	ND(0.35)	ND(0.29)	ND(0.22)	ND(0.29)	ND(0.40)	ND(0.46)
Bedrock Wells										
DW-1-95	ND(0.35)	ND(0.53)	ND(3.00)	ND(0.42)	ND(0.36)	ND(0.30)	ND(0.23)	ND(0.30)	ND(0.42)	ND(0.47)
DW-2-95	ND(0.33)	ND(0.49)	ND(2.80)	ND(0.39)	ND(0.33)	ND(0.28)	ND(0.21)	ND(0.28)	ND(0.39)	ND(0.44)
MW-1D-91	ND(0.33)	ND(0.49)	ND(2.80)	ND(0.39)	ND(0.33)	ND(0.28)	ND(0.21)	ND(0.28)	ND(0.39)	ND(0.44)
MW-5D-91	ND(0.33)	ND(0.49)	ND(2.80)	ND(0.39)	ND(0.33)	ND(0.28)	ND(0.21)	ND(0.28)	ND(0.39)	ND(0.44)
MW-6D-95	ND(0.33)	ND(0.49)	ND(2.80)	ND(0.39)	ND(0.33)	ND(0.28)	ND(0.21)	ND(0.28)	ND(0.39)	ND(0.44)
MW-10D-01	ND(0.33)	ND(0.50)	ND(2.80)	ND(0.40)	ND(0.34)	ND(0.28)	ND(0.21)	ND(0.28)	ND(0.39)	ND(0.45)
MW-11D-01	ND(0.32)	ND(0.48)	ND(2.70)	ND(0.38)	ND(0.32)	ND(0.27)	ND(0.20)	ND(0.27)	ND(0.38)	ND(0.43)
MW-16D-13	ND(0.33)	ND(0.49)	ND(2.80)	ND(0.39)	ND(0.33)	ND(0.28)	ND(0.21)	ND(0.28)	ND(0.39)	ND(0.44)
MW-17D-13	ND(0.36)	ND(0.55)	ND(3.10)	ND(0.43)	ND(0.37)	ND(0.31)	ND(0.23)	ND(0.31)	ND(0.43)	ND(0.49)
MW-18D-13	ND(0.33)	ND(0.49)	ND(2.80)	ND(0.39)	ND(0.33)	ND(0.28)	ND(0.21)	ND(0.28)	ND(0.39)	ND(0.44)
MW-19D-13	ND(0.36)	ND(0.55)	ND(3.10)	ND(0.43)	ND(0.37)	ND(0.31)	ND(0.23)	ND(0.31)	ND(0.43)	ND(0.49)
MW-20D-13	ND(0.36)	ND(0.55)	ND(3.10)	ND(0.43)	ND(0.37)	ND(0.31)	ND(0.23)	ND(0.31)	ND(0.43)	ND(0.49)
MW-21D-13	ND(0.33)	ND(0.49)	ND(2.80)	ND(0.39)	ND(0.33)	ND(0.28)	ND(0.21)	ND(0.28)	ND(0.39)	ND(0.44)
MW-22D-13	ND(0.36)	ND(0.55)	ND(3.10)	ND(0.43)	ND(0.37)	ND(0.31)	ND(0.23)	ND(0.31)	ND(0.43)	ND(0.49)
QA/QC										
DUP	ND(0.41)	ND(0.62)	ND(3.50)	ND(0.49)	ND(0.42)	ND(0.35)	ND(0.26)	ND(0.35)	ND(0.48)	ND(0.55)

Table 3 (continued)

	Naphthalene	Nitrobenzene	N-Nitroso-di-n-propylamine	N-Nitrosodi-phenylamine	Phenanthrene	Pyrene	1,2,4,5-Tetrachlorobenzene
Comparative Standards	<i>10.0 GV</i>	<i>0.4</i>	<i>NS</i>	<i>50.0 GV</i>	<i>50.0 GV</i>	<i>50.0 GV</i>	<i>5.0</i>
Overburden Wells							
MW-1	ND(0.24)	ND(0.68)	ND(0.51)	ND(0.23)	ND(0.18)	ND(0.23)	ND(0.39)
MW-2	ND(0.27)	ND(0.76)	ND(0.57)	ND(0.26)	ND(0.21)	ND(0.26)	ND(0.44)
MW-4D-91	ND(0.26)	ND(0.71)	ND(0.53)	ND(0.25)	ND(0.19)	ND(0.24)	ND(0.41)
MW-5U-91	ND(0.23)	ND(0.64)	ND(0.48)	ND(0.22)	ND(0.18)	ND(0.22)	ND(0.37)
MW-7	ND(0.26)	ND(0.71)	ND(0.53)	ND(0.25)	ND(0.19)	ND(0.24)	ND(0.41)
MW-7U-95	ND(0.24)	ND(0.68)	ND(0.51)	ND(0.23)	ND(0.18)	ND(0.23)	ND(0.39)
MW-10U-01	ND(0.23)	ND(0.63)	ND(0.47)	ND(0.22)	ND(0.17)	ND(0.21)	ND(0.36)
MW-11U-01	ND(0.23)	ND(0.64)	ND(0.48)	ND(0.22)	ND(0.18)	ND(0.22)	ND(0.37)
SW-2	ND(0.23)	ND(0.64)	ND(0.48)	ND(0.22)	ND(0.17)	ND(0.22)	ND(0.37)
SW-3	ND(0.28)	ND(0.78)	ND(0.59)	ND(0.27)	ND(0.21)	ND(0.27)	ND(0.45)
SW-8	ND(0.23)	ND(0.64)	ND(0.48)	ND(0.22)	ND(0.18)	ND(0.22)	ND(0.37)
SW-9	ND(0.24)	ND(0.67)	ND(0.50)	ND(0.23)	ND(0.18)	ND(0.23)	ND(0.39)
Bedrock Wells							
DW-1-95	ND(0.25)	ND(0.69)	ND(0.52)	ND(0.24)	ND(0.19)	ND(0.24)	ND(0.40)
DW-2-95	ND(0.23)	ND(0.64)	ND(0.48)	ND(0.22)	ND(0.18)	ND(0.22)	ND(0.37)
MW-1D-91	ND(0.23)	ND(0.64)	ND(0.48)	ND(0.22)	ND(0.18)	ND(0.22)	ND(0.37)
MW-5D-91	ND(0.23)	ND(0.64)	ND(0.48)	ND(0.22)	ND(0.18)	ND(0.22)	ND(0.37)
MW-6D-95	ND(0.23)	ND(0.64)	ND(0.48)	ND(0.22)	ND(0.18)	ND(0.22)	ND(0.37)
MW-10D-01	ND(0.24)	ND(0.66)	ND(0.49)	ND(0.23)	ND(0.18)	ND(0.22)	ND(0.38)
MW-11D-01	ND(0.23)	ND(0.62)	ND(0.47)	ND(0.22)	ND(0.17)	ND(0.21)	ND(0.36)
MW-16D-13	ND(0.23)	ND(0.64)	ND(0.48)	ND(0.22)	ND(0.18)	ND(0.22)	ND(0.37)
MW-17D-13	ND(0.26)	ND(0.71)	ND(0.53)	ND(0.25)	ND(0.19)	ND(0.24)	ND(0.41)
MW-18D-13	ND(0.23)	ND(0.64)	ND(0.48)	ND(0.22)	ND(0.18)	ND(0.22)	ND(0.37)
MW-19D-13	ND(0.26)	ND(0.72)	ND(0.53)	ND(0.25)	ND(0.19)	ND(0.24)	ND(0.41)
MW-20D-13	ND(0.26)	ND(0.71)	ND(0.53)	ND(0.25)	ND(0.19)	ND(0.24)	ND(0.41)
MW-21D-13	ND(0.23)	ND(0.64)	ND(0.48)	ND(0.22)	ND(0.18)	ND(0.22)	ND(0.37)
MW-22D-13	ND(0.26)	ND(0.71)	ND(0.53)	ND(0.25)	ND(0.19)	ND(0.24)	ND(0.41)
QA/QC							
DUP	ND(0.29)	ND(0.80)	ND(0.60)	ND(0.28)	ND(0.22)	ND(0.27)	ND(0.46)

Notes:

ND(): Compound not detected at Method Detection Limit

Comparative Standards: New York State Department of Environmental Conservation Class GA

Ambient Water Quality Standards for Source of Drinking Water Title 6 Part 703 and site specific cleanup levels (Record of Decision, July, 2011)

NA: Data not available

NS: No Standard

GV: NYSDEC Class GA Guidance Value for Source of Drinking Water

J: Indicates an estimated value

B: Indicates analyte found in associated method blank

Table 4
Summary of Analytical Results - Site-Specific Compounds
Nepera Chemical Company Superfund Site, Hamptonburgh, NY
Groundwater Sampled April 28-29, 2021

Reported in Micrograms per Liter (µg/L)

	2-Aminopyridine	Aniline	2,4'-Bipyridine	Alpha picoline	Pyridine
Comparative Standards	<i>1.0</i>	<i>5.0</i>	<i>50.0</i>	<i>50.0</i>	<i>50.0</i>
Overburden Wells					
MW-1	ND(0.37)	ND(0.34)	ND(0.81)	ND(0.87)	ND(0.41)
MW-2	1.30 J	ND(0.38)	ND(0.91)	ND(0.97)	ND(0.46)
MW-4D-91	ND(0.39)	ND(0.36)	ND(0.86)	ND(0.92)	ND(0.43)
MW-5U-91	ND(0.35)	ND(0.32)	ND(0.77)	ND(0.83)	ND(0.39)
MW-7	11.40	ND(0.36)	4.50 J	ND(0.93)	ND(0.43)
MW-7U-95	ND(0.37)	ND(0.34)	ND(0.81)	ND(0.87)	ND(0.41)
MW-10U-01	ND(0.35)	ND(0.31)	ND(0.76)	ND(0.81)	ND(0.38)
MW-11U-01	ND(0.35)	ND(0.32)	ND(0.77)	ND(0.83)	ND(0.39)
SW-2	10.60	ND(0.32)	1.50 J	ND(0.82)	ND(0.38)
SW-3	ND(0.43)	ND(0.39)	ND(0.94)	ND(1.00)	ND(0.47)
SW-8	62.70	ND(0.32)	ND(0.77)	ND(0.83)	ND(0.39)
SW-9	2.50 J	ND(0.33)	ND(0.81)	ND(0.86)	ND(0.40)
Bedrock Wells					
DW-1-95	25.30	2.90	ND(0.83)	1.50 J	ND(0.42)
DW-2-95	44.50	ND(0.32)	ND(0.77)	1.00 J	0.60 J
MW-1D-91	11.40	ND(0.32)	2.60 J	ND(0.83)	ND(0.39)
MW-5D-91	ND(0.35)	ND(0.32)	ND(0.77)	ND(0.83)	ND(0.39)
MW-6D-95	ND(0.35)	ND(0.32)	ND(0.77)	ND(0.83)	ND(0.39)
MW-10D-01	ND(0.37)	ND(0.34)	ND(0.81)	ND(0.87)	ND(0.41)
MW-11D-01	ND(0.34)	ND(0.31)	ND(0.75)	ND(0.80)	ND(0.38)
MW-16D-13	ND(0.35)	ND(0.32)	ND(0.77)	ND(0.83)	ND(0.39)
MW-17D-13	3.70 J	0.99 J	ND(0.86)	ND(0.92)	ND(0.43)
MW-18D-13	ND(0.35)	ND(0.32)	ND(0.77)	ND(0.83)	ND(0.39)
MW-19D-13	16.70	ND(0.36)	1.70 J	ND(0.92)	ND(0.43)
MW-20D-13	245.00	1.80 J	21.50	26.60	0.88 J
MW-21D-13	5.40 J	ND(0.32)	ND(0.77)	ND(0.83)	ND(0.39)
MW-22D-13	630.00	1.40 J	9.00	16.10	1.30 J
QA/QC					
DUP	86.90	1.40 J	6.80	4.00 J	1.30 J

Notes:

ND(): *Compound not detected at Method Detection Limit*

Comparative Standards: New York State Department of Environmental Conservation Class GA

Ambient Water Quality Standards for Source of Drinking Water Title 6 Part 703 and site specific cleanup levels (Record of Decision, July, 2011)

NA: Data not available

J: Indicates an estimated value

B: Indicates analyte found in associated method blank

2-aminopyridine, pyridine, alpha picoline, aniline, and 2,4-bipyridine are site specific per the Record of Decision, July, 2011

Table 5
Summary of Analytical Results - General/Biodegradation Parameters
Nepera Chemical Company Superfund Site, Hamptonburgh, NY
Groundwater Sampled April 28-29, 2021

Reported in Milligrams per Liter (mg/L)

	Calcium	Magnesium	Alkalinity (Total as CaCO ₃)	Chemical Oxygen Demand	Ferrous Iron	Nitrogen, Nitrate
Comparative Standards	<i>NS</i>	<i>35.0</i>	<i>NS</i>	<i>NS</i>	<i>0.3</i>	<i>10.0</i>
Overburden Wells						
MW-1	26.30	ND(25.00)	263.00	ND(20.0)	ND(0.20)	4.00
MW-2	35.80	ND(25.00)	237.00	38.00	6.50	0.14
MW-4D-91	34.20	6.61	135.00	ND(20.0)	ND(0.20)	ND(0.11)
MW-5U-91	ND(25.00)	ND(25.00)	76.50	ND(20.0)	ND(0.20)	2.20
MW-7	36.10	5.18	156.00	ND(20.0)	ND(0.20)	ND(0.11)
MW-7U-95	ND(25.00)	ND(25.00)	145.00	ND(20.0)	ND(0.20)	1.70
MW-10U-01	26.50	5.02	190.00	ND(20.0)	ND(0.20)	4.50
MW-11U-01	36.60	ND(25.00)	74.00	ND(20.0)	0.43	0.42
SW-2	26.60	ND(25.00)	328.00	35.90	6.70	0.31
SW-3	18.60	ND(5.00)	41.00	ND(20.0)	1.00	ND(0.11)
SW-8	21.60	ND(5.00)	290.00	20.30	0.22	ND(0.11)
SW-9	20.40	ND(5.00)	76.00	ND(20.0)	ND(0.20)	0.22
Bedrock Wells						
DW-1-95	65.60	ND(5.00)	368.00	ND(20.0)	ND(0.20)	ND(0.11)
DW-2-95	66.70	ND(5.00)	370.00	ND(20.0)	ND(0.20)	ND(0.11)
MW-1D-91	27.50	ND(5.00)	91.50	ND(20.0)	2.60	ND(0.11)
MW-5D-91	104.00	38.00	319.00	ND(20.0)	ND(0.20)	ND(0.11)
MW-6D-95	ND(5.00)	ND(5.00)	181.00	ND(20.0)	ND(0.20)	3.40
MW-10D-01	60.20	22.50	226.00	ND(20.0)	ND(0.20)	ND(0.11)
MW-11D-01	39.10	9.96	137.00	ND(20.0)	ND(0.20)	ND(0.11)
MW-16D-13	80.90	8.80	43.50	20.30	ND(0.20)	ND(0.11)
MW-17D-13	8.89	ND(5.00)	625.00	55.70	ND(0.20)	ND(0.11)
MW-18D-13	20.30	ND(5.00)	100.00	ND(20.0)	ND(0.20)	0.51
MW-19D-13	42.70	7.19	199.00	ND(20.0)	7.90	0.51
MW-20D-13	17.10	ND(5.00)	457.00	34.70	ND(0.20)	ND(0.11)
MW-21D-13	26.30	ND(5.00)	94.50	ND(20.0)	ND(0.20)	0.13
MW-22D-13	ND(5.00)	ND(5.00)	402.00	48.00	ND(0.20)	ND(0.11)
QA/QC						
DUP	38.80	ND(5.00)	207.00	ND(20.0)	ND(0.20)	ND(0.11)

Notes:

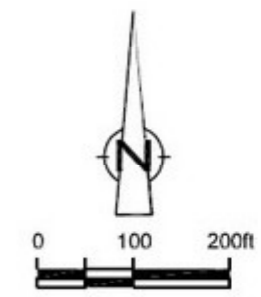
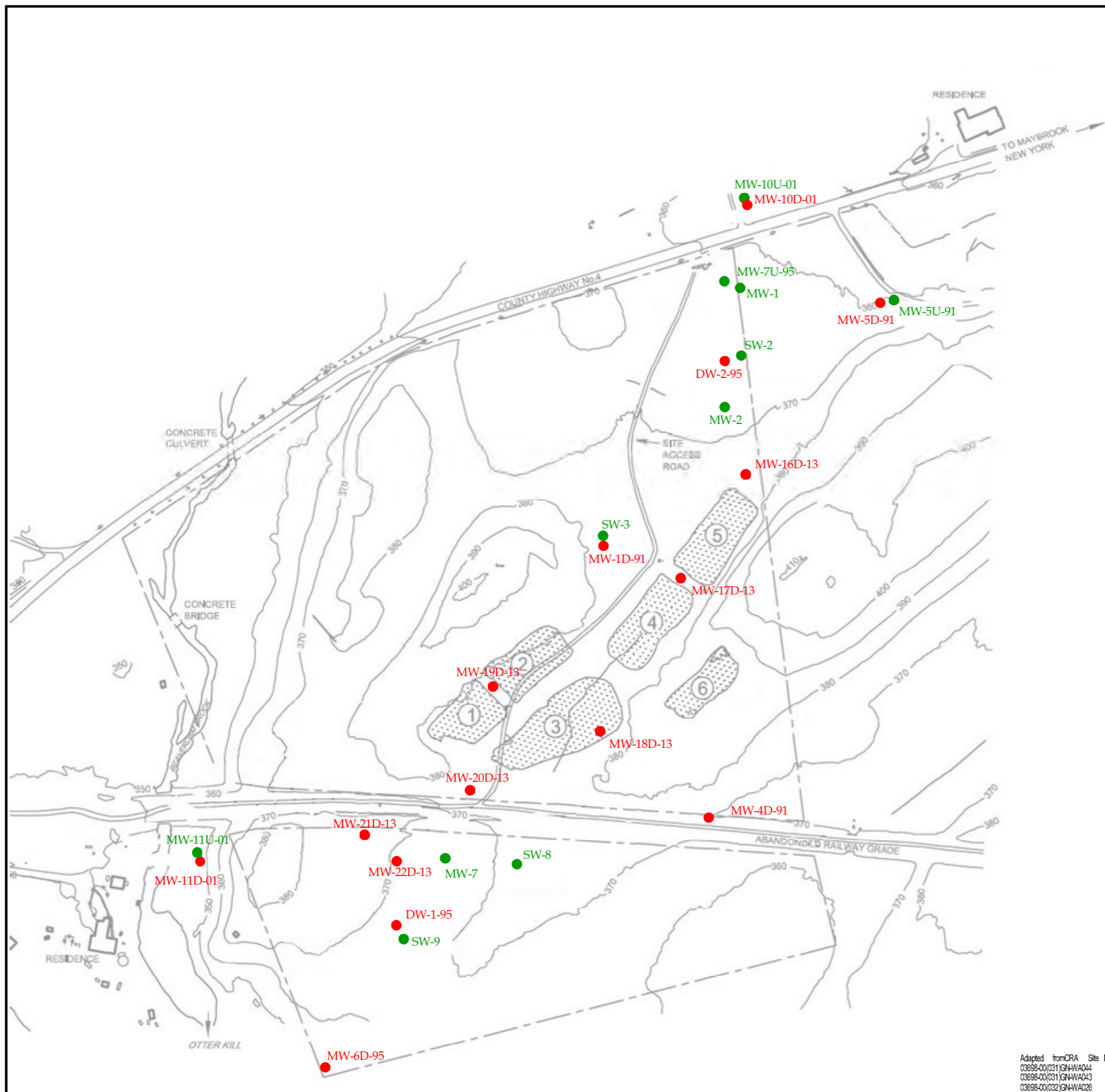
ND(): Compound not detected at Reporting Limit

Comparative Standards: New York State Department of Environmental Conservation Class GA

Ambient Water Quality Standards for Source of Drinking Water Title 6 Part 703 (per August 1999 Amendment)

NA: Data not available

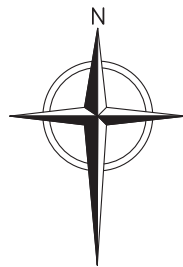
NS: No Standard










- LEGEND**
- ELEVATION CONTOUR
 - SITE PROPERTY BOUNDARY
 - APPROXIMATE LOCATION OF LAGOON (SUPERIMPOSED FROM 6/24/63 AERIAL PHOTOGRAPH)
 - LAGOON IDENTIFICATION NUMBER
 - OVERBURDEN MONITORING WELL LOCATION
 - BEDROCK MONITORING WELL LOCATION

Title: Monitoring Well Location Map	
Project: Nepera Chemical Company Superfund Site Hamptonburgh, New York	Date: 4/21/19
RNC Environmental Geology, P.C. Professional Groundwater and Environmental Services 171 Deer Park Ave., Suite 3 Babylon, New York 11702	Figure: 1
	Scale: As Shown
	DrawingNo.: FLS1113-03
	PreparedBy: MAC
	Appr. By: RNC

Adapted from CRA Site Map Drawing Numbers
 03698-00(031)GNWHA044 MAY 05/2004 &
 03698-00(031)GNWHA043 MAY 05/2004 &
 03698-00(032)GNWHA026 JUL 26/2006

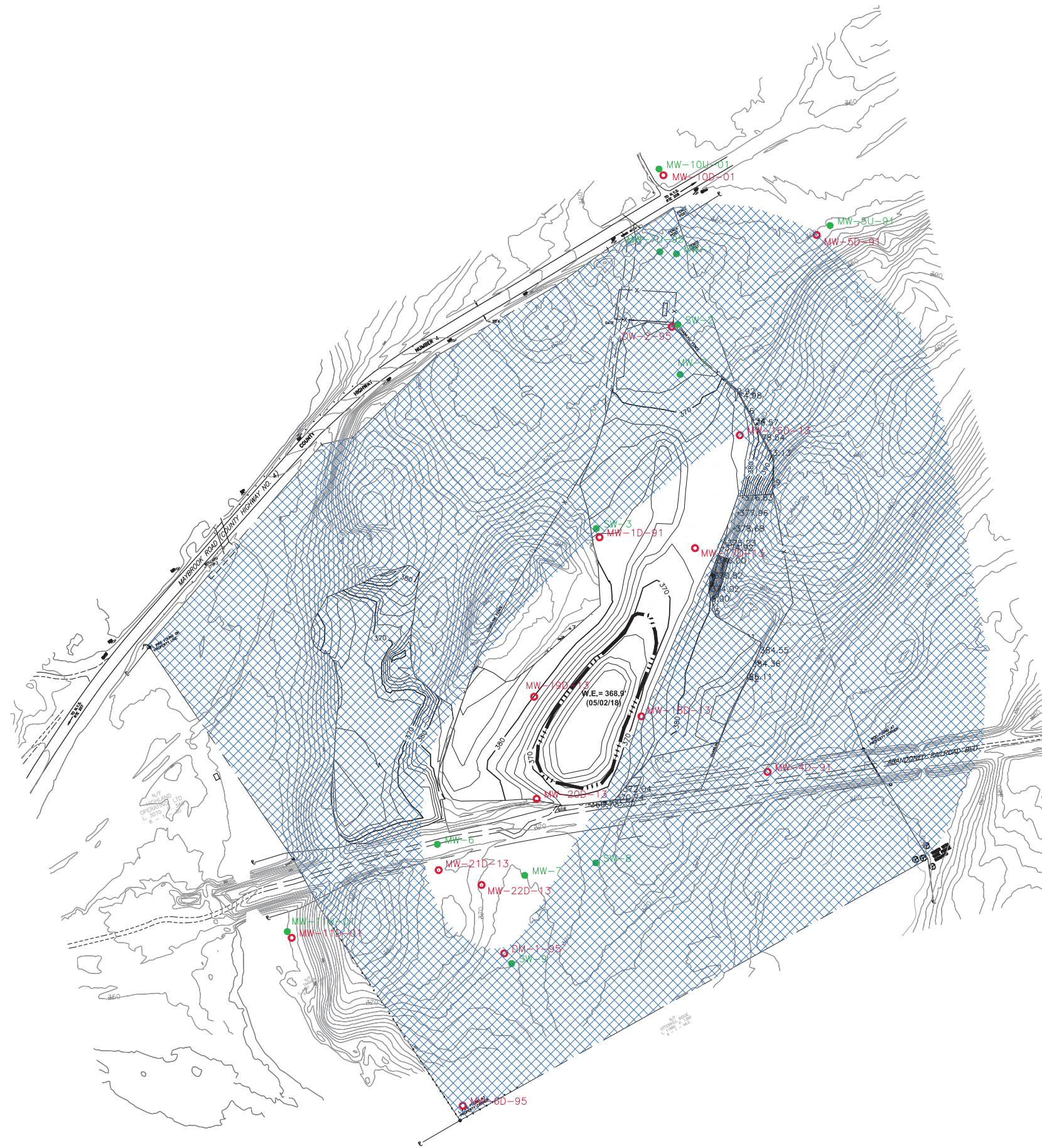


LEGEND:

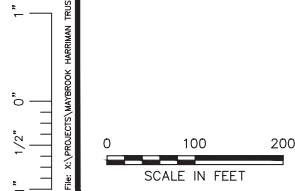
-  400 FINAL GRADE CONTOUR
-  FENCE LINE
-  PROPERTY LINE
-  SW-3 OVERBURDEN MONITORING WELL LOCATION
-  MW-1D-91 BEDROCK MONITORING WELL LOCATION
-  APPROXIMATE EXTENT OF RESTORED AREA SUBJECT TO STANDING WATER
-  APPROXIMATE AREA NOT SUBJECT TO VAPOR INTRUSION INVESTIGATION AS OF APRIL 2021

NOTE:

STANDING WATER ELEVATION IS A REFLECTION OF ANTECEDENT RAINFALL/ RUNOFF AND GROUNDWATER INTERSECTION WITH GROUND SURFACE AND IS PROVIDED FOR INFORMATION BUT SHOULD NOT BE USED FOR GROUNDWATER ELEVATION MAPPING.



File: X:\PROJECTS\MAYBROOK_HARRIMAN_TRUST\4213585 - MAYBROOK_2021_Project Drawings\2143585-5-01--VAPOR INTRUSION MAP.DWG, Layout: SHEET 01, User: sara.walden@cegi.com, Jul 13, 2021 - 10:26am



Unauthorized alteration or addition to this plan bearing a licensed professional's seal is a violation of Section 7209, Sub-division 2, of the New York Education Law. Only copies from the original of this plan marked with an original professional's seal shall be considered to be valid true copies.

This drawing represents intellectual property of Cornerstone Engineering and Geology, PLLC. Any modification to the original by other than Cornerstone Engineering and Geology, PLLC personnel violates its original purpose and as such is rendered void. Cornerstone Engineering and Geology, PLLC will not be held liable for any changes made to this document without express written consent of the originator.

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY



cornerstone
PLLC

PREPARED BY:
CORNERSTONE ENGINEERING AND GEOLOGY, PLLC

ALL PROFESSIONAL ENGINEERS MUST BE REGISTERED BY STATE LICENSED PROFESSIONAL ENGINEERS UNDER THE APPROPRIATE STATE REGISTERED PROFESSIONAL ENTITY.

NEPERA CHEMICAL COMPANY SUPERFUND SITE
TOWN OF HAMPTONBURGH, NEW YORK

SITE PLAN - AREAS NOT SUBJECT TO VAPOR INTRUSION INVESTIGATION

SHEET NO.
J-1

PROJECT NO.
4213585


ATTACHMENT K
EXCAVATION WORK PLAN

Attachment K – Excavation Work Plan

Former Nepera Chemical Company Superfund Site Hamptonburgh, Orange County, NY

The material and data in this Excavation Work Plan were prepared under the supervision and direction of the undersigned.

Cornerstone Engineering and Geology, PLLC



Erich Zimmerman, P.E.
NY PE License No. 081831-1

11/15/2022

Date

It is a violation of Article 145 of the New York State Education Law; unless acting under the direction of a licensed Professional Engineer who affixes signature, date, seal and the words "altered by"; for any person to alter this document in any way.

TABLE OF CONTENTS

ATTACHMENT J – EXCAVATION WORK PLAN	1
1 INTRODUCTION.....	1
1.1 GENERAL.....	1
1.2 NOTIFICATION	1
2 EXCAVATION PLAN.....	3
2.1 SITE PREPARATION AND STORMWATER POLLUTION PREVENTION.....	3
2.2 HEALTH AND SAFETY AND COMMUNITY AIR MONITORING PLAN.....	3
2.3 ODOR CONTROL PLAN	4
2.4 DUST CONTROL	4
2.5 EXCAVATION.....	4
2.6 FLUIDS MANAGEMENT	6
2.7 IMPORTED FILL.....	6

APPENDICES

APPENDIX A HEALTH AND SAFETY REQUIREMENTS

APPENDIX B COMMUNITY AIR MONITORING PLAN

1 INTRODUCTION

1.1 General

Soil remediation at the Former Nepera Chemical Company Superfund Site (the Site) was completed in January 2013, and as a result of the completion of remediation, concentrations of Site-related constituents of concern (COCs) are no longer present in soils in concentrations above human health risk-based levels. However, Site-related COCs are present in soils in concentrations above potential impact to groundwater levels. In addition, Site-related COCs are present in groundwater in concentrations above New York State Groundwater Quality Standards (GWQS, Part 703.5) and Guidance Values (NYSDEC, Technical and Operational Guidance Series (TOGS) 1.1.1). Consequently, while Site-disturbance activities are not planned, if future disturbance of soils were to occur, it should be performed in accordance with this Excavation Work Plan (EWP) so that soils and groundwater are handled properly.

1.2 Notification

If soil disturbance is planned at the Site, at least 15 days prior to the start of any such activity, the Site owner or their representative will notify the USEPA, the NYSDEC and the NYSDOH as follows:

Damian Duda, USEPA, Remedial Project Manager

Phone: (212) 637-4269

E-mail address: duda.damian@epa.gov

Justin Starr, NYSDEC, Representative

Phone: (518) 402-9662

E-mail address: justin.starr@dec.ny.gov

Anthony Perretta, NYSDOH Representative

Phone: (518) 486-7860

E-mail address: Anthony.perretta@health.ny.gov

The Site owner or their representative will coordinate with the USEPA, the NYSDEC and the NYSDOH regarding other notifications, if any, that may be necessary prior to soil disturbance activity.

The notification will include the following:

- A description of the work to be performed, including the location and areal extent of excavation, and drawings showing site grading, if regrading is proposed;

- A summary of environmental conditions anticipated to be encountered in the work areas, such as whether groundwater will be encountered;
- A schedule for the work;
- A summary of the applicable components of this EWP;
- A statement that the work will be performed in compliance with this EWP and 29 CFR 1910.120;
- A copy of the contractor's Health and Safety Plan (HASP) and Community Air Monitoring Plan (CAMP);
- Identification of disposal facilities, or destinations for reuse, if any, and the basis for the final destination of materials; and
- Identification of sources of off-site backfill, if any is proposed to be used, along with chemical testing results.

2 EXCAVATION PLAN

2.1 Site Preparation and Stormwater Pollution Prevention

Prior to the start of soil disturbance activities, the contractor will be responsible for notifying Dig Safely New York (811), and also verifying if there are any utilities on Site that may be disturbed and require protection or removal.

Also prior to the start of soil disturbance activities, a sediment barrier such as silt fencing or hay bales will be installed around the perimeter of the disturbance area. If the soil disturbance is more than one acre, the contractor responsible for the work will prepare a Stormwater Pollution Prevention Plan in accordance with the NYSDEC Division of Water guidance and regulations, and obtain coverage under a construction general stormwater management permit or an individual stormwater management permit, as may be applicable depending on the scope of the work. Additional soil erosion and sediment control measures may be necessary depending on the scope of the soil disturbance activity.

Manufacturer's recommendations will be followed for installation, maintenance and repair of silt fencing used as a sediment barrier for the soil disturbance work.

Sediment barriers will be inspected once a week and after storm events. Results of inspections will be recorded in a logbook and maintained at the Site and be available for inspection by regulatory authorities. Repairs to sediment barriers will be made immediately.

Accumulated sediments will be removed as required to keep the sediment barriers functional.

Stormwater discharge locations will be inspected once per week and after storm events to ascertain whether erosion control measures are effective in preventing potential impacts to receiving waters.

A stabilized construction entrance will be used to control potential sediment transport onto public roadways. Public roadways will be cleaned of sediment as necessary on a continuing basis.

2.2 Health and Safety and Community Air Monitoring Plan

Prior to the start of soil disturbance activities, the Contractor responsible for the work will prepare a Site-specific Health and Safety Plan and a Community Air Monitoring Plan. Guidance on the preparation of these plans is provided in Appendices A and B of this EWP.

Each entity on the Site during any soil disturbance activities is solely responsible for the health and safety of its employees.

2.3 Odor Control Plan

Site-related COCs have the potential to be odorous even if below applicable cleanup levels. Therefore, before the start of soil disturbance activities, the contractor will prepare an Odor Control Plan, and have odor control facilities as defined in the plan in place prior to the start of the work. Odor control methods to be used on a routine basis may include limiting the area of open excavations and size of soil stockpiles, use of suppressant foam cover or soil, other means of covering excavations or stockpiles (e.g., tarps) or other means approved by the USEPA prior to the start of work.

If nuisance odors are identified at the Site boundary, or if odor complaints are received, work will be halted and the source of odors will be identified and corrected. Work will not resume until nuisance odors have been abated. The USEPA will be notified of odor complaints.

2.4 Dust Control

Before the start of soil disturbance activities, the contractor will prepare a Dust Control Plan, and have dust control facilities as defined in the plan in place prior to the start of the work.

A dust suppression plan that addresses dust management during invasive on-Site work will include the following, as applicable:

- The equipment that will be available for wetting with water to suppress dust on access roads, and other open areas.
- Minimizing clearing and grubbing of larger areas to limit the area of exposed, unvegetated soils vulnerable to dust production.
- Use of gravel on roadways, as applicable, to provide a “dust-free” road surface.

2.5 Excavation

As excavation commences, soil screening will be used to assess the potential for encountering contaminated materials not otherwise anticipated based on Site conditions following the completion of the soil remediation. Visual, olfactory and instrument-based (e.g. photoionization detector) soil screening will be performed at active soil disturbance areas. If screening indicates soils that may be differentiated based on potential for contamination, the materials will be segregated as appropriate.

Temporarily stockpiled soils, if not within the confines of an overall sediment barrier, will be encircled with a sediment barrier to control potential sediment transport. If temporarily stockpiled soils are encountered, which may be contaminated, then these soils will be separately stockpiled on plastic sheeting and covered with plastic sheeting to control potential transport of contaminated material.

Excavated materials, depending on the nature of the soil disturbance activity, may be handled as follows:

- For a small, temporary disturbance, the soil may be reused in the excavation, unless there are indications of contamination that require separate management; or
- For soil disturbance for the purpose of regrading that would result in excess soil at the conclusion of the work, such material will be loaded into trucks for transport to an off-site location for disposal or reuse.

If materials are to leave the site, the following procedures will be used:

- Materials will be chemically characterized in accordance with the NYSDEC DER-10 sampling frequency requirements and per the analytical testing requirements of the Remedial Action Work Plan, Quality Assurance Project Plan.
- The chemical characterization data will be compared to the Site-specific cleanup levels, and the 6 CRR-NY Part 375 cleanup objectives.
- Off-site destinations of excavated material will be based on the chemical characterization data comparison to cleanup objectives. Excavated material will only be shipped off Site to locations acceptable based on chemical characterization.
- Any material meeting the classification of waste will be transported off-site by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 CRR-NY Part 364. Haulers will be appropriately licensed and trucks properly placarded. Wastes shipped off-Site will be documented with manifests.
- Material transported by trucks exiting the Site will be secured with tight-fitting covers. If loads contain wet material capable of producing free liquid, truck liners will be used.
- Trucks exiting the Site must turn right onto Maybrook Road and proceed to their destination from that point. Queuing or idling on public roads is not permitted.

2.6 Fluids Management

If the soil disturbance activity intersects the groundwater table and groundwater must be managed, or stormwater comes in contact with excavated material or groundwater, such liquids are to be properly managed and are not permitted to be directly discharged to any surface water body. Management of liquids may be as follows:

- Liquids may be containerized, chemically characterized, transported and disposed of in accordance with applicable local, State, and Federal regulations.
- Liquids may be discharged to surface waters per a SPDES permit, and will be subject to treatment to meet the SPDES discharge limits. If discharge will be under a SPDES permit the contractor responsible for the fluids management will obtain the permit from the NYSDEC.

2.7 Imported Fill

If the soil disturbance activities involve the importation of backfill materials, the following procedures will apply:

- The sources of the proposed backfill material imported from off-site must be identified in advance to the property owner for acceptance.
- All imported soils will meet the backfill and cover soil quality standards established in 6CRR-NY 375-6.7(d).
- Only imported backfill meeting the 6 CRR-NY 375-6.8(a) and (b) criteria for unrestricted or residential use will be acceptable. Material from industrial sites, spill sites, or other environmental remediation sites or potentially contaminated sites will not be imported to the site.

APPENDIX A
HEALTH AND SAFETY REQUIREMENTS

APPENDIX B
COMMUNITY AIR MONITORING PLAN

APPENDIX A

HEALTH AND SAFETY REQUIREMENTS

GENERAL

This appendix to the Excavation Work Plan (EWP) includes health and safety requirements for activities undertaken at the Former Nepera Chemical Company Superfund Site (the Site). Requirements include training, personal protective equipment, and specific information to be included in a Health and Safety Plan. Any contractor, organization, governmental body, or any other entity is solely responsible for the health and safety of its employees while/if working at the Site. Any entity working at the Site is responsible for preparing a health and safety plan covering its employees.

SITE CONDITIONS

Soils remediation was completed at the Site in January 2013. Source materials were excavated and treated/disposed of off Site. However, Site-related constituents of concern (COCs) remain in soils above Site-specific cleanup levels based on protection of groundwater but below the Site-specific direct contact cleanup level for the COC 2-aminopyridine developed for the Site Management Plan (SMP). In addition, Site-related COCs remain in groundwater at concentrations above New York State Groundwater Quality Standards at 6 CRR-NY 703.5 and above New York State Technical and Operational Guidance Series (TOGS) 1.1.1 Guidance Values.

Any entity working on the Site which may involve intrusive contact with soils or groundwater should review a copy of the Interim Remedial Action Report (Cornerstone, 2013) and the most recent Groundwater Monitoring Report (R&C Formation, Ltd., October 2018 is the most recent report as of the preparation of the SMP and the EWP) for information on COCs at the Site. The property owner takes no responsibility for the completeness of the information provided herein. Any entity working at the Site is solely responsible for making its own determinations regarding site conditions and the health and safety of its employees. The tabulation below provides a summary of Site COCs and concentrations above Site-related soil and groundwater cleanup levels per the Record of Decision for the Site.

Site-Related COC	Concentration Range
Soils	
2-aminopyridine (see note)	ND to 5.35 mg/kg
Groundwater	
Benzene	ND to 236 ug/L
Chlorobenzene	ND to 6.7 ug/L
Ethylbenzene	ND to 10.2 ug/L
Xylene	ND to 9.9 ug/L
Phenol	ND to 3.2 ug/L
4-chloroaniline	ND to 439 ug/L
2-aminopyridine	ND to 262 ug/L

Note: 2,4'bipyridine and acetone were also detected in post-excavation soil samples, one result for 2,4'bipyridine at 2 mg/kg and 3 results for acetone ranging from 0.059 to 0.82 mg/kg respectively.

RESPONSIBILITIES, TRAINING, AND MINIMUM PPE REQUIREMENTS

Any entity working on Site is responsible for managing the Site, controlling access, and checking credentials for visitors, per a site-specific health and safety plan.

While on Site personnel are required to at a minimum to do:

- General work clothes
- Hard hat
- Safety glasses
- Steel toe boots
- Hi-visibility safety vests

Other personal protective equipment (PPE) will be as defined in a site-specific health and safety plan.

Personnel working on Site must be Hazardous Waste Operations and Emergency Response (HAZWOPER) 40-hour trained, and be current with 8-hour HAZWOPER refresher training, and have a current OSHA required medical clearance from a qualified health care provider, as applicable.

Supervisory personnel must have completed the 8-hour HAZWOPER Supervisor Training.

Requirements for 40-hour training may be modified per the provisions of OSHA 1910-120 for non-intrusive activities.

SITE-SPECIFIC HEALTH AND SAFETY PLAN

A Site-specific Health and Safety Plan (HASP) must establish policies and procedures to protect workers and the public from the potential hazards posed by the work. The HASP must be prepared and submitted to the USEPA before intrusive Site activities proceed.

A Site-specific Health and Safety Plan must conform to requirements under 29 CFR 1910.120, and 29 CFR 1926. At a minimum the plan must:

- Name key personnel and alternates responsible for site safety.
- Describe risks associated with each operation conducted.
- Confirm that personnel are adequately trained to perform their job responsibilities and to handle the specific situations they may encounter.
- Include provisions for daily safety meetings.
- Describe the protective clothing and equipment to be worn by personnel during site activities.
- Describe any site-specific medical surveillance requirements.
- Describe the program for periodic air monitoring, personnel monitoring, and environmental sampling (if needed).
- Describe the actions to be taken to mitigate hazards.
- Define site control measures, visitor logs, exclusion zones, etc., and include a site map.

- Define means to monitor and protect the surrounding community, including both an encompassing workspace and community air monitoring program (CAMP) meeting the minimum requirements of the CAMP attached. Air monitoring program should include thresholds for respirator requirements and stopwork conditions.
- Establish decontamination procedures for personnel and equipment.
- Set forth Standard Operating Procedures for Health and Safety.
- Include a site-specific contingency plan in the event of site emergencies.
- Provide documentation of medical monitoring, if applicable.
- Provide documentation of personnel training.
- Provide documentation of personnel respirator qualification and fit testing, if respirators are in use or are planned for use.

RESPONSIBILITIES DURING SITE ACTIVITIES

Maintain required forms and OSHA records on Site as applicable.

Maintain a Site chemical inventory and index of Safety Data Sheets for the chemicals or products present on Site.

Implement health and safety procedures in accordance with the Site-specific Health and Safety Plan and relevant regulations.

Control site access at all times, including access through open gates during working hours.

Implement health and safety monitoring in accordance with the HASP and CAMP, and maintain records on Site for review by governing authorities.

Update the HASP as needed as the work progresses, and advise the USEPA and Site owner of any changes.

Prepare Job Safety Analyses (JSAs) for activities to be performed for the completion of the Work. Maintain JSAs on site.

Update JSAs as necessary during the course of the work.

Coordinate with the USEPA, Site owner, or any other governing authority in the event of questions regarding protection of the community or if an emergency situation occurs.

In the event of an emergency or release execute reporting responsibilities in accordance with the requirements of the HASP.

Prepare incident reports for any occurrences resulting in injury or property damage and for any occurrences deemed to be near misses, and provide such reports to governing authorities, as applicable

APPENDIX B
Former Nepera Chemical Company Superfund Site
Community Air Monitoring Plan

General

This Community Air Monitoring Plan (CAMP) includes real-time monitoring for the potential presence of volatile organic compounds (VOCs) and particulates (i.e., dust) at the Former Nepera Chemical Company Superfund Site (the Site) when activities are being performed that may disturb the soils in the area. The intent of this CAMP is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers) from potential airborne releases as a result of the historical use of the Site and known presence of constituents of concern (COCs) in the soil and groundwater. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown.

Continuous, real-time monitoring will be required whenever activities are being performed that may disturb soils at the Site. Monitoring is to commence at the beginning of each work day and will continue until intrusive activities have ceased. If the air quality action levels are exceeded at the perimeter, the site supervisor and engineer will be promptly notified of the results and the need for the implementation of additional measures to further control emissions from the Site will be reviewed.

A wind speed and direction measurement device will be furnished and placed at a location on Site 10-feet above ground level in an area unobstructed by above grade structures/objects and with unobstructed line of sight to Site personnel. This device will provide information regarding localized air flow patterns that the on-site safety personnel will utilize to supplement real time air monitoring and to validate Site conditions.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) will be monitored at the downwind perimeter of the former lagoon remediation area on a continuous basis, unless otherwise indicated by Site conditions and subject to the approval of the USEPA or other governing authority. Upwind concentrations will be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work will be performed using equipment as described below. VOCs are not expected to be present in the soil, and therefore, the action levels are based on a generic range of potential VOCs, and are as follows:

1. If the ambient air concentration of total organic vapors at the downwind perimeter of the work area 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.

2. If total organic vapor levels at the downwind perimeter of the work area persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities will be halted, the source of 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 an additional 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.
3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities will be shutdown until the source of the VOCs is identified and corrective actions are implemented.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations will be monitored continuously at the upwind and downwind perimeters of soil disturbance areas, at temporary particulate monitoring stations. 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 disturbance activities. Action Levels are as follows:

1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than 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 downwind PM-10 particulate levels do not exceed $150 \text{ mcg}/\text{m}^3$ above the upwind level and provided that no visible dust is migrating from the placement area.
2. If after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than $150 \text{ mcg}/\text{m}^3$ above the upwind level, work must 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 $150 \text{ mcg}/\text{m}^3$ of the upwind level and in preventing visible dust migration.
3. All readings must be recorded and be available for the USEPA, State (DEC and DOH) and County Health personnel, as applicable, to review.
4. The evaluation of weather conditions is necessary for proper fugitive dust control. When extreme wind conditions make dust control ineffective, as a last resort, activities may need to be suspended.

Dust Suppression Action Plan

Dust suppression will be initiated to protect Site personnel and reduce the potential for off-Site migration. Some or all of the following techniques may be implemented based on Site conditions and approved by the on-Site safety personnel:

- Apply water on Site Access roads;
- Wet equipment and excavation faces;
- Spray water on buckets during excavation and dumping;
- Haul materials in properly covered containers;
- Restrict vehicle speed to 5 mph;
- Apply stone or mulch to ground surface;
- Cover material piles once excavation activity ceases;
- Backfill or close excavations as soon as practical;
- Wash construction vehicles.

Equipment

VOC air monitoring equipment will be performed with real-time photoionization detectors (PID) with a 10.6 eV lamp with a resolution of 0.1 to 1.0 ppm. The PIDs will be continuously logged during the course of daily operations, and each instrument will have an audible alarm to indicate if an action level has been exceeded. The PIDs will be capable of calculating 15-minute running average concentrations for comparison to the previously noted action levels. At the end of each work day, the PID data will be downloaded and saved electronically. The PIDs will be pedestal or tripod mounted in various locations to vary location according to downwind and upwind directions. The PIDs will be calibrated daily with a 100 parts per million isobutylene standard in accordance with manufacturer's instructions.

Particulate monitoring will be performed using real-time particulate monitors that 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° C (14 to 122° 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.

ATTACHMENT L
QUALITY ASSURANCE PROJECT PLAN AND FIELD
SAMPLING PLAN

Title:	QAPP for Nepera Chemical
Revision No.	Revision 1
Revision Date	February 2019
Section No.	Title Page and Table of Contents
No. of Pages	2

FORMER NEPERA CHEMICAL COMPANY SUPERFUND SITE SMP MONITORING

QUALITY ASSURANCE PROJECT PLAN

Site:

Nepera Chemical Company Superfund Site
Town of Hamptonburgh
Orange County, New York 10916

Prepared for:

Maybrook and Harriman Environmental Trust

Prepared by:

Cornerstone Engineering, Geology, and Land Surveying, PLLC
100 Crystal Run Road, Suite 101
Middletown, New York 10941

February 2019

Title:	QAPP for Nepera Chemical
Revision No.	Revision 1
Revision Date	February 2019
Section No.	Title Page and Table of Contents
No. of Pages	2

PREFACE

A Quality Assurance Project Plan (QAPP) was prepared for sampling and analysis at the Former Nepera Chemical Company Superfund Site in 2011 for various monitoring activities to be performed at the Site during and following remediation. The USEPA approved the QAPP in 2011. For consistency with the prior approval and ongoing monitoring, the relevant portions of the approved QAPP have been excerpted for the Site Management Plan routine monitoring and are presented in the Worksheets that follow, with editing for relevance of the SMP monitoring which is limited to groundwater and private water supply wells.

TABLE OF CONTENTS

<u>Worksheet</u>	<u>Title</u>
QAPP Worksheet #11	Project Quality Objectives/Systematic Planning Process Statements
QAPP Worksheet #15	Reference Limits and Evaluation Table, Site-Specific Compounds
QAPP Worksheet #19	Analytical SOP Requirements Table
QAPP Worksheet #20	Field Quality Control Sample Summary Table
QAPP Worksheet #22	Field Equipment Calibration, Maintenance, Testing, and Inspection Table
QAPP Worksheet #23	Analytical SOP Reference Table
QAPP Worksheet #28	QC Samples Table
QAPP Worksheet #32	Assessment Findings and Response Actions

Sampling and Analysis Plan attached separately.

Title: QAPP for Nepera Chemical
Revision No. Revision 1
Revision Date February 2019
Section No. QAPP Worksheet #11
No. of Pages 2

QAPP Worksheet #11
Project Quality Objectives/Systematic Planning Process Statements

WHO WILL USE THE DATA?

Data will be used by USEPA, NYSDEC/NYSDOH, and the Maybrook and Harriman Environmental Trust for post-remediation Site Management.

WHAT WILL THE DATA BE USED FOR?

Groundwater data will be used to verify that off-site constituent of concern (COC) migration is not occurring, to evaluate COC concentration trends, and to evaluate the need for a supplemental oxygen source in the groundwater.

WHAT TYPE OF DATA ARE NEEDED

Groundwater data will be obtained for site-specific VOCs and SVOCs, as well as for field parameters and groundwater elevation.

HOW “GOOD” DO THE DATA NEED TO BE IN ORDER TO SUPPORT THE ENVIRONMENTAL DECISION?

Laboratory data will be reviewed based on lab-reported QC forms, and also qualitatively assessed for reasonableness based on site history and previous data. If initial review suggests potential oversight laboratory QA problems, the project/CQA manager will recommend corrective action, which may include formal data validation. The laboratory completeness goal is 100 percent; failure to meet this goal may require re-sampling.

HOW MUCH DATA ARE NEEDED?

Groundwater Monitoring Data – wells to be monitored and the associated frequency are discussed in Section 4.3 (Groundwater Monitoring) and 4.4 (Private Water Supply Well Monitoring) of the Site Management Plan.

WHERE, WHEN, AND HOW SHOULD THE DATA BE COLLECTED/GENERATED?

Groundwater Monitoring – locations, parameters, and frequency are described in Sections 4.3 and 4.4 of the Site Management Plan.
Procedure – See Sampling and Analysis Plan.

Title: QAPP for Nepera Chemical
Revision No. Revision 1
Revision Date February 2019
Section No. QAPP Worksheet #11
No. of Pages 2

WHO WILL COLLECT AND GENERATE THE DATA?

Groundwater samples will be collected by sampling personnel (TBD), who will ship the samples to the analytical laboratory (TBD on a contract basis), who will analyze the samples and generate the data.

Private water supply well samples will typically be collected by the analytical laboratory (TBD).

HOW WILL THE DATA BE REPORTED?

The analytical laboratory will tabulate and compile analytical results and associated QA/QC information and provide a complete laboratory report.

Private water supply well data will be provided by the laboratory directly to the NYSDOH for reporting to the residents.

Data will be reported to the USEPA in annual Site Management reports.

HOW WILL THE DATA BE ARCHIVED?

Generated data (field- and/or laboratory-related) will be stored in the project files when not undergoing processing/review.

EDDs will be prepared and submitted to the USEPA and the NYSDEC upon request.

Title: QAPP for Nepera Chemical
Revision No. Revision 1
Revision Date February 2019
Section No. QAPP Worksheet #15
No. of Pages 1

Excerpt of QAPP Worksheet #15-2
Reference Limits and Evaluation Table, Site-Specific Compounds

Matrix: Groundwater
Analytical Group: Semivolatile Organic Site-Specific Compounds
Concentration Level: Low

Analyte	CAS Number	Action Limit ⁴	Project Quantitation Limit ³	Published Method Limits – SW846 8270D		Achievable Laboratory Limits ²	
				MDLs	Method QLs ¹	MDLs	RLs
2-Aminopyridine ⁴	504-29-0	1 µg/L	1 µg/L	NA	NA	1 ug/L	5 ug/L
Pyridine	110-86-1	50 µg/L	50 µg/L	NA	NA	0.27 µg/L	2 µg/L
Alpha-picoline	109-06-08	50 µg/L	50 µg/L	NA	NA	0.28 µg/L	5 µg/L
Aniline	62-53-3	5 µg/L	5 µg/L	NA	NA	0.23µg/L	2 µg/L
2,4' bipyridine	581-47-5	50 µg/L	50 µg/L	NA	NA	1 ug/L	5 ug/L

Title: QAPP for Nepera Chemical
Revision No. Revision 1
Revision Date February 2019
Section No. QAPP Worksheet #19
No. of Pages 1

QAPP Worksheet #19 Analytical SOP Requirements Table

[For each matrix, analytical group, and concentration level, list the analytical and preparation method/SOP and associated sample volume, container specifications, preservation requirements, and maximum holding time.]

Matrix	No. of Samples	Analytical Group	Concentration Level	Analytical and Preparation Method/ SOP Reference ¹	Minimum Sample Volume	Containers (number, size, and type) ³	Preservation Requirements	Maximum Holding Time (preparation/analysis) ²
Soil	TBD	Volatile Organic Compounds	Low	SW 846 8260B	15 g	3 x 5 g EnCore or 4-oz glass jar, teflon lined cap, minimal headspace	cool to 4°C	14 days
Soil	TBD	Semivolatile Organic Compounds (modified) ⁴	Low	SW 846 3550C followed by SW 846 8270D	30 g	8 oz glass jar	cool to 4°C	14 days to extraction; 40 days from extraction to analysis
Soil	TBD	TCLP organics (VOCs and SVOCs)	Low	SW-846 1311 followed by 8260B and 8270D	100 g	8 oz glass jar	cool to 4°C	14 days to TCLP extract; 14 days for VOC analysis; 14 days for SVOC extract, then 40 for SVOC analysis
Aqueous	TBD	Volatile Organic Compounds	Low	SW846 8260B	3 x 40-mL	(3) 40 mL VOA vials w/Teflon lined septum	HCl to pH<2; cool to 4°C	14 days preserved (7 days unpreserved)
Aqueous	TBD	SVOCs	Low	SW846 3510C followed by 8270D	1 L	2 x 1-L amber glass	cool to 4°C	14 days to extraction; 40 days from extraction to analysis
Aqueous	TBD	Metals	Low	USEPA 200.7 / 245.1 or SW846 6010	100 mL	250 mL plastic	HNO ₃ to pH<2; cool	6 months (28 days for Hg)

The number in parentheses in the “Sample Container” column denotes the number of containers needed.

Laboratory Fortified Matrix analysis conducted at a frequency of 1 per 20 samples.

¹Published Standard Operating Procedures Shown that may vary by laboratory.

²Holding time is technical holding time and is calculated from time of sample collection.

³Container types and quantities as listed in “US EPA Region 2 Laboratory – Volume, Container & Preservation Requirements,” April, 2005. Subject to change.

⁴Modification is additional (non-standard) SVOCs added to target SVOC list.

QAPP Worksheet #20
Field Quality Control Sample Summary Table

[Summarize by matrix, analytical group, and concentration level the number of field QC samples that will be collected and sent to the laboratory.]

Matrix	Analytical Group	Concentration Level	Analytical and Preparation SOP Reference ¹	No. of Sampling Locations ²	No. of Field Duplicate Pairs	No. of Extra Volume Laboratory QC (e.g., MS/MSD) Samples ³	No. of Field Blanks	No. of Trip Blanks	No. of PE Samples
Wastewater	Volatile Organics	Low	EPA 8260B	TBD	0	1 set per 20	0	1 per shipment	0
Wastewater	SVOCs ⁴ , metals	Low	EPA 8270D; EPA 200.7 (245.1 for Hg if required)	TBD	0	1 set per 20	0	0	0
Groundwater	Volatile Organics	Low	EPA 8260B	Event-specific (9 to 29)	1 per 20	1 set per 20	1 per 20	1 per shipment	0
Groundwater, private wells	Volatile Organics	Low	EPA 524.2	Event-specific (3-4)	0	1 set per 20	0	1 per shipment	0
Groundwater	SVOCs ⁴	Low	EPA 8270D	Event-specific (9 to 29)	1 per 20	1 set per 20	1 per 20	0	0
Soil – confirmation	VOCs, SVOCs ⁴	Low	SW846 8260B and 3550C/8270D	TBD	1 per 20	1 set per 20	1/week	0	0
Soil – Waste classification	TCLP VOCs, SVOCs	Low	SW846 1311 then 8260B and 8270D	TBD	0	1 set per 20	0	0	0
Soil – TIC study	Expanded list SVOCs plus TICs ⁴	Low	NYSDOH ELAP Certified Laboratory SOP SW-846 8270D, revision 7 (modified)	30	2	1 set per 20	0	0	0

¹Published Standard Operating Procedures shown that may vary by laboratory.

²Number of samples for each event to be determined in the field.

³Each QC sample for VOCs requires additional volume (i.e., three additional VOA vials per QC sample). Soil SVOC QC does not require additional volume.

⁴SVOC list for soil confirmation and effluent discharge expanded to include ROD-required compounds.

QAPP Worksheet #22
Field Equipment Calibration, Maintenance, Testing, and Inspection Table¹

[Identify all field equipment and instruments (other than analytical instrumentation) that require calibration, maintenance, or testing/inspection and provide the SOP reference number for each type of equipment. In addition, document the frequency of activity, acceptance criteria, and corrective action requirements on the worksheet.]

Field Equipment	Calibration Activity	Maintenance Activity	Testing/ Inspection Activity	Frequency	Acceptance Criteria	Corrective Action	Responsible Person	SOP Reference
pH meter ²	Two buffers (pH 4 and 7)	Clean probe, charge battery.	Check calibration against pH 7 buffer	Twice Daily	± 0.1 unit	recalibrate	FOL	NA
ORP meter ¹	Calibrate	Clean probe, charge battery	Check calibration	Twice Daily	± 0.1 unit	recalibrate	FOL	NA
Turbidimeter ¹	Calibration check at 50 NTU	Clean cell, charge battery	Verify factory calibration	Weekly	± 10 % of known value	recalibrate	FOL	NA
Dissolved Oxygen ¹	Calibrate	Clean probe, charge battery	Calibrate	Daily	± 0.2 % O ₂	recalibrate	FOL	NA
Conductivity meter	Calibrate	Clean probe, charge battery	Calibrate	Daily	Per manufacturer recommendations	recalibrate	FOL	NA
Thermometer	None	Clean; prevent breakage	Annual check against NIST – traceable instrument	Annually	± 0.1 °	replace	Field team; FOL	NA
Organic vapor meter	Check against certified calibration gas	Clean instrument; charge battery.	Check against benzene equivalent or other gas as recommended by manufacturer.	Daily	± 0.1 ppm	recalibrate	Field team; FOL/SHSO	NA
Particulate monitoring equipment (PM-10)	Calibrate	Clean probe, charge battery	Calibrate	Daily	Per manufacturer recommendations	recalibrate	FOL	NA

¹Specific equipment to be used has not yet been established. Calibration and maintenance of equipment to be conducted in accordance with instrument manual and manufacturer's recommendations.

²pH is not a required field monitoring parameter but is measured to determine well stabilization for groundwater sampling.

QAPP Worksheet #23
Analytical SOP References Table

[List all SOPs that will be used to perform on-site or off-site analysis. Indicate whether the procedure produces screening or definitive data. Include copies of the SOPs as attachments or reference in the QAPP (if required).]

EPA Reference Number	Laboratory SOP Reference Number ¹	Laboratory Title, Revision Date, and/or Number ¹	Definitive or Screening Data	Analytical Group	Instrument	Organization Performing Analysis	Modified for Project Work? (Y/N) ³
SW846 8260	Laboratory Specific	Analysis of Volatile Organic Compounds by GC/MS	Definitive	VOCs	GC/MS	NYSDOH ELAP Certified Laboratory	N
EPA Method 524.2	Laboratory Specific	Purgeable Organic Compounds by Capillary Column GC/MS	Definitive	VOC	GC/MS	NYSDOH ELAP Certified Laboratory	N
EPA method 200.7	Laboratory Specific	Determination of Metals by ICP-Thermo ICP Metals by ICP-SS ICP	Definitive	Inorganics (metals)	ICP	NYSDOH ELAP Certified Laboratory	N
EPA method 245.1	Laboratory Specific	Cold Vapor Analysis of Mercury	Definitive	Mercury	Cold Vapor	NYSDOH ELAP Certified Laboratory	N
EPA method 8270 (modified) ²	Laboratory Specific	Semivolatle Organic Compounds by Gas Chromatography/ Mass Spectroscopy	Definitive	SVOCs (expanded with TIC)	GC/MS	NYSDOH ELAP Certified Laboratory	Y (project specific analyte list)

¹Copies of analytical SOPs are specific to contracted laboratory

²Methods may require modification (e.g., additional low calibration standards) to meet project quantitation limits.

Title: QAPP for Nepera Chemical
Revision No. Revision 1
Revision Date February 2019
Section No. QAPP Worksheet #28
No. of Pages 2

**QAPP Worksheet #28-1
 QC Samples Table**

[Complete a separate worksheet for analytical method (e.g., OLM04.3 vs. OLC03.2), matrix (e.g., soil vs. groundwater), analytical group (e.g., VOCs vs. metals), and concentration level (if applicable).]

Matrix	Aqueous
Analytical Group	Volatile Organic Compounds
Concentration Level	Low
Sampling SOP(s)	See Site Management Plan Sections 4.3 and 4.4
Analytical Method/SOP Reference	Laboratory Specific
Sampler's Name	TBD
Field Sampling Organization	TBD
Analytical Organization	NYSDOH ELAP Certified Laboratory
No. of Sample Locations	TBD

Lab QC Sample:	Frequency/ Number	Method/SOP QC Acceptance Limits ¹	Corrective Action	Person(s) Responsible for Corrective Action	Data Quality Indicator (DQI)	Measurement Performance Criteria ¹
Tuning (Mass calibration check)	At beginning of run and every 12 hours	Meet all PBFB criteria	Check instrument, reanalyze, re-tune	lab personnel	Sensitivity	Meet all PBFB criteria
Method Blank (Lab Reagent Blank)	Prior to each analytical run	< MDL except for Methylene Chloride & Acetone	Identify source and correct prior to continuing analysis	lab personnel	Sensitivity/ Contamination	< MDL except for Methylene Chloride & Acetone
Trip Blank	One per shipment including aqueous VOCs	< RL	Identify source and correct	Field and/or laboratory personnel	Sensitivity/ Contamination	< RL
Initial Calibration	Prior to sample analysis	RSD ≤ 30% for CCCs, ≤ 15% for all target compounds, Minimum RRF for SPCCs (SOP Table 6)	Check instrument, recalibrate; qualify data	lab personnel	Accuracy/ Precision	RSD ≤ 30% for CCCs, ≤ 15% for all target compounds, Minimum RRF for SPCCs (SOP Table 6)
Continuing calibration check standard	Every 12 hours	Max %D ≤ 20% for CCCs; Minimum RRF ≥ for SPCCs (See SOP table 6)	Recalibrate, qualify data	lab personnel	Accuracy	Max %D ≤ 20% for CCCs; Minimum RRF ≥ for SPCCs (See SOP table 6)
Matrix Spike/ Matrix Spike (Duplicate)	1 per ≤ 20 samples	See attached typical Compound List Report	Assume matrix bias; qualify data; note in case narrative	lab personnel	Accuracy	See Attachment 3 – Compound List Report

Title: QAPP for Nepera Chemical
Revision No. Revision 1
Revision Date February 2019
Section No. QAPP Worksheet #28
No. of Pages 2

Lab QC Sample:	Frequency/ Number	Method/SOP QC Acceptance Limits ¹	Corrective Action	Person(s) Responsible for Corrective Action	Data Quality Indicator (DQI)	Measurement Performance Criteria ¹
Blank Spike	2 per batch of \leq 20 samples	See attached typical Compound List Report	Qualify data unless high recovery and/or not detected	lab personnel	Accuracy/ Precision	See Attachment 3 – Compound List Report
Surrogate Compounds	all samples, standards, and blanks	See attached typical Compound List Report	Reinject; qualify data	lab personnel	Extraction efficiency, Accuracy	See Attachment 3 – Compound List Report
Internal Standards	all samples, standards, and blanks	Factor of two (-50% to +100%)	Check instruments, reanalyze affected samples if possible. If reanalysis not possible qualify data	lab personnel	Accuracy	Factor of two (-50% to +100%)

Title: QAPP for Nepera Chemical
Revision No. Revision 1
Revision Date February 2019
Section No. QAPP Worksheet #28
No. of Pages 2

**QAPP Worksheet #28-2
 QC Samples Table**

[Complete a separate worksheet for analytical method (e.g., OLM04.3 vs. OLC03.2), matrix (e.g., soil vs. groundwater), analytical group (e.g., VOCs vs. metals), and concentration level (if applicable).]

Matrix	Aqueous
Analytical Group	Semivolatile Organic Compounds
Concentration Level	Low
Sampling SOP(s)	See Site Management Plan Sections 4.3 and 4.4
Analytical Method/SOP Reference	Laboratory Specific
Sampler's Name	TBD
Field Sampling Organization	WRSScompass
Analytical Organization	NYSDOH ELAP Certified Laboratory
No. of Sample Locations	TBD

Lab QC Sample:	Frequency/ Number	Method/SOP QC Acceptance Limits ¹	Corrective Action	Person(s) Responsible for Corrective Action	Data Quality Indicator (DQI)	Measurement Performance Criteria ¹
Tuning (Mass calibration check)	At beginning of run and every 12 hours	Meet all DFTPP criteria	Check instrument, reanalyze, re-tune	lab personnel	Sensitivity	Meet all PBFB criteria
Method Blank (Lab Reagent Blank)	1 per extraction batch of ≤ 20 samples	< MDL	Reanalyze/ retract entire batch	lab personnel	Sensitivity/ Contamination	< MDL
Initial Calibration	Prior to sample analysis	≤ 20% RSD Minimum RF's (see SOP 10.1.7.3)	Check instrument, recalibrate	lab personnel	Accuracy/ Precision	≤ 20% RSD Minimum RF's (see SOP 10.1.7.3)
Continuing calibration check standard	Every 12 hours	Max %D ≤ 20% Minimum RF's (see SOP 10.1.7.3)	Recalibrate	lab personnel	Accuracy	Max %D ≤ 20% Minimum RF's (see SOP 10.1.7.3)
Matrix Spike/Matrix Spike Duplicate	1 pair per ≤ 20 samples	In house limits, see attachments	Assume matrix bias; qualify data; note in case narrative	lab personnel	Accuracy	See Attachment 3 – Compound List Report
Blank Spike	1 per batch of ≤ 20 samples	In house limits, see attachments	Qualify data unless high recovery and not detected	lab personnel	Accuracy/ Precision	See Attachment 3 – Compound List Report

Title: QAPP for Nepera Chemical
Revision No. Revision 1
Revision Date February 2019
Section No. QAPP Worksheet #28
No. of Pages 2

Lab QC Sample:	Frequency/ Number	Method/SOP QC Acceptance Limits ¹	Corrective Action	Person(s) Responsible for Corrective Action	Data Quality Indicator (DQI)	Measurement Performance Criteria ¹
Surrogate Compounds	all samples, standards, and blanks	See attached typical – Compound List Report	Reinject; qualify data	lab personnel	Extraction efficiency, Accuracy	See Attachment 3 – Compound List Report
Internal Standards	all samples, standards, and blanks	Factor of two (-50% to +100%)	Check instruments, reanalyze affected samples if possible. If reanalysis not possible qualify data	lab personnel	Accuracy	Factor of two (-50% to +100%)

¹ See attached typical Compound List Report.

Title: QAPP for Nepera Chemical
Revision No. Revision 2
Revision Date August 2011
Section No. Attachment E, QAPP Worksheet #37
No. of Pages 1

QAPP Worksheet #32
Assessment Findings and Corrective Action Responses

[For each type of assessment, describe procedures for deficiencies/deviations encountered.]

Assessment Type	Nature of Deficiencies Documentation	Individual(s) Notified of Findings (Name, Title, Organization)	Timeframe of Notification	Nature of Corrective Action Response Documentation	Individual(s) Receiving Corrective Action Response (Name, Title, Org.)	Timeframe for Response
Performance Evaluation Samples ¹	Recovery outside warning or control limits	Project Manager and/or QAO	Immediately to within 24 hours of review	Investigate and correct	Laboratory Manager; QA Manager; Section/ group Manager	Unknown
Split sample data	Poor agreement between data sets	EPA and Trust QA personnel and chemists	After both data sets completed and reviewed	Investigate and correct	EPA and Trust Laboratory Manager; QA Managers; Section / group Managers; sampling personnel; others as appropriate.	TBD
Laboratory Technical Systems/ Performance Audit ²	Unknown	Laboratory Manager	Unknown	Unknown	Laboratory Manager or QA manager	Unknown
On-Site Field Inspection	Field Activities or equipment not as specified in project plans	PM or project representative; management personnel of affected organization	Immediately to within 24 hours of review	Corrective Action Memorandum	Trust Project Manager; USEPA PM and affected organization	Varies, based on nature and severity of problems noted.

1. PE samples not currently planned.
2. May include periodic audits in conjunction with maintaining NELAC certification.

Compound List Report

Product: V8260STD Volatile Organics

Matrix: AQ Aqueous

May 23, 2011 10:25 am

Method List:	VAIX8260 AQ	Method Ref:	SW846 8260B	LJ35396
Report List:	V8260 ALL	VOA 8260 List		LJ16165
RL/MDL Factor:	1			

Compound	CAS No.	RL	MDL	Units	Control Limits (%) Rev: 2/11			
					MS/MSD RPD	BS	DUP	
Acetone	67-64-1	10	4.4	ug/l	39-150	20	49-142	16
Benzene	71-43-2	1.0	0.26	ug/l	40-139	12	76-119	10
Bromobenzene	108-86-1	5.0	0.13	ug/l	67-131	12	77-123	10
Bromochloromethane	74-97-5	5.0	0.79	ug/l	67-134	12	77-129	10
Bromodichloromethane	75-27-4	1.0	0.18	ug/l	68-135	12	81-133	12
Bromoform	75-25-2	4.0	0.42	ug/l	55-141	14	72-139	10
Bromomethane	74-83-9	2.0	0.24	ug/l	49-145	16	55-140	10
2-Butanone (MEK)	78-93-3	10	1.7	ug/l	55-141	15	64-132	10
n-Butylbenzene	104-51-8	5.0	0.26	ug/l	55-139	15	74-130	10
sec-Butylbenzene	135-98-8	5.0	0.40	ug/l	55-137	14	75-125	10
tert-Butylbenzene	98-06-6	5.0	0.34	ug/l	58-137	15	76-127	10
Carbon tetrachloride	56-23-5	1.0	0.35	ug/l	52-155	16	74-146	10
Chlorobenzene	108-90-7	1.0	0.15	ug/l	66-129	11	79-120	10
Chloroethane	75-00-3	1.0	0.25	ug/l	50-140	16	60-134	10
Chloroform	67-66-3	1.0	0.14	ug/l	63-133	13	77-127	11
Chloromethane	74-87-3	1.0	0.34	ug/l	43-138	17	50-128	10
o-Chlorotoluene	95-49-8	5.0	0.17	ug/l	62-132	13	78-124	10
p-Chlorotoluene	106-43-4	5.0	0.29	ug/l	62-129	13	75-120	10
1,2-Dibromo-3-chloropropane	96-12-8	10	1.2	ug/l	57-142	14	64-137	10
Dibromochloromethane	124-48-1	1.0	0.16	ug/l	64-136	12	77-131	10
1,2-Dibromoethane	106-93-4	2.0	0.39	ug/l	69-132	11	76-127	10
1,2-Dichlorobenzene	95-50-1	1.0	0.15	ug/l	69-129	11	78-123	10
1,3-Dichlorobenzene	541-73-1	1.0	0.19	ug/l	66-130	12	77-124	10
1,4-Dichlorobenzene	106-46-7	1.0	0.22	ug/l	66-127	12	76-121	10
Dichlorodifluoromethane	75-71-8	5.0	0.39	ug/l	31-166	20	41-138	10
1,1-Dichloroethane	75-34-3	1.0	0.16	ug/l	58-132	13	74-124	10
1,2-Dichloroethane	107-06-2	1.0	0.31	ug/l	62-145	12	71-138	10
1,1-Dichloroethene	75-35-4	1.0	0.24	ug/l	43-142	17	68-126	10
cis-1,2-Dichloroethene	156-59-2	1.0	0.24	ug/l	55-132	12	78-131	10
trans-1,2-Dichloroethene	156-60-5	1.0	0.30	ug/l	53-132	14	64-119	10
1,2-Dichloropropane	78-87-5	1.0	0.23	ug/l	65-128	12	76-121	10
1,3-Dichloropropane	142-28-9	5.0	0.22	ug/l	68-127	11	77-120	10
2,2-Dichloropropane	594-20-7	5.0	0.21	ug/l	41-146	16	53-143	10
1,1-Dichloropropene	563-58-6	5.0	0.16	ug/l	54-139	15	77-125	10
cis-1,3-Dichloropropene	10061-01-5	1.0	0.16	ug/l	66-130	12	76-123	10
trans-1,3-Dichloropropene	10061-02-6	1.0	0.22	ug/l	64-135	13	74-129	10
Ethylbenzene	100-41-4	1.0	0.31	ug/l	40-140	12	77-119	12
Hexachlorobutadiene	87-68-3	5.0	0.23	ug/l	51-141	16	66-137	10
Isopropylbenzene	98-82-8	2.0	0.31	ug/l	56-138	13	74-125	10
p-Isopropyltoluene	99-87-6	5.0	0.13	ug/l	58-136	14	78-128	10
Methyl Tert Butyl Ether	1634-04-4	1.0	0.20	ug/l	54-136	12	72-125	16
4-Methyl-2-pentanone(MIBK)	108-10-1	5.0	0.74	ug/l	61-138	14	68-131	10
Methylene bromide	74-95-3	5.0	0.35	ug/l	70-134	12	79-129	10
Methylene chloride	75-09-2	2.0	0.20	ug/l	60-130	13	73-122	10

Compound List Report

Product: V8260STD Volatile Organics
 Matrix: AQ Aqueous

May 23, 2011 10:25 am

Method List:	VAIX8260 AQ	Method Ref:	SW846 8260B	LJ35396
Report List:	V8260 ALL	VOA 8260 List		LJ16165
RL/MDL Factor:	1			

Compound	CAS No.	RL	MDL	Units	Control Limits (%) Rev: 2/11			
					MS/MSD RPD	BS	DUP	
Naphthalene	91-20-3	5.0	0.78	ug/l	51-149	14	61-136	14
n-Propylbenzene	103-65-1	5.0	0.33	ug/l	51-138	14	73-121	10
Styrene	100-42-5	5.0	0.48	ug/l	59-132	13	77-121	10
1,1,1,2-Tetrachloroethane	630-20-6	5.0	0.18	ug/l	69-134	12	80-128	10
1,1,2,2-Tetrachloroethane	79-34-5	1.0	0.12	ug/l	65-128	12	70-121	10
Tetrachloroethene	127-18-4	1.0	0.24	ug/l	52-143	15	64-148	13
Toluene	108-88-3	1.0	0.27	ug/l	47-140	12	77-122	10
1,2,3-Trichlorobenzene	87-61-6	5.0	0.29	ug/l	62-137	14	69-136	10
1,2,4-Trichlorobenzene	120-82-1	5.0	0.16	ug/l	64-136	14	73-133	10
1,1,1-Trichloroethane	71-55-6	1.0	0.20	ug/l	55-146	15	76-135	10
1,1,2-Trichloroethane	79-00-5	1.0	0.13	ug/l	70-129	12	79-125	10
Trichloroethene	79-01-6	1.0	0.22	ug/l	54-142	14	80-129	12
Trichlorofluoromethane	75-69-4	5.0	0.23	ug/l	45-159	19	66-145	10
1,2,3-Trichloropropane	96-18-4	5.0	0.52	ug/l	64-137	13	72-130	10
1,2,4-Trimethylbenzene	95-63-6	5.0	0.27	ug/l	40-147	12	77-123	10
1,3,5-Trimethylbenzene	108-67-8	5.0	0.31	ug/l	50-142	13	76-123	10
Vinyl chloride	75-01-4	1.0	0.22	ug/l	42-145	18	56-133	10
m,p-Xylene		1.0	0.39	ug/l	39-141	12	77-121	12
o-Xylene	95-47-6	1.0	0.28	ug/l	51-138	12	80-124	12
Xylene (total)	1330-20-7	1.0	0.28	ug/l	42-140	12	78-121	13
Dibromofluoromethane	1868-53-7				Surrogate Limits: 77-120			
1,2-Dichloroethane-D4	17060-07-0				Surrogate Limits: 70-127			
Toluene-D8	2037-26-5				Surrogate Limits: 79-120			
4-Bromofluorobenzene	460-00-4				Surrogate Limits: 76-118			

64 compounds and 4 surrogates reported in list V8260

Compound List Report

Product: AB8270AP9 Acid and Base Neutrals, Appendix IX

Matrix: AQ Aqueous

May 23, 2011 10:50 am

Method List: AB8270 AQ	Method Ref: SW846 8270C	LJ35368
Report List: ABAIX ALL	ABN Appendix IX List	LJ344
RL/MDL Factor: 1		

Compound	CAS No.	RL	MDL	Units	Control Limits (%) Rev: 2/11			
					MS/MSD RPD	BS	DUP	
2-Chlorophenol	95-57-8	5.0	1.1	ug/l	32-117	29	47-107	10
4-Chloro-3-methyl phenol	59-50-7	5.0	1.1	ug/l	48-134	21	55-126	10
2,4-Dichlorophenol	120-83-2	5.0	1.2	ug/l	34-129	28	51-124	10
2,4-Dimethylphenol	105-67-9	5.0	1.7	ug/l	50-140	20	54-132	10
2,4-Dinitrophenol	51-28-5	20	0.74	ug/l	10-156	41	16-156	10
2,6-Dichlorophenol	87-65-0	5.0	1.1	ug/l	29-129	32	53-122	10
4,6-Dinitro-o-cresol	534-52-1	20	0.51	ug/l	10-139	36	30-138	10
Dinoseb	88-85-7	5.0	0.51	ug/l	63-153	30	41-153	10
2-Methylphenol	95-48-7	2.0	1.1	ug/l	34-120	25	34-109	10
3&4-Methylphenol		2.0	1.0	ug/l	31-121	28	26-106	10
2-Nitrophenol	88-75-5	5.0	1.2	ug/l	30-130	29	49-126	10
4-Nitrophenol	100-02-7	10	0.83	ug/l	10-115	43	10-86	10
Pentachlorophenol	87-86-5	10	0.80	ug/l	10-136	36	27-127	10
Phenol	108-95-2	2.0	0.58	ug/l	10-91	36	10-78	10
2,3,4,6-Tetrachlorophenol	58-90-2	5.0	0.81	ug/l	24-129	32	48-120	10
2,4,5-Trichlorophenol	95-95-4	5.0	1.3	ug/l	33-136	29	55-128	10
2,4,6-Trichlorophenol	88-06-2	5.0	1.2	ug/l	29-133	30	55-124	10
2-Acetylaminofluorene	53-96-3	5.0	0.63	ug/l	63-175	30	48-144	10
4-Aminobiphenyl	92-67-1	5.0	0.65	ug/l	6-86	30	60-115	10
Acenaphthene	83-32-9	1.0	0.37	ug/l	55-119	21	57-118	10
Acenaphthylene	208-96-8	1.0	0.27	ug/l	47-110	20	49-110	10
Acetophenone	98-86-2	2.0	0.40	ug/l	48-145	23	60-132	10
Aniline	62-53-3	2.0	0.23	ug/l	10-111	34	20-104	10
Anthracene	120-12-7	1.0	0.16	ug/l	59-128	21	63-128	10
Aramite	140-57-8	5.0	1.9	ug/l	50-150	30	29-171	10
Atrazine ^a	1912-24-9	5.0	0.39	ug/l	48-159	22	64-150	10
A, A-Dimethylphenethylamine	122-09-8	5.0	0.87	ug/l	1-84	30	50-150	10
Benzaldehyde ^b	100-52-7	5.0	0.40	ug/l	25-152	25	39-146	10
Benzo(a)anthracene	56-55-3	1.0	0.12	ug/l	54-124	21	59-124	10
Benzo(a)pyrene	50-32-8	1.0	0.095	ug/l	57-129	21	63-129	10
Benzo(b)fluoranthene	205-99-2	1.0	0.25	ug/l	46-138	28	50-139	10
Benzo(g,h,i)perylene	191-24-2	1.0	0.12	ug/l	52-135	23	61-132	10
Benzo(k)fluoranthene	207-08-9	1.0	0.38	ug/l	45-141	30	53-140	10
4-Bromophenyl phenyl ether	101-55-3	2.0	0.35	ug/l	56-128	21	61-127	10
Butyl benzyl phthalate	85-68-7	2.0	0.25	ug/l	50-142	23	55-139	10
Benzyl Alcohol	100-51-6	2.0	0.31	ug/l	33-117	26	24-102	10
1,1'-Biphenyl ^c	92-52-4	1.0	0.42	ug/l	51-125	23	57-120	10
2-Chloronaphthalene	91-58-7	2.0	0.42	ug/l	50-115	22	51-115	10
4-Chloroaniline	106-47-8	5.0	0.25	ug/l	20-116	31	35-114	10
Carbazole ^d	86-74-8	1.0	0.17	ug/l	59-131	20	65-129	10
Caprolactam ^e	105-60-2	2.0	0.20	ug/l	10-85	43	1-78	10
Chlorobenzilate	510-15-6	5.0	0.48	ug/l	79-110	30	59-142	10
Chrysene	218-01-9	1.0	0.11	ug/l	55-127	20	59-128	10
bis(2-Chloroethoxy)methane	111-91-1	2.0	0.25	ug/l	52-127	22	56-127	10

Compound List Report

Product: AB8270AP9 Acid and Base Neutrals, Appendix IX

Matrix: AQ Aqueous

May 23, 2011 10:50 am

Method List: AB8270 AQ	Method Ref: SW846 8270C	LJ35368
Report List: ABAIX ALL	ABN Appendix IX List	LJ344
RL/MDL Factor: 1		

Compound	CAS No.	RL	MDL	Units	Control Limits (%) Rev: 2/11			
					MS/MSD RPD	BS	DUP	
bis(2-Chloroethyl)ether	111-44-4	2.0	0.31	ug/l	44-122	25	51-120	10
bis(2-Chloroisopropyl)ether	108-60-1	2.0	0.39	ug/l	37-124	22	38-125	10
4-Chlorophenyl phenyl ether	7005-72-3	2.0	0.35	ug/l	54-122	20	58-122	10
1,2-Dichlorobenzene	95-50-1	1.0	0.42	ug/l	34-105	25	34-102	10
1,3-Dichlorobenzene	541-73-1	1.0	0.36	ug/l	30-101	26	28-99	10
1,4-Dichlorobenzene	106-46-7	1.0	0.39	ug/l	32-103	25	31-101	10
2,4-Dinitrotoluene	121-14-2	2.0	0.22	ug/l	55-130	22	63-127	10
2,6-Dinitrotoluene	606-20-2	2.0	0.33	ug/l	55-142	20	59-140	10
3,3'-Dichlorobenzidine	91-94-1	5.0	0.30	ug/l	10-143	35	26-139	10
3,3'-Dimethylbenzidine	119-93-7	5.0	0.37	ug/l	70-130	30	12-58	10
7,12-Dimethylbenz(a)anthracene	57-97-6	5.0	0.30	ug/l	37-168	23	53-164	10
Diallate	2303-16-4	5.0	0.79	ug/l	66-112	30	29-154	10
Dibenzo(a,h)anthracene	53-70-3	1.0	0.15	ug/l	54-136	23	61-135	10
Dibenzofuran	132-64-9	5.0	0.30	ug/l	57-118	21	60-116	10
Dimethoate	60-51-5	5.0	0.52	ug/l	55-123	30	52-138	10
Diphenylamine	122-39-4	5.0	0.65	ug/l	1-107	30	27-140	10
Disulfoton	298-04-4	5.0	1.1	ug/l	56-104	30	61-148	10
m-Dinitrobenzene	99-65-0	5.0	0.70	ug/l	75-121	30	61-118	10
p-(Dimethylamine)azobenzene	60-11-7	5.0	0.65	ug/l	65-126	30	54-148	10
Di-n-butyl phthalate	84-74-2	2.0	0.19	ug/l	57-137	21	62-136	10
Di-n-octyl phthalate	117-84-0	2.0	0.40	ug/l	52-145	22	59-142	10
Diethyl phthalate	84-66-2	2.0	0.17	ug/l	49-132	22	53-131	10
Dimethyl phthalate	131-11-3	2.0	0.23	ug/l	36-135	26	37-137	10
bis(2-Ethylhexyl)phthalate	117-81-7	2.0	0.33	ug/l	51-146	24	59-141	10
Ethyl methanesulfonate	62-50-0	5.0	0.40	ug/l	68-97	30	46-114	10
Famphur	52-85-7	30	4.1	ug/l	1-109	30	28-174	10
Fluoranthene	206-44-0	1.0	0.17	ug/l	55-129	20	61-129	10
Fluorene	86-73-7	1.0	0.27	ug/l	57-125	21	62-124	10
Hexachlorobenzene	118-74-1	1.0	0.27	ug/l	53-128	21	58-127	10
Hexachlorobutadiene	87-68-3	1.0	0.13	ug/l	27-122	27	17-120	10
Hexachlorocyclopentadiene	77-47-4	20	0.24	ug/l	10-165	30	13-160	10
Hexachloroethane	67-72-1	2.0	0.21	ug/l	24-108	28	18-106	10
Hexachlorophene	70-30-4	50	14	ug/l	53-125	30	14-194	10
Hexachloropropene	1888-71-7	5.0	0.24	ug/l	48-102	30	13-122	10
Indeno(1,2,3-cd)pyrene	193-39-5	1.0	0.13	ug/l	53-138	23	59-138	10
Isodrin	465-73-6	5.0	0.90	ug/l	49-121	30	62-129	10
Isophorone	78-59-1	2.0	0.25	ug/l	42-139	20	44-141	10
Isosafrole	120-58-1	5.0	0.25	ug/l	75-109	30	44-135	10
Kepone	143-50-0	30	4.1	ug/l	1-110	30	10-157	10
2-Methylnaphthalene	91-57-6	1.0	0.66	ug/l	41-118	22	45-110	10
3-Methylcholanthrene	56-49-5	5.0	0.59	ug/l	70-111	30	68-120	10
Methapyrilene	91-80-5	5.0	1.1	ug/l	70-130	30	24-95	10
Methyl methanesulfonate	66-27-3	5.0	0.35	ug/l	26-77	30	10-98	10
Methyl parathion	298-00-0	5.0	0.77	ug/l	73-129	30	61-142	10

Compound List Report

Product: AB8270AP9 Acid and Base Neutrals, Appendix IX

Matrix: AQ Aqueous

May 23, 2011 10:50 am

Method List: AB8270 AQ	Method Ref: SW846 8270C	LJ35368
Report List: ABAIX ALL	ABN Appendix IX List	LJ344
RL/MDL Factor: 1		

Compound	CAS No.	RL	MDL	Units	Control Limits (%) Rev: 2/11			
					MS/MSD RPD	BS	DUP	
1,4-Naphthoquinone	130-15-4	5.0	0.43	ug/l	59-103	30	57-137	10
1-Naphthylamine	134-32-7	5.0	0.76	ug/l	1-65	30	45-106	10
2-Naphthylamine	91-59-8	5.0	0.51	ug/l	1-41	30	55-122	10
2-Nitroaniline	88-74-4	5.0	0.24	ug/l	45-151	25	50-147	10
3-Nitroaniline	99-09-2	5.0	0.29	ug/l	28-120	28	44-116	10
4-Nitroaniline	100-01-6	5.0	0.18	ug/l	32-131	28	50-125	10
5-Nitro-o-toluidine	99-55-8	5.0	0.90	ug/l	7-155	30	58-137	10
Naphthalene	91-20-3	1.0	0.43	ug/l	40-116	24	47-107	10
Nitrobenzene	98-95-3	2.0	0.25	ug/l	48-122	22	53-118	10
n-Nitrosodimethylamine	62-75-9	2.0	0.73	ug/l	10-101	31	10-78	10
4-Nitroquinoline 1-Oxide	56-57-5	10	1.1	ug/l	13-179	30	28-171	10
N-Nitroso-di-n-propylamine	621-64-7	2.0	0.44	ug/l	44-136	22	50-134	10
N-Nitrosodi-n-butylamine	924-16-3	5.0	1.3	ug/l	32-137	30	57-134	10
N-Nitrosodiethylamine	55-18-5	5.0	0.33	ug/l	69-105	30	55-112	10
N-Nitrosodiphenylamine	86-30-6	5.0	0.22	ug/l	52-130	23	61-121	10
N-Nitrosomethylethylamine	10595-95-6	5.0	0.80	ug/l	62-114	30	10-146	10
N-Nitrosomorpholine	59-89-2	5.0	0.43	ug/l	41-114	30	10-140	10
N-Nitrosopiperidine	100-75-4	5.0	0.40	ug/l	49-119	30	55-142	10
N-Nitrosopyrrolidine	930-55-2	5.0	0.49	ug/l	59-124	30	26-152	10
O,O,O-Triethyl phosphorothioat	126-68-1	5.0	0.38	ug/l	45-109	30	50-115	10
2-Picoline	109-06-8	5.0	0.28	ug/l	70-130	30	24-79	10
Parathion	56-38-2	5.0	0.78	ug/l	71-137	30	59-159	10
Pentachlorobenzene	608-93-5	5.0	0.43	ug/l	60-113	30	48-132	10
Pentachloronitrobenzene	82-68-8	5.0	1.8	ug/l	50-150	30	12-200	10
Phenacetin	62-44-2	5.0	1.1	ug/l	59-141	30	55-130	10
Phenanthrene	85-01-8	1.0	0.21	ug/l	57-126	21	62-124	10
Phorate	298-02-2	5.0	0.70	ug/l	9-147	30	33-179	10
Pronamide	23950-58-5	5.0	0.89	ug/l	62-115	30	45-163	10
Pyrene	129-00-0	1.0	0.16	ug/l	50-128	21	56-126	10
Pyridine	110-86-1	2.0	0.27	ug/l	10-91	40	10-73	10
p-Phenylenediamine	106-50-3	5.0	0.25	ug/l	33-145	30	50-150	10
Safrole	94-59-7	5.0	0.34	ug/l	48-103	30	48-124	10
1,2,4,5-Tetrachlorobenzene	95-94-3	2.0	0.48	ug/l	39-129	22	35-129	10
1,2,4-Trichlorobenzene	120-82-1	1.0	0.44	ug/l	38-111	24	33-110	10
Thionazin	297-97-2	5.0	0.79	ug/l	1-56	30	57-136	10
o-Toluidine	95-53-4	5.0	0.38	ug/l	70-130	30	30-113	10
sym-Trinitrobenzene	99-35-4	5.0	0.69	ug/l	88-122	30	34-158	10
Tetraethyl dithiopyrophosphate	3689-24-5	5.0	0.80	ug/l	72-120	30	58-142	10
2-Fluorophenol	367-12-4				Surrogate Limits:		10-83	
Phenol-d5	4165-62-2				Surrogate Limits:		10-74	
2-Chlorophenol-D4					Surrogate Limits:		70-130	
2,4,6-Tribromophenol	118-79-6				Surrogate Limits:		24-148	
1,2-Dichlorobenzene-d4	2199-69-1				Surrogate Limits:		70-130	

Compound List Report

Product: AB8270AP9 Acid and Base Neutrals, Appendix IX

Matrix: AQ Aqueous

May 23, 2011 10:50 am

Method List: AB8270 AQ	Method Ref: SW846 8270C	LJ35368
Report List: ABAIX ALL	ABN Appendix IX List	LJ344
RL/MDL Factor: 1		

Compound	CAS No.	RL	MDL	Units	Control Limits (%) Rev: 2/11		
					MS/MSD RPD	BS	DUP
Nitrobenzene-d5	4165-60-0				Surrogate Limits:	38-129	
2-Fluorobiphenyl	321-60-8				Surrogate Limits:	42-117	
Terphenyl-d14	1718-51-0				Surrogate Limits:	14-132	

126 compounds and 8 surrogates reported in list ABAIX

- (a) Addon product code: BMS+ ATRZ
- (b) Addon product code: BMS+ BAH
- (c) Addon product code: BMS+ BIPHNYL
- (d) Addon product code: BMS+ CZ
- (e) Addon product code: BMS+ CAPR

FORMER NEPERA CHEMICAL COMPANY SUPERFUND SITE SITE MANAGEMENT PLAN

FIELD SAMPLING PLAN

Site:

Nepera Chemical Company Superfund Site
Town of Hamptonburgh
Orange County, New York 10916

Prepared for:

Maybrook and Harriman Environmental Trust

Prepared by:

Cornerstone Engineering, Geology and Land Surveying, PLLC
100 Crystal Run Road, Suite 101
Middletown, New York 10941

February 2019

Table of Contents	Page
1.0 INTRODUCTION.....	1
1.1 Groundwater	1
1.2 Private Potable Water Supply Wells	1
2.0 QUALITY ASSURANCE REQUIREMENTS / DATA QUALITY OBJECTIVES	2
3.0 GROUNDWATER MONITORING.....	3
3.1 Groundwater Monitoring.....	3
3.2 Groundwater Sampling and Analyses	3
3.0 PRIVATE POTABLE WATER SUPPLY WELL MONITORING.....	5
3.1 Potable Water Monitoring	5
3.2 Potable Water Sampling and Analyses.....	5

1.0 INTRODUCTION

This Field Sampling Plan (FSP) has been developed to describe the objectives and procedures for the sampling and analyses of groundwater and private, potable water supply wells, following the implementation of the remedy at the former Nepera Chemical Company Superfund Site. In addition, the Quality Assurance Project Plan (QAPP) should be consulted where specific sampling and analysis procedures and methods are referenced.

The environmental media to be sampled, and the purpose for collecting and analyzing environmental samples, is described below in the sections that follow.

1.1 Groundwater

Groundwater sampling to monitor for potential off-site migration, effectiveness of the remedial program, and assessing COC concentration trends.

1.2 Private Potable Water Supply Wells

Private potable water supply well sampling to monitor for potential presence of Site-related COCs in drinking water.

The following sections of this FSP provide specific information regarding the rationale and methods for sampling and analyzing groundwater and private, potable well water.

2.0 QUALITY ASSURANCE REQUIREMENTS / DATA QUALITY OBJECTIVES

Quality assurance requirements are specified in this document in individual sections and the data quality objectives and QA/QC requirements are delineated in the QAPP.

3.0 GROUNDWATER MONITORING

3.1 Groundwater Monitoring

To monitor the effectiveness of the remedial action and the Site's groundwater quality, selected Site monitoring wells will be sampled in accordance with the Site Management Plan. If the Site-related COCs are detected in groundwater samples at concentrations exceeding the Site-specific cleanup levels, statistics are not indicative of declining trends, and oxygen levels are below those necessary to promote biodegradation, oxygenating compounds may be reintroduced using direct push technology in the area(s) indicated by the monitoring data.

The groundwater monitoring program will be as described in the Site Management Plan (SMP). This Field Sampling Plan is made a part of the SMP.

3.2 Groundwater Sampling and Analyses

Prior to sampling, the wells will be opened, and head-space VOC readings will be collected using a photoionization detector (PID). Water level measurements will be taken prior to sampling. The groundwater samples will then be collected from the wells by a bladder pump, taking care to cause minimal agitation or turbulence. The groundwater will be passed through a flow-through cell and water quality will be recorded. The wells will be purged and sampled using the low-flow or minimal draw-down technique which monitors groundwater quality parameters until three consecutive rounds of readings stabilize to within an established range indicating no significant change. Low-flow sampling will be in accordance with *Groundwater Sampling Procedure Low Stress (Low Flow) Purging and Sampling* (USEPA, March 1998). After purging, the samples will be transferred immediately to the appropriate laboratory-supplied containers. Once filled, the containers will be placed immediately in ice-filled coolers for shipment to the laboratory. No filtered groundwater samples will be collected.

The samples will be submitted to a NYSDOH ELAP certified laboratory under standard chain of custody procedures along with a blind field duplicate, trip blank and a field blank; as well as sufficient sample quantity for Site-specific matrix spike/matrix spike duplicate analysis. The samples will be analyzed for Site-specific VOCs and SVOCs and additional parameters as shown in Table 1. Based on the analytical results, frequency of sampling may be changed. After achieving groundwater standards for two consecutive years, the monitoring frequency will be re-evaluated in concert with USEPA.

Table 1, Analytical Parameters, Groundwater Sampling

TCL VOCs
TCL SVOCs
Site-Specific Compounds: 2-aminopyridine Pyridine Alpha picoline Aniline 2,4'bipyridine
Field Parameters: Temperature Redox Turbidity Specific conductance pH Dissolved oxygen
General/Biodegradation Parameters: Ferrous Iron (field) COD Calcium Magnesium Alkalinity Nitrate

3.0 PRIVATE POTABLE WATER SUPPLY WELL MONITORING

3.1 Potable Water Monitoring

To monitor the potential for Site-related COCs to be present in drinking water supplied from private wells at the four closest residences to the Site.

3.2 Potable Water Sampling and Analyses

Four private, potable water supply wells (private homeowner access being granted) will be sampled and tested for the Target Compound List volatile organics and the Site-specific parameters of 2-aminopyridine, alpha-picoline, and pyridine. These private water supply samples will be collected from the homeowner water supply system prior to any treatment equipment (e.g., water softener). The samples will be placed directly into the laboratory-supplied containers and will be preserved, transported, and analyzed, as described in the QAPP.

ATTACHMENT M
INSPECTION FORM
