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INTERIM REMEDIAL MEASURES COMPLETION REPORT FOR SYSTEM ENHANCEMENT NORWICH FORMER MGP SITE NORWICH, NEW YORK

IT Corporation Project 108196

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1.0 INTRODUCTION

This *Interim Remedial Measures Completion Report (Completion Report)* describes enhancements to the existing interim remedial measures (IRM) Air Sparge and Soil Vapor Extraction System (AS/SVE) currently operating at the Norwich former manufactured gas plant (MGP) facility (Site) located in the City of Norwich, Chenango County, New York, as shown on **Figure 1** of **Appendix A**.

This *Completion Report* describes the techniques used for the installation of additional air sparge wells and horizontal soil vapor extraction (SVE) lines to enhance the operation of the existing air sparge/soil vapor extraction (AS/SVE) system currently installed and operating at the site. The installation of these additional wells and lines addresses indications of elevated volatile organic compound (VOC) and semi-volatile organic compound (SVOC) concentrations observed in groundwater in the vicinity of monitoring well GW91-6 (**Appendix B**, **Sheet 1**). This proposed leg is located downgradient of the former MGP structures, and should increase the ability of the existing treatment system to treat groundwater flowing out of the original targeted treatment area.

1.1 Site Background

1.1.1 Site Location and Description

The Site is currently owned by NYSEG and is an irregularly shaped parcel of land located in the central portion of the City of Norwich (**Appendix A**, **Figure 2**). The Site is bounded by the Tops Market and adjacent shopping complex to the north, a NYSEG electrical substation and residences to the east, residences to the south, and railroad tracks and a day care center adjacent to a freight station to the west. The Site is being used by NYSEG gas services department as a regulator station and satellite gas operations center.

1.2 Site History

The Site was used to manufacture gas for approximately 66 years, from 1887 to 1953. The main structures of the former MGP facility included an electric plant (formerly a coal storage warehouse), a gas plant (formerly a retort house), and a purifier house. The structures were

located in the western and central portions of the Site, respectively. The gas plant structure reportedly housed a tar-storage vessel. A subsurface tar well was also located west of the purifier house. Two separate gas holders were used at various times during the years of gas production. The original gas relief holder was an approximately 50-foot-diameter vessel constructed of a metal-lined, brick inner wall and a stone outer wall extending to approximately 10 feet below existing ground surface. The second holder, a distribution holder, was a 100,000 cubic foot steel structure constructed above grade on a concrete foundation. Several oil storage tanks and a storage building were also located on the Site.

1.3 Previous Investigation and Remediation Efforts

A Remedial Investigation (RI) was conducted by NYSEG on-site, beginning in 1990. The purpose of the RI was to define the nature and extent of any contamination resulting from the previous activities at the Site. The RI was conducted in the three phases (tasks). Task 1, Prioritization of the Former Norwich MGP Site, was completed in September 1991, by Engineering-Science, Inc. The Task 1 report included results from an NUS Corporation investigation of the Site, authorized by the USEPA. Task 2, Initial Field Investigation Program was completed in July 1992, by Engineering-Science, Inc. The Task 2 report contains a preliminary qualitative risk assessment. Task 3, Supplemental Field Investigation Program, was completed in January 1993, by Engineering-Science, Inc.

Based on these site investigations, an IRM was proposed for the Site, consisting of three phases. The work plan for Phase I was submitted to and approved by the NYSDEC in November 1994, and Phase I, which included excavation of the former distribution holder area at the site, was completed in the last quarter of 1994. Phase II involved the transport of 1,600 tons of stockpiled MGP residues at the Site (excavated during Phase I) to Border City (Geneva, New York) for processing and ultimate destruction at NYSEG's Hickling Station, East Corning, New York power generation facility. Phase II was completed in September 1996. Phase III involved removal of a former relief holder, tar well and associated MGP pipe. During Phase III, an AS/SVE system was installed in the excavated area to promote site remediation. This system was activated on December 17, 1999 and continues to be operated to reduce subsurface contaminants at the site.

1.4 Existing Project Documents

The work to be performed as part of the proposed system enhancement will have various task performed based upon guidance from previously submitted documents. These documents are outlined below:

- Health and Safety Plan – NYSEG Norwich Former MGP Site - October 4, 2001
- Air Sparge / Soil Vapor Extraction System Operations and Maintenance Manual – March 2000
- IRM Work Plan for System Enhancement – November 2001

2.0 OBJECTIVES

The objectives for the installation of the additional AS/SVE lines are to enhance remediation efforts downgradient of the existing treatment system. This enhancement will help to reduce VOC and SVOC concentrations in groundwater and soil downgradient of the areas where impacts from MGP activity have been identified.

The proposed system enhancement makes use of the existing treatment equipment by allowing the operation of the new AS/SVE leg by idling one of the existing legs. Current system operation will continue, with three of the system legs operating on a rotating basis, with each leg operating for 8 hours per day. Configuration of the sparge settings would also be retained, with each sparge leg being operated for six hours per day, with a one hour buffer before and after sparge leg operation to allow for a "pulsing" effect to maximize system effectiveness.

Monitoring well GW91-6 will continue to be monitored quarterly to track the effectiveness of the system enhancement. In addition, downgradient monitoring wells will be sampled and analyzed quarterly to evaluate potential migration of VOCs and SVOCs. Downgradient wells include GW91-5, GW92-08, GW92-11SH and GW92-11D (**Appendix A**, **Figure 2**). Monitoring points SMPM-1S and SPMP-2S will continue to be monitored quarterly to evaluate subsurface conditions and system effectiveness. An additional monitoring well (GW01-14) was installed to the southwest of proposed ASW-26 to assist in evaluating groundwater quality and system effectiveness downgradient of the treatment system. Location of this monitoring well is presented in **Appendix B**, **Sheet 2**. A well construction log for GW01-14 is included in **Appendix C**.

A couplet of monitoring wells (GW01-15S and GW01-15D) were also installed upgradient of the treatment system concurrent with the installation of the proposed air sparge wells. These wells were installed in the vicinity of the former locations of GW91-2S and GW91-2D, which were destroyed during previous site work. These wells were installed inside the fence separating the NYSEG property from the Tops Supermarket. Locations for these wells are shown in **Appendix A**, **Figure 2**. Well construction logs are included in **Appendix C**.

3.0 PROJECT EXECUTION

Installation of the proposed system enhancement was performed in several steps, beginning with drilling of additional air sparge wells in the vicinity of GW91-6. This was followed by excavation and trenching to install subsurface piping and subsequent temporary surface restoration. Due to seasonal limitations, the restoration of asphalt surfaces was delayed until the Spring of 2002. An high density polyethylene liner was installed approximately six inches below the top elevation of the trench to minimize infiltration of surface runoff into the horizontal vent interval. This will serve as a temporary barrier until asphalt surfaces can be restored.

In addition, piping systems in the existing treatment equipment enclosure were modified to allow for the installation of the new AS/SVE legs. Manifolds for controlling individual sparge wells and SVE laterals were constructed and installed on the inside southern wall of the existing NYSEG building. A detailed discussion of each work step is presented in the following sections.

3.1 Site Management

IT Corporation provided full time oversight of all drilling and construction services necessary for the completion of the proposed work. Site personnel utilized the existing NYSEG building for shelter, communication, office space and sanitation.

3.2 Site Control

Work zones at the site included exclusion zones, contamination reduction zones and support zones. Due to space constraints at the site, zone widths were necessarily narrow. Zones were delineated utilizing a combination of orange barricade fencing, caution tape and traffic control devices (cones, barrels etc.). Through traffic was eliminated or reduced during excavation and trenching activities. All staging of materials was performed to the northwest of the work area. Site control areas have been identified and are presented in **Appendix B**, **Sheet 4**.

3.3 Air Monitoring and Site Health and Safety Measures

Site personnel followed air monitoring guidelines contained within the site-specific Health and Safety Plan (HASP) developed for the site. Community Air Monitoring was also performed during intrusive work at the site. Three perimeter locations were chosen for collection of Community Air Monitoring data. At no time were action levels exceeded for VOCs or fugitive airborne particulates. Perimeter monitoring locations are shown in **Appendix A**, **Figure 2**. Intrusive work included drilling, excavation and trenching and surface restoration. Continuous real time monitoring for VOCs was conducted in all active work zones utilizing a Photoionization detector (PID). Action levels for VOCs were never exceeded during activities associated with the system enhancement. Site personnel also monitored for fugitive airborne particulate utilizing a real time dust meter. Background data for VOCs and airborne particulates was collected prior to the start of intrusive activities to establish background levels for the project site. Monitoring for fugitive airborne particulates did not indicate values exceeding action levels during any site activities associated with the system enhancement. At no time were respiratory upgrades necessary for personnel performing work scopes associated with the system enhancement.

3.4 Air Sparge Well Installation

A total of eight air sparge wells (SW-19 through 26) were installed between December 3 and December 6, 2001 as part of the system enhancement. The system design and layout was based on the data generated from recent groundwater sampling results, as well as physical constraints of the facility. Well locations, spacing and their corresponding radius of influence are detailed on **Sheet 2** of **Appendix B**. Well construction details are presented in **Appendix C**. The radii of influence presented are based on information recorded during previous pilot tests at the site (*Air Sparge/Soil Vapor Extraction Equipment and Design Specifications, Fluor Daniel GTI, January 12, 1999*).

The eight points were installed into a dark brown/gray medium grained sand with subrounded gravel unit which overlays a brown/gray silty clay. For maximum effectiveness, the sparge points were set on top of the silty/clay at a maximum depth of 20 feet bgs. All sparge points were constructed in according to the specifics dictated in the Interim Remedial Measures Work Plan for System Enhancement, dated November 20, 2001. Each point is constructed of a 2 foot pre-packed PVC screened interval with PVC riser to grade. Minor amounts of tar-like material

were observed in SW-24 and SW-26. All soils generated from the installation of the sparge wells were staged on polyethylene sheeting on the west of the site. Wastewater generated from the decontamination of equipment used during this phase of activities was stored in steel drums. Drill logs with precise soil and construction details are presented in **Appendix D**. Typical construction details are shown on **Sheet 3** of **Appendix B**.

Limits of individual air sparge wells were based on observations of a silty/clay layer found at a depth ranging between 14 and 20 feet bgs. A summary of the newly installed air sparge wells and approximate depth bgs is presented below:

Air Sparge Well	SW-19	SW-20	SW-21	SW-22	SW-23	SW-24	SW-25	SW-26
Depth bgs (feet)	18	14	16	16	16	20	20	20

Air sparge wells were installed prior to excavation and trenching at the site. During excavation, the newly installed sparge wells were then piped individually back to a common manifold within the NYSEG building. Each individual sparge line has been equipped with a regulating valve, pressure gauge and air flow meter. All sparge piping located above grade was assembled from steel pipe and fittings while below grade pipe and fittings are PVC. Traffic rated road boxes and concrete aprons were installed on each air sparge well location to allow for well access from the surface. Well heads were fitted with threaded plugs to prevent leaks and to secure the well when operating under pressure.

While attempting to drill SW-26, a structure of unknown origin was encountered at approximately 2 feet bgs. A void space was then discovered from a depth of approximately 3 to 7.5 feet bgs. The bottom of the structure was dry with no indications of coal tar impacts. The location of SW-26 was shifted approximately 5 feet east and drilling continued unhampered. During excavation and trenching associated with the installation of the horizontal vent intervals, it was decided to remove the structure. The structure was constructed of red brick and natural stone, approximately four feet in diameter, and was easily dismantled. Debris from the structure was segregated with soil from the trench excavation for disposal. A single clay pipe was observed at the southern limits of the structure and gave no indications of an association with the former MGP facility. The excavated area of the structure was subsequently backfilled and compacted per the specifications of the approved Work Plan.

3.4.1 Soil Sampling and Characterization

During drilling activities associated with the installation of the proposed air sparge wells, soil samples were collected from the upper interval (zero to four feet below ground surface) for waste characterization. Soil samples were analyzed and a waste profile was developed for the transportation and disposal of the surplus soil at a NYSDEC approved facility. A more detailed discussion of specific waste streams, characterization methods and disposal are presented in **Section 3.10**.

3.5 Monitoring Well Installation

On December 5 and 6, 2001, three monitoring wells were installed at two locations on the site. One well (GW01-14) was placed at the first location to the south of the NYSEG building. The well pair (GW01-15S and GW01-15D) was installed (east to west respectively) on the northern portion of the site in the access road to the NYSEG Substation. Well locations are indicated on **Figure 2, Appendix A**. All monitoring wells were finished at grade and completed with concrete pads and roadboxes. All soils generated from the installation of monitoring wells were staged on polyethylene sheeting in an area on the western perimeter of the site. Wastewater generated from the decontamination of equipment used during this phase of activities was stored in steel drums.

GW01-14 was installed to evaluate downgradient groundwater quality and the effectiveness of the treatment system and its upgrades. The well was installed into a medium to coarse sand and gravel unit which overlays the red/brown silt and clay unit. The well was set on top of the clay unit at 17 feet bgs and constructed of 10 feet of 10 slot polyvinyl chloride (PVC) screen and 7 feet of PVC riser. Drill logs with precise soil and construction details are presented in **Appendix C**.

The well pair (GW01-15S and GW01-15D) was installed as a replacements for the well pair GW91-2S and GW91-2D, which were destroyed during previous site work. GW01-15S was installed to a depth of 14 feet, into the upper portion of the water table to monitor the potential presence of a light non-aqueous product layer (LNAPL). This well was constructed with 5 feet of 10-slot PVC screen and 9 feet of PVC riser. Drill logs with precise soil and construction details are presented in **Appendix C**.

GW01-15D was installed on top of the clay-confining layer at 25 feet bgs to monitor the lower portion of the water table and to monitor for the presence of a dense non-aqueous product

layers (DNAPL). Coal Tar-like material was encountered during the installation of this well, from 24 to 25 feet bgs. Well construction for this deep well is similar to that of the shallow well, with the exception of the use of 20 feet of PVC riser. Drill logs with precise soil and construction details are presented in **Appendix C**.

10 slot

3.6 Installation of Horizontal Vent Intervals

A total of four horizontal vent intervals (HVI –13 through 16) were installed in the area south of the existing NYSEG building. Horizontal vent intervals and leg identifications are shown on **Sheet 2, Appendix B**. Each leg consists of approximately forty feet of four-inch 0.020 slot PVC well-screen, plumbed with two-inch PVC Sch 80 pipe, back to the four-inch manifold location inside the building. HVI-14 was shortened to a length of 35 feet, while HVI-13 was reduced to approximately 29 feet due to an obstruction near the foundation of the NYSEG building. Construction details for horizontal vent intervals are presented in **Appendix B** on **Sheet 3**.

3.7 Excavation and Trenching

Approximately 158 lineal feet of trench was required to install the subsurface horizontal vent intervals and air sparge supply lines. Asphalt surfaces were cut utilizing a wet cut diamond blade saw prior to trenching. A rubber tired backhoe was utilized to expose a trench to a depth of approximately four feet below ground surface. All spoils were placed a minimum of two feet back from the exposed excavation edge. Open excavations were limited to the extent practical to minimize disruption to the NYSEG facility. All spoils were covered with polyethylene sheeting at the conclusion of each work day or when weather conditions indicated the potential for rainfall.

All subsurface piping was bedded according to specifications presented in **Appendix B** on **Sheet 3**. Excess spoils were stockpiled in a secure area of the site and were securely covered with polyethylene sheeting.

3.7.1 Equipment Decontamination

During drilling and excavation activities, decontamination of drilling and earthmoving equipment was performed before demobilizing this equipment from the site. A temporary decontamination

area was established at the western end of the NYSEG building. **Sheet 4** of **Appendix B** delineates the work area, exclusion zone, decontamination area and staging locations.

Equipment was decontaminated utilizing a combination of high pressure water, steam and non-hazardous citrus based cleaner (Citri-Solve or equivalent). . All equipment in contact with site soils was visually inspected and cleaned until no visual indications of coal tar residue were observed on equipment surfaces. All decontamination water was subsequently collected and pumped into steel drums. A total of approximately 200 gallons of decontamination water was generated as a result of the system enhancement activities. At the conclusion of the work, accumulated water was sampled and characterized for proper disposal. The decontamination water has been subsequently classified as non-hazardous and is currently awaiting transport and disposal at an approved NYSDEC facility

Materials comprising the decontamination area were disposed along with remaining surplus soils at Seneca Meadows, Incorporated, Waterloo, New York. Additional information regarding shipping dates and related information can be found in **Section 3.10.1**.

3.7.2 Storm Water Management

During the excavation and trenching phase of work, spoil piles were covered with polyethylene sheeting to prevent runoff of impacted soils. If deemed necessary, open excavations were lined with polyethylene sheeting to prevent saturation of exposed soil surfaces. Any collected storm water not exhibiting a sheen was pumped out and discharged to grade in the area located to the north of the NYSEG building (in the vicinity of the existing AS/SVE legs), within the fenced enclosure which separates the treatment area from the Tops Supermarket parking lot. Approximately 30 gallons of storm water was collected and discharged to grade during the described phase of work. Due to the low volume and flow rate (approximately 1 gallon per minute), no structure was constructed to contain sediments or to slow the speed of the discharged water. At no time was water allowed to run freely across adjacent areas of the site.

3.8 Backfill Methods

After installation of subsurface piping, backfill activities were conducted. To limit the extent of open excavations backfilling was initiated one end of the excavation before other areas were completed. Backfill was placed with a backhoe and compacted in lifts not exceeding one foot. A "jumping jack" style tamper was utilized to compact soils within the excavation during

backfilling. Excess soil which could not be returned to the trench was stockpiled at the site for characterization and disposal at an approved NYSDEC facility.

3.9 Surface Restoration

After the completion of backfilling, asphalt layers would normally be installed to match existing surfaces at the site. Due to seasonal limitations, restoration of asphalt surfaces will be delayed until the Spring of 2002. A six inch layer of quarry rubble was installed in all trenches for a temporary top layer. This allowed for vehicular traffic to pass over the disturbed areas until asphalt can be installed. This also eliminates the problem of creating additional volumes of potentially impacted site soils during the asphalt preparation stage, where approximately four inches of material must be removed from the trench to allow for the installation of an asphalt binder and topcoat. Final asphalt surfaces are to be sealed with hot tar at all joints to minimize surface water infiltration and reduce the chance for short circuiting of air. Asphalt edges may require re-cutting to reveal a competent edge for the asphalt restoration.

Air sparge well and monitoring well road boxes were installed during restoration activities. Road box construction details are shown on **Sheet 3, Appendix B**.

3.10 Waste Management & Disposal

During the installation of the system enhancement, there were three waste streams to be generated. These waste streams and their respective handling methods are presented in the following sections.

3.10.1 Soil

Approximately 58 tons of coal tar impacted soil and asphalt were generated for disposal during the installation of subsurface piping. Approximately 5 tons of coal tar impacted soil was generated during the drilling of the eight new air sparge wells and three new monitoring wells. A composite sample was collected from the soil generated during drilling activities. As previously discussed, samples from the trench interval were collected during installation of the air sparge wells. Samples from the drilling and the trenching were submitted to Adirondack Environmental Services (AES) of Albany, New York for analysis. Samples were analyzed for corrosivity,

reactivity, cyanide, sufide and Toxicity Leaching Characteristic Procedure (TCLP) (VOCs only). Analytical results of the two soil samples indicated that this material is non-hazardous. A waste profile was subsequently generated for the disposal of this material.

Arrangements were made for the transportation of the soil to a NYSDEC approved facility (Seneca Meadows, Incorporated in Waterloo, New York). Surplus soil was stockpiled at the site, secured with polyethylene sheeting and shipped on January 23, 2002. Weight tickets from the disposal facility indicate a total of 62.58 tons of coal tar impacted soil and asphalt were transported to and disposed of at the facility. Analytical results of soil samples collected are included in **Appendix D**. Non hazardous waste manifests and Seneca Meadows weight tickets have been included in **Appendix E**.

3.10.2 Wastewater

Wastewater was produced during site activities as a result of equipment and personnel decontamination. Approximately 200 gallons of decontamination water was generated during the current site activities. No storm water which collected at the site was found to have a sheen and therefore none was collected or stored for disposal. All water was stored in UN approved steel drums. All drums were properly labeled with generation date and container contents. A sample was collected from this water on December 21, 2001 and directed to AES for analysis. This sample was analyzed for flashpoint, reactivity, cyanide, sulfide, VOCs (EPA-624) and SVOCs (EPA-624). Results indicated that this water is non-hazardous. Analytical results of this water are included in **Appendix F**. This water is currently being stored at the site awaiting transportation and disposal.

3.10.3 Vapor Phase Carbon

In accordance with the Work Plan, both vapor phase adsorbers were emptied and refilled with virgin vapor phase carbon on December 21, 2001. Six drums containing a total of approximately 1,000 pounds of VGAC were generated during the change-out. Drums were labeled and stored inside the NYSEG building. A sample of the VGAC was collected on December 21, 2001 and submitted to AES for analysis. The sample was analyzed for corrosivity, reactivity, cyanide, sulfide and TCLP (VOCs only). Results indicated that the carbon is non-hazardous. Analytical results of the carbon sample are included in **Appendix G**. This material is currently being stored at the site awaiting transportation and disposal.

3.11 System Manifolds

Pipe manifolds were installed on the inside southern wall of the existing NYSEG building. Manifolds are similar in construction to those existing at the site for the three operating air sparge/SVE legs. Piping and instrumentation details are presented in **Appendix B** on **Sheet 5**. Each of the new air sparge and SVE manifolds were tied into the existing piping network. Plan views of the approximate locations of the pipe runs from the existing equipment to the new manifold locations are shown on **Sheet 1** and **2** of **Appendix B**. Photographs of the new air sparge and SVE manifolds are presented in **Appendix H**.

4.0 SYSTEM START-UP AND OPERATION

System startup activities were performed on January 15 and 16, 2002. As described in **Section 3.10.3**, both vapor phase adsorbers were refilled with virgin carbon prior to startup of the new air sparge and SVE legs. During startup, each of the three existing SVE legs was manually idled and the new SVE leg activated by utilizing the bypass valves. Site operating data was reviewed to determine the appropriate existing system leg to idle to allow for the operation of the new leg. Based on PID readings collected from the SVE blower effluent, the leg containing HVI –4, 5, 6, and 11 (Leg 3) was idled initially. While PID readings were detected from the other two original system legs as well as from the new leg, no VOCs were detected during the system startup from Leg 3. Groundwater data indicates that this area contains the lowest remaining VOC and SVOC concentrations. However, if conditions warrant, IT personnel will have the ability to activate alternate legs via the bypass valves. Operating data will be collected and reviewed quarterly to evaluate the need for future adjustments to system settings.

4.1 Confirmation of Vacuum Influence

Following start-up of the new SVE leg, temporary stainless steel monitoring points were installed within the estimated radius of influence of the SVE system. Points were located both within and outside of the estimated air sparge radius of influence. Particular attention was paid to the southern edge of the treatment system, between the newly installed leg and the residences to the south. Temporary points were also installed between the new SVE/air sparge legs and the existing NYSEG building to the north. Locations of the temporary monitoring locations are shown in **Figure 2**, **Appendix A**. Readings were then collected to determine actual operating vacuum in the subsurface. Once net vacuum was accomplished, air flow was gradually supplied to the air sparge points.

Field staff continued to monitor the subsurface to ensure a net vacuum was being attained as the air flow was increased to normal operating levels. Field measurements indicated a net vacuum influence in all monitoring locations. Operation of the air sparge system resulted in an average vacuum loss of approximately 20% in all monitoring locations. During the maximum flow period of the startup test, the system was operating at a an average SVE flow rate of 915 cubic feet per minute (CFM), and a sparge flow rate of approximately 95 CFM, or approximately 12 CFM per sparge point. Due to system constraints caused by temperature rises in the air

sparge piping as well as limitations of the existing system legs, operation of the new air sparge leg was reduced to approximately 65 CFM, or approximately 8 CFM per sparge point.

4.2 Groundwater Monitoring Data

Dissolved oxygen and groundwater elevation readings were collected from available monitoring points (GW91-6, GW91-5, GW01-14) during the system startup. Due to the distance between the sparge points and the monitoring locations, as well as the limited air sparge radius of influence, dissolved oxygen levels did not increase measurably with the exception of GW91-6, which is located within the radius of influence. Levels increased in this well from a background level of 0.42 mg/l to an average of approximately 8.25 mg/l. Moderate increases were noted in groundwater elevations in all three monitoring locations. Increases ranging between 0.17 feet (GW91-6) and 0.02 feet (GW91-5) were observed during the startup period. These observations were consistent with what was anticipated to be encountered during system startup.

4.3 SVE System Effluent

Vapor-phase granular activated carbon (VGAC) units provide treatment of the off-gases from the NYSEG site. The existing units had lost their effectiveness and were changed out on December 21, 2002. Upon activation of the new SVE/ air sparge points, influent and effluent VGAC air samples were monitored to ensure that the new leg does not elevate the emissions above permitted levels. In addition, influent and effluent air samples were collected from the leg exhibiting the highest PID concentrations. These samples were submitted to Performance Analytical, Simi Valley, CA for analysis. Results of these samples will be presented in the next project status report.

5.0 SUMMARY

Results of the system enhancement indicate that the new air sparge and SVE points are operating as designed. Field monitoring showed that with the maximum possible volume of sparge air being applied to the subsurface, the SVE system is able to maintain a net vacuum throughout the target area.

PID screenings indicated elevations in the SVE blower effluent with the operation of the air sparge points. System settings will continue to be adjusted during monthly operations and maintenance visits to maximize system performance and extraction rates.

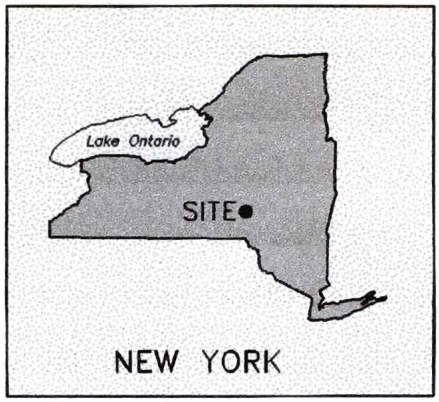
Dissolved oxygen and groundwater elevation data collected during system startup showed that the subsurface is reacting as anticipated to the activation of the new system leg.

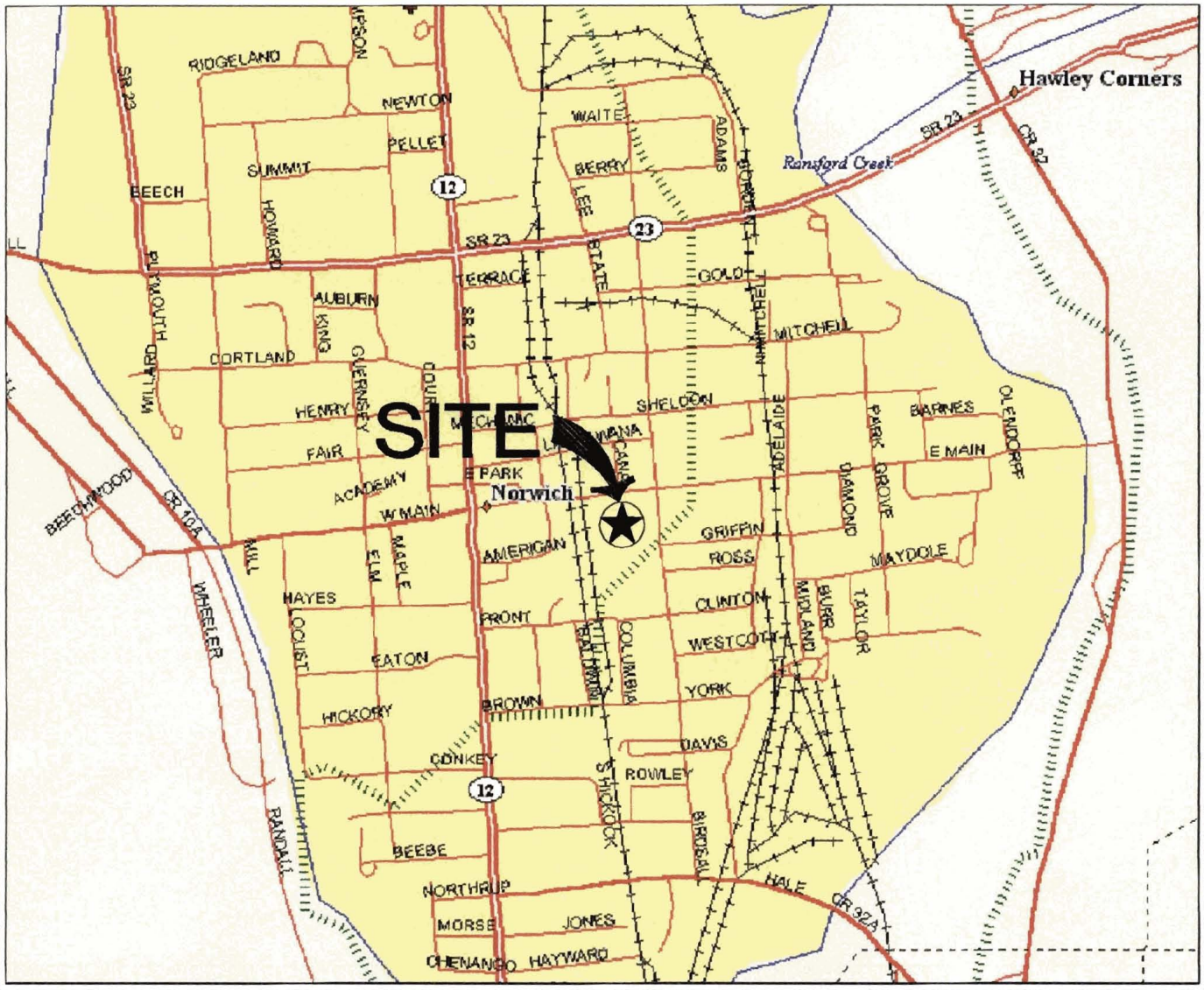
Dissolved oxygen readings were collected from available monitoring points (GW91-6, GW91-5, GW01-14) during the system startup. Due to the distance between the sparge points and the monitoring locations, as well as the limited air sparge radius of influence, dissolved oxygen levels did not increase measurably with the exception of GW91-6, which is located within the radius of influence. Levels increased in this well from a background level of 0.42 mg/l to an average of approximately 8.25 mg/l. Moderate increases were noted in groundwater elevations in all three monitoring locations. Increases ranging between 0.17 feet (GW91-6) and 0.02 feet (GW91-5) were observed during the startup period.

APPENDIX A

FIGURES

OFFICE	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
ALBANY, NY	S. SHKOLNIK 09-24-01			108196A1





NOT TO SCALE

REFERENCE:
MAP FROM DELORME'S MAP EXPERT,
FREEPORT, MAINE.

IT ENGINEERING OF NEW YORK P.C.

NEW YORK STATE ELECTRIC & GAS

FIGURE 1
SITE LOCATION MAP

NORWICH FORMER MGP SITE
NORWICH, NEW YORK

L:\project\NYSEG\NORWICH\PID\108196\108196A1.dwg
Plot Date/Time: 09/26/01 02:05pm Image: NORWICH
Format Revised: 12/15/99 Xref: .

NOTES:
1. ALL EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE.
2. SKETCH OF EXISTING STRUCTURES AND ACCESS ROADS MADE FROM OBSERVATION.
3. LOCATION/SIZE OF 1,000 GALLON FUEL OIL UST APPROXIMATE.

N/F
COUNTY OF CHENANGO

APPROXIMATE PROPERTY LINE

TOPS MARKET

NYSEG SUBSTATION

FORMER RELIEF HOLDER

POLE

HYSEG #7
2500 L
GUY POLE

NYSEG BUILDING

GAS REGULATOR BUILDING

APPROXIMATE LOCATION OF SVE BLOWER DISCHARGE POINT

APPROXIMATE LOCATION OF TREATMENT EQUIPMENT

OVERHEAD PIPING

TRENCH FOR AS/SVE PIPING

APPROXIMATE LOCATION EXISTING 1,000 GALLON FUEL OIL UNDERGROUND STORAGE TANK

N/F
ROBERT O. & HELEN M. BROTEN

N/F
VALOIR S. & PATRICIA W. MARTINS

HW-1 HW-2 HW-3 HW-4 HW-5 HW-6 HW-7 HW-8 HW-9 HW-10 HW-11 HW-12 HW-13 HW-14 HW-15 HW-16

SW-1 SW-2 SW-3 SW-4 SW-5 SW-6 SW-7 SW-8 SW-9 SW-10 SW-11 SW-12 SW-13 SW-14 SW-15 SW-16 SW-17 SW-18 SW-19 SW-20 SW-21 SW-22 SW-23 SW-24 SW-25 SW-26

SPW-1S/1D SPW-2S/2D VPMP-1 VPMP-2

TMP-1 TMP-2 TMP-3 TMP-4 TMP-5 TMP-6

GW01-6 GW01-14 GW01-15D GW01-15SH GW01-16/16S GW01-5 GW02-08 GW02-11D GW02-11SH GW02-12 GW02-13

A A'

SCALE
0 20 40 60 FEET

LEGEND
- CHAIN LINK FENCE
- G GAS MAIN
- O/E OVERHEAD ELECTRIC LINE
- GV GAS VALVE
- HYD FIRE HYDRANT
- UP UTILITY POLE
- UP UTILITY POLE WITH LIGHT
- LP LIGHT POLE
- GUY WIRE AND ANCHOR
- TEMPORARY MONITORING POINT
- MONITORING POINT
- SPARGE WELL
- MONITORING WELL
- HORIZONTAL VENT
- APPROXIMATE TRENCH LOCATION

STATE OF NEW YORK
LICENSED
MICHAEL PARKS JONES
070425
PROFESSIONAL ENGINEER

IT ENGINEERING OF NEW YORK P.C.
13 BRITISH AMERICAN BLVD.
ALBANY, NY 12110
(518) 783-1996

NEW YORK STATE ELECTRIC & GAS

FIGURE 2
SITE LAYOUT MAP

NORWICH FORMER MGP SITE
NORWICH, NEW YORK

DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
S. SHKOLNIK 02-11-02			108196D12

OFFICE
ALBANY, NY

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Format Revised: 11/23/99 Xref: .

APPENDIX B

DRAWINGS

OFFICE ALBANY, NY
DRAWING NUMBER 108196D5

N/F
COUNTY OF CHENANGO

TOPS MARKET

NYSEG SUBSTATION

FORMER RELIEF HOLDER

POLE

NYSEG #7
2500 L
GUY POLE

NYSEG BUILDING

GAS REGULATOR BUILDING

N/F
ROBERT O. &
HELEN M. BROTEN

N/F
VALOIR S. &
PATRICIA W. MARTINS

APPROXIMATE LOCATION OF SVE BLOWER DISCHARGE POINT

APPROXIMATE LOCATION OF TREATMENT EQUIPMENT

OVERHEAD PIPING

TRENCH FOR AS/SVE PIPING

APPROXIMATE LOCATION EXISTING 1,000 GALLON FUEL OIL UNDERGROUND STORAGE TANK

ACCESS TO FRONT STREET

HVI-1 HVI-2 HVI-3 HVI-4 HVI-5 HVI-6 HVI-7 HVI-8 HVI-10 HVI-11 HVI-12 HVI-13 HVI-14 HVI-15 HVI-16

SW-1 SW-2 SW-3 SW-4 SW-5 SW-6 SW-7 SW-8 SW-9 SW-11 SW-12 SW-13 SW-14 SW-15 SW-16 SW-17 SW-18 SW-19 SW-20 SW-21 SW-22 SW-23 SW-24 SW-25 SW-26

GW01-15D GW01-15SH GW01-6 GW01-14 GW91-4D/4S

SPMP-1S/1D VPMP-1 SPMP-2S/2D VPMP-2

GV

HYD

MDE

A A'

LEGEND

- CHAIN LINK FENCE
- G — GAS MAIN
- O/E — OVERHEAD ELECTRIC LINE
- GV — GAS VALVE
- HYD — FIRE HYDRANT
- UP — UTILITY POLE
- UP — UTILITY POLE WITH LIGHT
- LP — LIGHT POLE
- GUY WIRE AND ANCHOR
- MONITORING POINT
- SPARGE WELL
- MONITORING WELL
- HORIZONTAL VENT
- APPROXIMATE TRENCH LOCATION

NOTES:
1. ALL EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE.
2. SKETCH OF EXISTING STRUCTURES AND ACCESS ROADS MADE FROM OBSERVATION.
3. LOCATION/SIZE OF 1,000 GALLON FUEL OIL UST APPROXIMATE.

SCALE
0 15 30 45 FEET

VERIFY SCALE
0 1"

STATE OF NEW YORK
MICHAEL PARKS PYATT
074250
LICENSED PROFESSIONAL ENGINEER

REV	DATE	BY	CHK'D	APR'VD	DESCRIPTION/ISSUE
1	2/27/02	SSH			RECORD DRAWING

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ALBANY, NY 12110
(518) 783-1996

NEW YORK STATE ELECTRIC & GAS

SITE MAP WITH ENHANCEMENT SPARGE/VENT WELL LAYOUT
NORWICH FORMER MGP SITE
NORWICH, NEW YORK

DESIGNED BY	MPS/GVA/MTD	09/24/01	CHECKED BY		
DRAWN BY	S. SHKOLNIK	09/24/01	APPROVED BY		

SCALE:	DRAWING NO.	DRAWING.	REVISION NO.
NOT TO SCALE	108196D5	1	1

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Format Revised: 7/18/00
Images:
Xref:

OFFICE: ALBANY, NY
DRAWING NUMBER: 108196D6

N/F
COUNTY OF CHENANGO

TOPS MARKET

NYSEG SUBSTATION

FORMER RELIEF HOLDER

POLE

HVI-1 HVI-2 HVI-3 HVI-4 HVI-5 HVI-6 HVI-7 HVI-8 HVI-9 HVI-10 HVI-11 HVI-12 HVI-13 HVI-14 HVI-15 HVI-16

SW-1 SW-2 SW-3 SW-4 SW-5 SW-6 SW-7 SW-8 SW-9 SW-11 SW-12 SW-13 SW-14 SW-15 SW-16 SW-17 SW-18 SW-19 SW-20 SW-21 SW-22 SW-23 SW-24 SW-25 SW-26

GW01-15D GW01-15SH GW01-4D/4S GW01-6 GW01-14

SPMP-1S/1D SPMP-2S/2D VPMP-1 VPMP-2

GV GAS REGULATOR BUILDING

N/F
ROBERT O. &
HELEN M. BROTEN

N/F
VALOIR S. &
PATRICIA W. MARTINS

APPROXIMATE LOCATION OF SVE BLOWER DISCHARGE POINT

APPROXIMATE LOCATION OF TREATMENT EQUIPMENT

NYSEG BUILDING

OVERHEAD PIPING

TRENCH FOR AS/SVE PIPING

A A'

NYSEG #7
2500 L

GUY POLE

ACCESS TO
FRONT STREET

APPROXIMATE LOCATION
EXISTING 1,000 GALLON
FUEL OIL UNDERGROUND
STORAGE TANK

LEGEND

- CHAIN LINK FENCE
- G — GAS MAIN
- O/E — OVERHEAD ELECTRIC LINE
- GV — GAS VALVE
- HYD — FIRE HYDRANT
- UP — UTILITY POLE
- UP — UTILITY POLE WITH LIGHT
- LP — LIGHT POLE
- GUY WIRE AND ANCHOR
- MONITORING POINT
- SPARGE WELL
- MONITORING WELL
- HORIZONTAL VENT
- APPROXIMATE TRENCH LOCATION
- SVE RADIUS OF INFLUENCE
- AS RADIUS OF INFLUENCE

NOTES:
1. ALL EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE.
2. SKETCH OF EXISTING STRUCTURES AND ACCESS ROADS MADE FROM OBSERVATION.
3. LOCATION/SIZE OF 1,000 GALLON FUEL OIL UST APPROXIMATE.

SCALE
0 15 30 45 FEET

VERIFY SCALE
0 1"

STATE OF NEW YORK
MICHAEL PARKS SHKOLNIK
074250
LICENSED PROFESSIONAL ENGINEER

REV	DATE	BY	CHK'D	APR'VD	DESCRIPTION/ISSUE
2	2/27/02	SSH			RECORD DRAWING
1	11/16/01	GVA			ADD MONITORING WELLS

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NEW YORK STATE ELECTRIC & GAS

AS/SVE RADIUS OF INFLUENCE

NORWICH FORMER MGP SITE
NORWICH, NEW YORK

DESIGNED BY: MPS/GVA/MTD	09/24/01	CHECKED BY:	
DRAWN BY: S. SHKOLNIK	09/24/01	APPROVED BY:	

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Xref:

OFFICE ALBANY, NY | DRAWING NUMBER 108196D7

APPROXIMATE PROPERTY LINE

NYSEG #7
2500 L

GUY POLE

STAGING AREA

DECONTAMINATION PAD

NYSEG BUILDING

APPROXIMATE LOCATION OF SVE BLOWER DISCHARGE POINT

APPROXIMATE LOCATION OF TREATMENT EQUIPMENT

OVERHEAD PIPING

TRENCH FOR AS/SVE PIPING

A A'

HVI-1 HVI-2 HVI-3 HVI-13 HVI-14 HVI-15 HVI-16

SW-1 SW-2 SW-3 SW-4 SW-5 SW-6 SW-7 SW-19 SW-20 SW-21 SW-22 SW-23 SW-24 SW-25 SW-26

GV GVs

SPMP-1S/1D

VPMP-1

GW91-6

GW01-14

GW91-5

EXCLUSION ZONE

CONTAMINANT REDUCTION ZONE

SUPPORT ZONE

YELLOW CAUTION TAPE

HI-VIS ORANGE FENCE

N

NOTE:
ACCESS TO THE NYSEG BUILDING WILL BE LIMITED PRIMARILY TO THE EAST DOOR DURING EXCAVATION ACTIVITIES. DEPENDING ON SITE CONDITIONS, A CLEAN ZONE MAY BE MAINTAINED TO BISECT THE EXCLUSION ZONE AND ALLOW MORE READY ACCESS TO NYSEG FACILITIES.

LEGEND

- HI-VIS ORANGE FENCE
- YELLOW CAUTION TAPE
- CHAIN LINK FENCE
- G — GAS MAIN
- O/E — OVERHEAD ELECTRIC LINE
- GV — GAS VALVE
- HYD — FIRE HYDRANT
- UP — UTILITY POLE
- UP — UTILITY POLE WITH LIGHT
- LP — LIGHT POLE
- GUY WIRE AND ANCHOR
- MONITORING POINT
- SPARGE WELL
- MONITORING WELL
- HORIZONTAL VENT
- APPROXIMATE TRENCH LOCATION
- SVE RADIUS OF INFLUENCE
- AS RADIUS OF INFLUENCE

VERIFY SCALE 0 1"

SCALE 0 10 20 30 FEET

STATE OF NEW YORK MICHAEL PARKS SYLVESTER 074250 LICENSED PROFESSIONAL ENGINEER

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ALBANY, NY 12110
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NEW YORK STATE ELECTRIC & GAS

STAGING AND ZONING LAYOUT

NORWICH FORMER MGP SITE
NORWICH, NEW YORK

DESIGNED BY	MPS/GVA/MTD	09/25/01	CHECKED BY
DRAWN BY	S. SHKOLNIK	09/25/01	APPROVED BY

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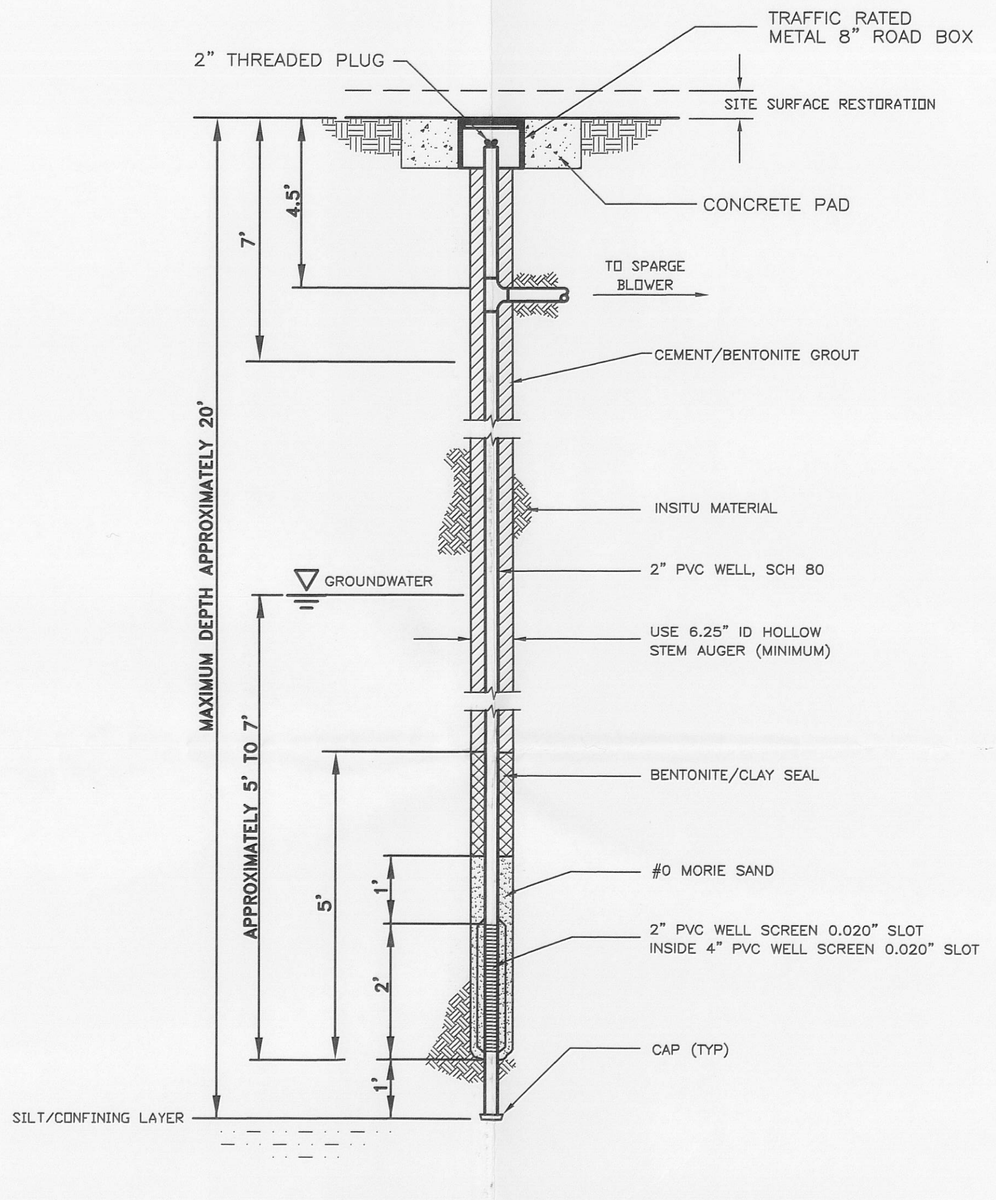
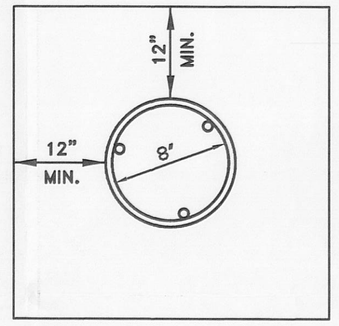


TYPICAL SPARGE POINT SCHEMATIC
NOT TO SCALE



ROAD BOX PLAN VIEW
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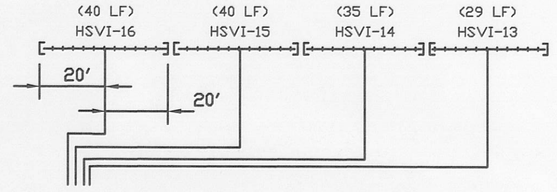
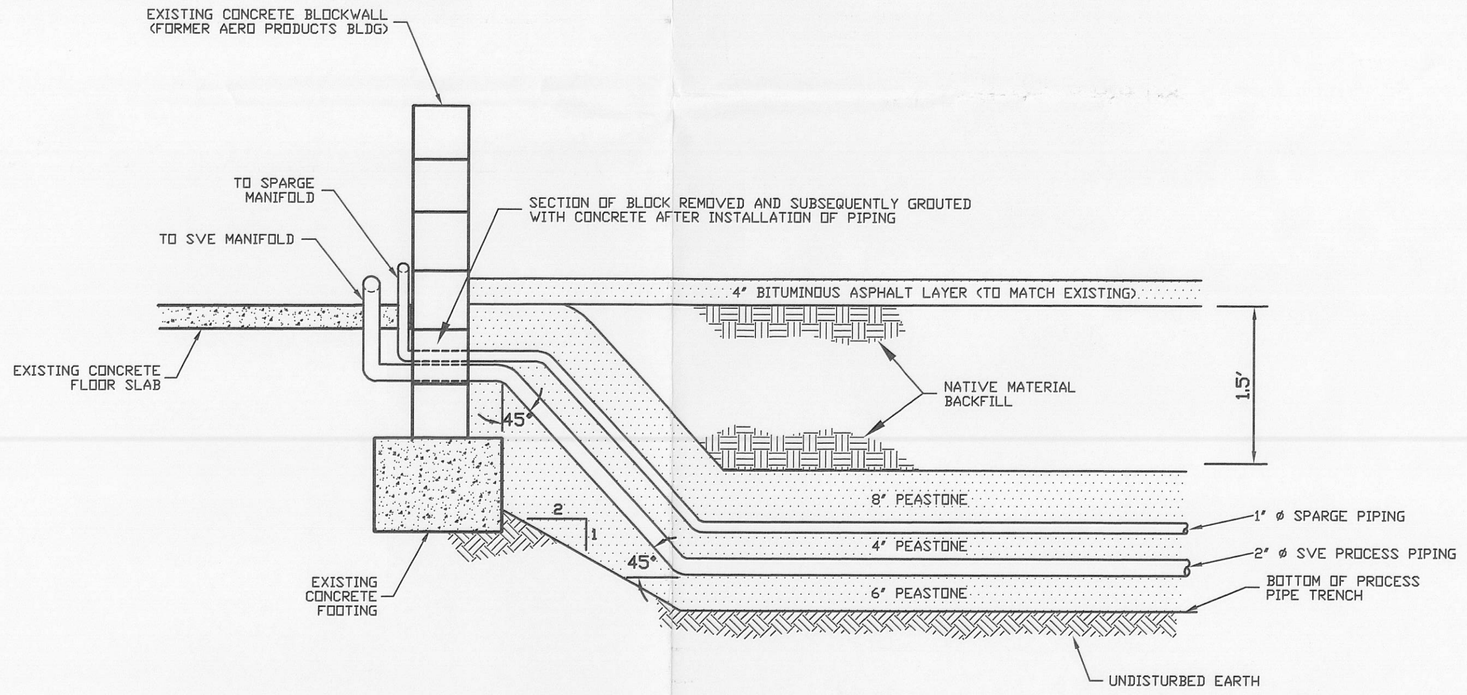


SCHEMATIC OF HORIZONTAL VENT INTERVALS 13–16
NOT TO SCALE

POLYSHEETING



NYSEG BUILDING/PROCESS PIPING PENETRATION AND LAYOUT DETAIL 5
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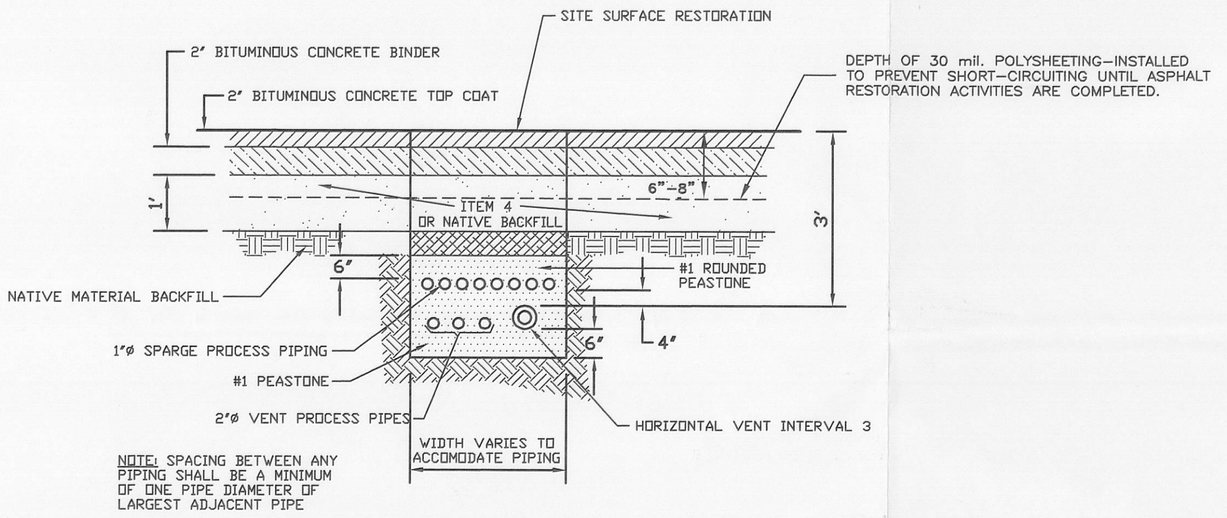

TRENCH SECTION A–A'
NOT TO SCALE

VERIFY SCALE 0 1"

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Xref:

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NEW YORK STATE ELECTRIC & GAS

SUBSURFACE CONSTRUCTION DETAILS

NORWICH FORMER MGP SITE
NORWICH, NEW YORK

DESIGNED BY	MPS/GVA/MTD	09/24/01	CHECKED BY	
DRAWN BY	S. SHKOLNIK	09/24/01	APPROVED BY	

SCALE:	DRAWING NO.	DRAWING.	REVISION NO.
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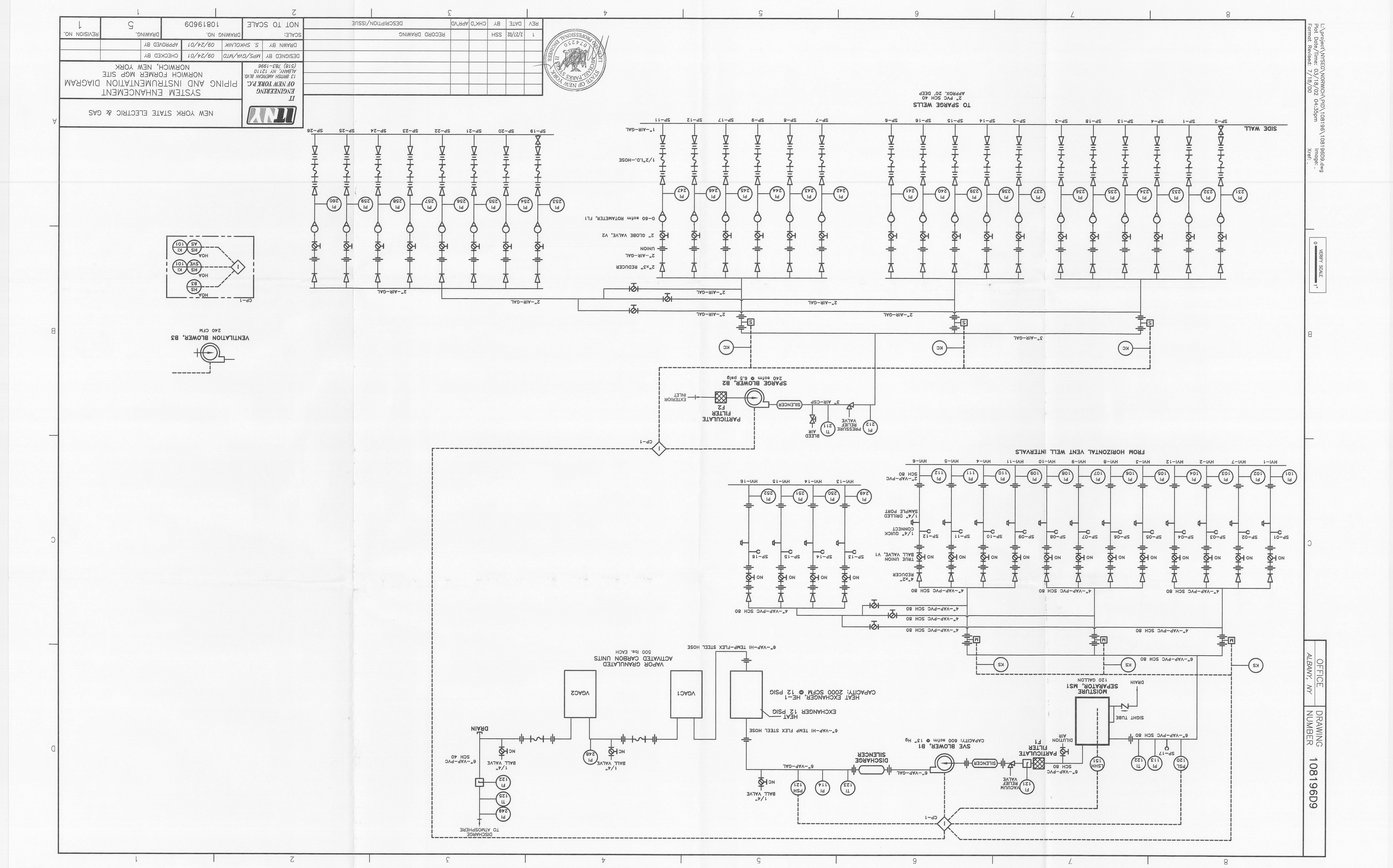

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VERIFY SCALE
0 1"

OFFICE: ALBANY, NY
DRAWING NUMBER: 108196D9

NEW YORK STATE ELECTRIC & GAS

SYSTEM ENHANCEMENT
PIPING AND INSTRUMENTATION DIAGRAM
NORWICH FORMER MGP SITE
NORWICH, NEW YORK

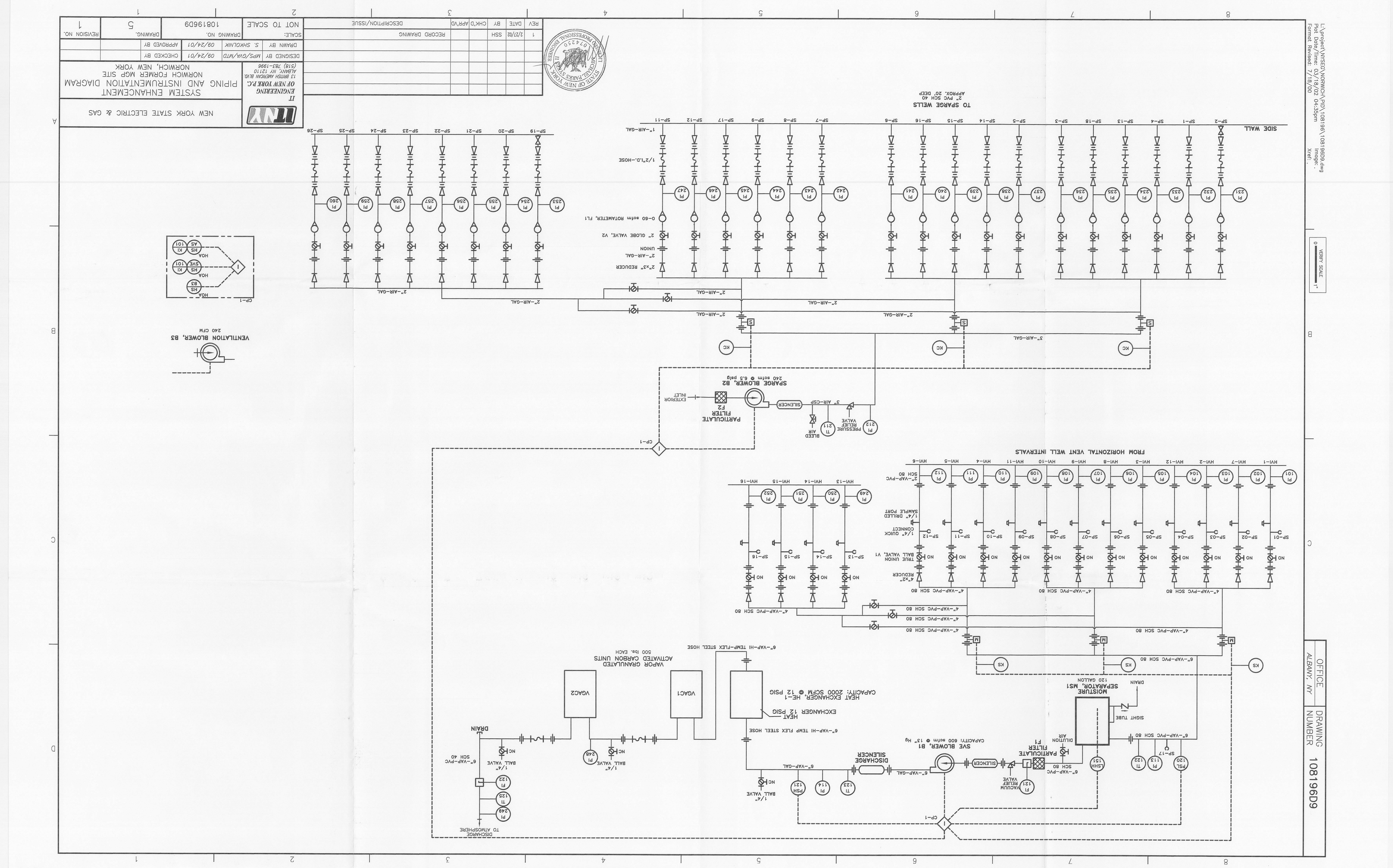
IT ENGINEERING OF NEW YORK P.C.
13 BRITISH AMERICAN BLVD.
ALBANY, NY 12110
(518) 783-1996

DESIGNED BY	MPS/GVA/MTD	09/24/01	CHECKED BY	
DRAWN BY	S. SHXOLNIK	09/24/01	APPROVED BY	

SCALE: NOT TO SCALE
DRAWING NO. 108196D9
DRAWING. 5
REVISION NO. 1

REV	DATE	BY	CHK'D	APR'VD	DESCRIPTION/ISSUE
1	2/27/02	SSH			RECORD DRAWING

STATE OF NEW YORK
MICHAEL PARKS STILES
073425
LICENSED PROFESSIONAL ENGINEER



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Format Revised: 7/16/00
Image: .
Xref: .

VERIFY SCALE
0 1"

OFFICE: ALBANY, NY
DRAWING NUMBER: 108196D9

NEW YORK STATE ELECTRIC & GAS

SYSTEM ENHANCEMENT
PIPING AND INSTRUMENTATION DIAGRAM
NORWICH FORMER MGP SITE
NORWICH, NEW YORK

IT ENGINEERING OF NEW YORK P.C.
13 BRITISH AMERICAN BLVD.
ALBANY, NY 12110
(518) 783-1996

DESIGNED BY	MPS/GVA/MTD	09/24/01	CHECKED BY	
DRAWN BY	S. SHXOLNIK	09/24/01	APPROVED BY	

SCALE: NOT TO SCALE
DRAWING NO. 108196D9
DRAWING. 5
REVISION NO. 1

REV	DATE	BY	CHK'D	APR'VD	DESCRIPTION/ISSUE
1	2/27/02	SSH			RECORD DRAWING

STATE OF NEW YORK
MICHAEL PARKS STILES
073425
LICENSED PROFESSIONAL ENGINEER

APPENDIX C

MONITORING WELL CONSTRUCTION LOGS

Drilling Log

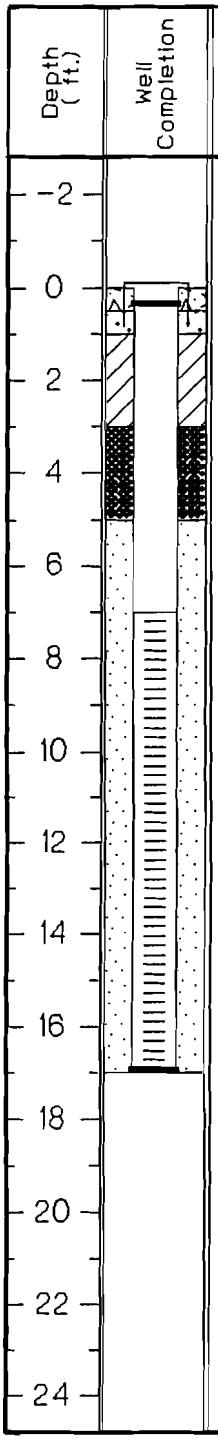
IT CORPORATION
A Member of the IT Group

Monitoring Well **GW01-14**

Project *NYSEG-Norwich Site* Owner *NYSEG*
Location *Norwich, NY* Proj. No. *108196*
Surface Elev. _____ Total Hole Depth *18 ft.* Diameter *4 1/4 in.*
Top of Casing _____ Water Level Initial _____ Static _____
Screen: Dia *2 in.* Length *10 ft.* Type/Size *PVC 10 slot in.*
Casing: Dia *2 in.* Length *7 ft.* Type *PVC*
Fill Material *0 Morie sand/Bentonite/Grout* Rig/Core *CME75*
Drill Co. *ADT* Method *HSA*
Driller *L. Darrow* Log By *C. Campbell* Date *12/5/01* Permit # _____
Checked By _____ License No. _____

See Site Map For Boring Location

COMMENTS:



Description

(Color, Texture, Structure)
Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%

Asphalt.

14-16': Saturated, gray, coarse sand and gravel, some small sand.

16-18': Saturated, red brown clay, gravel slight coarse sand, slight odor.

Drilling Log

IT CORPORATION
A Member of the IT Group

Monitoring Well **GW01-15S**

Project *NYSEG-Norwich Site* Owner *NYSEG*
Location *Norwich, NY* Proj. No. *108196*
Surface Elev. _____ Total Hole Depth *14 ft.* Diameter *4 1/4 in.*
Top of Casing _____ Water Level Initial *11 ft.* Static _____
Screen: Dia *2 in.* Length *5 ft.* Type/Size *PVC 10 slot in.*
Casing: Dia *2 in.* Length *9 ft.* Type *PVC*
Fill Material *0 Morie sand/Bentonite/Grout* Rig/Core *CME75*
Drill Co. *ADT* Method *HSA*
Driller *L. Darrow* Log By *C. Campbell* Date *12/6/01* Permit # _____
Checked By _____ License No. _____

See Site Map For Boring Location

COMMENTS:

CENTER OF ACCESS ROAD.

Depth (ft.)	Well Completion	PID (ppm)	Sample ID / Blow Count / % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
-2 to 0						Asphalt.
0 to 14		5.3 202	4/5/4/5 10% 3/3/3/2 30%		SW	8-10': Dry reddish/gray gravel, fine grain sand, slight odor, trace silt. 10-12': Reddish/gray gravel, sand, trace silt, LNAPL, trace tar in saturated zone.

Drilling Log

IT CORPORATION
A Member of the IT Group

Monitoring Well **GW01-15D**

Project *NYSEG-Norwich Site* Owner *NYSEG*
Location *Norwich, NY* Proj. No. *108196*
Surface Elev. _____ Total Hole Depth *25 ft.* Diameter *4 1/4 in.*
Top of Casing _____ Water Level Initial _____ Static _____
Screen: Dia *2 in.* Length *5 ft.* Type/Size *PVC 10 slot in.*
Casing: Dia *2 in.* Length *20 ft.* Type *PVC*
Fill Material *0 Morie sand/Bentonite/Grout* Rig/Core *CME75*
Drill Co. *ADT* Method *HSA*
Driller *L. Darrow* Log By *C. Campbell* Date *12/5-6/01* Permit # _____
Checked By _____ License No. _____

See Site Map For Boring Location

COMMENTS:

LOCATED ON EDGE OF ACCESS ROAD.

Depth (ft.)	Well Completion	PID (ppm)	Sample ID / Blow Count / % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
-2 to 0						Asphalt
0 to 12					SW	
14		99.3	1/1/3/4 20%			14-16': Saturated, gray/brown, gravel and coarse sand little silt and fine sand, odor, sheen.
16		8.5	4/4/6/8 40%			16-18': Saturated, gray/brown, gravel and coarse sand, trace silt, odor, sheen, small blebs of tar.
18		27.1	2/4/4/5 20%			18-20': Saturated gravel and coarse sand, sheen, strong odor, blebs of tar liquid.
20		271	2/3/4/4 5%			20-22': Sluff from above, sheen, odor.
22		134	5/8/5/8 50%			22-24': Saturated, gravel, coarse sand, some silt and fine sand, sheen, odor.
24						

Drilling Log

IT CORPORATION
A Member of the IT Group

Monitoring Well **GW01-15D**

Project *NYSEG-Norwich Site* Owner *NYSEG*
Location *Norwich, NY* Proj. No. *108196*

Depth (ft.)	Well Completion	PID (ppm)	Sample ID	Blow Count/ % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
24							24-25': Saturated, heavy DNAPL, coarse sand and gravel, liquid tar, strong odor, sheen.
26		734		1/1/2/8 80%		SW	25-26': Saturated, clay and silt, dense, tar smeared on outside of sample
28							
30							
32							
34							
36							
38							
40							
42							
44							
46							
48							
50							
52							
54							
56							

Drilling Log

IT CORPORATION
A Member of the IT Group

Monitoring Well **SW-19**

Project *NYSEG-Norwich Site* Owner *NYSEG*
Location *Norwich, NY* Proj. No. *108196*
Surface Elev. ____ Total Hole Depth *18 ft.* Diameter *6 1/4 in.*
Top of Casing ____ Water Level Initial ____ Static ____
Screen: Dia *6 in.* Length *2 ft.* Type/Size *PVC 10 slot pre packed in.*
Casing: Dia *4 in.* Length *16 ft.* Type *PVC*
Fill Material *0 Morie sand/Bentonite/Grout* Rig/Core *CME75*
Drill Co. *ADT* Method *HSA*
Driller *L. Darrow* Log By *C. Campbell* Date *12/3/01* Permit # ____
Checked By ____ License No. ____

See Site Map For Boring Location

COMMENTS:

Depth (ft.)	Well Completion	PID (ppm)	Sample ID / Blow Count / % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
-2						
0						Asphalt.
2						0-4': Fine grained sand, supported silt-yellowish brown, well sorted, occastional black (organic?) stains;Hand Dug.
4						
6						
8						
10					SW	10-12': Medium sand, pebbles, brown/gray little fines, gravels, odor.
12		66.2	1/1/4/5 40%			12-14': Medium sand, w/some gravel, gray subrounded, odor.
14		77.8	4/3/3/6 50%			14-16': Saturated, pebble/gravel, some medium sand, odor, gray.
16		11.5	3/4/6/3 20%			16-18': Saturated, medium sand, gray, trace pebbles (rounded), odor, silty clay/brown/gray.
18		15/0.0	2/1/5/3 20%			18-19': Saturated, gray, clay rich, occasional large gravel, odor, little sand or silt.
20		0.0	WH/2 50%			
22						
24						

Drilling Log

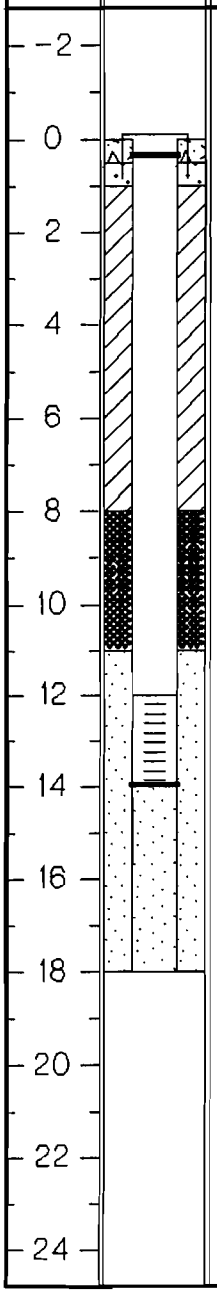
IT CORPORATION
A Member of the IT Group

Monitoring Well **SW-20**

Project *NYSEG-Norwich Site* Owner *NYSEG*
Location *Norwich, NY* Proj. No. *108196*
Surface Elev. _____ Total Hole Depth *18 ft.* Diameter *6 1/4 in.*
Top of Casing _____ Water Level Initial _____ Static _____
Screen: Dia *6 in.* Length *2 ft.* Type/Size *PVC 10 slot pre packed in.*
Casing: Dia *4 in.* Length *12 ft.* Type *PVC*
Fill Material *Morie sand/Bentonite/Grout* Rig/Core *CME75*
Drill Co. *ADT* Method *HSA*
Driller *L. Darrow* Log By *C. Campbell* Date *12/3/01* Permit # _____
Checked By _____ License No. _____

See Site Map For Boring Location

COMMENTS:



Depth (ft.)	Well Completion	PID (ppm)	Sample ID / Blow Count / % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
						Asphalt.
0–4					SW	0–4': Yellow/brown, moist, sandy silt, few small cobbles.
14		8.5	3/2/3/3 20%			14–16': Saturated, yellow/brown clay, pebbly, medium grained sand, small pebbles, plasticy, odor, sheen on water.
16		0.0				16–18': Same as above.
18		0.0	3/3/2/4 20%			

Drilling Log

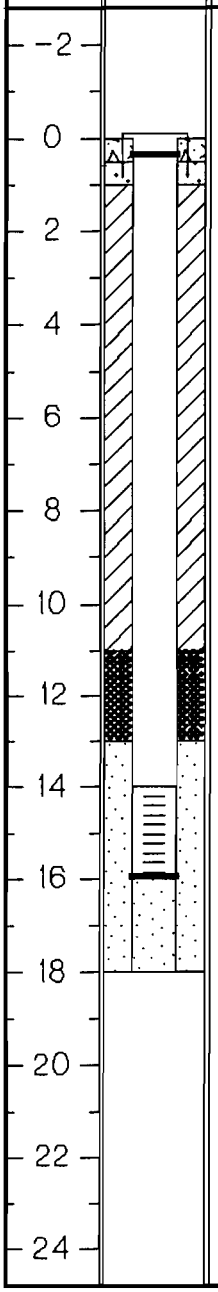
IT CORPORATION
A Member of the IT Group

Monitoring Well **SW-21**

Project *NYSEG-Norwich Site* Owner *NYSEG*
Location *Norwich, NY* Proj. No. *108196*
Surface Elev. _____ Total Hole Depth *18 ft.* Diameter *6 1/4 in.*
Top of Casing _____ Water Level Initial _____ Static _____
Screen: Dia *6 in.* Length *2 ft.* Type/Size *PVC 10 slot pre packed in.*
Casing: Dia *4 in.* Length *14 ft.* Type *PVC*
Fill Material *Morie sand/Bentonite/Grout* Rig/Core *CME75*
Drill Co. *ADT* Method *HSA*
Driller *L. Darrow* Log By *C. Campbell* Date *12/4/01* Permit # _____
Checked By _____ License No. _____

See Site Map For Boring Location

COMMENTS:



Depth (ft.)	Well Completion	PID (ppm)	Sample ID / Blow Count / % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
						Asphalt.
0–4						0–4': Yellow/brown sandy silt, fine/medium grained, well sorted sand.
8–10					SW	
10–12		13.9	2/3/3/2 20%			10–12': Saturated, gray coarse sand/gravel some clay, odor, sheen on water.
12–14		5.0	2/3/5/5 70%			12–14': Saturated, gray/brown, gravel, coarse sand, trace silt, odor.
14–16		2.8	3/2/2/2 1%			14–16': Saturated, gray, well sorted medium/coarse sand, odor, trace silt.
16–17						16–17': Saturated, 2" gravel poorly sorted sand and gravel, odor.
17–18		3.2	WH/3/3/1			17–18': Saturated, brown clay, gravel, plasticy.

Drilling Log

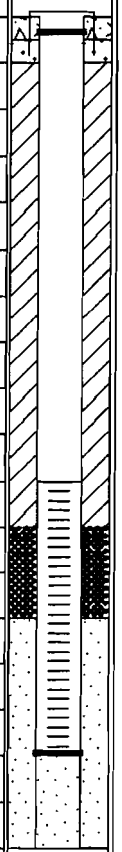
IT CORPORATION
A Member of the IT Group

Monitoring Well **SW-22**

Project *NYSEG-Norwich Site* Owner *NYSEG*
Location *Norwich, NY* Proj. No. *108196*
Surface Elev. ____ Total Hole Depth *18 ft.* Diameter *6 1/4 in.*
Top of Casing ____ Water Level Initial ____ Static ____
Screen: Dia *6 in.* Length *2 ft.* Type/Size *PVC 10 slot pre packed in.*
Casing: Dia *4 in.* Length *14 ft.* Type *PVC*
Fill Material *Morie sand/Bentonite/Grout* Rig/Core *CME75*
Drill Co. *ADT* Method *HSA*
Driller *L. Darrow* Log By *C. Campbell* Date *12/4/01* Permit # ____
Checked By ____ License No. ____

See Site Map For Boring Location

COMMENTS:

Depth (ft.)	Well Completion	PID (ppm)	Sample ID / Blow Count / % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
-2 to 0						Asphalt.
0 to 18		3.8 0.2	2/1/2/1 20% 3/2/2/3 10% 1/1/3/5		SW	0–4': Moist, yellow/brown sandy silt. 12–14': Saturated, sandy silt w/clay, medium grained sand, some gravel odor, sheen. 14–16': Saturated, gray/brown gravel, coarse sand w/trace silt, odor. 16–18': Gray/brown, clay, plasticy.
18 to 24						

Drilling Log

IT CORPORATION
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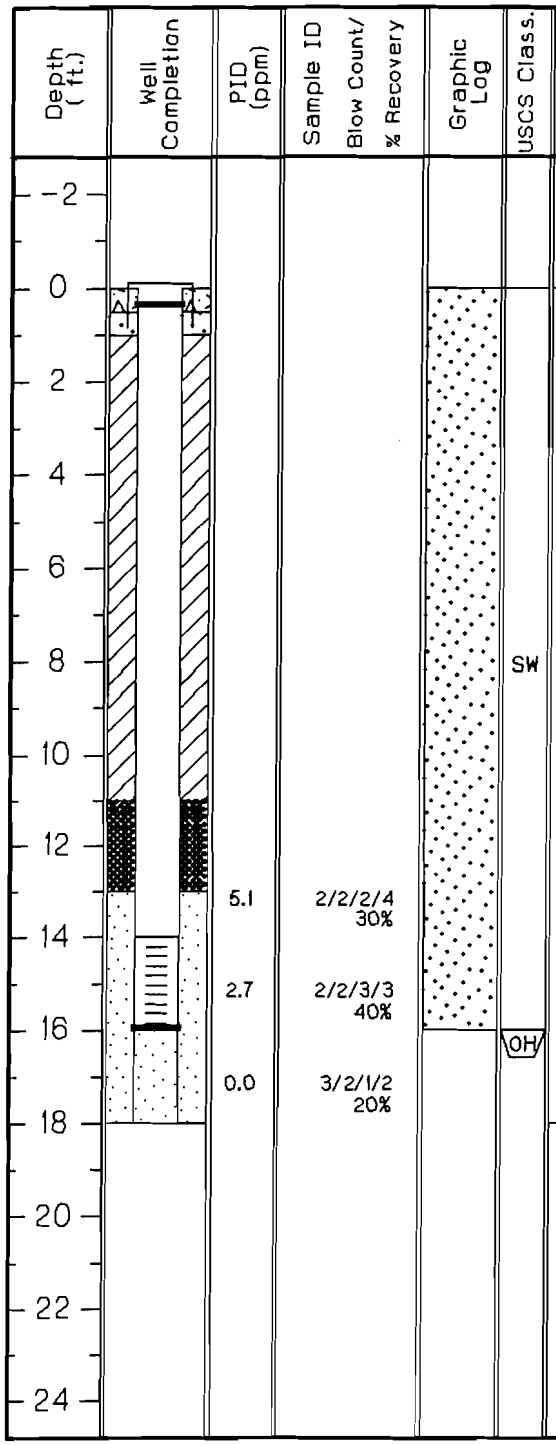
Monitoring Well SW-23

Project NYSEG-Norwich Site Owner NYSEG
Location Norwich, NY Proj. No. 108196
Surface Elev. ____ Total Hole Depth 18 ft. Diameter 6 1/4 in.
Top of Casing ____ Water Level Initial ____ Static ____
Screen: Dia 6 in. Length 2 ft. Type/Size PVC 10 slot pre packed in.
Casing: Dia 4 in. Length 14 ft. Type PVC
Fill Material Morie sand/Bentonite/Grout Rig/Core CME75
Drill Co. ADT Method HSA
Driller L. Darrow Log By C. Campbell Date 12/4/01 Permit # ____
Checked By ____ License No. ____

See Site Map For Boring Location

COMMENTS:



Description

(Color, Texture, Structure)
Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%

Asphalt.

0–4': Yellow/brown sandy silt, trace gravel, moist, some clay.

12–14': Saturated, gray/brown, medium/coarse sand, trace clay, some gravel, odor.

14–16': Saturated, gray/brown, gravel and coarse sand, odor.

16–18': Saturated, red/brown clay, trace gravel.

Drilling Log

IT CORPORATION
A Member of the IT Group

Monitoring Well **SW-24**

Project *NYSEG-Norwich Site* Owner *NYSEG*
Location *Norwich, NY* Proj. No. *108196*
Surface Elev. _____ Total Hole Depth *20 ft.* Diameter *6 1/4 in.*
Top of Casing _____ Water Level Initial _____ Static _____
Screen: Dia *6 in.* Length *2 ft.* Type/Size *PVC 10 slot pre packed in.*
Casing: Dia *4 in.* Length *18 ft.* Type *PVC*
Fill Material *Morie sand/Bentonite/Grout* Rig/Core *CME75*
Drill Co. *ADT* Method *HSA*
Driller *L. Darrow* Log By *C. Campbell* Date *12/4/01* Permit # _____
Checked By _____ License No. _____

See Site Map For Boring Location

COMMENTS:

Depth (ft.)	Well Completion	PID (ppm)	Sample ID / Blow Count / % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
-2						
0						Asphalt.
2						0-4': Moist,yellow/brown sandy silt, few pieces of gravel.
4						
6						
8						
10					SW	
12						
14		4.8	2/2/2/4 20%			14-16': Saturated, gray/black gravel and coarse sand w/trace silt, slight odor.
16		3.9	2/4/3/3 10%			16-18': Saturated, gray/black coarse sand, gravel, some silt, odor.
18		51.3	2/2/3/4 15%			18-20': Saturated, coarse sand and gravels, some fine sands, MGP odor, DNAPL in water, small tar blebs around coarse gravels.
20						
22						
24						

Drilling Log

IT CORPORATION
A Member of the IT Group

Monitoring Well **SW-25**

Project *NYSEG-Norwich Site* Owner *NYSEG*
Location *Norwich, NY* Proj. No. *108196*
Surface Elev. ____ Total Hole Depth *20 ft.* Diameter *6 1/4 in.*
Top of Casing ____ Water Level Initial ____ Static ____
Screen: Dia *6 in.* Length *2 ft.* Type/Size *PVC 10 slot pre packed in.*
Casing: Dia *4 in.* Length *18 ft.* Type *PVC*
Fill Material *Morie sand/Bentonite/Grout* Rig/Core *CME75*
Drill Co. *ADT* Method *HSA*
Driller *L. Darrow* Log By *C. Campbell* Date *12/4/01* Permit # ____
Checked By ____ License No. ____

See Site Map For Boring Location

COMMENTS:

Depth (ft.)	Well Completion	PID (ppm)	Sample ID / Blow Count / % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
-2 to 0						Asphalt.
0 to 14					SW	0–4': Brown/yellow sandy silt, some gravel.
14		1.8	3/5/4/5 20%			14–16': Saturated, gray/brown silty fine gravel and sand, cohesive, large gravel, slight odor.
16		8.9	3/3/3/5 25%			16–18': Saturated, fine sand, well sorted, trace silt, odor, coarsens to gravel at 18'.
18		22.6	4/4/2/3 10%			18–20': Saturated, coarse grained sand and gravel, MGP odor, sheen.
20 to 24						

Drilling Log

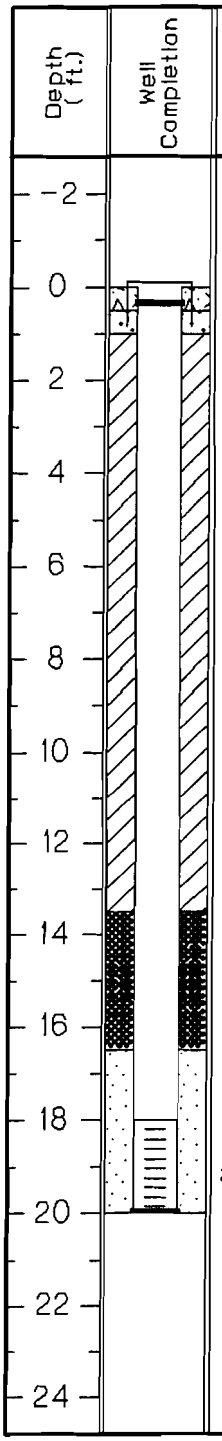
IT CORPORATION
A Member of the IT Group

Monitoring Well **SW-26**

Project *NYSEG-Norwich Site* Owner *NYSEG*
Location *Norwich, NY* Proj. No. *108196*
Surface Elev. _____ Total Hole Depth *20 ft.* Diameter *6 1/4 in.*
Top of Casing _____ Water Level Initial _____ Static _____
Screen: Dia *6 in.* Length *2 ft.* Type/Size *PVC 10 slot pre packed in.*
Casing: Dia *4 in.* Length *18 ft.* Type *PVC*
Fill Material *Morie sand/Bentonite/Grout* Rig/Core *CME75*
Drill Co. *ADT* Method *HSA*
Driller *L. Darrow* Log By *C. Campbell* Date *12/5/01* Permit # _____
Checked By _____ License No. _____

See Site Map For Boring Location

COMMENTS:



Well Completion	PID (ppm)	Sample ID / Blow Count / % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
					Asphalt.
					0–4': Yellow/brown silty sand.
				SW	
	0.0	2/4/4/4 10%			14–16': Saturated, gray/brown, gravel and coarse sand, little fine sand, slight odor.
	1.7	1/3/5/4 20%			16–18': Saturated, gray/brown, gravel coarse sand w/trace silt, slight odor.
	240	2/4/5/5			18–20': Gravel, saturated, coarse sand, tar blebs.

APPENDIX D

ANALYTICAL RESULTS FOR DRILL CUTTINGS AND TRENCH SPOILS

Adirondack Environmental Services Inc.
Experience is the solution
314 North Pearl Street • Albany, New York 12207 • 800-848-4983 • (518) 434-4546 • Fax (518) 434-0891

CLIENT: NYS Electric & Gas
CLIENT'S SAMPLE ID: Drill Cuttings Stock
AES sample #: 011213 C01 Samples taken by: J.S.
MATRIX: Soil

Date Sampled: 12/11/01
Date sample received: 12/13/01
Location: Norwich composite

PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DATE
Total Solids	ASTM-D3987-85	82	%	KF-TS-C-27	12/13/01
Corrosivity	SW-846	Non	Corosive	LS-X-38	12/20/01
Reactivity	SW-846 Sec.7.3	Non	Reactive	MC-I	12/20/01
Cyanide	EPA-9012	<1	ug/g	MC-I	12/20/01
Sulfide	EPA-9034	35	ug/g	MC-J-24	12/20/01
TCLP Extraction (ZHE)	EPA-1311	Complete		JF-BZ-26	12/17/01
Benzene - TCLP Extract	EPA-8260	<85	ug/l	JF-BZ-26	12/18/01
Carbon Tetrachloride-TCLP Ext.	EPA-8260	<85	ug/l	JF-BZ-26	12/18/01
Chlorobenzene-TCLP Extract	EPA-8260	<85	ug/l	JF-BZ-26	12/18/01
Chloroform-TCLP Extract	EPA-8260	<85	ug/l	JF-BZ-26	12/18/01
1,2-Dichloroethane-TCLP Ext.	EPA-8260	<85	ug/l	JF-BZ-26	12/18/01
1,1-Dichloroethene-TCLP Ext.	EPA-8260	<85	ug/l	JF-BZ-26	12/18/01
Methyl Ethyl Ketone-TCLP Ext.	EPA-8260	<170	ug/l	JF-BZ-26	12/18/01
Tetrachlorethylene-TCLP Ext.	EPA-8260	<85	ug/l	JF-BZ-26	12/18/01
Trichloroethylene-TCLP Extract	EPA-8260	<85	ug/l	JF-BZ-26	12/18/01
Vinyl Chloride-TCLP Extraction	EPA-8260	<170	ug/l	JF-BZ-26	12/18/01
TCLP Extraction	EPA-1311	Complete		MT-CC-9	12/20/01
Nitrobenzene-TCLP Extract	EPA-8270	<100	ug/l	MT-CC-9	12/20/01
Pyridine-TCLP Extract	EPA-8270	<100	ug/l	MT-CC-9	12/20/01
Cresols (Total) TCLP Extract.	EPA-8270	<100	ug/l	MT-CC-9	12/20/01

Adirondack Environmental Services, Inc.
Experience is the solution
314 North Pearl Street • Albany, New York 12207 • 800-848-4983 • (518) 434-4546 • Fax (518) 434-0891

CLIENT: NYS Electric & Gas
CLIENT'S SAMPLE ID: Drill Cuttings Stock
AES sample #: 011213 C01 Samples taken by: J.S.
MATRIX: Soil

Date Sampled: 12/11/01
Date sample received: 12/13/01
Location: Norwich
composite

continued:

PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DATE
1,4-Dichlorobenzene-TCLP Ext.	EPA-8270	<100	ug/l	MT-CC-9	12/20/01
2,4-Dinitrotoluene-TCLP Ext.	EPA-8270	<100	ug/l	MT-CC-9	12/20/01
Hexachlorobenzene-TCLP Extract	EPA-8270	<100	ug/l	MT-CC-9	12/20/01
Hexachlorobutadiene-TCLP Ext.	EPA-8270	<100	ug/l	MT-CC-9	12/20/01
Hexachloroethane-TCLP Extract	EPA-8270	<100	ug/l	MT-CC-9	12/20/01
Pentachlorophenol-TCLP Extract	EPA-8270	<500	ug/l	MT-CC-9	12/20/01
2,4,5-Trichlorophenol-TCLP Ext	EPA-8270	<100	ug/l	MT-CC-9	12/20/01
2,4,6-Trichlorophenol-TCLP Ext	EPA-8270	<100	ug/l	MT-CC-9	12/20/01
Chlordane -TCLP Extract	EPA-8081	<0.005	mg/l	TN-TG-D-14	12/18/01
Endrin-TCLP Extract	EPA-8081	<0.005	mg/l	TN-TG-D-14	12/18/01
Heptachlor-TCLP Extract	EPA-8081	<0.005	mg/l	TN-TG-D-14	12/18/01
Heptachlor Epoxide-TCLP Ext.	EPA-8081	<0.005	mg/l	TN-TG-D-14	12/18/01
Lindane-TCLP Extract	EPA-8081	<0.005	mg/l	TN-TG-D-14	12/18/01
Methoxychlor-TCLP Extract	EPA-8081	<0.05	mg/l	TN-TG-D-14	12/18/01
Toxaphene-TCLP Extract	EPA-8081	<0.05	mg/l	TN-TG-D-14	12/18/01
2,4-D TCLP Extract	EPA-8151	<2	mg/l	TN-TG-D-14	12/20/01
2,4,5-TP (Silvex)-TCLP Extract	EPA-8151	<0.2	mg/l	TN-TG-D-14	12/20/01
Arsenic-TCLP Extraction	EPA-6010	<0.5	mg/l	KH-I-4C-48	12/18/01
Barium-TCLP Extraction	EPA-6010	0.33	mg/l	KH-I-4C-48	12/18/01
Cadmium-TCLP Extraction	EPA-6010	<0.01	mg/l	KH-I-4C-48	12/18/01

Adirondack Environmental Services, Inc.
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CLIENT: NYS Electric & Gas
CLIENT'S SAMPLE ID: Drill Cuttings Stock
AES sample #: 011213 C01 Samples taken by: J.S.
MATRIX: Soil

Date Sampled: 12/11/01
Date sample received: 12/13/01
Location: Norwich
composite

continued:

PARAMETER	PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DATE
Chromium-TCLP Extraction		EPA-6010	<0.05	mg/l	KH-I-4C-48	12/18/01
Lead-TCLP Extraction		EPA-6010	<0.5	mg/l	KH-I-4C-48	12/18/01
Mercury-TCLP Extraction		EPA-7470	<0.02	mg/l	SM-HG-A-5	12/19/01
Selenium-TCLP Extraction		EPA-6010	<0.1	mg/l	KH-I-4C-48	12/18/01
Silver-TCLP Extraction		EPA-6010	<0.02	mg/l	KH-I-4C-48	12/18/01
PCB-1016		EPA-8082	<1000	ug/kg	KF-PCBAJ18	12/13/01
PCB-1221		EPA-8082	<1000	ug/kg	KF-PCBAJ18	12/13/01
PCB-1232		EPA-8082	<1000	ug/kg	KF-PCBAJ18	12/13/01
PCB-1242		EPA-8082	<1000	ug/kg	KF-PCBAJ18	12/13/01
PCB-1248		EPA-8082	<1000	ug/kg	KF-PCBAJ18	12/13/01
PCB-1254		EPA-8082	<1000	ug/kg	KF-PCBAJ18	12/13/01
PCB-1260		EPA-8082	<1000	ug/kg	KF-PCBAJ18	12/13/01

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Experience is the solution
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CLIENT: NYS Electric & Gas
CLIENT'S SAMPLE ID: 0-4' Soils Trench
AES sample #: 011213 C02 Samples taken by: J.S.
MATRIX: Soil

Date Sampled: 12/11/01
Date sample received: 12/13/01
Location: Norwich
composite

PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DATE
Total Solids	ASTM-D3987-85	76	%	KF-TS-C-27	12/13/01
Corrosivity	SW-846	Non	Corosive	LS-X-38	12/20/01
Reactivity	SW-846 Sec.7.3	Non	Reactive	MC-I	12/20/01
Cyanide	EPA-9012	<1	ug/g	MC-I	12/20/01
Sulfide	EPA-9034	88	ug/g	MC-J-24	12/20/01
TCLP Extraction (ZHE)	EPA-1311	Complete		JF-BZ-26	12/17/01
Benzene - TCLP Extract	EPA-8260	<85	ug/l	JF-BZ-26	12/18/01
Carbon Tetrachloride-TCLP Ext.	EPA-8260	<85	ug/l	JF-BZ-26	12/18/01
Chlorobenzene-TCLP Extract	EPA-8260	<85	ug/l	JF-BZ-26	12/18/01
Chloroform-TCLP Extract	EPA-8260	<85	ug/l	JF-BZ-26	12/18/01
1,2-Dichloroethane-TCLP Ext.	EPA-8260	<85	ug/l	JF-BZ-26	12/18/01
1,1-Dichloroethene-TCLP Ext.	EPA-8260	<85	ug/l	JF-BZ-26	12/18/01
Methyl Ethyl Ketone-TCLP Ext.	EPA-8260	<170	ug/l	JF-BZ-26	12/18/01
Tetrachlorethylene-TCLP Ext.	EPA-8260	<85	ug/l	JF-BZ-26	12/18/01
Trichloroethylene-TCLP Extract	EPA-8260	<85	ug/l	JF-BZ-26	12/18/01
Vinyl Chloride-TCLP Extraction	EPA-8260	<170	ug/l	JF-BZ-26	12/18/01
TCLP Extraction	EPA-1311	Complete		MT-CC-9	12/13/01
Nitrobenzene-TCLP Extract	EPA-8270	<100	ug/l	MT-CC-9	12/20/01
Pyridine-TCLP Extract	EPA-8270	<100	ug/l	MT-CC-9	12/20/01
Cresols (Total) TCLP Extract.	EPA-8270	<100	ug/l	MT-CC-9	12/20/01

Adirondack Environmental Services, Inc.
Experience is the solution
314 North Pearl Street • Albany, New York 12207 • 800-848-4983 • (518) 434-4546 • Fax (518) 434-0891

CLIENT: NYS Electric & Gas
CLIENT'S SAMPLE ID: 0-4' Soils Trench
AES sample #: 011213 C02 Samples taken by: J.S. MATRIX: Soil
Date Sampled: 12/11/01
Date sample received: 12/13/01
Location: Norwich composite

continued:

PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DATE
Chromium-TCLP Extraction	EPA-6010	<0.05	mg/l	KH-I-4C-48	12/18/01
Lead-TCLP Extraction	EPA-6010	<0.5	mg/l	KH-I-4C-48	12/18/01
Mercury-TCLP Extraction	EPA-7470	<0.02	mg/l	SM-HG-A-5	12/19/01
Selenium-TCLP Extraction	EPA-6010	<0.1	mg/l	KH-I-4C-48	12/18/01
Silver-TCLP Extraction	EPA-6010	<0.02	mg/l	KH-I-4C-48	12/18/01
PCB-1016	EPA-8082	<1000	ug/kg	KF-PCBAJ18	12/13/01
PCB-1221	EPA-8082	<1000	ug/kg	KF-PCBAJ18	12/13/01
PCB-1232	EPA-8082	<1000	ug/kg	KF-PCBAJ18	12/13/01
PCB-1242	EPA-8082	<1000	ug/kg	KF-PCBAJ18	12/13/01
PCB-1248	EPA-8082	<1000	ug/kg	KF-PCBAJ18	12/13/01
PCB-1254	EPA-8082	<1000	ug/kg	KF-PCBAJ18	12/13/01
PCB-1260	EPA-8082	<1000	ug/kg	KF-PCBAJ18	12/13/01

APPROVED BY: _____
Report date: 12/20/01

Cooler Temp 5°C

Adirondack Environmental Services, Inc.
314 North Pearl Street
Albany, New York 12207
518-434-4546 / 434-0891 FAX

REQUEST FOR ANALYSIS

CLIENT NAME	PROJECT NAME (Location)	SAMPLERS' (Names)
NYSEG	Norwich	John Skarry
ADDRESS	PO NUMBER	SAMPLERS' (Signatures)
	108196 06000000	John A. Skarry

AES SAMPLE NUMBER	SAMPLE IDENTIFICATION	DATE SAMPLED	TIME A = A.M. P = P.M.	MEDIA TYPE/ MATRIX	NO. OF CONT'S	AIR SAMPLE VOLUME (LITERS)	TOTAL SAMPLING TIME (MIN.)	ANALYSIS REQUESTED
3 C01	Drill Cuttings Stockpile	12/11/01	4:00 (A)	soil/comp	5		15	TBA
C02	0-4' Soils (Trench)	12/4/01	4:15 (P)	soil/comp	5		15	TBA
			A P					
			A P					
			A P					
			A P					
			A P					
			A P					
			A P					
			A P					
			A P					
			A P					
			A P					
			A P					

SEND REPORT TO	SEND INVOICE TO	COMMENTS
Grant Anderson, IT Corporation	Bill NYSEG Directly; Attn:	IT will call for analyses to be performed.
13 British American Blvd.	John Ryspantini	
Latham, NY 12110		

TURN-AROUND TIME — PLEASE CHECK ALL THAT APPLY

☐ *STANDARD SERVICE

☒ *RUSH SERVICE — Results requested by: 1 Week TAT

☒ FAX RESULTS TO: Grant Anderson FAX # (518) 783-8397

☐ PHONE RESULTS TO: _____ PH # ( )

*Turn-around time varies by substance. For most substances, standard turn-around time is ten (10) working days. Please inquire for capacity of rush analysis.

LABORATORY APPROVAL	DATE	TIME	RECEIVED FOR LABORATORY BY	DATE	TIME
				12/13/01	9:02

CHAIN OF CUSTODY

RELINQUISHED BY (Signature)	RECEIVED BY (Signature)	DATE	TIME
RELINQUISHED BY (Signature)	RECEIVED BY (Signature)	DATE	TIME

APPENDIX E

NON HAZARDOUS WASTE MANIFESTS AND SENECA MEADOWS WEIGHT TICKETS

NYSEG

(NEW YORK STATE ELECTRIC & GAS CORPORATION)
Licensing & Environmental Operations
Corporate Drive, Kirkwood Industrial Park
P. O. Box 5224, Binghamton, NY, 13902

NON-HAZARDOUS SOLID WASTE MANIFEST

NYSEG Manifest No. NO-2002-1-2

TRANSPORTER: Mix Brothers
364 Johnson Road
Freeville, NY 13068
NYS Permit # 7A-408

Truck Number: AC19521

Date: 1/23/02 Time In: _____ Time Out: _____

CONSIGNEE: Seneca Meadows, Inc.
1786 Salcman Road
Waterloo, New York 13165

SHIPPER: *NYSEG* (New York State Electric & Gas Corp.)
Corporate Drive, Kirkwood Industrial Park
P.O. Box 5224
Binghamton, NY, 13902

SITE LOCATION: *NYSEG* Norwich Former MGP Site

EPA ID No. NYD980531396

MATERIAL DESCRIPTION:

RCRA Non-hazardous Coal Tar Contaminated Soil & Debris

Weight: Est. 32 tons

SHIPPER:
SIGNATURE: _____ PRINT NAME: BERT W FINCH

DRIVER:
SIGNATURE: _____ PRINT NAME: Brian Cooper

CONSIGNEE:
SIGNATURE: _____ PRINT NAME: L. Bray

NYSEG

(NEW YORK STATE ELECTRIC & GAS CORPORATION)
Licensing & Environmental Operations
Corporate Drive, Kirkwood Industrial Park
P. O. Box 5224, Binghamton, NY, 13902

NON-HAZARDOUS SOLID WASTE MANIFEST

NYSEG Manifest No. NO-2002-1-1

TRANSPORTER: Mix Brothers
364 Johnson Road
Freeville, NY 13068
NYS Permit # 7A-408

Truck Number: AC94627

Date: 1/23/02 Time In:_____ Time Out:_____

CONSIGNEE: Seneca Meadows, Inc.
1786 Salcman Road
Waterloo, New York 13165

SHIPPER: *NYSEG* (New York State Electric & Gas Corp.)
Corporate Drive, Kirkwood Industrial Park
P.O. Box 5224
Binghamton, NY, 13902

SITE LOCATION: *NYSEG* Norwich Former MGP Site

EPA ID No. NYD980531396

MATERIAL DESCRIPTION:

RCRA Non-hazardous Coal Tar Contaminated Soil & Debris

Weight: Est. 33 tons

SHIPPER:
SIGNATURE: _____ PRINT NAME: ROBT W FINCH

DRIVER:
SIGNATURE: _____ PRINT NAME: LEO FINCH

CONSIGNEE:
SIGNATURE: _____ PRINT NAME: _____

Ticket No: 804026

Seneca Meadows, Inc
1786 Salcman Road
Waterloo, NY 13165

Date: 01/23/2002
Time In: 12:10:22
Time Out: 12:14:24

Customer:
ISCAP CAPITOL ENVIROMENTAL INC
8229 BOONE BLVD
SUITE 310

VIENNA, VA 22182

Order No: 2002-011
Cust Ref#:

NEW YORK STATE ELECTRIC &
IC001 CONTAMINAT SOIL

Truck Id: MIC136

Gross Wt: 98,240 lbs
Tare Wt: 35,340 lbs
Net Wt: 62,900 lbs
31.45 tns

Weigh Master:
In: LYDIA 450104
Out: LYDIA 450104

Paid: No
Check No:

Driver: Lee Fawcett

Remarks:

Ticket No: 804025

Seneca Meadows, Inc
1786 Salcman Road
Waterloo, NY 13165

Date: 01/23/2002
Time In: 12:09:52
Time Out: 12:25:17

Customer:
ISCAP CAPITOL ENVIROMENTAL INC
8229 BOONE BLVD
SUITE 310

VIENNA, VA 22182

Order No: 2002-011
Cust Ref#:

NEW YORK STATE ELECTRIC &
IC001 CONTAMINAT SOIL

Truck Id: M1X141

Gross Wt: 95,080 lbs
Tare Wt: 32,820 lbs
Net Wt: 62,260 lbs
31.13 tns

Weigh Master:
In: LYDIA 450104
Out: LYDIA 450104

Paid: No
Check No:

Driver: Brian Coy

Remarks:

APPENDIX F

ANALYTICAL RESULTS FOR DECONTAMINATION WATER

Adirondack Environmental Services, Inc.
Experience is the solution
314 North Pearl Street • Albany, New York 12207 • 800-848-4983 • (518) 434-4546 • Fax (518) 434-0891

CLIENT: NYS Electric & Gas
CLIENT'S SAMPLE ID: Decon Water
AES sample #: 011221AU02 Samples taken by: J.Skaarup
MATRIX: Water

Date Sampled: 12/21/01
Date sample received: 12/21/01
Location: Norwich
composite

PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DATE
Flashpoint	ASTM D93-80	>200	°F	PL-F-33	01/04/02
Reactivity	SW-846 Sec.7.3	Non	Reactive	MC-J-26	01/07/02
Cyanide	EPA-335.3	<0.01	mg/l	MC-I	01/04/02
Sulfide	EPA-9034	<10	mg/l	MC-J-26	01/07/02
Chloromethane	EPA-624	<10	ug/l	JF-BZ-30	12/28/01
Bromomethane	EPA-624	<10	ug/l	JF-BZ-30	12/28/01
Vinyl Chloride	EPA-624	<10	ug/l	JF-BZ-30	12/28/01
Chloroethane	EPA-624	<10	ug/l	JF-BZ-30	12/28/01
Methylene Chloride	EPA-624	<5	ug/l	JF-BZ-30	12/28/01
Acetone	EPA-624	<10	ug/l	JF-BZ-30	12/28/01
Carbon Disulfide	EPA-624	<5	ug/l	JF-BZ-30	12/28/01
1,1-Dichloroethene	EPA-624	<5	ug/l	JF-BZ-30	12/28/01
1,1-Dichloroethane	EPA-624	<5	ug/l	JF-BZ-30	12/28/01
1,2-Dichloroethene Total	EPA-624	<5	ug/l	JF-BZ-30	12/28/01
Chloroform	EPA-624	5.0	ug/l	JF-BZ-30	12/28/01
1,2 Dichloroethane	EPA-624	<5	ug/l	JF-BZ-30	12/28/01
2-Butanone	EPA-624	<10	ug/l	JF-BZ-30	12/28/01
1,1,1-Trichloroethane	EPA-624	<5	ug/l	JF-BZ-30	12/28/01
Carbon Tetrachloride	EPA-624	<5	ug/l	JF-BZ-30	12/28/01
Vinyl Acetate	EPA-624	<10	ug/l	JF-BZ-30	12/28/01

Adirondack Environmental Services, Inc.
Experience is the solution
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CLIENT: NYS Electric & Gas
CLIENT'S SAMPLE ID: Decon Water
AES sample #: 011221AU02 Samples taken by: J.Skaarup
MATRIX: Water

Date Sampled: 12/21/01
Date sample received: 12/21/01
Location: Norwich
composite

continued:

PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DATE
Bromodichloromethane	EPA-624	<5	ug/l	JF-BZ-30	12/28/01
1,2-Dichloropropane	EPA-624	<5	ug/l	JF-BZ-30	12/28/01
trans-1,3-Dichloropropene	EPA-624	<5	ug/l	JF-BZ-30	12/28/01
Trichloroethene	EPA-624	<5	ug/l	JF-BZ-30	12/28/01
Dibromochloromethane	EPA-624	<5	ug/l	JF-BZ-30	12/28/01
1,1,2-Trichloroethane	EPA-624	<5	ug/l	JF-BZ-30	12/28/01
Benzene	EPA-624	<5	ug/l	JF-BZ-30	12/28/01
cis-1,3-Dichloropropene	EPA-624	<5	ug/l	JF-BZ-30	12/28/01
2-Chloroethylvinylether	EPA-624	<10	ug/l	JF-BZ-30	12/28/01
Bromoform	EPA-624	<5	ug/l	JF-BZ-30	12/28/01
4-Methyl-2-pentanone	EPA-624	<10	ug/l	JF-BZ-30	12/28/01
2-Hexanone	EPA-624	<10	ug/l	JF-BZ-30	12/28/01
Tetrachloroethene	EPA-624	<5	ug/l	JF-BZ-30	12/28/01
1,1,2,2-Tetrachloroethane	EPA-624	<5	ug/l	JF-BZ-30	12/28/01
Toluene	EPA-624	24	ug/l	JF-BZ-30	12/28/01
Chlorobenzene	EPA-624	<5	ug/l	JF-BZ-30	12/28/01
Ethylbenzene	EPA-624	35	ug/l	JF-BZ-30	12/28/01
Styrene	EPA-624	<5	ug/l	JF-BZ-30	12/28/01
Xylenes,Total	EPA-624	41	ug/l	JF-BZ-30	12/28/01
1,2,4-Trichlorobenzene	EPA-625	<10	ug/l	MT-CC-16	01/07/02

Adirondack Environmental Services, Inc.
Experience is the solution
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CLIENT: NYS Electric & Gas
CLIENT'S SAMPLE ID: Decon Water
AES sample #: 011221AU02 Samples taken by: J.Skaarup
MATRIX: Water

Date Sampled: 12/21/01
Date sample received: 12/21/01
Location: Norwich
composite

continued:

PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DATE
1,2-Dichlorobenzene	EPA-625	<10	ug/l	MT-CC-16	01/07/02
1,3-Dichlorobenzene	EPA-625	<10	ug/l	MT-CC-16	01/07/02
1,4-Dichlorobenzene	EPA-625	<10	ug/l	MT-CC-16	01/07/02
2-Chlorophenol	EPA-625	<10	ug/l	MT-CC-16	01/07/02
2-Methylphenol	EPA-625	<10	ug/l	MT-CC-16	01/07/02
4-Methylphenol	EPA-625	<10	ug/l	MT-CC-16	01/07/02
2-Nitrophenol	EPA-625	<10	ug/l	MT-CC-16	01/07/02
4-Nitrophenol	EPA-625	<50	ug/l	MT-CC-16	01/07/02
2,4 Dichlorophenol	EPA-625	<10	ug/l	MT-CC-16	01/07/02
2,4 Dimethylphenol	EPA-625	<10	ug/l	MT-CC-16	01/07/02
2,4 Dinitrophenol	EPA-625	<50	ug/l	MT-CC-16	01/07/02
2,4,6 Trichlorophenol	EPA-625	<10	ug/l	MT-CC-16	01/07/02
2,4,5-Trichlorophenol	EPA-625	<10	ug/l	MT-CC-16	01/07/02
4-Chloro-3-methylphenol	EPA-625	<10	ug/l	MT-CC-16	01/07/02
4-Bromophenyl-phenylether	EPA-625	<10	ug/l	MT-CC-16	01/07/02
4,6-Dinitro-2-Methylphenol	EPA-625	<50	ug/l	MT-CC-16	01/07/02
4-Chlorophenyl-phenylether	EPA-625	<10	ug/l	MT-CC-16	01/07/02
Pentachlorophenol	EPA-625	<50	ug/l	MT-CC-16	01/07/02
Phenol	EPA-625	<10	ug/l	MT-CC-16	01/07/02
4-Chloroaniline	EPA-625	<50	ug/l	MT-CC-16	01/07/02

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CLIENT: NYS Electric & Gas
CLIENT'S SAMPLE ID: Decon Water
AES sample #: 011221AU02 Samples taken by: J.Skaarup
MATRIX: Water

Date Sampled: 12/21/01
Date sample received: 12/21/01
Location: Norwich
composite

continued:

PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DATE
2-Nitroaniline	EPA-625	<50	ug/l	MT-CC-16	01/07/02
3-Nitroaniline	EPA-625	<50	ug/l	MT-CC-16	01/07/02
4-Nitroaniline	EPA-625	<50	ug/l	MT-CC-16	01/07/02
2-Methylnaphthalene	EPA-625	130	ug/l	MT-CC-16	01/07/02
2-Chloronaphthalene	EPA-625	<10	ug/l	MT-CC-16	01/07/02
2,4-Dinitrotoluene	EPA-625	<10	ug/l	MT-CC-16	01/07/02
2,6-Dinitrotoluene	EPA-625	<10	ug/l	MT-CC-16	01/07/02
Bis(2-Chloroethyl)ether	EPA-625	<10	ug/l	MT-CC-16	01/07/02
Benzyl Alcohol	EPA-625	<10	ug/l	MT-CC-16	01/07/02
Bis(2-Chloroisopropyl)ether	EPA-625	<10	ug/l	MT-CC-16	01/07/02
N-Nitroso-di-n-propylamine	EPA-625	<10	ug/l	MT-CC-16	01/07/02
Hexachloroethane	EPA-625	<10	ug/l	MT-CC-16	01/07/02
Nitrobenzene	EPA-625	<10	ug/l	MT-CC-16	01/07/02
Isophorone	EPA-625	<10	ug/l	MT-CC-16	01/07/02
Benzoic Acid	EPA-625	<50	ug/l	MT-CC-16	01/07/02
Bis(2-Chloroethoxy)methane	EPA-625	<10	ug/l	MT-CC-16	01/07/02
Naphthalene	EPA-625	360	ug/l	MT-CC-16	01/07/02
Hexachlorobutadiene	EPA-625	<10	ug/l	MT-CC-16	01/07/02
Hexachlorocyclopentadiene	EPA-625	<10	ug/l	MT-CC-16	01/07/02
Dimethylphthalate	EPA-625	<10	ug/l	MT-CC-16	01/07/02

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CLIENT: NYS Electric & Gas
CLIENT'S SAMPLE ID: Decon Water
AES sample #: 011221AU02 Samples taken by: J.Skaarup
MATRIX: Water

Date Sampled: 12/21/01
Date sample received: 12/21/01
Location: Norwich
composite

continued:

PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DATE
Acenaphthylene	EPA-625	95	ug/l	MT-CC-16	01/07/02
Acenaphthene	EPA-625	63	ug/l	MT-CC-16	01/07/02
Diethylphthalate	EPA-625	<10	ug/l	MT-CC-16	01/07/02
Fluorene	EPA-625	44	ug/l	MT-CC-16	01/07/02
N-Nitrosodiphenylamine	EPA-625	<10	ug/l	MT-CC-16	01/07/02
Hexachlorobenzene	EPA-625	<10	ug/l	MT-CC-16	01/07/02
Phenanthrene	EPA-625	76	ug/l	MT-CC-16	01/07/02
Anthracene	EPA-625	34	ug/l	MT-CC-16	01/07/02
Di-n-butyl phthalate	EPA-625	<10	ug/l	MT-CC-16	01/07/02
Fluoranthene	EPA-625	<10	ug/l	MT-CC-16	01/07/02
Pyrene	EPA-625	<10	ug/l	MT-CC-16	01/07/02
Butyl benzyl phthalate	EPA-625	<10	ug/l	MT-CC-16	01/07/02
3,3'-Dichlorobenzidine	EPA-625	<20	ug/l	MT-CC-16	01/07/02
Benzo(a)anthracene	EPA-625	<10	ug/l	MT-CC-16	01/07/02
Bis(2-ethylhexyl)phthalate	EPA-625	<10	ug/l	MT-CC-16	01/07/02
Chrysene	EPA-625	<10	ug/l	MT-CC-16	01/07/02
Di-n-octylphthalate	EPA-625	<10	ug/l	MT-CC-16	01/07/02
Benzo(b)fluoranthene	EPA-625	<10	ug/l	MT-CC-16	01/07/02
Benzo(k)fluoranthene	EPA-625	<10	ug/l	MT-CC-16	01/07/02
Benzo(a)pyrene	EPA-625	<10	ug/l	MT-CC-16	01/07/02

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CLIENT: NYS Electric & Gas
CLIENT'S SAMPLE ID: Decon Water
AES sample #: 011221AU02
Samples taken by: J.Skaarup
MATRIX: Water
Date Sampled: 12/21/01
Date sample received: 12/21/01
Location: Norwich
composite

continued:

PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DATE
Indeno(1,2,3-cd)pyrene	EPA-625	<10	ug/l	MT-CC-16	01/07/02
Dibenzo(a,h)anthracene	EPA-625	<10	ug/l	MT-CC-16	01/07/02
Benzo(g,h,i)perylene	EPA-625	<10	ug/l	MT-CC-16	01/07/02
Dibenzofuran	EPA-625	11	ug/l	MT-CC-16	01/07/02

APPROVED BY: _____
Report date: 01/08/02

APPENDIX G

ANALYTICAL RESULTS FOR VAPOR PHASE GRANULAR ACTIVATED CARBON

Adirondack Environmental Services, Inc.
Experience is the solution
314 North Pearl Street • Albany, New York 12207 • 800-848-4983 • (518) 434-4546 • Fax (518) 434-0891

CLIENT: NYS Electric & Gas
CLIENT'S SAMPLE ID: GAC
AES sample #: 011221AU01
Samples taken by: J.Skaarup
MATRIX: Solid Sample
Date Sampled: 12/21/01
Date sample received: 12/21/01
Location: Norwich composite

PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DATE
Corrosivity	SW-846	Non	Corosive	LS-X-41	01/04/02
Reactivity	SW-846 Sec.7.3	Non	Reactive	MC-J-26	01/07/02
Cyanide	EPA-9012	<1	ug/g	MC-I	01/07/02
Sulfide	EPA-9034	43	ug/g	MC-J-26	01/07/02
TCLP Extraction (ZHE)	EPA-1311	Complete		JF-BZ-30	12/27/01
Benzene - TCLP Extract	EPA-8260	<85	ug/l	JF-BZ-30	12/28/01
Carbon Tetrachloride-TCLP Ext.	EPA-8260	<85	ug/l	JF-BZ-30	12/28/01
Chlorobenzene-TCLP Extract	EPA-8260	<85	ug/l	JF-BZ-30	12/28/01
Chloroform-TCLP Extract	EPA-8260	<85	ug/l	JF-BZ-30	12/28/01
1,2-Dichloroethane-TCLP Ext.	EPA-8260	<85	ug/l	JF-BZ-30	12/28/01
1,1-Dichloroethene-TCLP Ext.	EPA-8260	<85	ug/l	JF-BZ-30	12/28/01
Methyl Ethyl Ketone-TCLP Ext.	EPA-8260	<170	ug/l	JF-BZ-30	12/28/01
Tetrachloroethylene-TCLP Ext.	EPA-8260	<85	ug/l	JF-BZ-30	12/28/01
Trichloroethylene-TCLP Extract	EPA-8260	<85	ug/l	JF-BZ-30	12/28/01
Vinyl Chloride-TCLP Extraction	EPA-8260	<170	ug/l	JF-BZ-30	12/28/01
TCLP Extraction	EPA-1311	Complete		MT-CC-16	12/21/01
Nitrobenzene-TCLP Extract	EPA-8270	<100	ug/l	MT-CC-16	01/07/02
Pyridine-TCLP Extract	EPA-8270	<100	ug/l	MT-CC-16	01/07/02
Cresols (Total) TCLP Extract.	EPA-8270	<100	ug/l	MT-CC-16	01/07/02
1,4-Dichlorobenzene-TCLP Ext.	EPA-8270	<100	ug/l	MT-CC-16	01/07/02

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CLIENT: NYS Electric & Gas
CLIENT'S SAMPLE ID: GAC
AES sample #: 011221AU01
Samples taken by: J.Skaarup
MATRIX: Solid Sample

Date Sampled: 12/21/01
Date sample received: 12/21/01
Location: Norwich
composite

continued:

PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DATE
2,4-Dinitrotoluene-TCLP Ext	EPA-8270	<100	ug/l	MT-CC-16	01/07/02
Hexachlorobenzene-TCLP Extract	EPA-8270	<100	ug/l	MT-CC-16	01/07/02
Hexachlorobutadiene-TCLP Ext.	EPA-8270	<100	ug/l	MT-CC-16	01/07/02
Hexachloroethane-TCLP Extract	EPA-8270	<100	ug/l	MT-CC-16	01/07/02
Pentachlorophenol-TCLP Extract	EPA-8270	<500	ug/l	MT-CC-16	01/07/02
2,4,5-Trichlorophenol-TCLP Ext	EPA-8270	<100	ug/l	MT-CC-16	01/07/02
2,4,6-Trichlorophenol-TCLP Ext	EPA-8270	<100	ug/l	MT-CC-16	01/07/02

APPENDIX H

PHOTOGRAPHIC LOG FOR NEW CONSTRUCTION: AIR SPARGE AND SVE MANIFOLDS

IT Corporation
Photographic Record

Customer:	**NYSEG**	**Project Number:**	**108196**
Site Name:	**Norwich Former MGP**	**Site Location:**	**Norwich, New York**

Photographer:

John Skaarup

Date:

December 11, 2001

Direction:

N/A

Comments:

View of vault interior prior to placement of backfill.

Photographer:

John Skaarup

Date:

December 11, 2001

Direction:

N/A

Comments:

View of vault floor.

IT Corporation
Photographic Record

Customer:	NYSEG	**Project Number:**	108196
Site Name:	Norwich Former MGP	**Site Location:**	Norwich, New York

Photographer:

John Skaarup

Date:

December 11, 2001

Direction:

Northeast

Comments:

View of Air Sparge Piping in partially backfilled trench.

Photographer:

John Skaarup

Date:

December 11, 2001

Direction:

West

Comments:

View of Air Sparge Piping in partially backfilled trench.

IT Corporation
Photographic Record

Customer:	**NYSEG**	**Project Number:**	**108196**
Site Name:	**Norwich Former MGP**	**Site Location:**	**Norwich, New York**

Photographer:

John Skaarup

Date:

December 12, 2001

Direction:

West

Comments:

View of Air Sparge Piping (left) and SVE Piping (right) in partially backfilled trench.

Photographer:

John Skaarup

Date:

December 12, 2001

Direction:

North

Comments:

View of damaged fuel oil feed line.

IT Corporation
Photographic Record

Customer:	**NYSEG**	**Project Number:**	**108196**
Site Name:	**Norwich Former MGP**	**Site Location:**	**Norwich, New York**

Photographer:

John Skaarup

Date:

December 13, 2001

Direction:

West

Comments:

View of Air Sparge Piping in partially backfilled trench.

Photographer:

John Skaarup

Date:

December 13, 2001

Direction:

South

Comments:

View of Air Sparge and SVE Piping south of building penetration.

IT Corporation
Photographic Record

Customer:	NYSEG	**Project Number:**	108196
Site Name:	Norwich Former MGP	**Site Location:**	Norwich, New York

Photographer:

John Skaarup

Date:

December 13, 2001

Direction:

West

Comments:

View of Air Sparge and SVE Piping penetration into building.

Photographer:

John Skaarup

Date:

December 14, 2001

Direction:

East

Comments:

View of repaired fuel oil feed line.

IT Corporation
Photographic Record

Customer:	NYSEG	**Project Number:**	108196
Site Name:	Norwich Former MGP	**Site Location:**	Norwich, New York

Photographer:

John Skaarup

Date:

December 14, 2001

Direction:

North

Comments:

View of backfilled area of penetration into building.

Photographer:

John Skaarup

Date:

December 19, 2001

Direction:

Southwest

Comments:

View of Air Sparge Manifold.

IT Corporation
Photographic Record

Customer:	NYSEG	**Project Number:**	108196
Site Name:	Norwich Former MGP	**Site Location:**	Norwich, New York

Photographer:

John Skaarup

Date:

December 19, 2001

Direction:

Southeast

Comments:

View of iron Air Sparge Piping hanging from ceiling.

Photographer:

John Skaarup

Date:

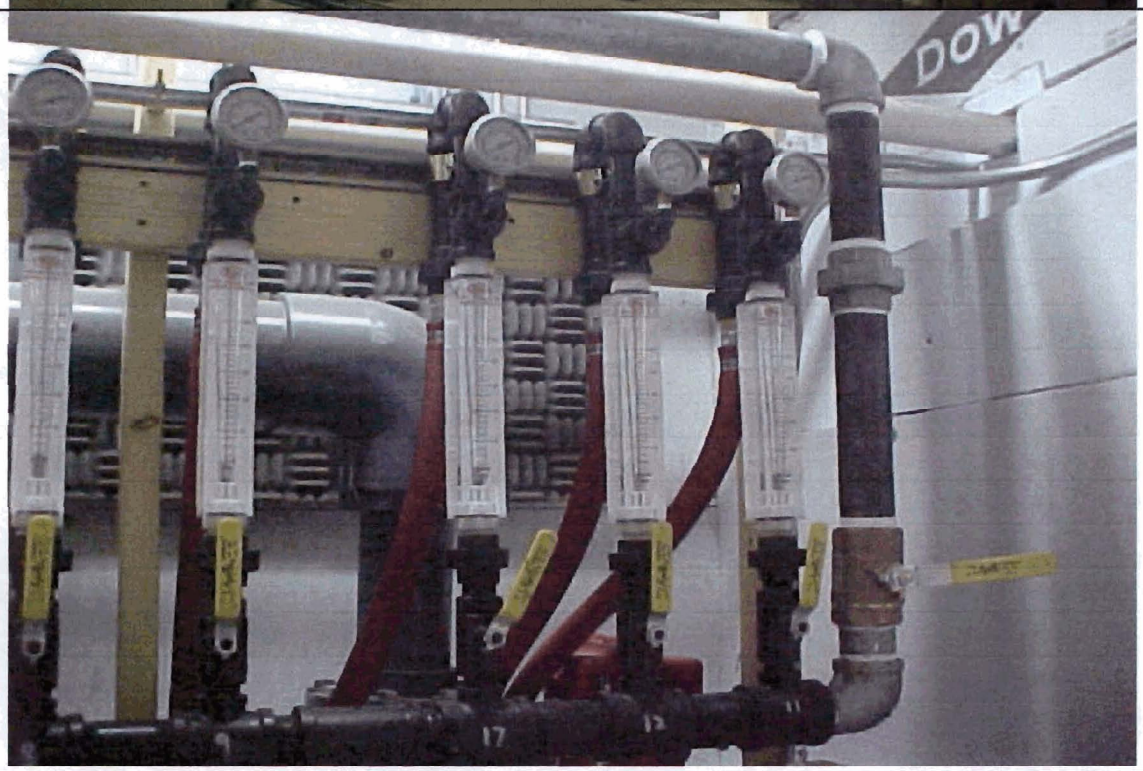
December 19, 2001

Direction:

North

Comments:

View of added Air Sparge piping (right).



IT Corporation
Photographic Record

Customer:	NYSEG	**Project Number:**	108196
Site Name:	Norwich Former MGP	**Site Location:**	Norwich, New York

Photographer:

John Skaarup

Date:

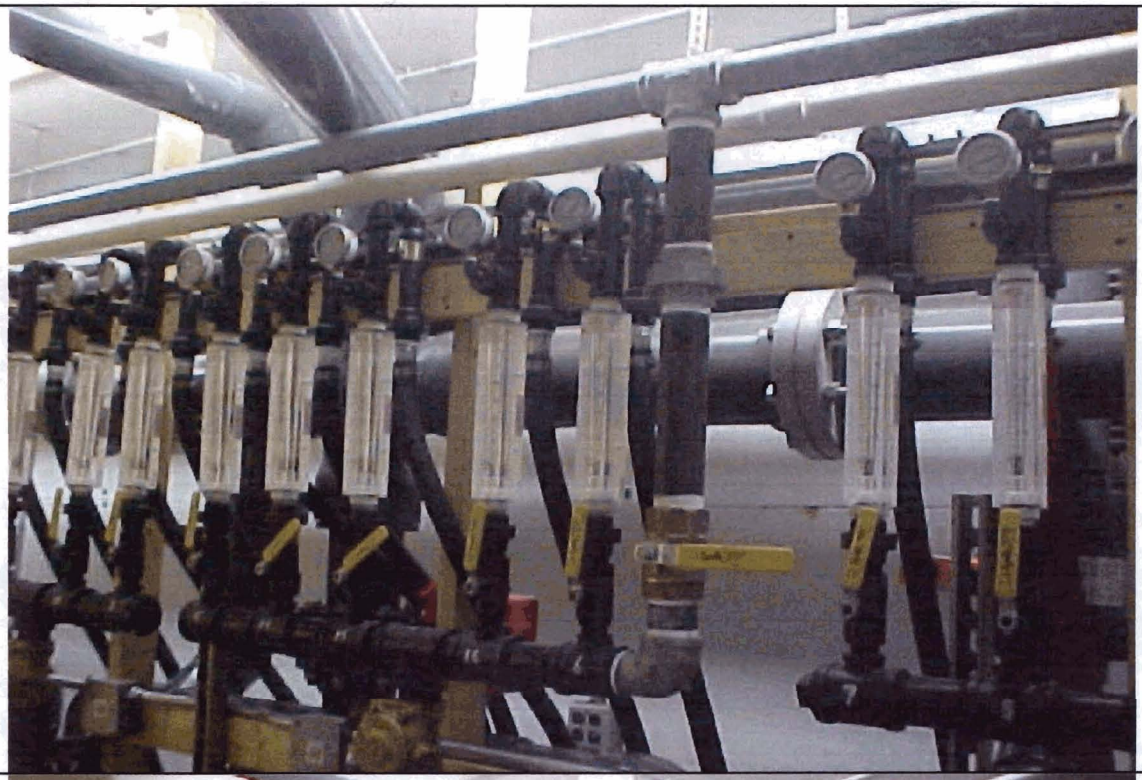
December 19, 2001

Direction:

Northwest

Comments:

View of added Air Sparge piping (pipe with valve in closed position).



Photographer:

John Skaarup

Date:

December 19, 2001

Direction:

Northwest

Comments:

View of added Air Sparge piping (iron piping on left).

IT Corporation
Photographic Record

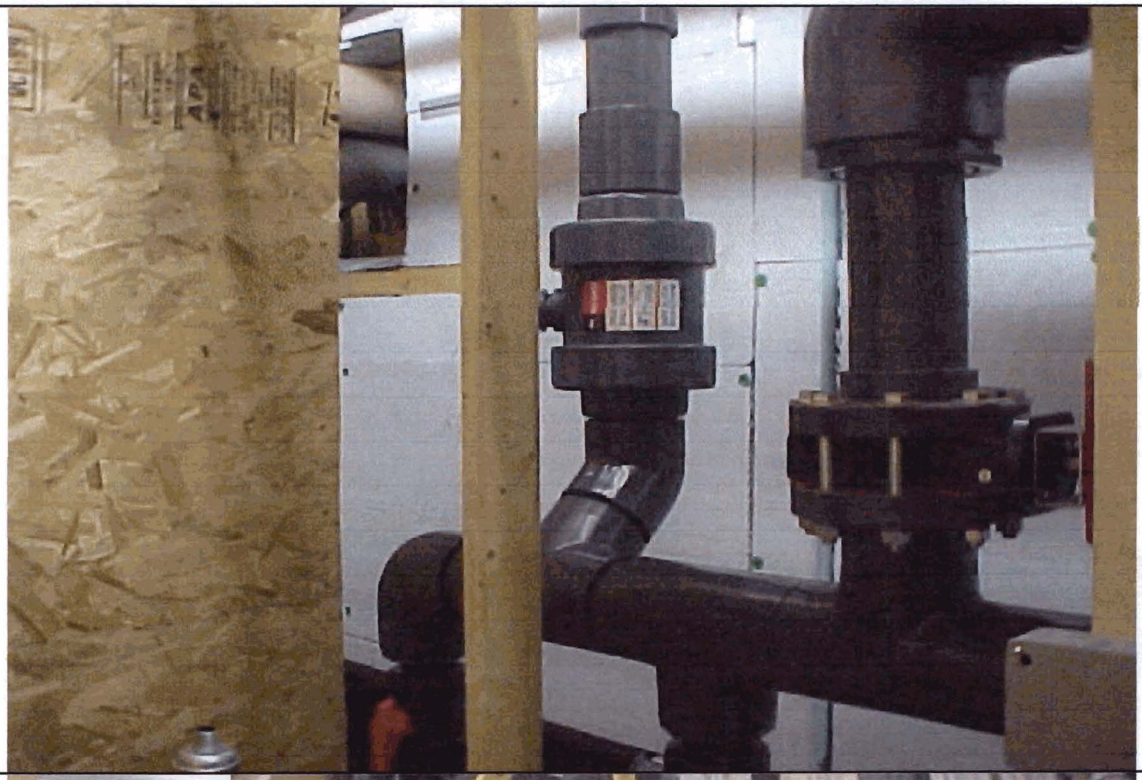
Customer:	NYSEG	**Project Number:**	108196
Site Name:	Norwich Former MGP	**Site Location:**	Norwich, New York

Photographer:
John Skaarup

Date:
December 19, 2001

Direction:
Northwest

Comments:
View of added SVE piping (vertical pipe on left).

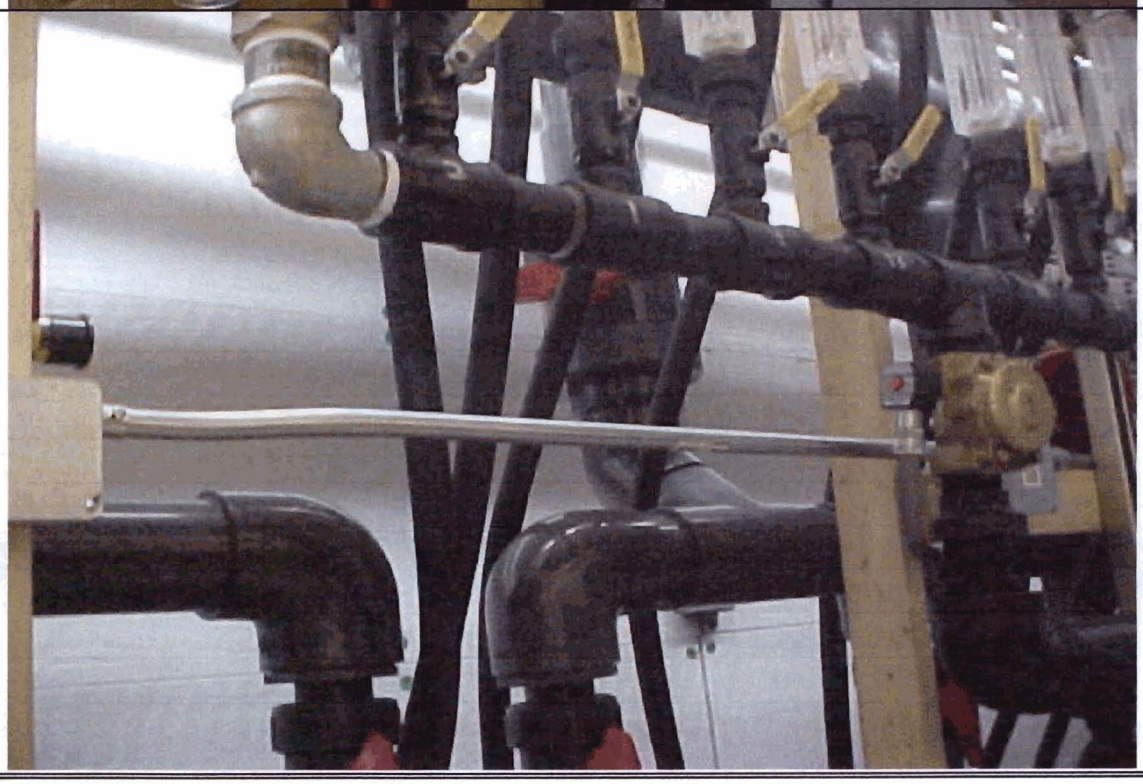


Photographer:
John Skaarup

Date:
December 19, 2001

Direction:
Northeast

Comments:
View of added SVE piping (behind Air Sparge Piping)



IT Corporation
Photographic Record

Customer:	NYSEG	**Project Number:**	108196
Site Name:	Norwich Former MGP	**Site Location:**	Norwich, New York

Photographer:

John Skaarup

Date:

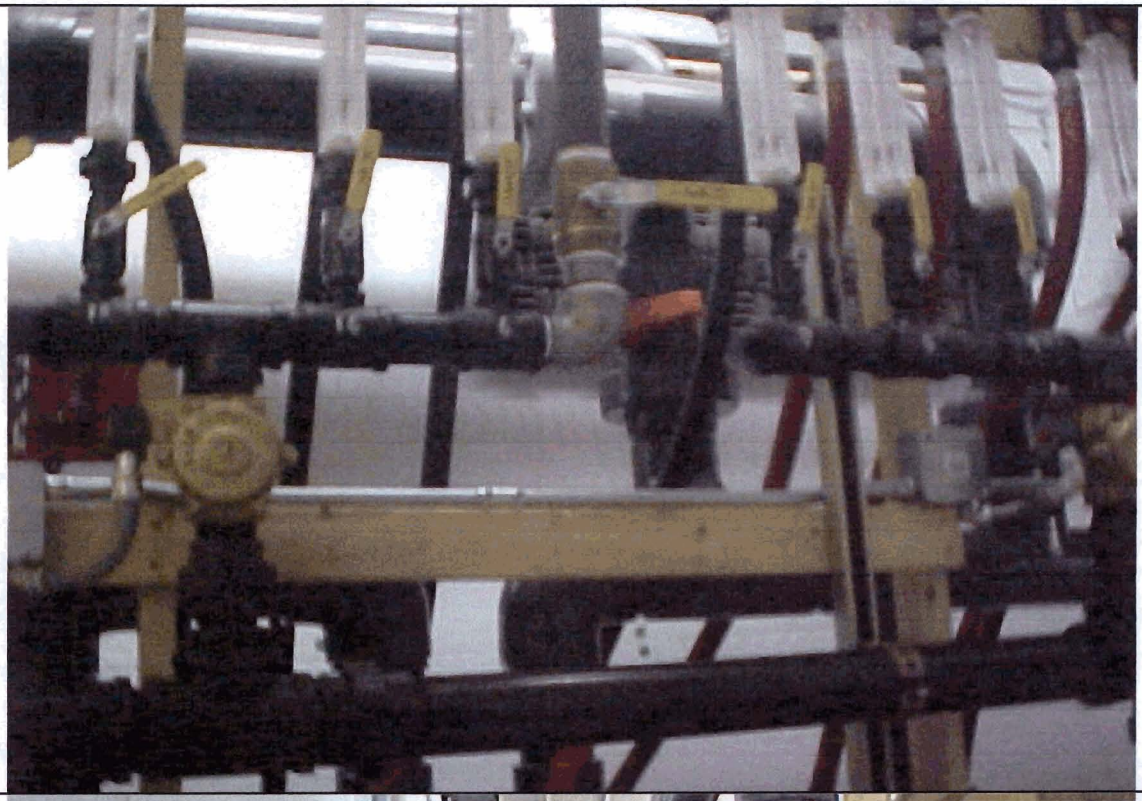
December 19, 2001

Direction:

North

Comments:

View of added SVE piping (behind Air Sparge Piping).



Photographer:

John Skaarup

Date:

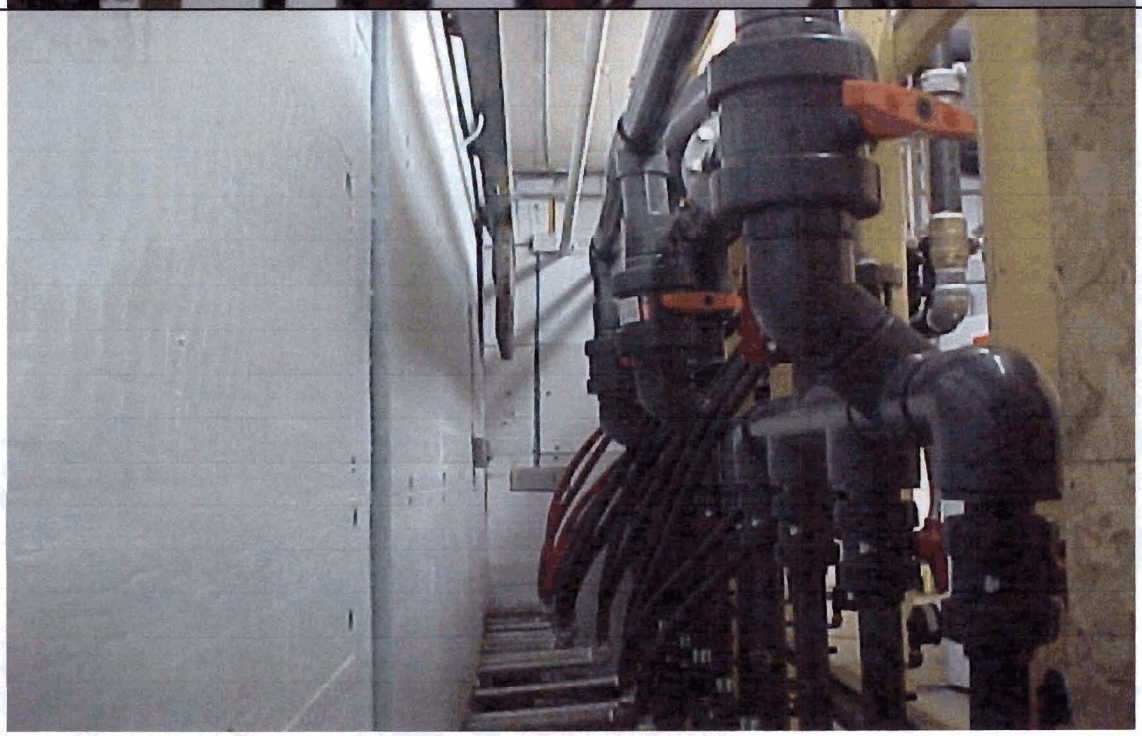
December 19, 2001

Direction:

East

Comments:

Additional view of added SVE piping.



SystemUpgrade10.doc

IT Corporation
Photographic Record

Customer:	NYSEG	**Project Number:**	108196
Site Name:	Norwich Former MGP	**Site Location:**	Norwich, New York

Photographer:

John Skaarup

Date:

December 20, 2001

Direction:

West

Comments:

View of backfilled trench and air sparge well road boxes.

Photographer:

John Skaarup

Date:

December 20, 2001

Direction:

Northwest

Comments:

View of trench spoil piles.