INTERIM REMEDIAL MEASURE
CONSTRUCTION COMPLETION REPORT
EMERSON POWER TRANSMISSION FACILITY
ITHACA, NEW YORK
MARCH 31, 2009

Site No. 7-55-010

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EMERSON POWER TRANSMISSION

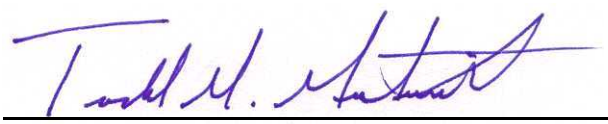
620 SOUTH AURORA STREET

ITHACA, NEW YORK

SITE NO. 7-55-010

I, Todd M. Musterait, P.E., hereby certify, as a Professional Engineer registered in the State of New York, that based on WSP Engineering of New York, P.C.'s observation of the remedial construction activities conducted by the remedial contractor, Remediation Services, Inc., the remedial construction activities were completed in substantial conformance with the requirements presented in the following documents and/or approved field changes detailed in this Construction Completion Report:

- Record of Decision for the Morse Industrial Site Inactive Hazardous Waste Site, Ithaca, Tompkins County, New York (NYSDEC, December 1994).
- 80% Interim Remedial Measure Design Report (WSP Engineering of New York, P.C., July 17, 2008)



March 31, 2009

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1 Introduction

1.1 GENERAL

On behalf of Emerson Electric Co. and its subsidiary, Emerson Power Transmission Corp. (EPT), WSP Engineering of New York, P.C., has prepared this Construction Completion Report for the Interim Remedial Measure (IRM) installed at the EPT site in Ithaca, New York (the site). This report details the activities that were performed to implement the IRM in the area of the fire water reservoir at the EPT site as described in the Revised Supplemental Remedial Program/Alternatives Analysis (SRP/AA) Report, dated June 30, 2008, and the 80% IRM Design Report, dated July 17, 2008.

The IRM involved constructing a dual phase extraction (DPE) system as an enhancement to the existing groundwater extraction and treatment system to intercept affected groundwater in the highly fractured bedrock (B-zone) and the horizontal bedding plane within the C-zone between 515 and 518 feet above mean sea level (AMSL) as well as extracting groundwater from the C-zone immediately below the fire water reservoir. The objectives of the IRM were to provide hydraulic control of affected groundwater and enhance mass removal of volatile organic compounds (VOCs) in the B-zone and C-zone at the fire water reservoir and downgradient areas. The construction and site work were completed in accordance with applicable federal, state, and local laws and regulations.

This report has been prepared in accordance with an Administrative Order on Consent (Index #A7-0125-87-09) entered into by the New York State Department of Environmental Conservation (NYSDEC) and EPT on July 13, 1987.

1.2 PURPOSE AND ORGANIZATION OF REPORT

This Construction Completion Report provides a detailed description of the construction activities and as-built engineering drawings of the DPE system installed at the site. The report has been organized into the following sections:

- Section 1 – Introduction
- Section 2 – Dual Phase Extraction System
- Section 3 – System Startup and Operation
- Section 4 – Engineering Certification
- Section 5 – References

In addition to the above, as-built drawings are presented in Appendix A.

1.3 FACILITY DESCRIPTION AND HISTORY

The EPT facility is located at 620 South Aurora Street in Ithaca, New York (Figure 1). The site consists of three main buildings along the northeast and southwest portions of South Hill (Figure 1). The facility buildings are located at an elevation of approximately 600 feet AMSL. The majority of the floor space is in the main plant building, which extends approximately 1,600 feet along the northeastern portion of the 110-acre site. The main building is flanked by a number of smaller buildings to the southwest and access roads and parking lots that terrace the hillside above the plant to the east (Figure 2). Further uphill and to the east are South Aurora Street and the campus of Ithaca College. Undeveloped woodland borders the site to the southwest along the steep embankments of the hill. West Spencer Street, which runs parallel to the EPT property, marks the western edge of the wooded area and the base of South Hill. Beyond Spencer Street to the west and in areas along the steep northern approach to South Hill and the EPT

property are residential areas. Those neighborhoods are bordered by Six Mile Creek, which flows north along the base of South Hill and eventually empties into Cayuga Lake approximately 2 miles northwest of the site. Figure 2 shows the facility layout and the surrounding areas.

The original building at the EPT site was built in 1906 by Morse Industrial Corporation, which manufactured steel roller chain for the automobile industry. From approximately 1928 to 1983, Borg-Warner Corporation owned the property and manufactured automotive components and power transmission equipment using similar processes, but not necessarily the same materials, as those currently conducted by EPT. A more detailed description of the site history and construction dates of the various buildings at the site is detailed in the report entitled Onsite Assessment of the Former Borg Warner – Morse Chain Facility (ESC 2005). Up until the late 1970s, Borg-Warner Corporation used trichloroethene (TCE), a solvent widely used at the time for cleaning and degreasing metal parts. In 1983, Morse Industrial Corporation was purchased from Borg-Warner Corporation by Emerson and, in the late 1980s, became known as Emerson Power Transmission. EPT manufactures industrial roller chain, bearings, and clutching for the power transmission industry. Under Emerson's ownership, TCE has not been used at the Ithaca facility. Investigations conducted by Emerson in 1987 revealed onsite groundwater contamination, originating from a fire-water reservoir located on the western portion of the property. Emerson promptly reported these findings to the NYSDEC. The remediation of this contamination was the subject of the July 1987 Consent Order (Index # A7-0125-87-09) referenced above.

1.4 SITE GEOLOGY AND HYDROGEOLOGY

The EPT site is located on the northern edge of the Appalachian Plateau Physiographic Province, which is characterized in central New York by deeply dissected hilly uplands and glacially gouged stream valleys. The EPT site lies on the limits of one of the dissected hills and overlooks the Cayuga Lake basin, which is formed in a former stream valley eroded and enlarged by the advance of glaciers. Underlying the site is a thin, discontinuous veneer of glacial till and man-made fill. The soil is classified as the "A-zone" in the site conceptual model and hydrogeologic framework presented in the Revised SRP/AA Report. It is typically a silty or clayey gravel and ranges in depth from 2.5 to 33 feet thick, though most of the EPT site and the western slope of South Hill is covered by less than 15 feet of soil. Soil depths generally increase with decreasing elevation and eventually merge with glacio-lacustrine silt and clay that lines the bottom of the valley floor below South Hill.

Beneath the overburden lies bedrock of the Ithaca Siltstone, a member of the Genesee Formation. The bedrock is typically well-cemented with generally non-fossiliferous beds ranging in thickness from 0.1 inch to 2.5 feet in thickness. Previous interpretations of the site bedrock, based on core logs recovered from boreholes drilling during investigation activities, differentiated the rock into three zones based on the frequency of bedding plane fractures and joints: an upper "stress relief zone" (B-zone), a middle "transitional zone" (C-zone), and a lower "lithologically controlled zone" (D-zone). The uppermost B-zone is characterized as very highly to highly fractured weathered bedrock. Onsite the B-zone extends to a maximum depth of approximately 22 feet below ground surface (bgs) and has an average thickness of approximately 8 to 10 feet on the western portion of the site where the current remediation system is located.

The transitional zone (C-zone) extends from the base of the B-zone to a maximum depth of approximately 55 feet bgs at the EPT site. The lower lithologically controlled zone (D-zone) extends from the bottom of the C-zone to a minimum depth of 145 feet bgs. According to geologic logs, bedding plane fractures are reportedly confined to intervals that are widely spaced, and their occurrence is controlled by lithology. A discussion of joint measurements and structural framework is provided in the Revised SRP/AA Report.

Groundwater flow within the overburden and underlying B-zone generally mimic surface topography, which slopes to the northwest. Groundwater flow within the siltstone bedrock (C and D zones) is significantly affected by vertical and horizontal distribution of vertical joint sets and horizontal bedding plane fractures within the upper sections of bedrock.

Groundwater near the fire water reservoir area is present within the overburden and bedrock. Overburden groundwater appears to be perched and is restricted to limited areas of the site where the discontinuous cover of soil is thickest. In areas where the soil cover is thin (i.e., steep slopes along Turner Place), the overburden or upper portion of fractured bedrock is not saturated.

A conceptual site model for VOC-containing groundwater associated with releases from the fire water reservoir and the associated transport pathways is presented in the 80% Interim Remedial Design Report.

1.5 PREVIOUS GROUNDWATER EXTRACTION SYSTEM

The remedy selected for the fire water reservoir area, as detailed in the Record of Decision (December 1994) was 2-PHASE™ Extraction, which removes both groundwater and vapors from wells. This system consisted of five extraction wells (previously identified as EW-1, EW-3, EW-4, MW-2, and MW-31) installed downgradient of the fire water reservoir. The extraction wells were completed at depths of approximately 50 to 65 feet bgs within the C-zone. Groundwater was removed by the extraction wells using a high efficiency vacuum blower. Extracted groundwater and vapors were piped to an air/water separator to separate the air and water streams. Groundwater was subsequently treated using activated carbon to remove the VOCs. The air stream was vented to the atmosphere and the treated water was discharged to a permitted Outfall #001 located on the western portion of the facility. The system was started up in July 1996 and operated until August 28, 2008, in accordance with the Operation, Maintenance, and Monitoring Manual dated April 1997 and addendum pages dated July 11, 1997.

The groundwater recovery system was evaluated based on the results of quarterly and semiannual sampling events. The most recent quarterly sampling event occurred in September 4, 2008, and the results will be presented in the July through December 2008 Semi-Annual 2-PHASE™ Extraction System Progress Report #25.

This system was shut down on August 28, 2008, to facilitate construction of the enhanced groundwater extraction and treatment system.

2 Dual Phase Extraction System

This section provides a description of the DPE system installation activities. During construction, WSP Engineering provided full-time engineering services to oversee the work performed by the remedial contractor, Remediation Services, Inc. (RSI), and other subcontractors and ensure substantial conformance with the NYSDEC-approved 80% IRM Design Report.

WSP Engineering conducted the following activities during installation of the DPE system:

- reviewed contractor submittals for adequacy relative to the requirements presented in the 80% IRM Design Report
- coordinated with Emerson, NYSDEC, and subcontractors regarding construction of the remedial system
- maintained detailed written and photographic records of the field activities performed by the contractor, including documentation of field conditions encountered
- observed the work by the contractor throughout the duration of construction activities
- conducted air monitoring for dust and VOCs, as necessary, based on the activity
- characterized the waste material generated during the construction activities for offsite disposal and coordinated the transportation and disposal of the materials
- signed non-hazardous waste manifests on behalf of Emerson (with Emerson's authorization)

Listed below are the primary construction activities associated with the DPE system:

- installing extraction wells and modified existing extraction wells
- installing well vaults and subsurface conveyance piping (water, vapor, compressed air)
- constructing a pre-engineered steel building to house the treatment equipment
- installing aqueous stream treatment equipment
- installing vapor stream treatment equipment
- installing utility connections to all treatment components
- managing the disposal of waste materials generated during the construction activities in accordance with applicable rules and regulations

A detailed description of each of these components is presented below. All equipment specification sheets are provided in the Operation, Maintenance and Monitoring Plan (OM&M Plan) dated March 31, 2009 for the IRM.

2.1 EXTRACTION WELLS

System construction activities were initiated in September 2008 starting with the installation of four new B-zone extraction wells (EW-4-25B, EW-5-25B, EW-7-25B, and EW-10-25B) and converting existing monitoring and extraction wells to flush mount for facilitation of a below ground conveyance system. Former aboveground extraction wells that were converted to flush mount extraction wells include EW-2-62C, EW-3-60C, and EW-6-60C (formerly EW-1, EW-2, and EW-3, respectively). The following subsections provide a description of the construction of the extraction wells.

2.1.1 Site Preparation

In September 2008, under the direction of WSP Engineering, RSI removed the aboveground piping and well boxes associated with the 2-PHASE™ Extraction System. Existing stick up monitoring wells along the foot path were converted to flush mount (MW-3-13, MW-3-100, MW-1, and MW-1B). Two monitoring wells (MW-2 and MW-3-31) and one extraction well from the previous system (EW-4) were abandoned by Parratt-Wolff, Inc. MW-2 was a 4-inch polyvinyl chloride (PVC) well, screened between 13.5 and 38.3 feet and MW-3-31 was a 4-inch-diameter (PVC) well, screened between 21 and 38 feet. EW-4 was installed with a 4-inch-diameter PVC well, screened between 16.5 and 41.5 feet. The wells were abandoned by placing a NYSDEC specified standard grout mixture in proportions of one 94-pound bag Type I Portland cement to 3.9 pounds powdered bentonite and 7.8 gallons potable water in the borehole from the bottom to 5 feet bgs using a tremie pipe. Upon completion of grouting in place, the well casing was removed to a depth of 2 feet below the land surface. The uppermost 2 feet of the boreholes were backfilled to match surrounding land surface using native soils.

2.1.2 B-Zone Extraction Wells

In September 2008, B-zone extraction wells EW-4-25B, EW-5-25B, EW-7-25B, and EW-10-25B were installed by Parratt-Wolff, Inc., under the direction of WSP Engineering. The wells were first drilled through the overburden using 6.25-inch inner-diameter (ID) hollow-stem augers until bedrock refusal. The subcontractor then used 4-inch rotary coring to advance each borehole to 25 feet bgs and provide rock cores for the onsite geologist to log the lithology, structure, and the presence of water conducting fractures or solutional openings. A 6-inch rock roller combined with circulated water flush was used to ream each borehole to terminal depth to permit well installation.

The B-zone extraction wells were constructed of Type 304 4-inch ID threaded, flush jointed stainless steel. A clean sand filter pack was placed in the annular space between a 10-foot length of screen and the borehole, from the bottom of the borehole to approximately 2 feet above the top of the screen (around 13 feet bgs). A 3-foot-thick bentonite seal was placed on top of the sand filter pack. The remaining annular space was backfilled with a cement-bentonite grout mixture (tremie piped from the bottom to the top). The wells were completed with 4-inch steel casing to protrude above ground surface. Bentonite grout was placed to ground level and lockable caps were placed over the casing to protect the wells from tampering until extraction well equipment was installed. A boring log was prepared for each extraction well borehole and monitoring well construction logs were completed for each installed well after completion of the field activities. Boring logs and monitoring well construction logs can be found in Appendix B.

Drill cuttings and water generated during extraction well installation were contained in U.S. Department of Transportation (USDOT)-approved, 55-gallon steel drums. The drums were labeled and moved to an onsite staging area designated by EPT. Water generated during the well installation was also contained in USDOT-approved drums.

All drilling activities were conducted using clean equipment. Split-spoon samplers were decontaminated in accordance with WSP Engineering's standard operating procedures. The drilling equipment (augers and rods) were decontaminated using a portable steam cleaner prior to demobilizing from the site. All decontamination fluids generated during the drilling activities were contained in 55-gallon USDOT-approved drums.

The extraction wells were developed to remove sediments and to ensure effective communication between the well screen and surrounding saturated zone. The wells were developed by surging the screened interval to loosen any fine-grained sediment in the sand filter pack and adjacent aquifer material. Groundwater was then removed by pumping at low flow rates. Development continued until the discharge was relatively free of suspended sediments. Any water added to the well borehole during

drilling and installation activities was removed during development. Water generated during the well development was collected in 55-gallon USDOT approved drums for staging and offsite disposal.

All development activities were conducted with clean equipment to prevent potential cross-contamination between well locations. Equipment was cleaned between each well.

2.2 WELL VAULTS AND CONVEYANCE PIPING

After completing installation of the wells, the well vaults and conveyance piping were installed. Each extraction well head was constructed in a pre-fabricated non-traffic-rated vault box, with the exception of EW-1-62C and EW-9-86C, which have traffic-rated vault boxes. Different-sized vaults were used depending on the piping running through the vault and if the vault was shared by two wells. EW-3-60C and EW-4-25B, and EW-5-25B and EW-6-60B share a 4-foot by 4-foot vault. EW-7-25B also has a 4-foot by 4-foot vault. EW-1-62C, EW-2-62C, EW-8-62C, EW-9-86C, and EW-10-25B are all contained in 3-foot by 3-foot vaults. Each vault was completed with a concrete pad and a weep hole installed in the bottom of each vault to facilitate draining of any surface water that enters the vault.

Piping for conveying water and compressed air were placed in a 6-inch-diameter PVC carrier pipe, which was installed underground. Conveyance piping headers were extended through the vaults and connected to the wellhead via galvanized steel piping and nylon tubing. The carrier piping entered the bottom of the vaults through a 90-degree bend that was formed in the trench as shown on Sheet 8. The water conveyance piping was installed as 1.25-inch outer-diameter (OD) Nylon 12 tubing and compressed air conveyance piping was installed as 1-inch ID Duratec® aluminum composite. To minimize fittings the flexible water conveyance piping and compressed air conveyance piping were bent to follow the 90-degree bend in the carrier pipe for entry into the vaults. A cleanout port was installed on the water line at the top of the entrance and exit of the header to and from each vault. Compressed air conveyance piping was run from EW-8-62C to EW-9-86C, despite not having a pneumatic pump installed in EW-9-86C. The compressed air line was capped within these vaults to allow for future expansion of the extraction well network, if necessary.

Conveyance piping was installed within trenches excavated to approximately 4 feet bgs. The trenches were backfilled with a minimum of 2 inches of pipe bedding material. Next, the conveyance and carrier piping were placed in the trench and covered with a minimum of 2 inches of bedding material. The remainder of the trench was then backfilled with native soils removed from the trench to the ground surface and graded flush with the surface elevation surrounding the trench. The backfilled soil was compacted in maximum 6-inch lifts, except for the trench between EW-8-62C and EW-9-86C due to the gradient of the hill which prevented compaction in 6-inch lifts. All conveyance piping was pressure tested after installation with zero leakage. Cleanout ports (WCO-1, WCO-2. and VCO-1) were installed inside 8-inch-diameter flush mount covers in areas where piping routes created collection point (low spots) on the effluent water line (WCO) and vapor header (VCO) (see Sheet 2).

Underground soil vapor vacuum conveyance piping was installed as 2-inch OD high-density polyethylene (HDPE) piping from EW-5-25B/EW-6-60C to EW-10-25B and 4-inch OD HDPE from EW-5-25B/EW-6-60C to the treatment building as shown on Sheet 2. All HDPE joints and connections were butt fused. HDPE piping entered the bottom of the well vault via a tee off of the main lateral running underneath the vaults as shown on Sheet 8. Inside the vault the vapor line was equipped with a ball valve open to the atmosphere (dilution valve), ball valve, and vacuum gauge. The two ball valves allow for control of applied vacuum to each well head. Inside the vault the vapor line transitions from HDPE, to galvanized steel, and then to schedule 80 PVC. The PVC attaches to the side of the well casing via a PVC tee or gasketed steel saddle.

The water conveyance header transitions from 1.25-inch OD Nylon 12 to 1.25-inch ID galvanized steel piping and fittings inside the vaults. Between the header and wellhead a check valve, ball valve, sample

port, pressure gauge, and reducer with quick connect were installed in line. The check valves were installed to keep water traveling through the header from reentering the extraction wells. Pressure gauges were installed to determine if blockages are occurring between the wellhead and header. Ball valves are utilized to control the flow from each well and allow the capability to isolate specific wells, if needed.

The compressed air line header transitions from 1-inch ID Duratec® to 1-inch ID galvanized steel pipe inside the vaults. A drip port was installed on the header portion of the line running through the vault to allow for removal of any condensation forming in the line. A pressure indicator with regulator and cycle counter were installed on the lateral portion of the compressed air line for control and monitoring purposes. A quick-connect fitting was also installed on the nylon tubing to allow for easy disassembly from the well cap assembly.

All conveyance piping above 4 feet bgs, including the piping into the building, is traced with heat tape to prevent freezing during the winter months.

2.3 EXTRACTION WELL PUMPS AND ASSOCIATED COMPONENTS

All extraction wells, except EW-9-86C, have 1.75-inch OD bottom-inlet, controllerless, pneumatic groundwater extraction pumps. EW-9-86C has an electric groundwater extraction pump. The pumps and associated components are discussed in the subsections below.

2.3.1 Pneumatic Pumps

Stainless steel 2-inch bottom inlet short pneumatic pumps manufactured by QED Environmental Systems (Model AP2B) and stainless steel fittings were installed in the extraction wells. The down well water discharge tubing was 5/8-inch OD Nylon 12, the air supply tubing was 3/8-inch OD Nylon 12, and the air exhaust line was a 1/2-inch OD Nylon 12 tubing. The exhaust line is vented inside the casing at each extraction well. The pneumatic pumps were attached to the well caps using 1/4-inch Polypro braided support rope. The vacuum well caps were custom-made 4-inch stainless steel with a 5/8-inch OD tube to accommodate discharge water and a 3/8-inch OD tube to accommodate compressed air supply to the pump. Each had stainless steel compression fittings to maintain a vacuum on the extraction well. All fittings were quick-connect style. Each pump has a filter/regulator manufactured by QED Environmental Systems installed within the vault to control air pressure to the pneumatic pump. The bottom of each pump was positioned approximately 1 foot off the bottom of each well to minimize suspended solids and sediments from entering the pump intake.

A 7.5-horsepower (hp) Ingersoll-Rand® reciprocating air compressor equipped with an air dryer, particulate filter, 3-way solenoid valve, and pressure and temperature indicators was installed to supply pressurized air to operate the pneumatic pumps. The air compressor is located in the treatment building. When operating, a running light is illuminated on the process logic controller (PLC) wired to the air compressor. As shown on Sheet 5, the air supply line is equipped with a pressure indicator, a temperature indicator, a normally open solenoid valve, and an additional pressure indicator before exiting the building. The solenoid valve is wired to the PLC and will discontinue airflow to the pumps if an alarm is triggered.

2.3.2 Submersible Electric Pump

A 3-inch OD submersible electric pump (Grundfos® Model 10SQE05100) was installed in well EW-9-86C due to the angle of the borehole. The pump was placed to an inlet depth of 90 feet, 6 inches below the top of angled casing, which corresponds to a vertical depth of 78 feet, 4.5 inches bgs (508.59 feet AMSL; see Sheet 8). The pump has a 2-wire grounded Santoprene® chemical resistant motor lead, stainless steel support cable, and 1-inch-diameter water discharge line. The pump will automatically shut off if the well becomes dry or if high or low voltage conditions occur. The operation of this pump is controlled by

the PLC located in the treatment building with hand on, off, and automatic controls as further described in Section 2.7.

2.4 PRE-ENGINEERED STEEL BUILDING AND UTILITIES

Concurrent with the construction of the system conveyance piping and well vaults, a pre-engineered steel building manufactured by Kirby Building Systems was constructed by Elmira Structures, Inc. to house the treatment equipment. The building is 20 feet by 35 feet, with a 14-foot eave height. It has a 10-foot-wide rolling overhead door and a standard personnel door. The epoxy coated concrete floor was constructed with a 6-inch berm for water containment and has a 2-foot by 2-foot sump in the center of the floor for capturing any leaks from the water treatment equipment. The sump is equipped with a water level sensor to detect water that has accumulated in the sump. This function is further discussed below in Section 2.7. The building is equipped with two 3-foot by 3-foot manually operated louvers and a thermostatically controlled roof fan with a louver for ventilation. Two ceiling-mounted thermostatically controlled heaters were also installed to prevent pipe and equipment freezing during the winter months.

Electric service was connected to the building through a dedicated power drop that is attached to a mast on the northern side of the building. Cable communication service was connected to the treatment building via the same mast.

2.5 AQUEOUS STREAM TREATMENT EQUIPMENT

The aqueous stream treatment equipment was selected and installed based on treating contaminants of concern in groundwater to the levels required by the New York State's State Pollution Discharge Elimination System (SPDES) discharge permit for Outfall #001 (SPDES permit number NY 000 2933), which was the previous and the current discharge point for treated groundwater. A detailed discussion of the basis of design is presented in the 80% IRM Design Report. Sheet 5 is an as-built process and instrumentation diagram and Sheet 6 is a layout of the treatment building that presents the placement of each component within the aqueous treatment system.

2.5.1 Equalization Tank

Groundwater is pumped from the extraction wells into a round 1,000-gallon closed top aluminum equalization tank. The tank is equipped with a discharge port and an 18-inch manway cleanout port on the bottom that allows for periodic cleanout of suspended solids that accumulate in the tank. The tank contains a set of water level sensors/switches to facilitate automatic pump "on" and "off" control of accumulated water. This tank is designed to equalize the influent flow and minimize downstream cycling of system components by providing a reservoir of water to be treated. The tank is also equipped with a series of high and low level alarms wired to the PLC that will shutdown the system in case of a malfunction or a high level.

Water is pumped from the equalization tank to the bag filtration units via a Gould's NPE 1ST1F5D4 1-1/2 hp effluent transfer pump. Additionally, the tank is outfitted with a port and piping that connects to the influent piping of the vacuum blower to evacuate accumulated vapors in the tank. Another port with a valve was installed to allow ambient makeup air to enter the tank to avoid damaging the tank through the application of a vacuum.

2.5.2 Filtration Units

To facilitate removal of suspended solids and adsorbed metals from the recovered groundwater, bag filtration units with 2-inch-diameter inlets and outlets were installed after the equalization tank (Pentek Aluminum Water Filter Housing). Once the equalization tank fills to approximately 850 gallons, water in the equalization tank is pumped through a series of high pressure bag filters to eliminate suspended solids. The bag filtration units are outfitted with a series of pressure indicators before, between, and after

each unit to monitor backpressure. A gate valve and flow meter were also installed to balance the flow between the air stripper and bag filters.

2.5.3 Low Profile Tray Air Stripper and Blower

A QED 4.4 SS, 4 tray aluminum low profile tray air stripper equipped with a sump, discharge pump, and cast aluminum centrifugal pressure blower was installed to remove VOCs from the extracted groundwater. The air stripper is equipped with a 2.67-hp aluminum fan with a totally enclosed, capable of 33.1 inches of water column, fan-cooled electric motor manufactured by The New York Blower Company. The effluent water stream from the bag filtration units enters the air stripper and VOCs are removed from the aqueous stream. The air stripper is equipped with a sump outfitted with a series of high and low switches that will actuate the Gould's NPE 1ST1F5D4 1-1/2 hp effluent transfer pump, the blower, and provide shutdown capability in case of malfunction. In addition, the PLC will signal the entire system to shutdown if the blower shuts down or malfunctions.

The effluent water stream is pumped via the effluent transfer pump to the liquid phase granular activated carbon (GAC) units. Bypass piping was installed to route extracted groundwater directly to the liquid phase GAC units described below if the influent VOC mass loading over time diminishes to a point where the air stripper is not an efficient means of VOC removal.

The air stream from the stripper is treated using vapor phase GAC as discussed in Subsection 2.6.2 and subsequently discharged to the atmosphere by a discharge stack.

2.5.4 Liquid Phase Granular Activated Carbon

After treatment by the low profile tray air stripper, the water is pumped through two liquid phase GAC units which serve to remove VOCs that have not been removed by the air stripper. Two fiberglass 250-pound vessels in series were installed for this final step in treatment (Enpress model RLHP-200). The vessels are filled with reactivated GAC. Sampling ports were installed before the GAC units, between the units, and at the discharge from the units to monitor system performance and determine when breakthrough occurs. Pressure indicators were also installed before and after each unit to monitor pressure buildup. A pressure sensor connected to the PLC was also placed prior to the carbon drums to allow the system to shut itself down if a set back pressure was exceeded.

2.5.5 Effluent Discharge

The treated effluent is discharged to the existing SPDES discharge Outfall #001 located along the footpath (see Sheet 2). The treatment system has been designed to reduce constituent concentrations to meet applicable criteria specified in the permit. The treated water reaches the discharge outfall via a 4-inch OD HDPE pipe that runs in the same trench as the conveyance piping.

2.6 VAPOR STREAM TREATMENT EQUIPMENT

The vapor treatment equipment was selected and installed based on separating liquids from the vapor stream and treating vapors before discharge to the atmosphere. A detailed discussion of the basis of design is presented in the 80% IRM Design Report. Sheet 5 is an as-built process and instrumentation diagram and Sheet 6 is a layout of the treatment building that presents the placement of each component within the vapor treatment system.

2.6.1 Air/Water Separator and Blower

To facilitate separation of moisture from the vapor stream, a 120-gallon air/water separator was installed before the vapor stream enters the inlet of the vacuum blower. Liquids removed from the vapor stream are conveyed by a Moyno 35601 progressive cavity transfer pump to the equalization tank for aqueous treatment. This process is controlled by a series of high and low switches wired to the PLC that activates

the transfer pump. In addition, the air/water separator is outfitted with a series of alarms that will shutdown the vapor phase system in case of a malfunction.

Vapors are conveyed by a Sutorbilt Legend® positive displacement rotary lobe blower (model 5LP-DSL). The blower is equipped with an Emerson horizontal air cooled motor (841 Plus®) 20-hp motor and is capable of producing a maximum vacuum of 460 standard cubic feet per minute at 10 inches mercury. The unit is constructed with a vacuum dilution valve before the inlet to the blower to maintain the appropriate operational range for the blower. Vacuum relief valves were also installed at each wellhead to prevent excessive groundwater upwelling. Between the second GAC unit and exterior of the building a Universal Silencer (model RD-8) was installed to reduce the noise coming from the discharge stack. The vacuum blower is also outfitted with pressure and vacuum transmitters so that the PLC can shut off the vapor extraction system in case of high pressure or vacuum in the air line.

2.6.2 Vapor Phase Granular Activated Carbon

The recovered vapor stream is treated by two aluminum 1,000-pound vessels in series containing vapor phase GAC (ESD Model VVHV-1000) before discharge to the atmosphere through the discharge stack. In addition to the recovered vapor stream, the air stripper effluent vapor stream is treated with these GAC vessels. Pressure indicators were also installed before and after each unit to monitor pressure buildup.

2.7 TELEMETRY, INSTRUMENTATION, AND PROCESS LOGIC CONTROL

Telemetry, instrumentation, and process logic controls were installed to allow for automated and remote monitoring of the treatment equipment. Telemetry and instrumentation for the extraction well heads are shown on Sheet 5. The treatment system telemetry and instrumentation is shown on the process and instrumentation diagram (Sheet 5).

An Allen-Bradley MicroLogix™ 1100 Programmable Controller PLC was installed to allow automatic actuation and remote monitoring of the remedial system equipment. The PLC will automatically turn off the entire system in the event of certain predefined alarm conditions and will notify WSP Engineering personnel by email via a mobile device.

2.7.1 Automatic Equipment Actuations

Two sets of water level sensors are used to actuate the equipment during normal operation of the treatment system. A level switch high (LSH) is activated within the equalization tank once the water level within the tank rises to a predefined level. The activation signal causes the PLC to power the first water transfer pump and convey water to the filtration bag units, air stripper, and GAC units for treatment. Once the water level has been lowered, triggering the second switch, level switch low (LSL), the PLC will signal to turn the transfer pump off. A similar set of water level were also installed in the low profile air stripper sump to actuate both the second water transfer pump and blower serving the stripper and in the air/water separator to activate a water transfer pump.

If high vacuum at the blower inlet occurs in the vapor recovery line, a vacuum switch will signal the PLC to turn off the blower to prevent equipment damage.

2.7.2 Automatic Alarm Deactivation

Numerous alarm conditions are built into the treatment system and controlled by the PLC. The alarms include the equalization tank, the air stripper sump, air/water separator tank, blower vapor line, and the interior leak detection sump. Triggering any one of the alarms results in the immediate shutdown of the entire system and the notification of WSP Engineering personnel by the PLC. In addition to the equalization tank LSH described above, an additional water level switch, level switch high high (LSHH), was installed above the LSH. In the event of a failure of the LSH, the LSHH signals the PLC and the entire treatment system shuts down to avoid a tank overflow that might have otherwise occurred. The

level switch low low (LSLL), when tripped by a failure of the LSL and continued water level decline, sends an alarm condition to the PLC that will also shut down the system to prevent the effluent pump from losing prime, drawing air, and possibly over heating. The air stripper and air/water separator sumps are similarly equipped with LSLL and LSHH sensors and alarms.

To safe guard against equipment leaks, the sump within the treatment building's concrete slab is equipped with a LSHH. When activated by water accumulation in the sump, the LSHH will send an alarm condition to the PLC and the entire treatment system will be shut down.

A high vacuum switch was installed on the inlet vapor recovery line to indicate if there is a blockage in the line causing high vacuum. Similarly, a high-pressure switch was installed on the blower outlet line. If either switch is activated, the entire system is shut off by a signal from the PLC.

Additionally, if an alarm is triggered from the aqueous stream process, the PLC will actuate the normally open solenoid valve on the air supply line to halt airflow between the air compressor and the pneumatic pumps. The Process and Instrumentation Diagram (Sheet 5) in Appendix A illustrates the alarm layout.

2.8 WASTE MATERIAL MANAGEMENT

Soils excavated for the building foundation that could not be used as backfill were stockpiled at the site and characterized for disposal. In addition, large pieces of concrete with rebar were encountered during the trenching for underground conveyance piping. Approximately 350 tons of soil mixed with concrete were generated from the construction activities and stockpiled onsite. On October 1, 2008, discrete grab samples were collected from various locations of the stockpiled soil and used to form a composite sample which was submitted to Test America Laboratories in Buffalo, New York for analysis for VOCs, semivolatile organic compounds, metals by the Toxicity Characteristic Leaching Procedure, and polychlorinated biphenyls. The analytical results demonstrated that the soil did not exhibit a hazardous characteristic. A copy of the analytical results is presented in Appendix C. Concrete pieces were broken to an acceptable size and rebar was cut to within one inch of the concrete. Rebar was stockpiled separately for recycling. The excavated soil and concrete was transported by Heritage Environmental Services, Inc. to the High Acres Waste Management, Inc. facility in Fairport, New York. The rebar and scrap metal encountered during excavation, along with piping and aluminum pipe wrap from the dismantled aboveground piping from the 2-PHASE™ Extraction System, was transported to Reamer Recycling in Ithaca, New York, as recyclable material. Copies of manifests and bills of lading are provided in Appendix D.

2.9 SITE RESTORATION

Prior to construction, an asphalt foot path had been installed in the remediation area for employee use. With consent from EPT, the foot path was not replaced. Instead, the area was fenced off to restrict access and filter media, geotechnical fabric, and gravel were used to restore the trench area. Asphalt and concrete that was removed during construction of the building and trenching activities for EW-1-62C and EW-9-86C was replaced. Remediation support areas and equipment staging areas set up during the construction activities were removed. The remediation area and building were fenced in with 6-foot-tall chain link fencing with locking gates to prohibit pedestrian traffic from using the former foot path.

2.10 SITE SURVEY

Following installation of the extraction well vaults and pre-fabricated metal building, WSP Engineering retained a New York State licensed surveyor to survey certain as-built features of the newly constructed system. All extraction wells, extraction well vaults, the new treatment building, and the discharge shed were surveyed for location and elevation. The elevations of the ground surface at each new extraction

well and the top of the well casing were surveyed to the nearest 0.01 foot. The horizontal locations of the new wells was also determined to the nearest 0.1 foot and referenced to the state plane coordinate system. The locations and elevations of the wells were tied into the existing base map for the site. In addition, all monitoring wells along the foot path that were converted to flush mount were resurveyed.

3 System Startup and Operation

3.1 SYSTEM STARTUP

Start-up and testing activities were performed from January 20, 2009, to January 29, 2009, in accordance with the procedures described in the 80% Interim Remedial Measure Design Report before initiating full-scale (routine) operations. Each piece of equipment was tested and operated to verify that it functioned in accordance with the manufacturer's design specifications. After each piece of equipment was inspected and operated satisfactorily, start-up activities were conducted.

Initial testing was performed with the PLC to verify that each alarm condition sent a signal to the PLC to shut down the appropriate treatment equipment. During the testing the float-stem switch on the air/water separator tank did not signal correctly with the PLC. The vapor extraction system blower, motor, and gauge were working correctly, but as a safety precaution, the vapor extraction system was turned off on January 21, 2009.

On January 28, 2009, the IRM system was shutdown due to a malfunction in the air stripper. Based on the analytical results of water samples collected before and after the air stripper during startup, WSP Engineering determined the air stripper was not operating in accordance with the design specifications. As a result, a new air stripper was installed March 9 through 12, 2009, and tested to ensure it was operating in accordance with design specifications before commencing routine operations.

3.2 OPERATION MAINTENANCE AND MONITORING

After completing the start-up activities, routine operations of the DPE system began on March 12, 2009. A detailed description of operation, maintenance and monitoring activities is presented in the OM&M Plan.

4 References

Environmental Strategies Consulting LLC. 2005. Onsite Assessment Former Borg Warner – Morse Chain Facility, 620 South Aurora Street, Ithaca, New York

New York State Department of Environmental Conservation. 1994. Record of Decision for the Morse Industrial Site Inactive Hazardous Waste Site, Ithaca, Tompkins County, New York. December.

Radian Corporation. 1990. Final Report; Remedial Investigation Stages 1 and 2; Emerson Power Transmission (EPT), Ithaca, New York. February.

Radian Corporation. 1997. Operation, Maintenance, and Monitoring Manual; Emerson Power Transmission (EPT), Ithaca, New York. April.

WSP Engineering of New York, P.C. Operation, Maintenance, and Monitoring Report. Emerson Power Transmission, Ithaca, New York. March 31, 2009.

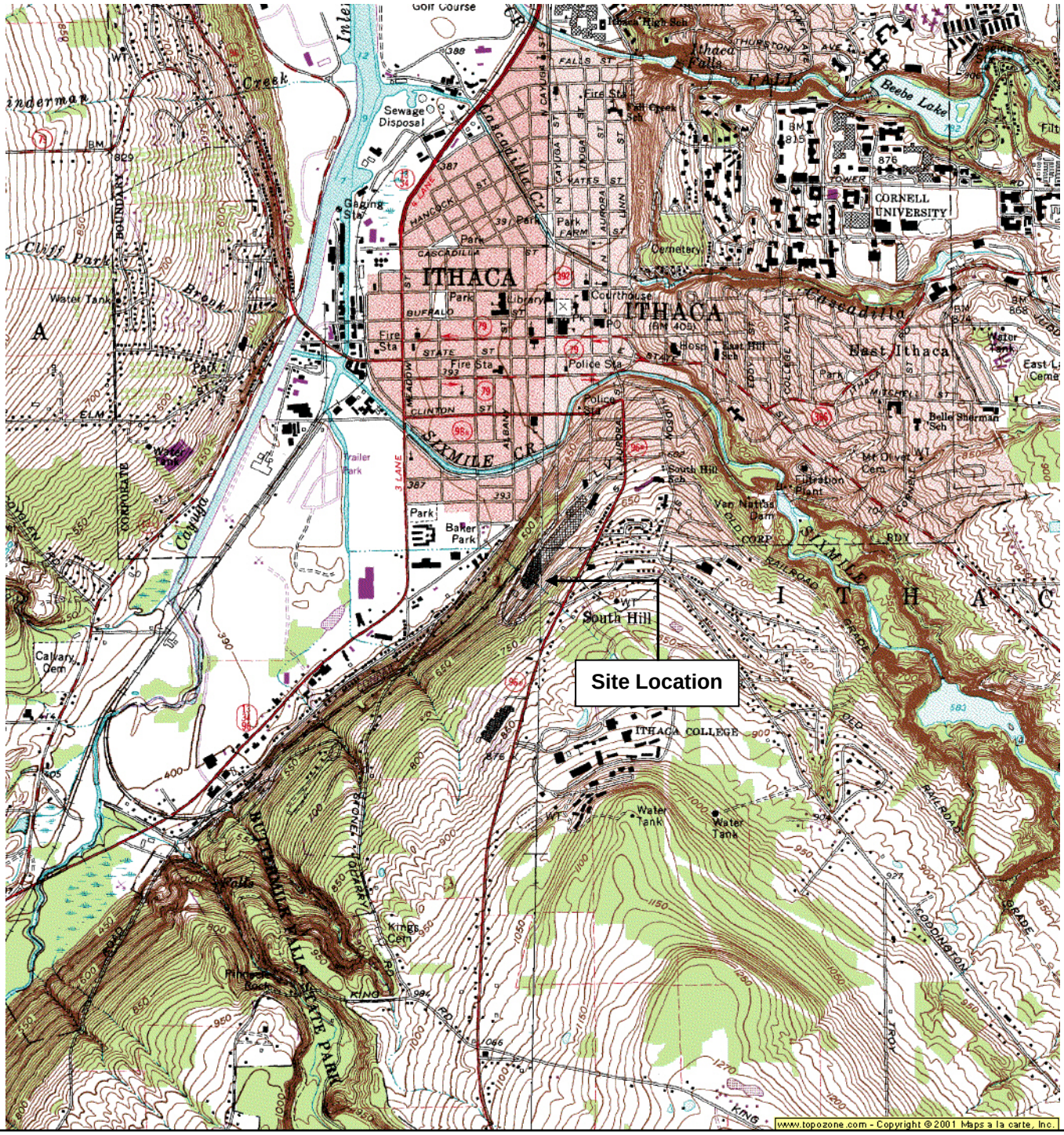
WSP Environment & Energy. 2008. 80% Interim Remedial Measure Design Report. Emerson Power Transmission, Ithaca, New York. July 17, 2008.

WSP Environmental Strategies. 2007. Supplemental Remedial Investigation Report, Emerson Power Transmission, Ithaca, New York. December.

5 Acronyms

AMSL	above mean sea level
bgs	below ground surface
DPE	dual-phase extraction
EPT	Emerson Power Transmission
GAC	granular activated carbon
HDPE	high density poly ethylene
hp	horsepower
ID	inner-diameter
IRM	Interim Remedial Measure
LSH	level switch high
LSHH	level switch high high
LSL	level switch low
LSLL	level switch low low
NYSDEC	New York State Department of Environmental Conservation
OD	outer-diameter
PLC	process logic control
PVC	polyvinyl chloride
RSI	Remediation Services, Inc.
SRP/AA	Supplemental Remedial Program/Alternatives Analysis
SPDES	State Pollution Discharge Elimination System
TCE	trichloroethene
USDOT	U.S. Department of Transportation
VOC	volatile organic compounds

Figures



Reference
7.5 Minute Series Topographic Quadrangle
Ithaca East, New York
Photorevised 1976 Scale 1:25,000 Metric

N

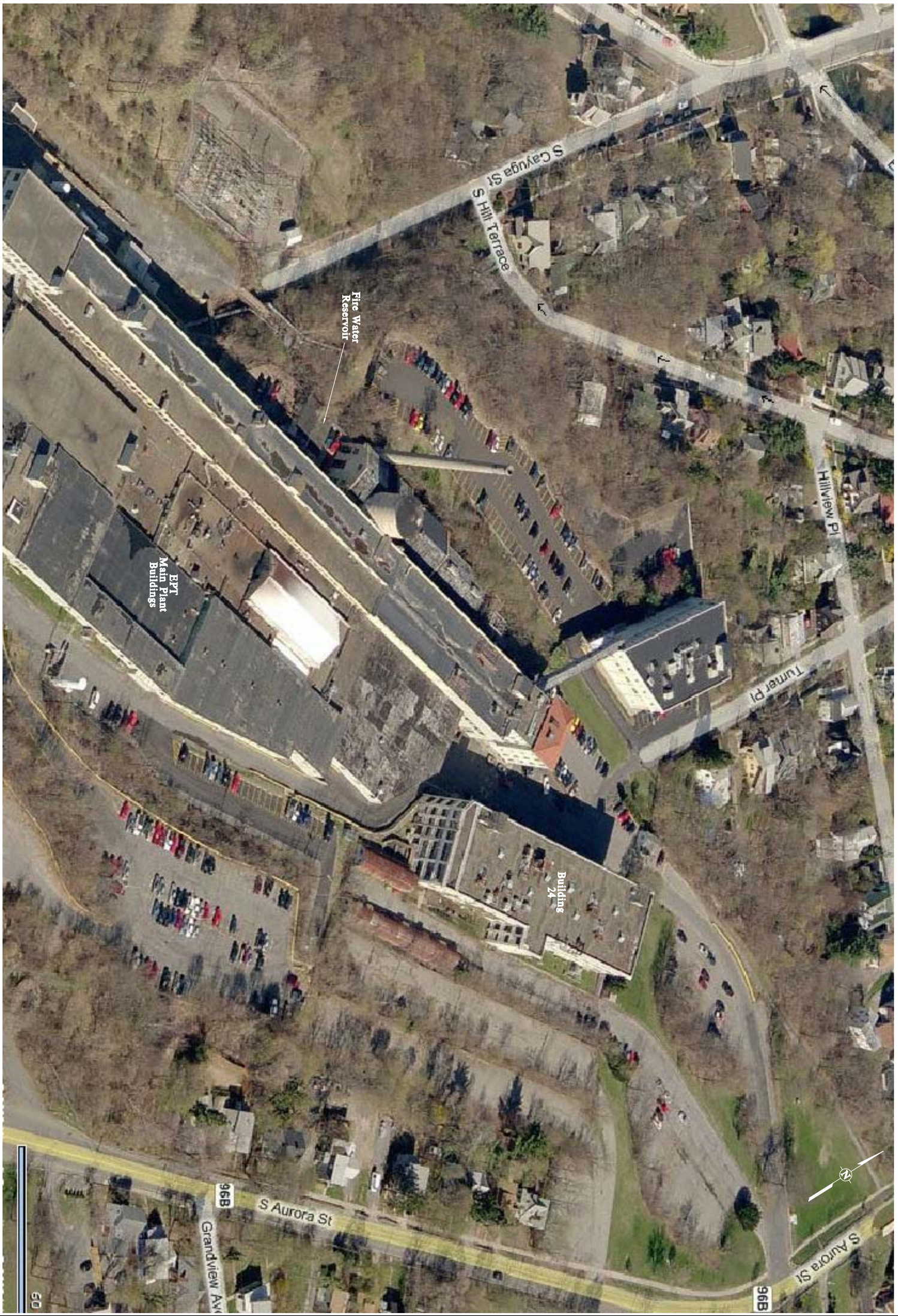
Quadrangle Location

Scale in Meters
0 500 1000

0 1000 2000
Scale in Feet

WSP Engineering of New York, P.C.
11190 Sunrise Valley Drive,
Suite 300
Reston, VA 20191
(703) 709-6500

Figure 1
Site Location
Emerson Power Transmission
Ithaca, New York



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RESTON, VIRGINIA 20191 (703) 709-6500

FIGURE 2

SITE LAYOUT

EMERSON POWER TRANSMISSION
ITHACA, NEW YORK
PREPARED FOR
EMERSON POWER TRANSMISSION

Drawn By:	EGC
Checked:	SPH
Approved:	LKB
DWG Name:	127491326

Appendix A – As-Built Engineering Drawings

INDEX OF DRAWINGS

DRAWING NUMBER	SHEET NUMBER	DESCRIPTION
08007419	1	TITLE SHEET
08007420	2	SITE PLAN
08007421	3	PIPING LAYOUT
08007422	4	REMEDIAL SYSTEM HYDRAULIC GRADE LINE
08007423	5	PROCESS & INSTRUMENTATION DIAGRAM
08007423	6	EQUIPMENT BUILDING LAYOUT
08007424	7	EXTRACTION WELL DETAILS
08007425	8	SITE WORK DETAILS

INTERIM REMEDIAL MEASURE AS-BUILT DRAWINGS

EMERSON POWER TRANSMISSION FACILITY ITHACA, NEW YORK

PREPARED FOR

EMERSON POWER TRANSMISSION

REVISIONS

REV	DESCRIPTION	
1	Revised	Chkd: Appr.:
2	Revised	Chkd: Appr.:
3	Revised	Chkd: Appr.:

SEAL

DATE

DRAWN BY: EGC
CHECKED: KEB/SBP
APPROVED: TMM

TITLE SHEET
AS-BUILT
EMERSON POWER TRANSMISSION
ITHACA, NEW YORK
PREPARED FOR
EMERSON POWER TRANSMISSION

WSP Engineering of New York, P.C.
240 Redtail, Suite 11A
Orchard Park, New York 14127
(716) 675-6067

SHEET 1

Drawing Number
08007419

LEGEND

- B–ZONE EXTRACTION WELL LOCATION
- C–ZONE EXTRACTION WELL LOCATION
- STORM SEWER LINE (APPROXIMATE LOCATION)
- 4" HDPE DISCHARGE PIPING
- BELOW–GROUND PIPING (2"/4" OD HDPE VAPOR, 1.25" OD NYLON 12 WATER, 1" ID DURATEC® AIR SUPPLY, 1" OD ELECTRICAL CONDUIT)
- VCO–1 VAPOR LINE CLEANOUT
- WCO–1 WATER DISCHARGE LINE CLEANOUT
- 2/8 DETAIL NUMBER OR SECTION LETTER / SHEET WHERE DETAIL OR SECTION IS DRAWN

APPROXIMATE LOCATION OF NYSEG TELEPHONE POLE

OVERHEAD ELECTRIC AND ETHERNET LINES

IRM BUILDING #2

WCO–1

EW–1–62C

CHAIN–LINK DOUBLE SWING GATE

SEE EXTRACTION WELL VAULT COMPLETION DETAIL 2/8

EW–2–62C

SEE TRENCH DETAIL, SHEET 8

A/8

EW–3–60C

EW–4–25B

VCO–1

FOOT PATH

SEE EXTRACTION WELL VAULT COMPLETION DETAIL 4/8

EW–6–60C

EW–5–25B

VAPOR LINE TRANSITION FROM 4" TO 2"

SEE EXTRACTION WELL VAULT COMPLETION DETAIL 3/8

EW–7–25B

WCO–2

EFFLUENT DISCHARGE (SPDES OUTFALL #001)

FIRE WATER RESERVOIR

EW–10–25B

SEE EXTRACTION WELL VAULT COMPLETION DETAIL 1/8

EW–8–62C

WOODEN ENCLOSURE

NYSE&G SUBSTATION

FOOT BRIDGE

B/8

EW–9–86C

CHAIN–LINK GATE

EPT MAIN PLANT BUILDING

FORMER IRM TREATMENT BUILDING

REFERENCE: RICHARD M. BYBINSKE, L.S. SURVEY, DATED 11/25/08, DRAWING NO. EPT1108.DWG

N

0 20 40

SCALE IN FEET

REVISIONS

REV	DESCRIPTION		
1	Revised	Chkd	Appr.
2	Revised	Chkd	Appr.
3	Revised	Chkd	Appr.

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DATE

DRAWN BY EGC
CHECKED KEB/SBP
APPROVED TMM

NOTICE: THIS DRAWING HAS BEEN PREPARED UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER. IT IS A VIOLATION OF STATE LAW FOR ANY PERSONS, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY.

SITE PLAN
AS–BUILT
EMERSON POWER TRANSMISSION
ITHACA, NEW YORK

PREPARED FOR
EMERSON POWER TRANSMISSION

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SHEET 2

Drawing Number
08007420

LEGEND

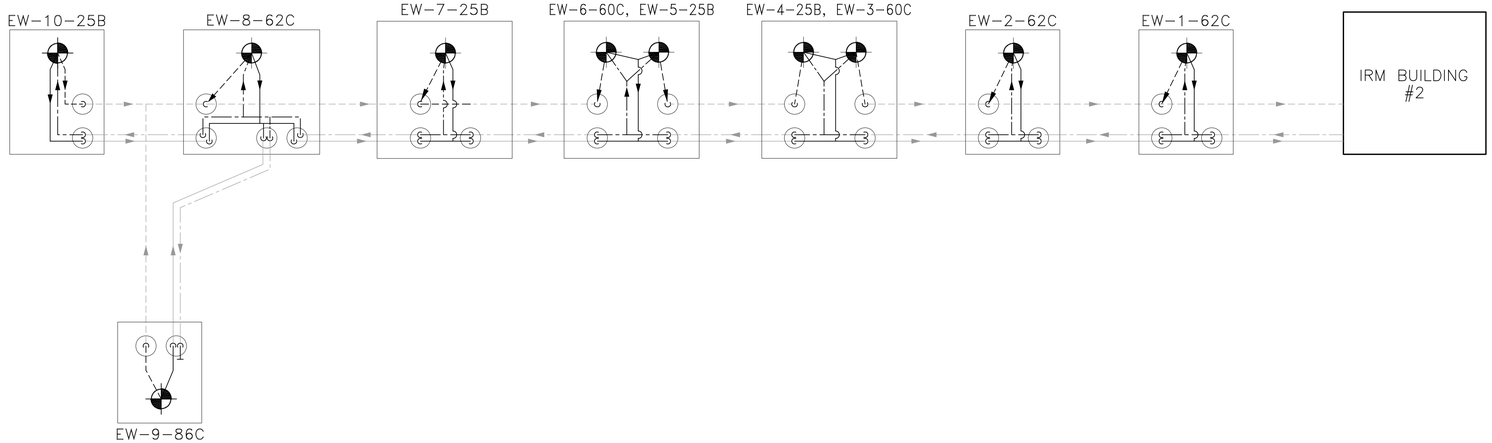
WATER DISCHARGE

COMPRESSED AIR

VAPOR DISCHARGE

TRANSITION FROM UNDERGROUND TO ABOVEGROUND PIPING

EXTRACTION WELL



REVISIONS				
REV	DESCRIPTION			
1	Revised	Chkd	Appr.	
2	Revised	Chkd	Appr.	
3	Revised	Chkd	Appr.	

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PIPING LAYOUT AS-BUILT

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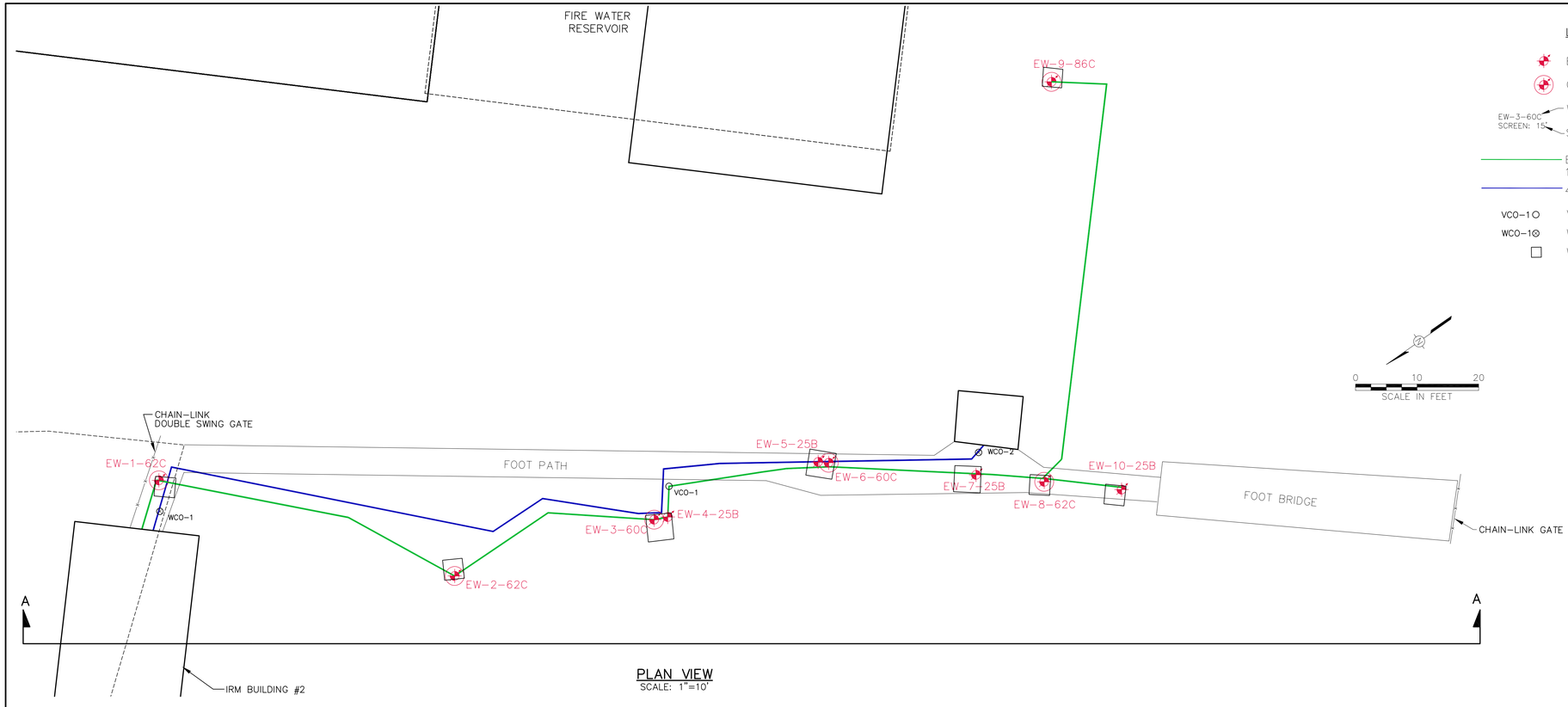
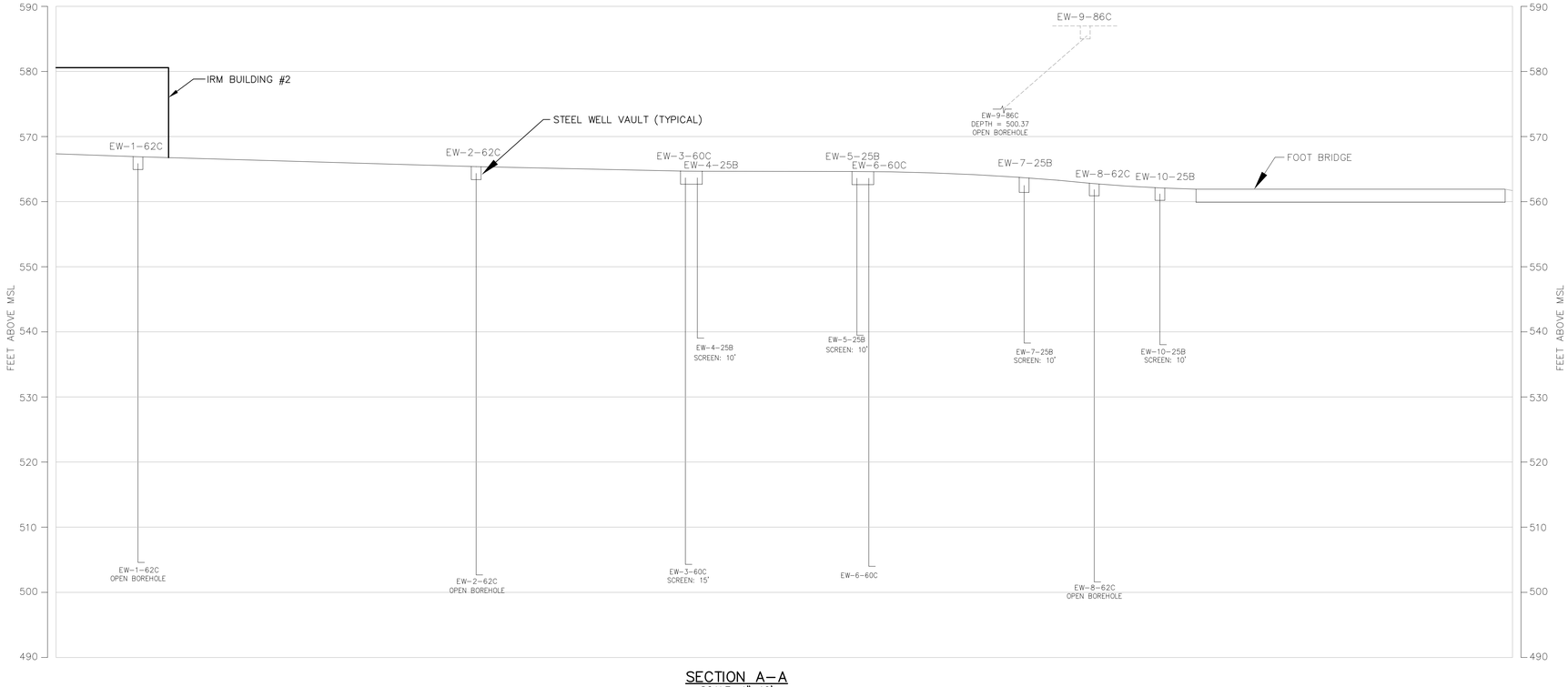
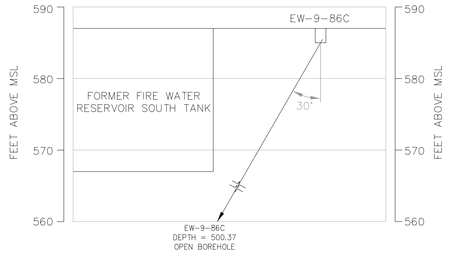
SHEET 3

Drawing Number
08007421



PLAN VIEW
SCALE: 1"=10'





0 10 20
VERTICAL SCALE IN FEET
0 10 20
HORIZONTAL SCALE IN FEET

SECTION A–A
SCALE: 1"=10'

REV	DESCRIPTION	
1	Revised	Appr:
2	Revised	Appr:
3	Revised	Appr:

REVISIONS

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DATE

DRAWN BY	EGC
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REMEDIAL SYSTEM HYDRAULIC GRADE LINE AS-BUILT

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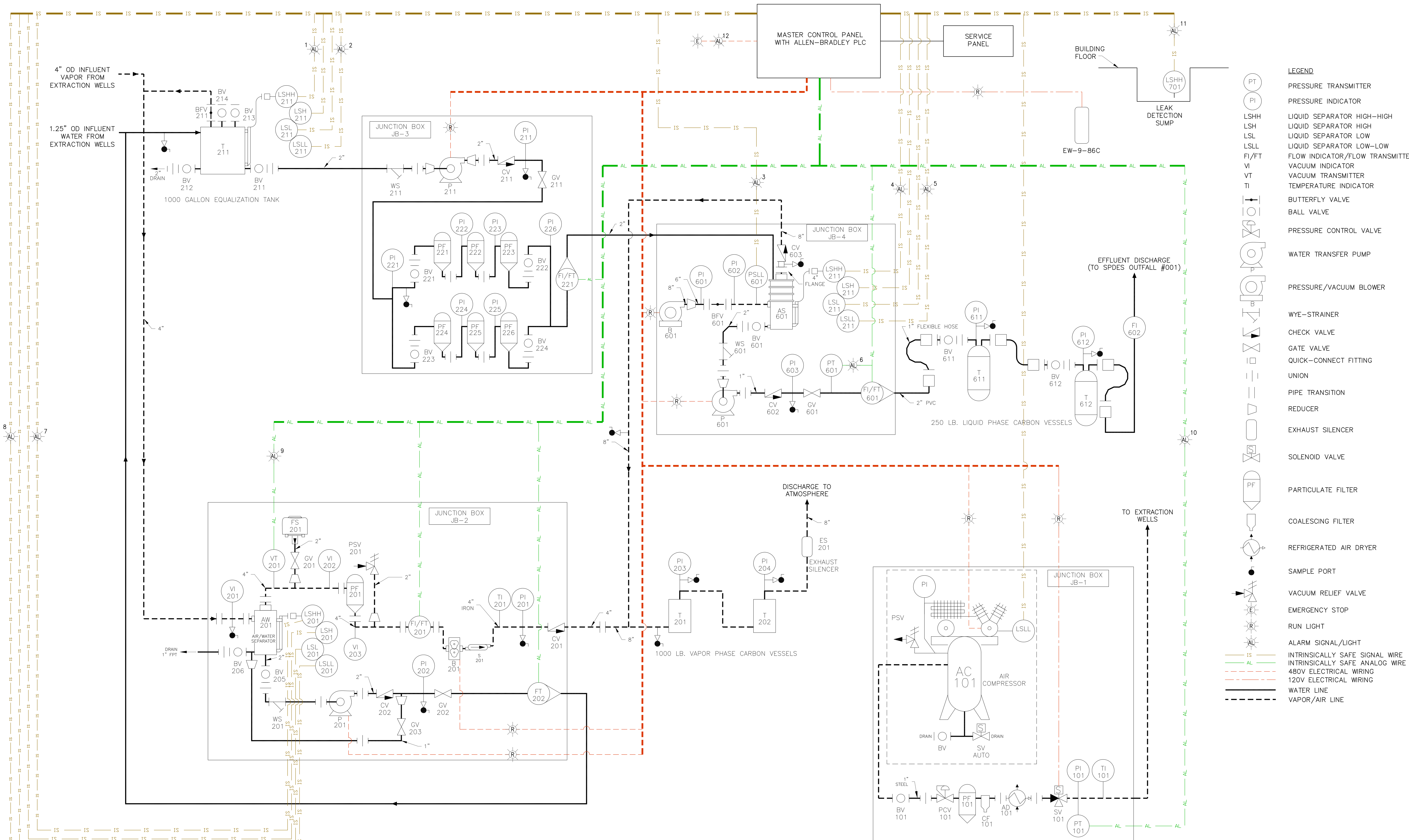
SHEET 4

Drawing Number
08007422



MASTER CONTROL PANEL WITH ALLEN-BRADLEY PLC
SERVICE PANEL
4" OD INFLUENT VAPOR FROM EXTRACTION WELLS
1.25" OD INFLUENT WATER FROM EXTRACTION WELLS
1000 GALLON EQUALIZATION TANK
JUNCTION BOX JB-3
JUNCTION BOX JB-4
JUNCTION BOX JB-2
JUNCTION BOX JB-1
BUILDING FLOOR
LEAK DETECTION SUMP
EW-9-86C
EFFLUENT DISCHARGE (TO SPDES OUTFALL #001)
250 LB. LIQUID PHASE CARBON VESSELS
DISCHARGE TO ATMOSPHERE
EXHAUST SILENCER
1000 LB. VAPOR PHASE CARBON VESSELS
TO EXTRACTION WELLS
AIR COMPRESSOR
AIR/WATER SEPARATOR
LEGEND
PT PRESSURE TRANSMITTER
PI PRESSURE INDICATOR
LSHH LIQUID SEPARATOR HIGH-HIGH
LSH LIQUID SEPARATOR HIGH
LSL LIQUID SEPARATOR LOW
LSLL LIQUID SEPARATOR LOW-LOW
FI/FT FLOW INDICATOR/FLOW TRANSMITTER
VI VACUUM INDICATOR
VT VACUUM TRANSMITTER
TI TEMPERATURE INDICATOR
BUTTERFLY VALVE
BALL VALVE
PRESSURE CONTROL VALVE
WATER TRANSFER PUMP
PRESSURE/VACUUM BLOWER
WYE-STRAINER
CHECK VALVE
GATE VALVE
QUICK-CONNECT FITTING
UNION
PIPE TRANSITION
REDUCER
EXHAUST SILENCER
SOLENOID VALVE
PARTICULATE FILTER
COALESCING FILTER
REFRIGERATED AIR DRYER
SAMPLE PORT
VACUUM RELIEF VALVE
EMERGENCY STOP
RUN LIGHT
ALARM SIGNAL/LIGHT
INTRINSICALLY SAFE SIGNAL WIRE
INTRINSICALLY SAFE ANALOG WIRE
480V ELECTRICAL WIRING
120V ELECTRICAL WIRING
WATER LINE
VAPOR/AIR LINE

DESIGNATION	DESCRIPTION	SPECIFICATIONS	MANUFACTURER
T-211	EQUALIZATION TANK	1,000 GALLON ALUMINUM, FLAT-TOP, ROUND STORAGE TANK	ESD
P-211	EQUALIZATION TANK TRANSFER PUMP	1.5 HP MODEL:1ST1F5D4	GOULDS
PF-221 TO PF-226	BAG FILTERS	SIX - ALUMINUM WATER FILTER HOUSINGS, MAX 200 GPM/100 PSI, MODEL: 156112-75	PENTEK
AS-601	AIR STRIPPER	4-TRAY, LOW PROFILE, MODEL: 4.4SS	QED
B-601	AIR STRIPPER BLOWER	210 CFM, STATIC FAN PRESSURE: 40.7 " WC, MODEL: 2408	THE NEW YORK BLOWER COMPANY
P-601	AIR STRIPPER TRANSFER PUMP	1.5 HP MODEL:1ST1F5D4	GOULDS
T-611, T-612	GRANULAR ACTIVATED CARBON	250 LB-EACH, AQUEOUS PHASE GRANULAR ACTIVATED CARBON, MODEL:RLHP-250	ESD
AW-201	AIR/WATER SEPARATOR	120 GALLON MOISTURE SEPARATOR TANK, RATED FOR 29 INHG	ESD
P-201	AIR/WATER SEPARATOR TRANSFER PUMP	1.5 HP, PROGRESSIVE CAVITY PUMP, MODEL: 5VD28	MOYNO
B-201	VAPOR EXTRACTION BLOWER	20 HP, SUTORBILT ROTARY POSITIVE DISPLACEMENT LOBE BLOWER, MODEL: 5LP-DSL BLOWER MODEL: 5LP-DSL, MOTOR MODEL:BJ09	GARDNER DENVER/EMERSON
T-201, T-202	GRANULAR ACTIVATED CARBON	1000 LB - EACH, VAPOR PHASE GRANULAR ACTIVATED CARBON UNITS	ESD
ES-201	EXHAUST SILENCER	MODEL: RD-8	UNIVERSAL SILENCER
AC-101	AIR COMPRESSOR	7.5 HP, BLOWER MODEL: 2475N7.5, MOTOR MODEL: ELT7E1D	INGERSOLL-RAND/EMERSON
AD-101	REFRIGERATED AIR DRYER	24.7 CFM, MODEL: D42IN	INGERSOLL-RAND
EW-9-86C	EXTRACTION WELL 9-86C	0.5 HP, MODEL: 10SQE05100-NE	GRUNDFOS

(A): ABBREVIATIONS: HP = HORSEPOWER; GPM = GALLONS PER MINUTE; PSI = POUNDS PER SQUARE INCH
" W.C. = INCHES OF WATER COLUMN; LB = POUND; " HG = INCHES OF MERCURY; CFM = CUBIC FEET PER MINUTE

ALARMS

1) EQUALIZATION TANK T-211, HIGH-HIGH ALARM
2) EQUALIZATION TANK T-211, LOW-LOW ALARM
3) AIR STRIPPER AS-601, LOW SUMP PRESSURE
4) AIR STRIPPER AS-601, HIGH-HIGH ALARM IN THE SUMP
5) AIR STRIPPER AS-601, LOW-LOW ALARM IN THE SUMP
6) LIQUID PHASE CARBON INLET T-611, HIGH PRESSURE ALARM
7) AIR/WATER SEPARATOR AW-201, HIGH-HIGH ALARM
8) AIR/WATER SEPARATOR AW-201, LOW-LOW ALARM
9) VAPOR EXTRACTION SYSTEM B-201, HIGH VACUUM ALARM
10) AIR COMPRESSOR AC-101, HIGH OR LOW PRESSURE ALARM
11) TREATMENT BUILDING FLOOR SUMP, LSHH 701, HIGH-HIGH ALARM
12) CONTROL PANEL, EMERGENCY STOP ALARM

NOTES:

1. PIPING MATERIAL AND SIZES WERE INSTALLED AS INDICATED ON THIS DRAWING.
2. ALL PIPING AND FITTINGS WERE PRESSURE-TESTED TO MANUFACTURER SPECIFICATIONS BEFORE FULL SCALE OPERATION.
3. ALL PIPING AND FITTINGS WERE LABELED TO CORRESPOND WITH THE DRAWING. FLOW ARROWS WERE INSTALLED ON ALL PIPING TO SIGNIFY FLOW DIRECTION BEFORE AND AFTER EACH INLET/DISCHARGE CONNECTION.
4. FLOW METERS WERE INSTALLED WITH MANUFACTURER SPECIFIED STRAIGHT PIPE LENGTHS ON THE INLET AND OUTLET.
5. ALL ELECTICAL WIRING WAS INSTALLED INTRINSICALLY SAFE.

REVISIONS

DRAWN BY EGC
CHECKED KEB/SBP
APPROVED TMM

PROCESS & INSTRUMENTATION DIAGRAM
AS-BUILT

EMERSON POWER TRANSMISSION
ITHACA, NEW YORK

PREPARED FOR
EMERSON POWER TRANSMISSION

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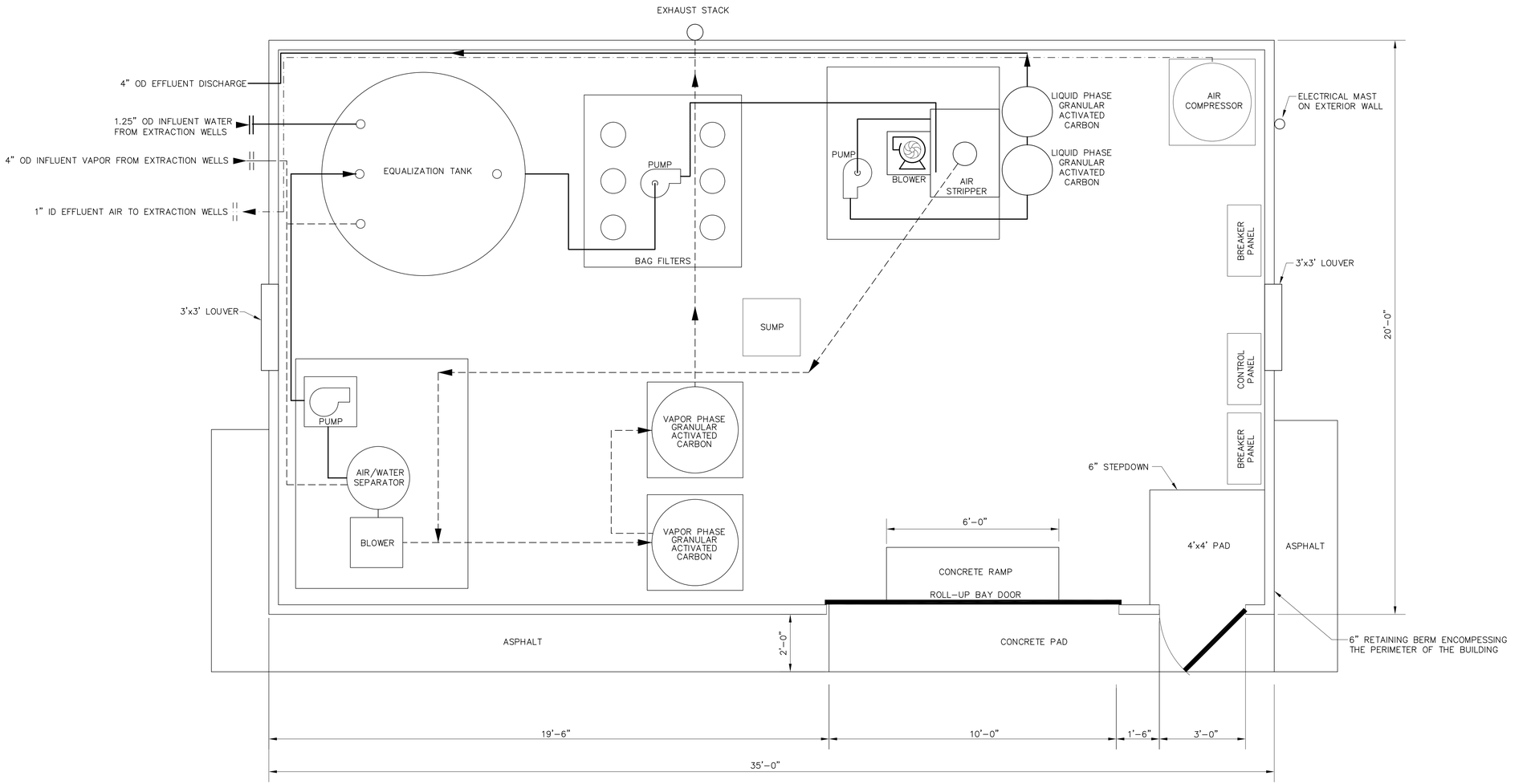
SHEET 5

Drawing Number
08007423

LEGEND
VAPOR LINE
WATER LINE
AIR LINE



EQUIPMENT BUILDING LAYOUT

0 2 4
SCALE IN FEET

NOTE:

LOCATION OF ALL EQUIPMENT IS APPROXIMATE.

REVISIONS

REV	DESCRIPTION		
1	Revised	Chkd	Appr.
2	Revised	Chkd	Appr.
3	Revised	Chkd	Appr.

SEAL

DATE

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CHECKED	KEB/SBP
APPROVED	TMM

EQUIPMENT BUILDING LAYOUT
AS-BUILT
EMERSON POWER TRANSMISSION
ITHACA, NEW YORK
PREPARED FOR
EMERSON POWER TRANSMISSION

WSP Engineering of New York, P.C.
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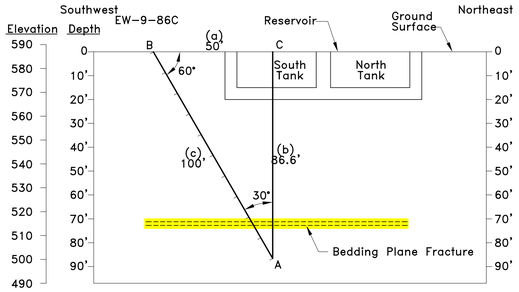
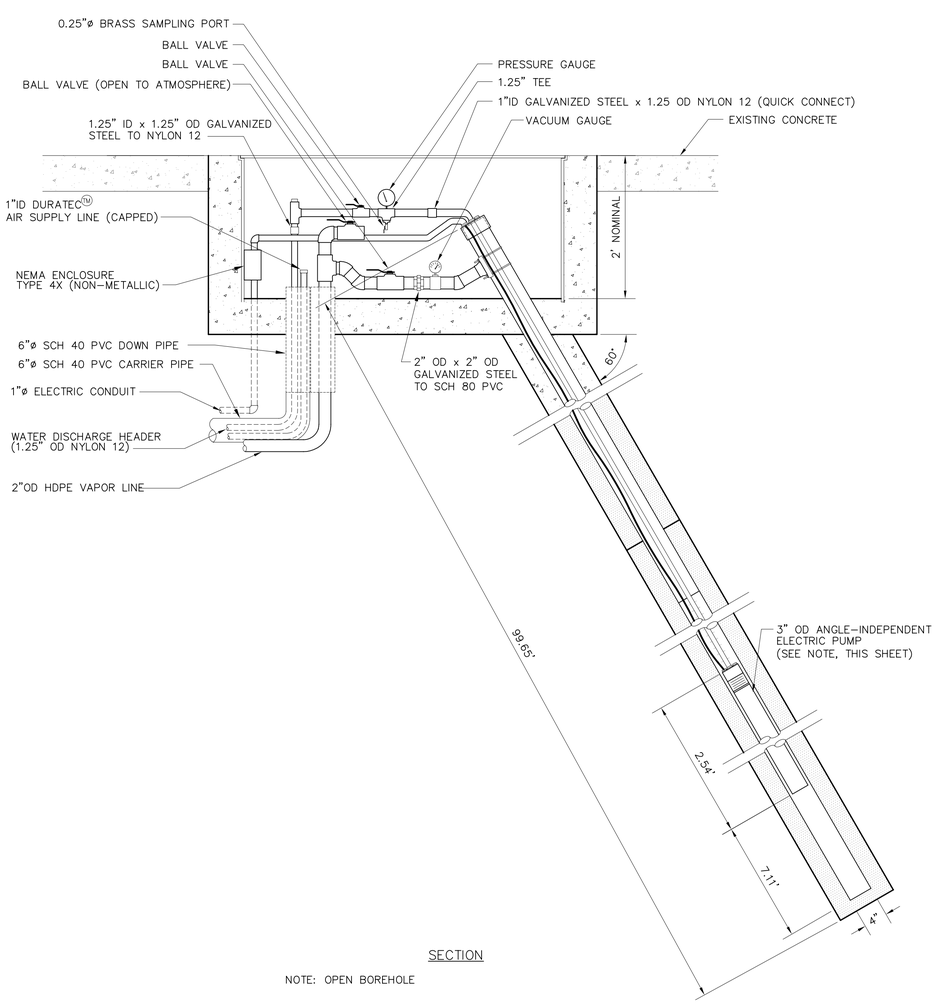
SHEET 6

Drawing Number
08007423



FIRE WATER RESERVOIR SECTION – DIRECTIONAL EXTRACTION WELL DETAIL

HORIZONTAL SCALE: 1"=30'

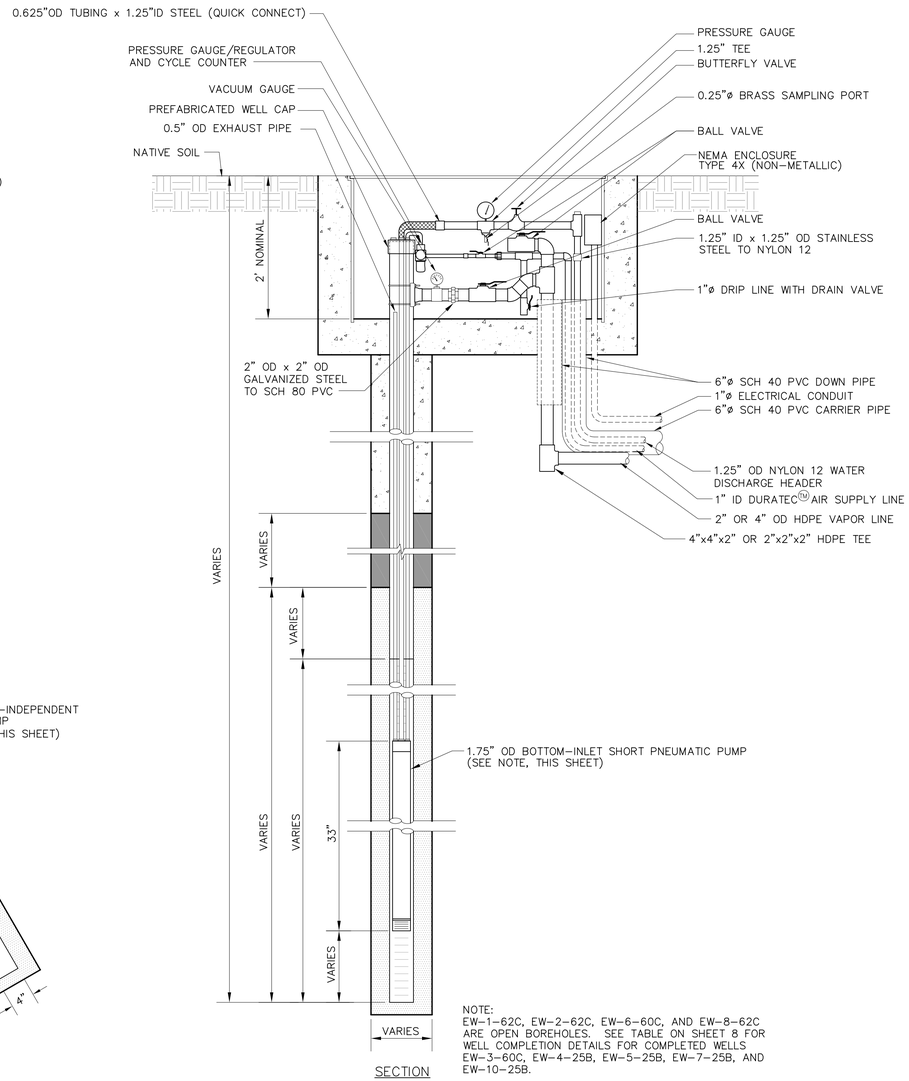


SECTION

NOTE: OPEN BOREHOLE

WELL VAULT COMPLETION AND
WELL PUMP INSTALLATION DETAIL (EW-9-86C)

SCALE: 1"=1'-0"



SECTION

NOTE:
EW-1-62C, EW-2-62C, EW-6-60C, AND EW-8-62C ARE OPEN BOREHOLES. SEE TABLE ON SHEET 8 FOR WELL COMPLETION DETAILS FOR COMPLETED WELLS EW-3-60C, EW-4-25B, EW-5-25B, EW-7-25B, AND EW-10-25B.

WELL VAULT COMPLETION AND
WELL PUMP INSTALLATION DETAIL (TYPICAL)

SCALE: 1"=1'-0"

TRENCHING:

1. ALL TRENCHING FOR UNDERGROUND PIPING INSTALLATION WAS EXCAVATED TO THE DEPTHS INDICATED. EXCAVATED NATIVE SOIL AND DEBRIS NOT USED FOR BACKFILL WERE DISPOSED OF OFFSITE PER APPLICABLE STATE REGULATIONS.

2. CONVEYANCE PIPING WAS INSTALLED WITHIN TRENCHES EXCAVATED TO A MINIMUM OF 3 FEET BELOW GROUND SURGACE. THE PIPE WAS BACKFILLED WITH A MINIMUM OF 2 INCHES OF PIPE BEDDING MATERIAL BELOW AND ABOVE THE CONVEYANCE PIPING. THE REMAINDER OF THE TRENCH WAS BACKFILLED WITH NATIVE SOIL. BACKFILL WAS COMPACTED USING A VIBRATORY PLATE WITH MAXIMUM 6" LIFTS. CONTRACTROR WAS UNABLE TO COMPACT THE SOIL BETWEEN EW-8-62C AND EW-9-86C DUE TO THE GRADIENT OF THE HILL. BACKFILLED NATIVE SOIL WAS PLACED AND GRADED FLUSH WITH THE SURFACE ELEVATION OF THE EXISTING NATIVE SOIL SURROUNDING THE TRENCH.

3. ALL REMOVED SECTIONS OF THE ASPHALT PAVED WALKING PATH WERE REPLACED WITH SCREENING MATERIAL AND GRAVEL. REMOVED PARKING LOT SECTIONS WERE REPLACED WITH CONCRETE OR ASPHALT. REPLACED PAVEMENT WAS OF A THICKNESS MATCHING EXISTING MATERIAL SURROUNDING THE CUT. THE SURFACE OF THE REPLACEMENT PAVEMENT WAS FINISHED FLUSH WITH THE SURFACE GRADE OF THE SURROUNDING PAVEMENT.

PIPE INSTALLATION:

1. WATER CONVEYANCE PIPING WAS INSTALLED AS 1.25-INCH NYLON 12 TUBING. THE COMPRESSED AIR SUPPLY PIPING WAS COMPLETED AS 1-INCH INNER DIAMETER (ID) DURATEC ALUMINUM COMPOSITE WITH MANUFACTURER'S RECOMMENDED FITTINGS. UNDERGROUND VACUUM CONVEYANCE PIPING WAS INSTALLED AS 2-INCH OUTER DIAMETER (OD) HIGH-DENSITY POLYETHYLENE (HDPE) PIPING FROM EW-5-25B/EW-6-60C TO EW-10-25B AND 4-INCH OD HDPE FROM EW-5-25B/EW-6-60C TO THE TREATMENT BUILDING. ALL HDPE JOINTS AND CONNECTIONS WERE BUTT FUSED.

2. WATER CONVEYANCE PIPING AND AIR SUPPLY CONVEYANCE PIPING ARE CONTAINED WITHIN A 6-INCH SCH 40 PVC CARRIER PIPE. THE CARRIER PIPING HAS A MINIMUM PRESSURE RATING OF 160 PSI. VAPOR CONVEYANCE PIPING WAS BURIED ALONG SIDE THE CARRIER PIPE TO THE DEPTHS SHOWN.

4. PIPING ROUTES WERE COMPLETED AS SHOWN ON SHEET 2 OF THE DRAWINGS.

5. WATER AND COMPRESSED AIR PIPING ENTERED AND EXITED THE WELL VAULTS THROUGH 6-INCH SCH 40 PVC CARRIER PIPES. PIPING RUNS WERE COMPLETED FROM VAULT TO VAULT AS SHOWN ON SHEET 3. THE HDPE WAS INSTALLED VIA A HEADER AND LATERAL AS SHOWN ON SHEET 8.

PUMP AND PUMP EQUIPMENT INSTALLATION:

1. EXTRACTION WELL PUMPS, WITH THE EXCEPTION OF EW-9-86C, ARE 1.75-INCH OUTER DIAMETER (OD) CONTROLLERLESS BOTTOM-INLET SHORT PNEUMATIC AUTO PUMPS (AP2B) MANUFACTURED BY QED ENVIRONMENTAL SYSTEMS. EW-9-86C WAS INSTALLED AS 3" OD SUBMERSIBLE ELECTRIC PUMP (105QE05100) MANUFACTURED BY GRUNDFOS®. PUMPS WERE INSTALLED IN ACCORDANCE WITH THE DETAIL ON THIS SHEET AND THE MANUFACTURER'S SPECIFICATIONS.

2. CONNECTION TUBING WAS INSTALLED AND FITTED IN ACCORDANCE WITH THE DETAIL ON THIS SHEET AND THE MANUFACTURER'S INSTRUCTIONS. CONNECTION TUBING FROM THE PUMP HEAD TO THE PREFABRICATED VACUUM WELL CAP IS NYLON 12 TUBING MANUFACTURED BY QED ENVIRONMENTAL SYSTEMS. TUBING CONSISTS OF 0.625-INCH OUTSIDE DIAMETER (OD) WATER DISCHARGE LINE, 0.375-INCH OD AIR SUPPLY, AND 0.50-INCH OD EXHAUST PIPE. THE TUBING TRANSITIONS TO STEEL WITHIN THE WELL VAULT.

3. WELL CAPS FOR THE VACUUM EXTRACTION WELLS ARE PREFABRICATED 4-INCH DIAMETER VACUUM CAPS MANUFACTURED BY QED ENVIRONMENTAL SYSTEMS. WELL CAPS WERE INSTALLED AND FITTED BY CONTRACTOR IN ACCORDANCE WITH THE DETAIL ON THIS SHEET AND THE MANUFACTURER'S INSTRUCTIONS.

4. WELL HEAD PIPING AND VALVES WERE INSTALLED IN ACCORDANCE WITH THE DETAIL ON THIS SHEET. THE AIR SUPPLY LINE IS EQUIPPED WITH A PRESSURE REGULATOR/INDICATOR AND CYCLE FLOW COUNTER MANUFACTURED BY QED ENVIRONMENTAL SYSTEMS. THE VAPOR EXTRACTION LINE IS EQUIPPED WITH A VACUUM GAUGE, TEMPERATURE GAUGE, AND VACUUM RELIEF VALVE. THE WATER DISCHARGE LINE IS EQUIPPED WITH A PRESSURE GAUGE.

5. UPON INSTALLATION, ALL PUMPS AND PUMP EQUIPMENT WERE PERFORMANCE TESTED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. WELL HEAD PIPING AND FITTINGS WERE TESTED FOR LEAKS UNDER ANTICIPATED OPERATING PRESSURES. ALL PERFORMANCE TESTING AND LEAK TESTING WAS PERFORMED UNDER THE DIRECT SUPERVISION OF THE ENGINEER.

WELL HEAD PIPING:

1. IN-VAULT WATER DISCHARGE PIPING TRANSITIONS FROM NYLON 12 TO STEEL. CONTRACTOR INSTALLED BRONZE BALL VALVES RATED FOR W.O.G. SERVICE AT A MINIMUM PRESSURE OF 150 PSI IN ALL EXTRACTION WELL VAULTS. CONTRACTOR INSTALLED A SAMPLING SPIGOT AT EACH EXTRACTION WELL BETWEEN THE PUMP AND THE BALL VALVE. CONTRACTOR INSTALLED A QUICK CONNECT FITTING ON THE WATER DISCHARGE PIPING WHERE APPROPRIATE TO ALLOW FOR EASY DISCONNECTION FROM THE WELL CAP.

2. CONTRACTOR INCORPORATED A MINIMUM OF 2-FEET OF EXTRA 1.25-INCH NYLON 12 WATER DISCHARGE TUBING WITHIN EACH VAULT TO ALLOW FOR THERMAL EXPANSION AND FLEXIBILITY.

3. IN-VAULT AIR SUPPLY TUBING IS 0.375-INCH OD TUBING AND TRANSITIONS TO 1-INCH DURATEC. ALL AIR SUPPLY CONTROL VALVES AND DRIP LINE VALVES ARE BRASS. CONTRACTOR INSTALLED QUICK CONNECT FITTINGS ON THE AIR SUPPLY PIPING WHERE APPROPRIATE TO ALLOW FOR EASY DISCONNECTION FROM THE WELL CAP AND PRESSURE REGULATOR/INDICATOR/CYCLE COUNTER ASSEMBLY.

WELL HEAD AND VAULT COMPLETION:

1. THE VAULTS ARE CONSTRUCTED OF STEEL AND COATED FOR CORROSION PROTECTION. THE EW-9-86C AND EW-1-62C ARE VAULTS RATED TO SUPPORT SURFACE LOADINGS FROM VEHICULAR TRAFFIC. ALL VAULT COVERS ARE GASKETED FOR WATER TIGHTNESS.

2. ALL PENETRATIONS THROUGH THE WELL VAULT WERE SEALED FOR WATER-TIGHTNESS USING A WATERPROOF, NON-SHRINKING SEALANT SUITABLE FOR UNDERGROUND USE.

3. ALL PIPES ENTERING THE VAULT THROUGH THE PVC DOWNPIPES WERE HEAT TRACED.

REVISIONS

REV	DESCRIPTION	
1	Revised	Chkd: Appr:
2	Revised	Chkd: Appr:
3	Revised	Chkd: Appr:

SEAL

DATE

DRAWN BY	EGC
CHECKED	KEB/SBP
APPROVED	TMM

EXTRACTION WELL DETAILS
AS-BUILT

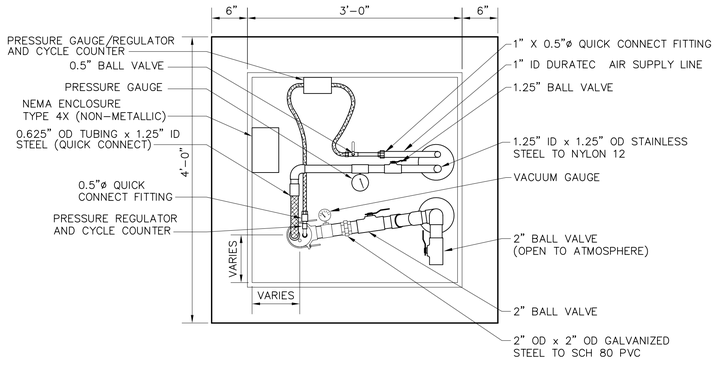
EMERSON POWER TRANSMISSION
ITHACA, NEW YORK

PREPARED FOR
EMERSON POWER TRANSMISSION

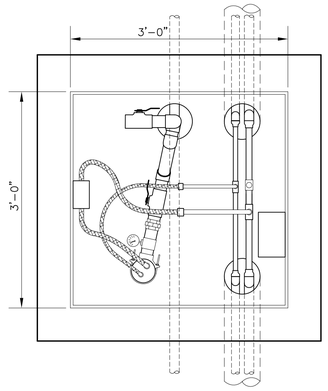
WSP Engineering of New York, P.C.
240 Redtail, Suite 11A
Orchard Park, New York 14127
(716) 675-6067

SHEET 7

Drawing Number
08007424

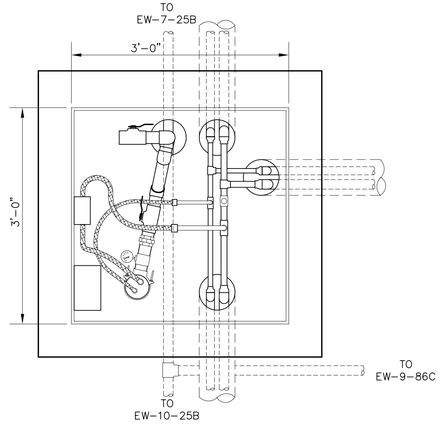


EXTRACTION WELL VAULT COMPLETION
1/2 EW-10-25B
SCALE: 1"=1'-0"



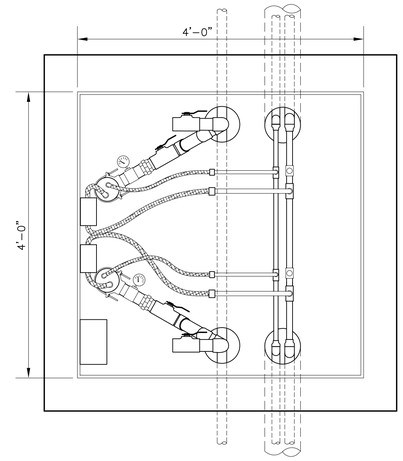
PLAN

EXTRACTION WELL VAULT COMPLETION
EW-1-62B, EW-2-62C, EW-7-25B
2/2 (4' BY 4' WELL VAULT)
SCALE: 1"=1'-0"



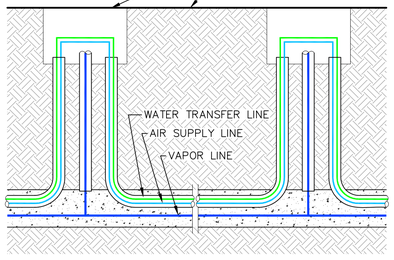
PLAN

EXTRACTION WELL VAULT COMPLETION
3/2 EW-8-62C
SCALE: 1"=1'-0"

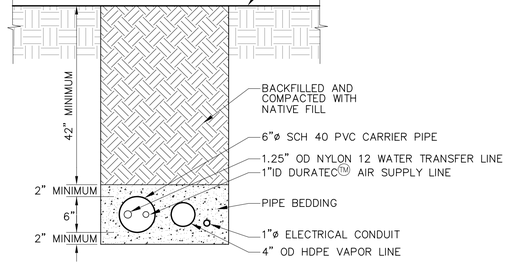


PLAN

EXTRACTION WELL VAULT COMPLETION
4/2 EW-3-60C, EW-4-25B, EW-5-25B, EW-6-60C
SCALE: 1"=1'-0"



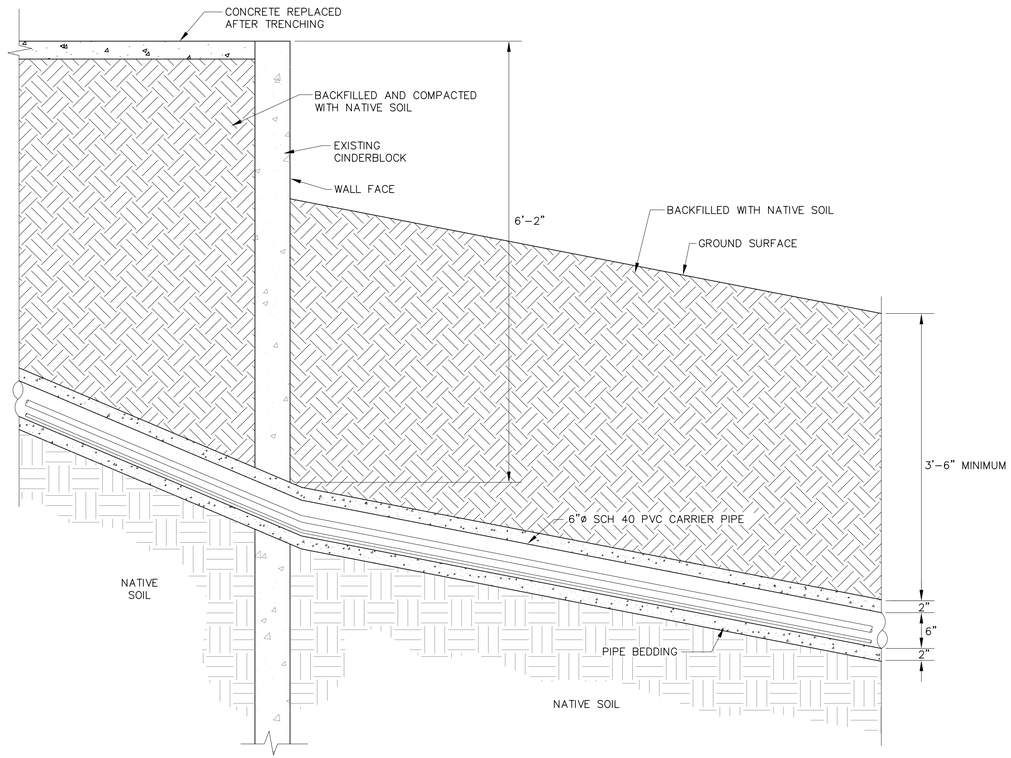
TRENCH DETAIL
NOT TO SCALE



WATER TRANSFER, AIR SUPPLY, AND VAPOR EXTRACTION PIPING HEADER SECTION
A/2 NOT TO SCALE

Well ID (a)	Top of Casing Elevation (feet amsl)	State Plane Coordinates (NAD-83)		Total Depth (feet amsl) (b)	Bentonite Plug Interval (feet bgs) (b)	Grout Interval (feet bgs) (b)	Filter Pack Interval (feet bgs) (b)	Screen Interval (feet bgs) (b)	Location of Pump Intake (feet amsl) (c)	Location of Pump Actuation Level (feet amsl) (e)	Static Groundwater Level (feet amsl) (f)
		Northing	Easting								
EW-1-62C (EXB-05)	565.26	886285.60	843159.95	504.59	Open Borehole: 4" Diameter				506	507.7	531.64
EW-2-62C (EW-1)	564.73	886255.15	843119.30	502.68	Open Borehole: 6" Diameter				504	505.7	532.23
EW-3-60C (EW-2)	563.39	886223.35	843108.21	504.24	40.00 - 43.00	0.00 - 40.00	43.00 - 60.00	45.00 - 60.00	506	507.7	524.52
EW-4-25B	562.75	886221.29	843107.29	539.04	10.00 - 13.00	0.00 - 10.00	13.00 - 25.00	15.00 - 25.00	541	542.7	552.78
EW-5-25B	563.30	886196.14	843100.60	539.49	10.00 - 13.00	0.00 - 10.00	13.00 - 25.00	15.00 - 25.00	541	542.7	555.04
EW-6-60C (EW-3)	562.63	886194.81	843099.51	503.99	Open Borehole: 6" Diameter				505	506.7	531.64
EW-7-25B	561.68	886176.33	843084.17	538.28	10.00 - 13.00	0.00 - 10.00	13.00 - 25.00	15.00 - 25.00	540	541.7	551.36
EW-8-62C (EXB-06)	561.79	886167.91	843076.90	501.60	Open Borehole: 4" Diameter				503	504.7	533.12
EW-9-86C (EXB-08)	586.97	886129.91	843129.61	500.37	Open Borehole: 4" Diameter				508.6 (d)	NA	535.07
EW-10-25B	561.75	886158.34	843068.65	538.04	10.00 - 13.00	0.00 - 10.00	13.00 - 25.00	15.00 - 25.00	540	541.7	549.50

(a) Well ID's in parenthesis are former well ID's.
(b) Total depth and all well interval measurements are approximate.
(c) The location of the pump inlets are approximately 1-foot off the bottom of the well (applies to all wells except EW-9-86C). Intake value is a rounded elevation.
(d) The top loading electric pump at EW-9-86C (angled well) was placed with the inlet at approximately 90-feet 6-inches btoc.
(e) QED Environmental Systems Inc. AP-2 Bottom Inlet, Short (AP2B) AutoPump minimum actuation level = 20-inches (applies to all wells except EW-9-86C).
The actuation level is based off of the approximate location of the pump intake.
(f) Static groundwater levels were taken on February 9, 2009, with the exception of EW-9-86C. A static groundwater level was taken in September 2007 for EW-9-86C.
(g) Abbreviations: amsl = above mean sea level; btoc = below top of casing; bgs = below ground surface; NAD = North American Datum of 1983; NA = Not Applicable.



B/2 EW-9-86C RETAINING WALL FACE INSTALLATION CROSS-SECTION
SCALE: 1"=1'-0"

REVISIONS

REV	DESCRIPTION		
1	Revised	Chkd	Appr.
2	Revised	Chkd	Appr.
3	Revised	Chkd	Appr.

SEAL

DATE

DRAWN BY EGC
CHECKED KEB/SBP
APPROVED TMM

SITE WORK DETAILS
AS-BUILT
EMERSON POWER TRANSMISSION
ITHACA, NEW YORK
PREPARED FOR
EMERSON POWER TRANSMISSION

WSP Engineering of New York, P.C.
240 Redtail, Suite 11A
Orchard Park, New York 14127
(716) 675-6067

SHEET 8

Drawing Number
08007425

Appendix B – Boring Logs and Monitoring Well Construction Logs

Boring Log: EW-04-25B

Project:

Project No.: 127491

Location: Ithaca, New York

Completion Date: October 31, 2008

Surface Elevation (feet AMSL*): ND

TOC Elevation (feet AMSL*): 562.75

Total Depth (feet): 25.5

Borehole Diameter (inches): 6

**AMSL = Above mean sea level*

Sample Data					Subsurface Profile		
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description	Well Details
						Ground Surface	
1		0.0		40		***Fill*** Brown gray becoming dark gray sand; well graded; fine to course grained; some silt; occasional brick fragments; loose; dry.	
2							
3		2.0		40			
4							
5		2.6		50		***Ithaca Siltstone*** Gray gravel of siltstone (weathered bedrock).	
6		4.7		100			
7		N/A		N/A			
8							
9							
10							

Geologist(s): Tim Dowle

Subcontractor: Parratt Wolff

Driller/Operator: Mick Foley

Method: Hollow Stem Auger/ Rock Roller / Core Barrel

WSP Environment & Energy
11190 Sunrise Valley Drive Suite 300
Reston, Virginia 20191
(703) 709 - 6500

Boring Log: EW-04-25B

Project:

Project No.: 127491

Location: Ithaca, New York

Completion Date: October 31, 2008

Surface Elevation (feet AMSL*): ND

TOC Elevation (feet AMSL*): 562.75

Total Depth (feet): 25.5

Borehole Diameter (inches): 6

**AMSL = Above mean sea level*

Sample Data					Subsurface Profile		
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description	Well Details
11–13		N/A	- - - -	100		***Ithaca Siltstone*** Gray siltstone; strong; fine grained; laminated; fresh; competent; intensely fractured. Fractures: 6 mechanical (mainly horizontal, some at 30 degrees). 8 bedding plane joints at 8.6, 9.8, 10.2, 10.4, 11.25, 11.5, 12.5 and 13 feet bgs. Very narrow; not healed; clean with staining in some joints; smooth; dry. 5 fracture zones at 8.7-9.6, 10.6-11, 11.8-12.1 and 13-13.5 feet bgs. Very narrow; not healed; clean; smooth; dry. RQD: 0% (very poor) *(continued)*	
14–18		N/A	- - - -	100		***Ithaca Siltstone*** Gray siltstone; strong; fine grained; laminated; fresh; competent; intensely fractured. Fractures: 24 mechanical (mainly horizontal). 8 bedding plane fractures at 13.6, 14.25, 15.8, 16.5, 17.8, 18.0 and 18.4 feet bgs. Very to extremely narrow; not healed; clean; smooth; dry. 3 fracture zones at 14.1-14.2, 17.0-17.1 and 17.6-17.7 feet bgs. Very narrow; not healed; clean; smooth; dry. RQD: 13% (very poor)	
19–20							

Geologist(s): Tim Dowle

Subcontractor: Parratt Wolff

Driller/Operator: Mick Foley

Method: Hollow Stem Auger/ Rock Roller / Core Barrel

WSP Environment & Energy
11190 Sunrise Valley Drive Suite 300
Reston, Virginia 20191
(703) 709 - 6500

Boring Log: EW-04-25B

Project:

Project No.: 127491

Location: Ithaca, New York

Completion Date: October 31, 2008

Surface Elevation (feet AMSL*): ND

TOC Elevation (feet AMSL*): 562.75

Total Depth (feet): 25.5

Borehole Diameter (inches): 6

**AMSL = Above mean sea level*

Sample Data					Subsurface Profile		
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description	Well Details
21		N/A	- - - -	100		***Ithaca Siltstone*** Gray siltstone; strong; fine grained; laminated; fresh; competent; intensely fractured. Fractures: 21 mechanical (mainly horizontal, 2 at 30 degrees) 8 bedding plane joints at 19.2, 20, 21.4, 21.5, 22.6, 22.8, 19.6 and 23.4 feet bgs. Extremely narrow; not healed; clean; smooth; dry. 1 fracture zone at 18.6-18.8 feet bgs. Very narrow; not healed; clean; smooth; dry. RQD: 15% (very poor) *(continued)*	
22							
23							
24		N/A	- - - -	100		***Ithaca Siltstone*** Gray siltstone; strong; fine grained; laminated; fresh; competent; moderately to intensely fractured. Fractures: 1 mechanical (horizontal). 2 bedding plane fractures at 24.6 and 24.8 feet bgs. Extremely narrow; not healed; clean; smooth; dry. 1 fracture zone at 23.7-23.9 feet bgs. Very narrow; not healed; clean; smooth; dry. Bottom of Boring at 25.5 feet	
25							
26							
27							
28							
29							
30							

Geologist(s): Tim Dowle

Subcontractor: Parratt Wolff

Driller/Operator: Mick Foley

Method: Hollow Stem Auger/ Rock Roller / Core Barrel

WSP Environment & Energy
11190 Sunrise Valley Drive Suite 300
Reston, Virginia 20191
(703) 709 - 6500

Boring Log: EW-05-25B

Project:

Project No.: 127491

Location: Ithaca, New York

Completion Date: September 16, 2008

Surface Elevation (feet AMSL*): ND

TOC Elevation (feet AMSL*): 563.30

Total Depth (feet): 25.2

Borehole Diameter (inches): 6

**AMSL = Above mean sea level*

Sample Data					Subsurface Profile		
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description	Well Details
						Ground Surface	
1		3.2		50		***Fill*** Dark brown black fine to medium poorly graded sand with occasional gravel and silt and pockets of clay and ash.	
2							
3		0.0		50		***Lean Clay with Sand (CL)*** Light brown gray sandy clay; frequent gravel; high plasticity; soft; moist becoming wet from 6 to 8 feet bgs; slight hydrocarbon odor from 8 to 11 feet bgs.	
4							
5		0.9		50			
6							
7		18.1		90			
8							
9		52.3		50			
10							

Geologist(s): Tim Dowle

Subcontractor: Parratt Wolff

Driller/Operator: Mick Foley

Method: Hollow Stem Auger/ Rock Roller / Core Barrel

WSP Environment & Energy
11190 Sunrise Valley Drive Suite 300
Reston, Virginia 20191
(703) 709 - 6500

Boring Log: EW-05-25B

Project:

Project No.: 127491

Location: Ithaca, New York

Completion Date: September 16, 2008

Surface Elevation (feet AMSL*): ND

TOC Elevation (feet AMSL*): 563.30

Total Depth (feet): 25.2

Borehole Diameter (inches): 6

*AMSL = Above mean sea level

Sample Data					Subsurface Profile		
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description	Well Details
11		11.8		50		***Ithaca Siltstone*** Gray gravel of siltstone (weathered bedrock).	
12		N/A		N/A		***Ithaca Siltstone*** Weathered siltstone bedrock.	
13						***Ithaca Siltstone*** Gray Siltstone, strong, fine grained, laminated, fresh, competent, moderately to intensely fractured.	
14		N/A		99		Fractures: 5 Mechanical, horizontal 5 bedding plane joints at 12.6, 14.4, 15.0, 15.5 and 12.65 feet bgs. Very narrow; not healed; mainly clear; smooth; undulating; dry. 1 fracture zone from 12.8 to 12.9 feet bgs.	
15						RQD: 72% (Fair)	
16						***Ithaca Siltstone*** Gray Siltstone, strong, fine grained, laminated, fresh, competent, moderately to intensely fractured.	
17						Fractures: 15 mechanical mainly horizontal. 13 bedding plane joints extremely narrow; not healed; some infilled cohesive sediment; smooth to undulating; some surface oxidation; dry. 2 fracture zones at 15.2, 15.4 and 19.4-20.2 feet bgs.	
18		N/A		100		RQD: 0% (very poor)	
19							
20							

Geologist(s): Tim Dowle

Subcontractor: Parratt Wolff

Driller/Operator: Mick Foley

Method: Hollow Stem Auger/ Rock Roller / Core Barrel

WSP Environment & Energy
11190 Sunrise Valley Drive Suite 300
Reston, Virginia 20191
(703) 709 - 6500

Boring Log: EW-05-25B

Project:

Project No.: 127491

Location: Ithaca, New York

Completion Date: September 16, 2008

Surface Elevation (feet AMSL*): ND

TOC Elevation (feet AMSL*): 563.30

Total Depth (feet): 25.2

Borehole Diameter (inches): 6

**AMSL = Above mean sea level*

Sample Data					Subsurface Profile		
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description	Well Details
21–25		N/A	- - - -	100		***Ithaca Siltstone*** Gray Siltstone, strong, fine grained, laminated, fresh, competent, moderately to intensely fractured. Fractures: 17 mechanical fractures, mainly horizontal, 2 at 30 degrees. 11 bedding plane joints; extremely narrow; not healed; some infilling with cohesive sediment; smooth to undulating; dry. 1 fracture zone at 20.2 to 20.3 feet bgs. RQD: 0% (very poor)	
25–30						Bottom of Boring at 25.2 feet	

Geologist(s): Tim Dowle
Subcontractor: Parratt Wolff
Driller/Operator: Mick Foley
Method: Hollow Stem Auger/ Rock Roller / Core Barrel

WSP Environment & Energy
11190 Sunrise Valley Drive Suite 300
Reston, Virginia 20191
(703) 709 - 6500

Boring Log: EW-07-25B

Project:

Project No.: 127491

Location: Ithaca, New York

Completion Date: September 19, 2008

Surface Elevation (feet AMSL*): ND

TOC Elevation (feet AMSL*): 561.68

Total Depth (feet): 25

Borehole Diameter (inches): 6

**AMSL = Above mean sea level*

Sample Data					Subsurface Profile		
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description	Well Details
						Ground Surface	
1		0.0	- - - -	10		***Fill*** Black brown sand; poorly graded; medium to fine grained; rare silt; some wood fragments; loose; moist.	
2							
3		0.0	- - - -	60		***Lean Clay with Gravel (CL)*** Brown gray becoming gray clay; low to medium plasticity; frequent siltstone gravel; rare silt; soft; moist becoming moist to wet with hydrocarbon odor and sheen from 6 feet bgs.	
4							
5		15.2	- - - -	50			
6							
7		49	- - - -	60			
8							
9		36.4	- - - -	20			
10		N/A	-	N/A		***Ithaca Siltstone***	

Geologist(s): Tim Dowle

Subcontractor: Parratt Wolff

Driller/Operator: Mick Foley

Method: Hollow Stem Auger/ Rock Roller / Core Barrel

WSP Environment & Energy
11190 Sunrise Valley Drive Suite 300
Reston, Virginia 20191
(703) 709 - 6500

Boring Log: EW-07-25B

Project:

Project No.: 127491

Location: Ithaca, New York

Completion Date: September 19, 2008

Surface Elevation (feet AMSL*): ND

TOC Elevation (feet AMSL*): 561.68

Total Depth (feet): 25

Borehole Diameter (inches): 6

*AMSL = Above mean sea level

Sample Data					Subsurface Profile		
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description	Well Details
11						Gray gravel of siltstone (weathered bedrock).	
12		N/A		100		***Ithaca Siltstone*** Gray siltstone; strong; fine grained; laminated; fresh; competent; intensely fractured. Fractures: 5 mechanical (4 horizontal, 1 at 45 degrees) 15 horizontal bedding plane joints. Very narrow; not healed; some oxidation; mostly clear; smooth to undulating; dry. 1 30 degree joint. Very narrow; not healed; some cohesive sediment infill; undulating; dry. RQD: 44% (poor)	
13							
14							
15						***Ithaca Siltstone*** Gray siltstone; fine grained; laminated; fresh; competent; intensely fractured. Fractures: 14 mechanical (mainly horizontal) 12 bedding plane joints. Very narrow to extremely narrow; not healed; clean; smooth to undulating; dry. 1 fracture zone at 14.5 to 14.7 feet bgs. RQD: 30% (poor)	
16							
17		N/A		100			
18							
19							
20							

Geologist(s): Tim Dowle

Subcontractor: Parratt Wolff

Driller/Operator: Mick Foley

Method: Hollow Stem Auger/ Rock Roller / Core Barrel

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Surface Elevation (feet AMSL*): ND

TOC Elevation (feet AMSL*): 561.68

Total Depth (feet): 25

Borehole Diameter (inches): 6

**AMSL = Above mean sea level*

Sample Data					Subsurface Profile		
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description	Well Details
21–24		N/A	- - - -	100		***Ithaca Siltstone*** Gray siltstone; fine grained; laminated; fresh; competent; intensely fractured. Fractures: 11 mechanical (mainly horizontal) 10 bedding plane joints. Extremely narrow; not healed; clean; smooth to undulating; dry. 4 joints at 20 degrees. Very narrow; not healed; clean; undulating; dry. RQD: 8% (very poor) *(continued)*	
25–26		N/A	- - - -	N/A		***Ithaca Siltstone*** Gray siltstone; fine grained; laminated; fresh; competent; intensely fractured. Bottom of Boring at 25 feet	
27–30							

Geologist(s): Tim Dowle
Subcontractor: Parratt Wolff
Driller/Operator: Mick Foley
Method: Hollow Stem Auger/ Rock Roller / Core Barrel

WSP Environment & Energy
11190 Sunrise Valley Drive Suite 300
Reston, Virginia 20191
(703) 709 - 6500

Boring Log: EW-10-25B

Project:

Project No.: 127491

Location: Ithaca, New York

Completion Date: September 18, 2008

Surface Elevation (feet AMSL*): ND

TOC Elevation (feet AMSL*): 561.75

Total Depth (feet): 25

Borehole Diameter (inches): 6

*AMSL = Above mean sea level

Sample Data					Subsurface Profile		
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description	Well Details
						Ground Surface	
1		6.4		30		***Fill*** Dark brown black sand; well graded; some silt; rare grave; some ash; loose; dry.	
2							
3		0		80		***Fill*** Light brown to brown clay; low plasticity; some gravel; soft; dry to moist.	
4							
5		2.6		30		***Fill*** Light gray fine to medium sand; some gravel; loose; dry.	
6							
7		2.5		40		***Sandy Lean Clay (CL)*** Light mottled gray to brown clay; medium plasticity; soft; moist; with hydrocarbon odor and sandy band at 11 feet bgs.	
8							
9		28.6		60			
10							

Geologist(s): Tim Dowle

Subcontractor: Parratt Wolff

Driller/Operator: Mick Foley

Method: Hollow Stem Auger/ Rock Roller / Core Barrel

WSP Environment & Energy
11190 Sunrise Valley Drive Suite 300
Reston, Virginia 20191
(703) 709 - 6500

Boring Log: EW-10-25B

Project:

Project No.: 127491

Location: Ithaca, New York

Completion Date: September 18, 2008

Surface Elevation (feet AMSL*): ND

TOC Elevation (feet AMSL*): 561.75

Total Depth (feet): 25

Borehole Diameter (inches): 6

*AMSL = Above mean sea level

Sample Data					Subsurface Profile		
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description	Well Details
11		27.6		60		***Sandy Lean Clay (CL)*** Light mottled gray to brown clay; medium plasticity; soft; moist; with hydrocarbon odor and sandy band at 11 feet bgs. *(continued)*	
12						***Ithaca Siltstone*** Gray gravel of siltstone (weathered bedrock).	
13		N/A		0		***Ithaca Siltstone*** No core recovery.	
14		1.4		100		***Ithaca Siltstone*** Gray gravel of siltstone (weathered bedrock).	
15						***Ithaca Siltstone*** Gray siltstone; fine grained; laminated; fresh; competent; intensely fractured.	
16		N/A		100		Fracture: 4 mechanical (3 horizontal, 1 vertical). 8 bedding plane joints at 8.6, 9.8, 10.2, 10.4, 11.25, 11.5, 12.2 and 13.0 feet bgs. Very narrow; no healing; some infilling with cohesive sediment; smooth to undulating; dry.	
17						RQD: 18% (very poor)	
18							
19							
20							

Geologist(s): Tim Dowle

Subcontractor: Parratt Wolff

Driller/Operator: Mick Foley

Method: Hollow Stem Auger/ Rock Roller / Core Barrel

WSP Environment & Energy
11190 Sunrise Valley Drive Suite 300
Reston, Virginia 20191
(703) 709 - 6500

Boring Log: EW-10-25B

Project:

Project No.: 127491

Location: Ithaca, New York

Completion Date: September 18, 2008

Surface Elevation (feet AMSL*): ND

TOC Elevation (feet AMSL*): 561.75

Total Depth (feet): 25

Borehole Diameter (inches): 6

**AMSL = Above mean sea level*

Sample Data					Subsurface Profile		
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description	Well Details
21		NA		100		***Ithaca Siltstone*** Gray siltstone; fine grained; laminated; fresh; competent; intensely fractured. Fractures: 10 mechanical (7 horizontal, 3 vertical). 11 bedding plane joints. Extremely narrow; not healed; some with cohesive sediment fill; laminated; smooth to undulating; dry. RQD: 24% (very poor) *(continued)*	
22							
23		N/A		100		***Ithaca Siltstone*** Gray siltstone; fine grained; laminated; fresh; competent; intensely fractured. Fractures: 4 mechanical (all horizontal) 1 bedding plane joint. Extremely narrow; not healed; clean; smooth; dry. RQD: 58% (fair)	
24		N/A		100			
25						***Ithaca Siltstone*** Gray siltstone; fine grained; laminated; fresh; competent; intensely fractured. Bottom of Boring at 25 feet	
26							
27							
28							
29							
30							

Geologist(s): Tim Dowle

Subcontractor: Parratt Wolff

Driller/Operator: Mick Foley

Method: Hollow Stem Auger/ Rock Roller / Core Barrel

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(703) 709 - 6500

Appendix C – Waste Characterization Laboratory Analytical Data

ANALYTICAL REPORT

PROJECT NO. 080074.03

EPT-ITHACA, NY

Lot #: A8J030101

Candace Fox

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228

TESTAMERICA LABORATORIES, INC.

Lois D. Ezzo
Project Manager

October 10, 2008

EXECUTIVE SUMMARY - Detection Highlights

A8J030101

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
EPT-SHED-100108 10/01/08 15:40 001				
Aroclor 1254	100	38	ug/kg	SW846 8082
Fluoranthene	230000	94000	ug/kg	SW846 8270C
Phenanthrene	180000	94000	ug/kg	SW846 8270C
Pyrene	170000	94000	ug/kg	SW846 8270C
Percent Solids	87.7	10.0	%	MCAWW 160.3 MOD

TestAmerica Buffalo

Client Sample ID: EPT-SHED-100108

GC/MS Volatiles

Lot-Sample #...: A8J030101-001 **Work Order #...:** KX4A61AA **Matrix.....:** SO
Date Sampled...: 10/01/08 15:40 **Date Received..:** 10/02/08
Prep Date.....: 10/09/08 **Analysis Date..:** 10/09/08
Prep Batch #...: 8283321
Dilution Factor: 1
% Moisture.....: 12 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	23	ug/kg
Benzene	ND	5.7	ug/kg
Bromodichloromethane	ND	5.7	ug/kg
Bromoform	ND	5.7	ug/kg
Bromomethane	ND	5.7	ug/kg
2-Butanone	ND	23	ug/kg
Carbon disulfide	ND	5.7	ug/kg
Carbon tetrachloride	ND	5.7	ug/kg
Chlorobenzene	ND	5.7	ug/kg
Chloroethane	ND	5.7	ug/kg
Chloroform	ND	5.7	ug/kg
Chloromethane	ND	5.7	ug/kg
Cyclohexane	ND	11	ug/kg
Dibromochloromethane	ND	5.7	ug/kg
1,2-Dibromo-3-chloro-propane	ND	11	ug/kg
1,2-Dibromoethane	ND	5.7	ug/kg
1,2-Dichlorobenzene	ND	5.7	ug/kg
1,3-Dichlorobenzene	ND	5.7	ug/kg
1,4-Dichlorobenzene	ND	5.7	ug/kg
Dichlorodifluoromethane	ND	5.7	ug/kg
1,1-Dichloroethane	ND	5.7	ug/kg
1,2-Dichloroethane	ND	5.7	ug/kg
1,1-Dichloroethene	ND	5.7	ug/kg
cis-1,2-Dichloroethene	ND	5.7	ug/kg
trans-1,2-Dichloroethene	ND	5.7	ug/kg
1,2-Dichloropropane	ND	5.7	ug/kg
cis-1,3-Dichloropropene	ND	5.7	ug/kg
trans-1,3-Dichloropropene	ND	5.7	ug/kg
Ethylbenzene	ND	5.7	ug/kg
2-Hexanone	ND	23	ug/kg
Isopropylbenzene	ND	5.7	ug/kg
Methyl acetate	ND	11	ug/kg
Methylene chloride	ND	5.7	ug/kg
Methylcyclohexane	ND	11	ug/kg
4-Methyl-2-pentanone	ND	23	ug/kg
Methyl tert-butyl ether	ND	23	ug/kg
Styrene	ND	5.7	ug/kg

(Continued on next page)

TestAmerica Buffalo

Client Sample ID: EPT-SHED-100108

GC/MS Volatiles

Lot-Sample #...: A8J030101-001 **Work Order #...:** KX4A61AA **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2,2-Tetrachloroethane	ND	5.7	ug/kg
Tetrachloroethene	ND	5.7	ug/kg
Toluene	ND	5.7	ug/kg
1,2,4-Trichloro-benzene	ND	5.7	ug/kg
1,1,1-Trichloroethane	ND	5.7	ug/kg
1,1,2-Trichloroethane	ND	5.7	ug/kg
Trichloroethene	ND	5.7	ug/kg
Trichlorofluoromethane	ND	5.7	ug/kg
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	5.7	ug/kg
Vinyl chloride	ND	5.7	ug/kg
Xylenes (total)	ND	11	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	77	(59 - 138)
1,2-Dichloroethane-d4	71	(61 - 130)
Toluene-d8	86	(60 - 143)
4-Bromofluorobenzene	88	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

TestAmerica Buffalo

Client Sample ID: EPT-SHED-100108

GC/MS Semivolatiles

Lot-Sample #...: A8J030101-001 **Work Order #...:** KX4A61AC **Matrix.....:** SO
Date Sampled...: 10/01/08 15:40 **Date Received..:** 10/02/08
Prep Date.....: 10/04/08 **Analysis Date..:** 10/06/08
Prep Batch #...: 8277363
Dilution Factor: 250
% Moisture.....: 12 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	ND	94000	ug/kg
Acenaphthylene	ND	94000	ug/kg
Acetophenone	ND	19000	ug/kg
Anthracene	ND	94000	ug/kg
Atrazine	ND	94000	ug/kg
Benzo(a)anthracene	ND	94000	ug/kg
Benzo(a)pyrene	ND	94000	ug/kg
Benzo(b)fluoranthene	ND	94000	ug/kg
Benzo(ghi)perylene	ND	94000	ug/kg
Benzo(k)fluoranthene	ND	94000	ug/kg
Benzaldehyde	ND	94000	ug/kg
1,1'-Biphenyl	ND	94000	ug/kg
bis(2-Chloroethoxy) methane	ND	94000	ug/kg
bis(2-Chloroethyl)-ether	ND	94000	ug/kg
bis(2-Ethylhexyl) phthalate	ND	94000	ug/kg
4-Bromophenyl phenyl ether	ND	94000	ug/kg
Butyl benzyl phthalate	ND	94000	ug/kg
Caprolactam	ND	94000	ug/kg
Carbazole	ND	94000	ug/kg
4-Chloroaniline	ND	94000	ug/kg
4-Chloro-3-methylphenol	ND	94000	ug/kg
2-Chloronaphthalene	ND	94000	ug/kg
2-Chlorophenol	ND	94000	ug/kg
4-Chlorophenyl phenyl ether	ND	94000	ug/kg
Chrysene	ND	94000	ug/kg
Dibenz(a,h)anthracene	ND	94000	ug/kg
Dibenzofuran	ND	94000	ug/kg
3,3'-Dichlorobenzidine	ND	460000	ug/kg
2,4-Dichlorophenol	ND	94000	ug/kg
Diethyl phthalate	ND	94000	ug/kg
2,4-Dimethylphenol	ND	94000	ug/kg
Dimethyl phthalate	ND	94000	ug/kg
Di-n-butyl phthalate	ND	94000	ug/kg

(Continued on next page)

TestAmerica Buffalo

Client Sample ID: EPT-SHED-100108

GC/MS Semivolatiles

Lot-Sample #...: A8J030101-001 **Work Order #...:** KX4A61AC **Matrix.....:** SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS
4,6-Dinitro-2-methylphenol	ND	460000	ug/kg
2,4-Dinitrophenol	ND	460000	ug/kg
2,4-Dinitrotoluene	ND	94000	ug/kg
2,6-Dinitrotoluene	ND	94000	ug/kg
Di-n-octyl phthalate	ND	94000	ug/kg
Fluoranthene	**230000**	**94000**	**ug/kg**
Fluorene	ND	94000	ug/kg
Hexachlorobenzene	ND	94000	ug/kg
Hexachlorobutadiene	ND	94000	ug/kg
Hexachlorocyclopenta-diene	ND	460000	ug/kg
Hexachloroethane	ND	94000	ug/kg
Indeno(1,2,3-cd)pyrene	ND	94000	ug/kg
Isophorone	ND	94000	ug/kg
2-Methylnaphthalene	ND	94000	ug/kg
2-Methylphenol	ND	94000	ug/kg
4-Methylphenol	ND	94000	ug/kg
Naphthalene	ND	94000	ug/kg
2-Nitroaniline	ND	460000	ug/kg
3-Nitroaniline	ND	460000	ug/kg
4-Nitroaniline	ND	460000	ug/kg
Nitrobenzene	ND	94000	ug/kg
2-Nitrophenol	ND	94000	ug/kg
4-Nitrophenol	ND	460000	ug/kg
N-Nitrosodi-n-propyl-amine	ND	94000	ug/kg
N-Nitrosodiphenylamine	ND	94000	ug/kg
2,2'-oxybis (1-Chloropropane)	ND	94000	ug/kg
Pentachlorophenol	ND	94000	ug/kg
Phenanthrene	**180000**	**94000**	**ug/kg**
Phenol	ND	94000	ug/kg
Pyrene	**170000**	**94000**	**ug/kg**
2,4,5-Trichloro-phenol	ND	94000	ug/kg
2,4,6-Trichloro-phenol	ND	94000	ug/kg

(Continued on next page)

TestAmerica Buffalo

Client Sample ID: EPT-SHED-100108

GC/MS Semivolatiles

Lot-Sample #...: A8J030101-001 **Work Order #...:** KX4A61AC **Matrix.....:** SO

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	0.0 DIL,*	(24 - 112)
2-Fluorobiphenyl	0.0 DIL,*	(34 - 110)
Terphenyl-d14	0.0 DIL,*	(41 - 119)
Phenol-d5	0.0 DIL,*	(28 - 110)
2-Fluorophenol	0.0 DIL,*	(26 - 110)
2,4,6-Tribromophenol	0.0 DIL,*	(10 - 118)

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

* Surrogate recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

TestAmerica Buffalo

Client Sample ID: EPT-SHED-100108

GC Semivolatiles

Lot-Sample #...: A8J030101-001 **Work Order #...:** KX4A61AE **Matrix.....:** SO
Date Sampled...: 10/01/08 15:40 **Date Received..:** 10/02/08
Prep Date.....: 10/06/08 **Analysis Date..:** 10/10/08
Prep Batch #...: 8280034
Dilution Factor: 1
% Moisture.....: 12 **Method.....:** SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	38	ug/kg
Aroclor 1221	ND	38	ug/kg
Aroclor 1232	ND	38	ug/kg
Aroclor 1242	ND	38	ug/kg
Aroclor 1248	ND	38	ug/kg
Aroclor 1254	**100**	**38**	**ug/kg**
Aroclor 1260	ND	38	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	78	(10 - 196)
Decachlorobiphenyl	1510 *	(10 - 199)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

TestAmerica Buffalo

Client Sample ID: EPT-SHED-100108

TCLP Metals

Lot-Sample #...: A8J030101-001 **Matrix.....:** SO
Date Sampled...: 10/01/08 15:40 **Date Received..:** 10/02/08
Leach Date.....: 10/07/08 **Leach Batch #..:** P828108

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 8282018						
Arsenic	ND	0.50	mg/L	SW846 6010B	10/08-10/09/08	KX4A61AF
		Dilution Factor: 1				
Barium	ND	10.0	mg/L	SW846 6010B	10/08-10/09/08	KX4A61AG
		Dilution Factor: 1				
Cadmium	ND	0.10	mg/L	SW846 6010B	10/08-10/09/08	KX4A61AH
		Dilution Factor: 1				
Chromium	ND	0.50	mg/L	SW846 6010B	10/08-10/09/08	KX4A61AJ
		Dilution Factor: 1				
Lead	ND	0.50	mg/L	SW846 6010B	10/08-10/09/08	KX4A61AK
		Dilution Factor: 1				
Selenium	ND	0.25	mg/L	SW846 6010B	10/08-10/09/08	KX4A61AL
		Dilution Factor: 1				
Silver	ND	0.50	mg/L	SW846 6010B	10/08-10/09/08	KX4A61AM
		Dilution Factor: 1				
Mercury	ND	0.0020	mg/L	SW846 7470A	10/08-10/09/08	KX4A61AN
		Dilution Factor: 1				

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

TestAmerica Buffalo

Client Sample ID: EPT-SHED-100108

General Chemistry

Lot-Sample #...: A8J030101-001 **Work Order #...:** KX4A6 **Matrix.....:** SO
Date Sampled...: 10/01/08 15:40 **Date Received..:** 10/02/08
% Moisture.....: 12

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids	**87.7**	**10.0**	**%**	**MCAWW 160.3 MOD**	**10/07-10/08/08**	**8281387**

Dilution Factor: 1

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A8J030101 **Work Order #...:** K0GVR1AA **Matrix.....:** SOLID
MB Lot-Sample #: A8J090000-321

Prep Date.....: 10/08/08
Analysis Date..: 10/08/08 **Prep Batch #...:** 8283321
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acetone	ND	20	ug/kg	SW846 8260B
Benzene	ND	5.0	ug/kg	SW846 8260B
Bromodichloromethane	ND	5.0	ug/kg	SW846 8260B
Bromoform	ND	5.0	ug/kg	SW846 8260B
Bromomethane	ND	5.0	ug/kg	SW846 8260B
2-Butanone	ND	20	ug/kg	SW846 8260B
Carbon disulfide	ND	5.0	ug/kg	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/kg	SW846 8260B
Chlorobenzene	ND	5.0	ug/kg	SW846 8260B
Chloroethane	ND	5.0	ug/kg	SW846 8260B
Chloroform	ND	5.0	ug/kg	SW846 8260B
Chloromethane	ND	5.0	ug/kg	SW846 8260B
Cyclohexane	ND	10	ug/kg	SW846 8260B
Dibromochloromethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	SW846 8260B
1,2-Dibromoethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
Dichlorodifluoromethane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
cis-1,3-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
trans-1,3-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B
2-Hexanone	ND	20	ug/kg	SW846 8260B
Isopropylbenzene	ND	5.0	ug/kg	SW846 8260B
Methyl acetate	ND	10	ug/kg	SW846 8260B
Methylene chloride	ND	5.0	ug/kg	SW846 8260B
Methylcyclohexane	ND	10	ug/kg	SW846 8260B
4-Methyl-2-pentanone	ND	20	ug/kg	SW846 8260B
Methyl tert-butyl ether	ND	20	ug/kg	SW846 8260B
Styrene	ND	5.0	ug/kg	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
Tetrachloroethene	ND	5.0	ug/kg	SW846 8260B
Toluene	ND	5.0	ug/kg	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A8J030101 **Work Order #...:** K0GVR1AA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
Trichloroethene	ND	5.0	ug/kg	SW846 8260B
Trichlorofluoromethane	ND	5.0	ug/kg	SW846 8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	5.0	ug/kg	SW846 8260B
Vinyl chloride	ND	5.0	ug/kg	SW846 8260B
Xylenes (total)	ND	10	ug/kg	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	85	(59 - 138)
1,2-Dichloroethane-d4	77	(61 - 130)
Toluene-d8	93	(60 - 143)
4-Bromofluorobenzene	100	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: A8J030101 **Work Order #...:** KX5P11AA **Matrix.....:** SOLID
MB Lot-Sample #: A8J030000-363

Prep Date.....: 10/04/08
Analysis Date..: 10/06/08 **Prep Batch #...:** 8277363
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acenaphthene	ND	330	ug/kg	SW846 8270C
Acenaphthylene	ND	330	ug/kg	SW846 8270C
Acetophenone	ND	67	ug/kg	SW846 8270C
Anthracene	ND	330	ug/kg	SW846 8270C
Atrazine	ND	330	ug/kg	SW846 8270C
Benzo(a)anthracene	ND	330	ug/kg	SW846 8270C
Benzo(a)pyrene	ND	330	ug/kg	SW846 8270C
Benzo(b)fluoranthene	ND	330	ug/kg	SW846 8270C
Benzo(ghi)perylene	ND	330	ug/kg	SW846 8270C
Benzo(k)fluoranthene	ND	330	ug/kg	SW846 8270C
Benzaldehyde	ND	330	ug/kg	SW846 8270C
1,1'-Biphenyl	ND	330	ug/kg	SW846 8270C
bis(2-Chloroethoxy) methane	ND	330	ug/kg	SW846 8270C
bis(2-Chloroethyl)- ether	ND	330	ug/kg	SW846 8270C
bis(2-Ethylhexyl) phthalate	ND	330	ug/kg	SW846 8270C
4-Bromophenyl phenyl ether	ND	330	ug/kg	SW846 8270C
Butyl benzyl phthalate	ND	330	ug/kg	SW846 8270C
Caprolactam	ND	330	ug/kg	SW846 8270C
Carbazole	ND	330	ug/kg	SW846 8270C
4-Chloroaniline	ND	330	ug/kg	SW846 8270C
4-Chloro-3-methylphenol	ND	330	ug/kg	SW846 8270C
2-Chloronaphthalene	ND	330	ug/kg	SW846 8270C
2-Chlorophenol	ND	330	ug/kg	SW846 8270C
4-Chlorophenyl phenyl ether	ND	330	ug/kg	SW846 8270C
Chrysene	ND	330	ug/kg	SW846 8270C
Dibenz(a,h)anthracene	ND	330	ug/kg	SW846 8270C
Dibenzofuran	ND	330	ug/kg	SW846 8270C
3,3'-Dichlorobenzidine	ND	1600	ug/kg	SW846 8270C
2,4-Dichlorophenol	ND	330	ug/kg	SW846 8270C
Diethyl phthalate	ND	330	ug/kg	SW846 8270C
2,4-Dimethylphenol	ND	330	ug/kg	SW846 8270C
Dimethyl phthalate	ND	330	ug/kg	SW846 8270C
Di-n-butyl phthalate	ND	330	ug/kg	SW846 8270C
4,6-Dinitro- 2-methylphenol	ND	1600	ug/kg	SW846 8270C
2,4-Dinitrophenol	ND	1600	ug/kg	SW846 8270C

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METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: A8J030101 **Work Order #...:** KX5P11AA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
2,4-Dinitrotoluene	ND	330	ug/kg	SW846 8270C
2,6-Dinitrotoluene	ND	330	ug/kg	SW846 8270C
Di-n-octyl phthalate	ND	330	ug/kg	SW846 8270C
Fluoranthene	ND	330	ug/kg	SW846 8270C
Fluorene	ND	330	ug/kg	SW846 8270C
Hexachlorobenzene	ND	330	ug/kg	SW846 8270C
Hexachlorobutadiene	ND	330	ug/kg	SW846 8270C
Hexachlorocyclopenta-diene	ND	1600	ug/kg	SW846 8270C
Hexachloroethane	ND	330	ug/kg	SW846 8270C
Indeno(1,2,3-cd)pyrene	ND	330	ug/kg	SW846 8270C
Isophorone	ND	330	ug/kg	SW846 8270C
2-Methylnaphthalene	ND	330	ug/kg	SW846 8270C
2-Methylphenol	ND	330	ug/kg	SW846 8270C
4-Methylphenol	ND	330	ug/kg	SW846 8270C
Naphthalene	ND	330	ug/kg	SW846 8270C
2-Nitroaniline	ND	1600	ug/kg	SW846 8270C
3-Nitroaniline	ND	1600	ug/kg	SW846 8270C
4-Nitroaniline	ND	1600	ug/kg	SW846 8270C
Nitrobenzene	ND	330	ug/kg	SW846 8270C
2-Nitrophenol	ND	330	ug/kg	SW846 8270C
4-Nitrophenol	ND	1600	ug/kg	SW846 8270C
N-Nitrosodi-n-propyl-amine	ND	330	ug/kg	SW846 8270C
N-Nitrosodiphenylamine	ND	330	ug/kg	SW846 8270C
2,2'-oxybis (1-Chloropropane)	ND	330	ug/kg	SW846 8270C
Pentachlorophenol	ND	330	ug/kg	SW846 8270C
Phenanthrene	ND	330	ug/kg	SW846 8270C
Phenol	ND	330	ug/kg	SW846 8270C
Pyrene	ND	330	ug/kg	SW846 8270C
2,4,5-Trichloro-phenol	ND	330	ug/kg	SW846 8270C
2,4,6-Trichloro-phenol	ND	330	ug/kg	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	60	(24 - 112)
2-Fluorobiphenyl	60	(34 - 110)
Terphenyl-d14	80	(41 - 119)
Phenol-d5	59	(28 - 110)
2-Fluorophenol	56	(26 - 110)
2,4,6-Tribromophenol	48	(10 - 118)

(Continued on next page)

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: A8J030101 **Work Order #...:** KX5P11AA **Matrix.....:** SOLID

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: A8J030101 **Work Order #...:** KX7211AA **Matrix.....:** SOLID
MB Lot-Sample #: A8J060000-034

Prep Date.....: 10/06/08
Analysis Date..: 10/10/08 **Prep Batch #...:** 8280034
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Aroclor 1016	ND	33	ug/kg	SW846 8082
Aroclor 1221	ND	33	ug/kg	SW846 8082
Aroclor 1232	ND	33	ug/kg	SW846 8082
Aroclor 1242	ND	33	ug/kg	SW846 8082
Aroclor 1248	ND	33	ug/kg	SW846 8082
Aroclor 1254	ND	33	ug/kg	SW846 8082
Aroclor 1260	ND	33	ug/kg	SW846 8082

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	79	(10 - 196)
Decachlorobiphenyl	66	(10 - 199)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

TCLP Metals

Client Lot #...: A8J030101 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: A8J070000-210 **Prep Batch #...:** 8282018						
Leach Date.....: 10/07/08 **Leach Batch #..:** P828108						
Arsenic	ND	0.50	mg/L	SW846 6010B	10/08-10/09/08	K0AC51AN
		Dilution Factor: 1				
Barium	ND	10.0	mg/L	SW846 6010B	10/08-10/09/08	K0AC51AP
		Dilution Factor: 1				
Cadmium	ND	0.10	mg/L	SW846 6010B	10/08-10/09/08	K0AC51AQ
		Dilution Factor: 1				
Chromium	ND	0.50	mg/L	SW846 6010B	10/08-10/09/08	K0AC51AR
		Dilution Factor: 1				
Lead	ND	0.50	mg/L	SW846 6010B	10/08-10/09/08	K0AC51AT
		Dilution Factor: 1				
Selenium	ND	0.25	mg/L	SW846 6010B	10/08-10/09/08	K0AC51AU
		Dilution Factor: 1				
Silver	ND	0.50	mg/L	SW846 6010B	10/08-10/09/08	K0AC51AV
		Dilution Factor: 1				
Mercury	ND	0.0020	mg/L	SW846 7470A	10/08-10/09/08	K0AC51AK
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

TCLP Metals

Client Lot #...: A8J030101 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: A8J080000-018 **Prep Batch #...:** 8282018						
Arsenic	ND	0.50	mg/L	SW846 6010B	10/08-10/09/08	K0C961AU
		Dilution Factor: 1				
Barium	ND	10.0	mg/L	SW846 6010B	10/08-10/09/08	K0C961AV
		Dilution Factor: 1				
Cadmium	ND	0.10	mg/L	SW846 6010B	10/08-10/09/08	K0C961AW
		Dilution Factor: 1				
Chromium	ND	0.50	mg/L	SW846 6010B	10/08-10/09/08	K0C961AX
		Dilution Factor: 1				
Lead	ND	0.50	mg/L	SW846 6010B	10/08-10/09/08	K0C961A0
		Dilution Factor: 1				
Selenium	ND	0.25	mg/L	SW846 6010B	10/08-10/09/08	K0C961A1
		Dilution Factor: 1				
Silver	ND	0.50	mg/L	SW846 6010B	10/08-10/09/08	K0C961A2
		Dilution Factor: 1				
Mercury	ND	0.0020	mg/L	SW846 7470A	10/08-10/09/08	K0C961AJ
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

General Chemistry

Client Lot #...: A8J030101 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids		Work Order #: K0CH21AA		MB Lot-Sample #:	A8J070000-387	
	ND	10.0	%	MCAWW 160.3 MOD	10/07-10/08/08	8281387
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A8J030101 **Work Order #...:** K0GVR1AC-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: A8J090000-321 K0GVR1AD-LCSD
Prep Date.....: 10/08/08 **Analysis Date..:** 10/08/08
Prep Batch #...: 8283321
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**97**	**(75 - 129)**			**SW846 8260B**
	98	**(75 - 129)**	**1.5**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**93**	**(75 - 127)**			**SW846 8260B**
	97	**(75 - 127)**	**3.6**	**(0-22)**	**SW846 8260B**
1,1-Dichloroethene	**97**	**(55 - 142)**			**SW846 8260B**
	97	**(55 - 142)**	**0.16**	**(0-27)**	**SW846 8260B**
Toluene	**100**	**(71 - 130)**			**SW846 8260B**
	102	**(71 - 130)**	**1.7**	**(0-24)**	**SW846 8260B**
Trichloroethene	**96**	**(70 - 131)**			**SW846 8260B**
	98	**(70 - 131)**	**1.9**	**(0-23)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	74	(59 - 138)
	75	(59 - 138)
1,2-Dichloroethane-d4	65	(61 - 130)
	64	(61 - 130)
Toluene-d8	88	(60 - 143)
	87	(60 - 143)
4-Bromofluorobenzene	110	(47 - 158)
	109	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A8J030101 **Work Order #...:** KX5P11AC **Matrix.....:** SOLID
LCS Lot-Sample#: A8J030000-363
Prep Date.....: 10/04/08 **Analysis Date..:** 10/06/08
Prep Batch #...: 8277363
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Acenaphthene	**47**	**(46 - 110)**	**SW846 8270C**
1,2,4-Trichloro-benzene	**46**	**(43 - 110)**	**SW846 8270C**
1,4-Dichlorobenzene	**47**	**(38 - 110)**	**SW846 8270C**
4-Chloro-3-methylphenol	**47**	**(42 - 110)**	**SW846 8270C**
2-Chlorophenol	**43**	**(39 - 110)**	**SW846 8270C**
2,4-Dinitrotoluene	**55**	**(55 - 116)**	**SW846 8270C**
4-Nitrophenol	**49**	**(24 - 117)**	**SW846 8270C**
N-Nitrosodi-n-propyl-amine	**47**	**(40 - 114)**	**SW846 8270C**
Pentachlorophenol	**35**	**(10 - 110)**	**SW846 8270C**
Phenol	**44**	**(39 - 110)**	**SW846 8270C**
Pyrene	**58**	**(58 - 113)**	**SW846 8270C**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	72	(24 - 112)
2-Fluorobiphenyl	68	(34 - 110)
Terphenyl-d14	99	(41 - 119)
Phenol-d5	68	(28 - 110)
2-Fluorophenol	68	(26 - 110)
2,4,6-Tribromophenol	70	(10 - 118)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: A8J030101 **Work Order #...:** KX7211AC **Matrix.....:** SOLID
LCS Lot-Sample#: A8J060000-034
Prep Date.....: 10/06/08 **Analysis Date..:** 10/10/08
Prep Batch #...: 8280034
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Aroclor 1016	**88**	**(34 - 127)**	**SW846 8082**
Aroclor 1260	**81**	**(32 - 141)**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	98	(10 - 196)
Decachlorobiphenyl	79	(10 - 199)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TCLP Metals

Client Lot #...: A8J030101 **Matrix.....:** SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: A8J080000-018 **Prep Batch #...:** 8282018					
Arsenic	104	(50 - 150)	SW846 6010B	10/08-10/09/08	K0C961A3
		Dilution Factor: 1			
Barium	107	(50 - 150)	SW846 6010B	10/08-10/09/08	K0C961A4
		Dilution Factor: 1			
Cadmium	103	(50 - 150)	SW846 6010B	10/08-10/09/08	K0C961A5
		Dilution Factor: 1			
Chromium	102	(50 - 150)	SW846 6010B	10/08-10/09/08	K0C961A6
		Dilution Factor: 1			
Lead	102	(50 - 150)	SW846 6010B	10/08-10/09/08	K0C961A7
		Dilution Factor: 1			
Selenium	107	(50 - 150)	SW846 6010B	10/08-10/09/08	K0C961A8
		Dilution Factor: 1			
Silver	120	(50 - 150)	SW846 6010B	10/08-10/09/08	K0C961A9
		Dilution Factor: 1			
Mercury	85	(50 - 150)	SW846 7470A	10/08-10/09/08	K0C961AT
		Dilution Factor: 1			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A8J030101 **Work Order #...:** KX4A61A8-MS **Matrix.....:** SO
MS Lot-Sample #: A8J030101-001 KX4A61A9-MSD
Date Sampled...: 10/01/08 15:40 **Date Received..:** 10/02/08
Prep Date.....: 10/09/08 **Analysis Date..:** 10/09/08
Prep Batch #...: 8283321
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**80**	**(55 - 138)**			**SW846 8260B**
	83	**(55 - 138)**	**3.8**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**70**	**(49 - 139)**			**SW846 8260B**
	73	**(49 - 139)**	**3.4**	**(0-22)**	**SW846 8260B**
1,1-Dichloroethene	**79**	**(43 - 147)**			**SW846 8260B**
	83	**(43 - 147)**	**5.4**	**(0-27)**	**SW846 8260B**
Toluene	**80**	**(46 - 147)**			**SW846 8260B**
	84	**(46 - 147)**	**5.1**	**(0-24)**	**SW846 8260B**
Trichloroethene	**81**	**(46 - 143)**			**SW846 8260B**
	87	**(46 - 143)**	**6.8**	**(0-23)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	77	(59 - 138)
	79	(59 - 138)
1,2-Dichloroethane-d4	70	(61 - 130)
	69	(61 - 130)
Toluene-d8	90	(60 - 143)
	90	(60 - 143)
4-Bromofluorobenzene	103	(47 - 158)
	102	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A8J030101 **Work Order #...:** KX4PT1AX-MS **Matrix.....:** SOLID
MS Lot-Sample #: A8J030135-002 KX4PT1A0-MSD
Date Sampled...: 10/01/08 09:30 **Date Received..:** 10/03/08
Prep Date.....: 10/04/08 **Analysis Date..:** 10/06/08
Prep Batch #...: 8277363
Dilution Factor: 10 **% Moisture.....:** 14

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Acenaphthene	**6.7 DIL,a**	**(10 - 200)**			**SW846 8270C**
	2.2 DIL,a	**(10 - 200)**	**4.0**	**(0-30)**	**SW846 8270C**
1,2,4-Trichloro-benzene	**44 DIL**	**(33 - 110)**			**SW846 8270C**
	34 DIL	**(33 - 110)**	**24**	**(0-30)**	**SW846 8270C**
1,4-Dichlorobenzene	**38 DIL**	**(26 - 110)**			**SW846 8270C**
	33 DIL	**(26 - 110)**	**16**	**(0-30)**	**SW846 8270C**
4-Chloro-3-methylphenol	**44 DIL**	**(32 - 117)**			**SW846 8270C**
	44 DIL	**(32 - 117)**	**1.2**	**(0-30)**	**SW846 8270C**
2-Chlorophenol	**44 DIL**	**(32 - 110)**			**SW846 8270C**
	42 DIL	**(32 - 110)**	**4.7**	**(0-30)**	**SW846 8270C**
2,4-Dinitrotoluene	**77 DIL**	**(42 - 118)**			**SW846 8270C**
	76 DIL	**(42 - 118)**	**0.69**	**(0-30)**	**SW846 8270C**
4-Nitrophenol	**30 DIL**	**(10 - 125)**			**SW846 8270C**
	34 DIL	**(10 - 125)**	**12**	**(0-30)**	**SW846 8270C**
N-Nitrosodi-n-propyl-amine	**45 DIL**	**(30 - 121)**			**SW846 8270C**
	46 DIL	**(30 - 121)**	**2.1**	**(0-30)**	**SW846 8270C**
Pentachlorophenol	**104 DIL**	**(10 - 182)**			**SW846 8270C**
	103 DIL	**(10 - 182)**	**1.1**	**(0-30)**	**SW846 8270C**
Phenol	**45 DIL**	**(10 - 144)**			**SW846 8270C**
	43 DIL	**(10 - 144)**	**5.1**	**(0-30)**	**SW846 8270C**
Pyrene	**0.0 DIL,a**	**(10 - 200)**			**SW846 8270C**
	0.0 DIL,a	**(10 - 200)**	**0.0**	**(0-30)**	**SW846 8270C**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	55 DIL	(24 - 112)
	58 DIL	(24 - 112)
2-Fluorobiphenyl	62 DIL	(34 - 110)
	60 DIL	(34 - 110)
Terphenyl-d14	81 DIL	(41 - 119)
	78 DIL	(41 - 119)
Phenol-d5	54 DIL	(28 - 110)
	61 DIL	(28 - 110)
2-Fluorophenol	48 DIL	(26 - 110)
	43 DIL	(26 - 110)

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MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A8J030101 **Work Order #...:** KX4PT1AX-MS **Matrix.....:** SOLID
MS Lot-Sample #: A8J030135-002 KX4PT1A0-MSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	49 DIL	(10 - 118)
	59 DIL	(10 - 118)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

a Spiked analyte recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: A8J030101 **Work Order #...:** KXVLG1CA-MS **Matrix.....:** SOLID
MS Lot-Sample #: A8I300135-003 KXVLG1CC-MSD
Date Sampled...: 09/29/08 10:25 **Date Received..:** 09/30/08
Prep Date.....: 10/06/08 **Analysis Date..:**
Prep Batch #...: 8280034
Dilution Factor: 1 **% Moisture.....:** 100

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Aroclor 1016	**0**	**(10 - 199)**			**SW846 8082**
		(10 - 199)		**(0-30)**	**SW846 8082**
Aroclor 1260	**0**	**(10 - 199)**			**SW846 8082**
		(10 - 199)		**(0-30)**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene		(10 - 196)
		(10 - 196)
Decachlorobiphenyl		(10 - 199)
		(10 - 199)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

TCLP Metals

Client Lot #...: A8J030101 **Matrix.....:** SO
Date Sampled...: 10/01/08 15:40 **Date Received..:** 10/02/08

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A8J030101-001 **Prep Batch #...:** 8282018							
Leach Date.....: 10/07/08 **Leach Batch #..:** P828108							
Arsenic	101	(50 - 150)			SW846 6010B	10/08-10/09/08	KX4A61AP
	101	(50 - 150)	0.48	(0-20)	SW846 6010B	10/08-10/09/08	KX4A61AQ
		Dilution Factor: 5					
Barium	103	(50 - 150)			SW846 6010B	10/08-10/09/08	KX4A61AR
	103	(50 - 150)	0.12	(0-20)	SW846 6010B	10/08-10/09/08	KX4A61AT
		Dilution Factor: 5					
Cadmium	100	(50 - 150)			SW846 6010B	10/08-10/09/08	KX4A61AU
	101	(50 - 150)	0.94	(0-20)	SW846 6010B	10/08-10/09/08	KX4A61AV
		Dilution Factor: 5					
Chromium	99	(50 - 150)			SW846 6010B	10/08-10/09/08	KX4A61AW
	100	(50 - 150)	0.65	(0-20)	SW846 6010B	10/08-10/09/08	KX4A61AX
		Dilution Factor: 5					
Lead	100	(50 - 150)			SW846 6010B	10/08-10/09/08	KX4A61A0
	101	(50 - 150)	0.70	(0-20)	SW846 6010B	10/08-10/09/08	KX4A61A1
		Dilution Factor: 5					
Selenium	103	(50 - 150)			SW846 6010B	10/08-10/09/08	KX4A61A2
	104	(50 - 150)	0.17	(0-20)	SW846 6010B	10/08-10/09/08	KX4A61A3
		Dilution Factor: 5					
Silver	102	(50 - 150)			SW846 6010B	10/08-10/09/08	KX4A61A4
	105	(50 - 150)	3.0	(0-20)	SW846 6010B	10/08-10/09/08	KX4A61A5
		Dilution Factor: 5					
Mercury	86	(50 - 150)			SW846 7470A	10/08-10/09/08	KX4A61A6
	88	(50 - 150)	1.7	(0-20)	SW846 7470A	10/08-10/09/08	KX4A61A7
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A8J030101 **Work Order #...:** KXKLD-SMP **Matrix.....:** SOLID
KXKLD-DUP
Date Sampled...: 09/24/08 08:30 **Date Received..:** 09/25/08
% Moisture.....: 6.8

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids						SD Lot-Sample #: A8I250171-002		
	93.2	89.7	%	3.8	(0-20)	MCAWW 160.3 MOD	10/07-10/08/08	8281387

Dilution Factor: 1

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: A8J030101 **Work Order #...:** KX4W1-SMP **Matrix.....:** SOLID
KX4W1-DUP
Date Sampled...: 10/02/08 12:15 **Date Received..:** 10/03/08
% Moisture.....: 18

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids						SD Lot-Sample #: A8J030151-001		
	82.2	83.6	%	1.8	(0-20)	MCAWW 160.3 MOD	10/07-10/08/08	8281387

Dilution Factor: 1

Appendix D – Waste Disposal Documentation

1042856-15780

HAZMAT BILL OF LADING/MANIFEST	1. Offeror's ID Number	2. Page 1 of	3. Emergency Response Phone	4. Tracking Number
	NYD002228625	1	(800)326-1221	1042856-15780

5. Offeror's Name and Mailing Address
EMERSON POWER TRANSMISSION / MIKE YAPLE
620 SOUTH AURORA STREET
ITHACA, NY 14850
Offeror's Phone: (607)274-6043

Offeror's Site Address (if different than mailing address)
EMERSON POWER TRANSMISSION / MIKE YAPLE
620 SOUTH AURORA STREET
ITHACA, NY 14850
GEN: 74719

6. Transporter 1 Company Name
PAGE E.T.C., INC.
U.S. EPA ID Number
NYD986969947

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
WASTE MANAGEMENT, INC. HIGH ACRES RDF
425 PERINTON PARKWAY
FAIRPORT, NY 14450
Facility's Phone: (585)494-3000
U.S. EPA ID Number

9a HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
	1. NON-DOT/NON-RCRA REGULATED			~30	Ton
	2.				
	3.				
	4.				
	5.				
	6.				
	7.				

13. Special Handling Instructions and Additional Information
I.103709NY_T#1938562

14. OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. [1231119]

Offeror's Printed/Typed Name: Kathleen E. Butler, Agent of Emerson — Signature: Kathleen E. Butler — Month: 11 Day: 10 Year: 08

15. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: CHRIS TOFFLEY — Signature — Month: 11 Day: 10 Year: 08

Transporter 2 Printed/Typed Name — Signature — Month Day Year

16. Discrepancy

17. Designated Facility Owner or Operator: Certification of receipt of hazardous Bill of Lading/Manifest covered by the manifest except as noted in item 16

Printed/Typed Name — Signature — Month: 11 Day: 10 Year: 08

OFFEROR

TRANSPORTER

DESIGNATED FACILITY

DESIGNATED FACILITY'S COPY

PAG

1042857-15780

HAZMAT BILL OF LADING/MANIFEST	1. Offeror's ID Number	2. Page 1 of	3. Emergency Response Phone	4. Tracking Number
	NYD082228625	1	(800)326-1221	1042857-15780

5. Offeror's Name and Mailing Address
EMERSON POWER TRANSMISSION / MIKE YAPLE
620 SOUTH AURORA STREET
ITHACA, NY 14850
Offeror's Phone: (607)274-6043

Offeror's Site Address (if different than mailing address)
EMERSON POWER TRANSMISSION / MIKE YAPLE
620 SOUTH AURORA STREET
ITHACA, NY 14850
GEN: 74719

6. Transporter 1 Company Name
PAGE E.T.C., INC.
U.S. EPA ID Number
NYD986969947

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
WASTE MANAGEMENT, INC. HIGH ACRES RDF
425 PERINTON PARKWAY
FAIRPORT, NY 14450
Facility's Phone: (585)494-3000
U.S. EPA ID Number

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
	1. NON-DOT/NON-RCRA REGULATED			~33	TON
	2.				
	3.				
	4.				
	5.				
	6.				
	7.				

13. Special Handling Instructions and Additional Information
I.103709NY_T#1938563

[1231120]

14. OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.
Offeror's Printed/Typed Name: Karen E. Pelgan, Agent of Emerson
Signature: Karen E. Pelgan
Month: 11 Day: 10 Year: 08

15. Transporter Acknowledgment of Receipt of Material
Transporter 1 Printed/Typed Name: John Sgrecia
Signature:
Month: 11 Day: 10 Year: 08
Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

16. Discrepancy

17. Designated Facility Owner or Operator: Certification of receipt of hazardous Bill of Lading/Manifest covered by the manifest except as noted in item 16
Printed/Typed Name: Jaclyn Pilgrim
Signature: Jaclyn Pilgrim
Month: 11 Day: 10 Year: 08

OFFEROR — TRANSPORTER — DESIGNATED FACILITY

TRANSPORTER'S COPY

1042858-15780

HAZMAT BILL OF LADING/MANIFEST	1. Offeror's ID Number	2. Page 1 of	3. Emergency Response Phone	4. Tracking Number
	NYD002228625	1	(800)326-1221	1042858-15780

5. Offeror's Name and Mailing Address
EMERSON POWER TRANSMISSION / MIKE YAPLE
620 SOUTH AURORA STREET
ITHACA, NY 14850
Offeror's Phone: (607)274-6043

Offeror's Site Address (if different than mailing address)
EMERSON POWER TRANSMISSION / MIKE YAPLE
620 SOUTH AURORA STREET
ITHACA, NY 14850
GEN: 74719

6. Transporter 1 Company Name
PAGE E.T.C., INC.
U.S. EPA ID Number
NYD986969947

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
WASTE MANAGEMENT, INC. HIGH ACRES RDF
425 PERINTON PARKWAY
FAIRPORT, NY 14450
Facility's Phone: (585)494-3000
U.S. EPA ID Number

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
	1. NON-DOT/NON-RCRA REGULATED			~30 T	
	2.				
	3.				
	4.				
	5.				
	6.				
	7.				

13. Special Handling Instructions and Additional Information
1.103709NY_T#1938564

14. OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. [1231121]

Offeror's Printed/Typed Name: Karen F. Bolger, Agent of Emerson
Signature: Karen F. Bolger
Month/Day/Year: 11/10/08

15. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Thomas W. Clothier Jr
Signature:
Month/Day/Year:

Transporter 2 Printed/Typed Name:
Signature:
Month/Day/Year:

16. Discrepancy

17. Designated Facility Owner or Operator: Certification of receipt of hazardous Bill of Lading/Manifest covered by the manifest except as noted in Item 16

Printed/Typed Name:
Signature:
Month/Day/Year: 11/11/08

OFFEROR

TRANSPORTER

DESIGNATED FACILITY

DESIGNATED FACILITY'S COPY

P.21/21

1042859-15780

HAZMAT BILL OF LADING/MANIFEST	1. Offeror's ID Number	2. Page 1 of	3. Emergency Response Phone	4. Tracking Number
	NYD002228625	1	(800)326-1221	1042859-15780

5. Offeror's Name and Mailing Address
EMERSON POWER TRANSMISSION / MIKE YAPLE
620, SOUTH AURORA STREET
ITHACA, NY 14850
Offeror's Phone: (607)274-6043

Offeror's Site Address (if different than mailing address)
EMERSON POWER TRANSMISSION / MIKE YAPLE
620 SOUTH AURORA STREET
ITHACA, NY 14850
GEN: 74719

6. Transporter 1 Company Name: PAGE E.T.C., INC. — U.S. EPA ID Number: NYD986969947

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
WASTE MANAGEMENT, INC. HIGH ACRES RDF
425 PERINTON PARKWAY
FAIRPORT, NY 14450
Facility's Phone: (585)494-3000
U.S. EPA ID Number:

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
	1. NON-DOT/NON-RCRA REGULATED				
	2.				
	3.				
	4.				
	5.				
	6				
	7.				

13. Special Handling Instructions and Additional Information
1.103709NY_T#1938565

[1231122]

14. **OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Offeror's Printed/Typed Name: Karen E Beljan, Agent of Emerson — Signature: Karen E. Beljan — Month: 11 Day: 10 Year: 08

15. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: JOAN SULLIVAN — Signature — Month: 11 Day: 10 Year: 08

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

16. Discrepancy

17. Designated Facility Owner or Operator Certification of receipt of hazardous Bill of Lading/Manifest covered by the manifest except as noted in item 16

Printed/Typed Name: Darlene Pilgrim — Signature: Darlene Pilgrim — Month: 11 Day: 10 Year: 08

OFFEROR / TRANSPORTER / DESIGNATED FACILITY

DESIGNATED FACILITY'S COPY

1042860-15780

TCC

HAZMAT BILL OF LADING/MANIFEST	1. Offeror's ID Number	2. Page 1 of	3. Emergency Response Phone	4. Tracking Number
	NYD002228625	1	(800)326-1221	1042860-15780

5. Offeror's Name and Mailing Address
EMERSON POWER TRANSMISSION / MIKE YAPLE
620 SOUTH AURORA STREET
ITHACA, NY 14850
Offeror's Phone: (607)274-6043

Offeror's Site Address (if different than mailing address)
EMERSON POWER TRANSMISSION / MIKE YAPLE
620 SOUTH AURORA STREET
ITHACA, NY 14850
GEN: 74719

6. Transporter 1 Company Name
PAGE E.T.C., INC.
U.S. EPA ID Number
NYD986969947

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
WASTE MANAGEMENT, INC. HIGH ACRES RDF
425 PERINTON PARKWAY
FAIRPORT, NY 14450
Facility's Phone: (585)494-3000
U.S. EPA ID Number

No HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
	1. NON-DOT/NON-RCRA REGULATED			30T	
	2.				
	3.				
	4.				
	5				
	6.				
	7.				

13. Special Handling Instructions and Additional Information
1.103709NY_T#1938566

14. OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.
[1231123]
Offeror's Printed/Typed Name: Karen E. Belson, Agent of Emerson
Signature: Karen E. Belson
Month: 11 Day: 10 Year: 08

15. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: CHRIS TUFFLEY
Signature:
Month: 11 Day: 10 Year: 08
Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

16. Discrepancy

17. Designated Facility Owner or Operator: Certification of receipt of hazardous Bill of Lading/Manifest covered by the manifest except as noted in item 16
Printed/Typed Name: Jaclyn Pilgrim
Signature: Jaclyn Pilgrim
Month: 11 Day: 10 Year: 08

OFFEROR

TRANSPORTER

DESIGNATED FACILITY

DESIGNATED FACILITY'S COPY

1042861-15780

HAZMAT BILL OF LADING/MANIFEST	1. Offeror's ID Number	2. Page 1 of	3. Emergency Response Phone	4. Tracking Number
	NYD002228625	1	(800)326-1221	1042861-15780

5. Offeror's Name and Mailing Address
EMERSON POWER TRANSMISSION / MIKE YAPLE
620 SOUTH AURORA STREET
ITHACA, NY 14850
Offeror's Phone: (607)274-6043

Offeror's Site Address (if different than mailing address)
EMERSON POWER TRANSMISSION / MIKE YAPLE
620 SOUTH AURORA STREET
ITHACA, NY 14850
GEN: 74719

6. Transporter 1 Company Name
PAGE E.T.C., INC.
U.S. EPA ID Number
NYD986969947

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
WASTE MANAGEMENT, INC. HIGH ACRES RDF
425 PERINTON PARKWAY
FAIRPORT, NY 14450
Facility's Phone: (585)494-3000
U.S. EPA ID Number

9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
	1. NON-DOT/NON-RCRA REGULATED			430T	
	2.				
	3.				
	4.				
	5.				
	6.				
	7.				

13. Special Handling Instructions and Additional Information
1.103709NY_T#1938567

[1231124]

14. OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Offeror's Printed/Typed Name: Karen E Dolan, Agent of Emerson
Signature: Karen E Dolan
Month: 11 Day: 11 Year: 08

15. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: CHRIS TUFFLEY
Signature:
Month: 11 Day: 11 Year: 08

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

16. Discrepancy

17. Designated Facility Owner or Operator: Certification of receipt of hazardous Bill of Lading/Manifest covered by the manifest except as noted in Item 16

Printed/Typed Name: Jaclyn Pilgrim
Signature: Jaclyn Pilgrim
Month: 11 Day: 11 Year: 08

OFFEROR

TRANSPORTER

DESIGNATED FACILITY

DESIGNATED FACILITY'S COPY

1042862-15780

HAZMAT BILL OF LADING/MANIFEST	1. Offeror's ID Number	2. Page 1 of	3. Emergency Response Phone	4. Tracking Number
	NYD002228625	1	(800)326-1221	1042862-15780

5. Offeror's Name and Mailing Address
EMERSON POWER TRANSMISSION / MIKE YAPLE
620 SOUTH AURORA STREET
ITHACA, NY 14850
Offeror's Phone: (607)274-6043

Offeror's Site Address (if different than mailing address)
EMERSON POWER TRANSMISSION / MIKE YAPLE
620 SOUTH AURORA STREET
ITHACA, NY 14850
GEN: 74719

6. Transporter 1 Company Name
PAGE E.T.C., INC.
U.S. EPA ID Number
NYD986969947

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
WASTE MANAGEMENT, INC. HIGH ACRES RDF
425 PERINTON PARKWAY
FAIRPORT, NY 14450
Facility's Phone: (585)494-3000
U.S. EPA ID Number

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
	1. NON-DOT/NON-RCRA REGULATED			~30T	
	2.				
	3.				
	4.				
	5.				
	6.				
	7.				

13. Special Handling Instructions and Additional Information
1.103709NY_T#1938568

[1231125]

14. OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.
Offeror's Printed/Typed Name: Karen E. Bilgan Agent of Emerson
Signature: Karen E. Bilgan
Month: 11 Day: 11 Year: 08

15. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: John Solomino
Signature:
Month: 11 Day: 11 Year: 08

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

16. Discrepancy

17. Designated Facility Owner or Operator: Certification of receipt of hazardous Bill of Lading/Manifest covered by the manifest except as noted in item 16
Printed/Typed Name: Jaclyn Bilgan
Signature: Jaclyn Bilgan
Month: 11 Day: 11 Year: 08

OFFEROR

TRANSPORTER

DESIGNATED FACILITY

DESIGNATED FACILITY'S COPY

[redacted] 1042863-15780 [redacted]

1. Uniform BILL OF LADING/MANIFEST	1. Offeror's ID Number: NYD002228625	2. Page 1 of 1	3. Emergency Response Phone: (800)326-1221	4. Tracking Number: 1042863-15780

5. Offeror's Name and Mailing Address:
EMERSON POWER TRANSMISSION / MIKE YAPLE
620 SOUTH AURORA STREET
ITHACA, NY 14850
(607)274-6043
Offeror's Phone:

Offeror's Site Address (if different than mailing address):
EMERSON POWER TRANSMISSION / MIKE YAPLE
620 SOUTH AURORA STREET
ITHACA, NY 14850
GEN: 74719

6. Transporter 1 Company Name: PAGE E.T.C., INC. — U.S. EPA ID Number: NY0986969947

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address:
WASTE MANAGEMENT, INC. HIGH ACRES RDF
425 PERINTON PARKWAY
FAIRPORT, NY 14450
Facility's Phone: (585)494-3000
U.S. EPA ID Number:

9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
	1. NON-DOT/NON-RCRA REGULATED			30 T	
	2.				
	3.				
	4.				
	5.				
	6.				
	7.				

13. Special Handling Instructions and Additional Information:
1.103709NY T#1938569

[1231126]

14. OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Offeror's Printed/Typed Name	Signature	Month	Day	Year
Karen F. Beyer Agent of Emerson	[signature]	11	11	08

15. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name	Signature	Month	Day	Year
Thomas W. Clothier Jr.	[signature]	11	11	08
Transporter 2 Printed/Typed Name	Signature	Month	Day	Year

16. Discrepancy

17. Designated Facility Owner or Operator Certification of receipt of hazardous Bill of Lading/Manifest covered by the manifest except as noted in item 16

Printed/Typed Name	Signature	Month	Day	Year
Jaclyn Pilgrim	[signature]	11	17	08

OFFEROR

TRANSPORTER

DESIGNATED FACILITY

DESIGNATED FACILITY'S COPY

1042864-15780

HAZMAT BILL OF LADING/MANIFEST	1. Offeror's ID Number	2. Page 1 of	3. Emergency Response Phone	4. Tracking Number
	NYD002228625	1	(800)326-1221	1042864-15780

5. Offeror's Name and Mailing Address
EMERSON POWER TRANSMISSION / MIKE YAPLE
620 SOUTH AURORA STREET
ITHACA, NY 14850
Offeror's Phone: (607)274-6043

Offeror's Site Address (if different than mailing address)
EMERSON POWER TRANSMISSION / MIKE YAPLE
620 SOUTH AURORA STREET
ITHACA, NY 14850
GEN: 74719

EPS 9701

6. Transporter 1 Company Name
PAGE E.T.C., INC.
U.S. EPA ID Number
NYD986969947

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
WASTE MANAGEMENT, INC. HIGH ACRES RDF
425 PERINTON PARKWAY
FAIRPORT, NY 14450
Facility's Phone: (585)494-3000
U.S. EPA ID Number

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
	1. NON-DOT/NON-RCRA REGULATED			15 20	
	2.				
	3.				
	4.				
	5.				
	6				
	7.				

13. Special Handling Instructions and Additional Information
1.103709NY_T#1938570

14 OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.
[1231127]

OFFEROR

Offeror's Printed/Typed Name: Karen E. Bajko, Agent of Emerson
Signature: Karen E. Bajko
Month 11 Day 11 Year 08

TRANSPORTER

15. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: John Sommerville
Signature
Month 11 Day 11 Year 08

Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

16. Discrepancy

17. Designated Facility Owner or Operator: Certification of receipt of hazardous Bill of Lading/Manifest covered by the manifest except as noted in item 16.
Printed/Typed Name: Jaclyn Pilgrim
Signature: Jaclyn Pilgrim
Month 11 Day 11 Year 08

DESIGNATED FACILITY'S COPY