MONITORING AND MAINTENANCE MANUAL
FOR THE
OSWEGO CASTINGS SITE
SITE NO. 7-38-033
OSWEGO COUNTY, NEW YORK

OCTOBER 2001

Prepared for:

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1. INTRODUCTION

This is the Monitoring and Maintenance Manual for post-remediation concrete slab maintenance and groundwater monitoring at the Oswego Castings Site (No. 7-38-033) in Oswego, Oswego County, New York.

The remainder of this section describes the Oswego Castings project and the purpose of this manual; Section 2 provides background information on the site, Section 3 describes the monitoring process; Section 4 describes site inspection and maintenance activities; and Section 5 presents health and safety issues and procedures for the site.

1.1 PROJECT DESCRIPTION

The Oswego Castings Site is an inactive hazardous waste site. A Remedial Investigation/Feasibility Study was performed which resulted in a March 1997 Record of Decision which selected excavation and removal of contaminated soils and sediments, along with consolidation and covering of foundry wastes below 10 ppm PCBs. During implementation of the original remedy significant additional contamination was discovered under the buildings and in the yard area, which resulted in the creation of operable unit 2. The remedy was amended to include the installation of a concrete cap and consolidation of PCB contaminated (less than 10 ppm) soils and sediments in the former cooling water pond. The work was completed in 2001 and the site is in the monitoring and maintenance phase.

1.2 PURPOSE OF THE MAINTENANCE AND MONITORING MANUAL

This Maintenance and Monitoring Manual will be used as a tool to monitor and evaluate the performance and effectiveness of the selected remedial action. The performance and effectiveness is evaluated by monitoring the integrity of the concrete cap, former landfill and cooling water pond covers and contaminants of concern contained in groundwater. The manual is intended to provide detailed guidance and direction for the processes of:

- Sampling;
- Analysis;
- Site Inspections; and
- Maintenance.

Note that the current site occupant and its successors has a maintenance agreement and

deed restriction related to the site remedy. Great Lakes Veneer is responsible for routine and periodic maintenance of the installed slab, along with any repairs to damage of the slab which is the fault of Great Lakes Veneer. Therefore, the annual inspections performed by the Department must evaluate their performance with respect to the maintenance agreement and determine the need for any repairs beyond routine maintenance.

2. SITE INFORMATION

2.1 SITE DESCRIPTION

The Oswego Castings site is a Class 2 site listed in the Registry of Inactive Hazardous Waste Disposal Sites in New York State. The site is approximately 10 acres in size (out of an overall property size of 23 acres) and is located on Mitchell Street in the City of Oswego, Oswego County. The site is located in a residential/commercial area.

2.2 SITE HISTORY

Oswego Castings, Inc., a subsidiary of Oberdorfer Foundries, Inc., operated an aluminum die casting facility at the site from 1956 to 1986, after which time foundry operations were discontinued and the equipment removed. During the operation of the foundry, the disposal of core sands and foundry wastes occurred behind the manufacturing buildings. In addition, PCBs were present in wastes discharged to the ground surface near the wetland via process line/septic tank discharge line. PCBs were present in the wastes and in surface soils and sediments at the site above 50 ppm. It is believed that the PCBs were introduced into the process from leaks in hydraulic equipment and from core sand binders and coatings applied to core sand surfaces. Before they were banned in 1977, PCBs were used in high temperature hydraulic fluids and casting agents because of their desirable heat resistant properties.

After the facility closed, PCBs were detected at the site during an investigation performed by a prospective buyer. Preliminary investigations of the facility were then performed by Oberdorfer Foundries starting in June 1988, which identified the presence of PCBs above the hazardous classification of 50 ppm. Based on these investigations, the facility was designated as a class 2 inactive hazardous waste site in June of 1989. Subsequently, the responsible party (PRP) and the Department completed a remedial investigation/feasibility study (RI/FS).

The selected remedy included:

- Removal and off-site disposal of surface soils and sediments contaminated with PCBs above 1 ppm.
- Removal and off-site disposal of subsurface soils and sediments contaminated with PCBs above 10 ppm.
- Remaining foundry wastes in the former landfill area containing PCBs below 10 ppm were to be consolidated and covered with a geotextile and stone cover.

The Record of Decision was signed on March 28, 1997.

The Department competitively bid a construction contract to implement the remedy and the majority of the contaminated soils and sediments identified in the RI/FS were removed from the site. However, it was discovered that the contamination extended under the sawmill building and across the yard area. Additionally, the water in the cooling water pond exceeded discharge limits and could not be

pumped directly to the downstream wetland without treatment. These discoveries greatly increased the scope of work and, therefore, the Department decided to address these areas in a second construction contract.

In between construction contracts, the Department conducted an interim remedial measure to remove contaminated ballast from the facility roof, since it was suspected that elevated PCB levels in the cooling water pond were the result of discharges from the roof drains.

2.3 SITE HYDROGEOLOGY

The March 1997 Record of Decision includes the following discussion related to groundwater.

Groundwater samples from monitoring wells located within and northeast of the core sand area indicate that the PCBs in soils are migrating to the groundwater. Four wells located in the vicinity of the core sand disposal area contained PCBs above the groundwater standard for PCBs of 0.1 ppb and levels ranged from <0.05 ppb to 4.6 ppb. A single well located in the wetland area down gradient from the outfall contained PCBs at 11 ppb.

Two wells located in the vicinity of the septic tank also show impacts to groundwater. The well down gradient of the tank contained PCBs at 1.2 ppb; the other well, located up gradient of the tank, contained total VOCs up to 217 ppb, but no PCBs.

The original four wells were decommissioned during contract one, but subsequently replaced with new wells during contract two (see Appendix A).

Native overburden soils on the site are primarily unconsolidated glacial sediments or till. The permeability, or ability to transport water, is low in these materials (K = 0.0000062 cm/sec) and higher in the landfill materials (K = 0.00046 cm/sec). Groundwater occurs at shallow depths across the site, and was observed to vary from ground surface to 3 to 4 feet deep. Based on the groundwater elevation data, the local groundwater flow is from the south and north, with convergence towards the landfill area. From there, discharge is to the east into the wetland, where the ground elevation is about 7 feet lower than the surface of the core sand disposal area.

3. SAMPLING, ANALYSIS, AND DATA REPORTING

This section describes the environmental monitoring program for the Oswego Castings Site. The elements of the environmental monitoring plan are sampling, analyses, quality assurance/quality control (QA/QC), and data reporting for groundwater.

3.1 ENVIRONMENTAL SAMPLING PROCEDURES

Implementation of proper sampling procedures has a significant effect on the quality of the analytical data. Therefore, the samplers should be well-trained and familiar with sampling protocol. Sampling should be done in teams of two or more samplers. The minimum required experience and qualifications of samplers should include:

- Proper Occupational Safety and Health Act (OSHA) health and safety training and medical monitoring (29 CFR 1910.120);
- At least one of the team samplers should have one year of sampling experience.

The environmental sampling procedures provided below were developed based on site-specific information.

3.1.1 Groundwater Sampling Procedures

The initial groundwater monitoring network will consist of the four existing monitoring wells. Appendix A contains the boring logs for the monitoring wells. The groundwater monitoring network is intended to be dynamic, and a periodic (i.e., annual) evaluation should be made as to the usefulness of the data derived from the network. If it is determined that the water quality data from a well does not change significantly from one sampling event to another, that well could be considered for removal from the network. Evaluation of data is discussed in Section 3.3.

Groundwater samples will be collected and analyzed as detailed in Section 3.2. Sampling of the monitoring wells will consist of:

- Measurement of depth-to-water level and total depth of the well (to calculate well volume);
- Evacuation of static water (purging); and
- Sample collection.

These activities are described below:

3.1.1.1 Water Level Measurement and Well Volume Calculation

Water level measurements will be collected from each of the monitoring wells prior to purging and sampling. The measurements will be recorded using the following procedures:

- Record date, time, weather conditions, and any other well-specific pertinent information;
- Locate reference mark at the top of the well casing;
- Lower electronic water level indicator probe into well, making sure the cord attached to the probe does not scrape the sides of the well casing;
- When an audible signal is detected, stop lowering the probe;
- Raise the probe until the audible signal ceases;
- Lower probe slowly again, stopping as soon as an audible signal is detected;
- Hold cord to side of well casing where reference mark is etched;
- Record measurement (to the nearest 0.01 foot) as depth to water in field logbook.
- Repeat procedure three times for consistency; measurement should remain constant;
- Record the total depth of the well (to the nearest 0.01 foot) by lowering the probe to the bottom of the well and positioning the cord next to the reference mark on the well casing and measuring; and
- After completing both measurements at each well, decontaminate the probe to avoid any possible cross-contamination (see Section 3.1.5).

3.1.1.2 Purging

Before a groundwater sample is collected, the static water must be purged from the well to ensure that a representative groundwater sample is obtained. Three to five well volumes must be purged before collecting a sample.

Prior to sampling each well, bailers must be properly decontaminated to prevent contamination from previous sampling events (see Section 3.1.5). Water removed during purging should be disposed of as detailed in Section 3.3.3.

3.1.1.3 Sampling

Groundwater temperature, pH, specific conductance, and turbidity will be measured prior to sampling. Sampling will be performed as follows:

- Polyethylene sheeting (or similar covering) will be placed on the ground to avoid surface contamination, if necessary;
- All samples must be collected within 24 hour of purge.
- Observed physical characteristics (e.g., color, sheen, odor, clarity) of the groundwater at the time of sampling will be recorded qualitatively; and
- Weather conditions (i.e., air temperature, sky conditions, recent precipitation, drought conditions) at the time of sampling will be recorded.
- Sampling should not be conducted until the NTUs are below 50, and the temperature, pH and specific conductance have stabilized to within 10% for three consecutive readings.

Required sample containers and volumes are presented in Table 3-1. Required sample preservation and holding times are presented in Table 3-2. Analyses will be performed on unfiltered samples.

3.1.2 Decontamination Procedures

Sampling methods and equipment should be chosen to minimize decontamination requirements and prevent the possibility of cross-contamination.

Sampling equipment, including bailers, will be decontaminated by removal of foreign matter, followed by high-pressure steam cleaning, or by the following procedure when a steam cleaner is unavailable:

- Washing in a trisodium phosphate (TSP) solution;
- Rinsing with potable water;
- Rinsing with deionized water; and

- Air drying.

3.1.3 Sample Custody

This section describes procedures for sample chain-of-custody to be followed by sampling personnel. The purpose of these procedures is to ensure that the integrity of the samples is maintained during their collection and transportation. All chain-of-custody requirements comply with EPA-recommended sample-handling protocol for the Contract Laboratory Program (CLP) program.

Sample identification documents must be carefully prepared so that sample identification and chain-of-custody can be maintained and sample disposition controlled. Sample identification documents include field notebooks, field sample maps, sample labels, custody seals, and chain-of-custody records. An example custody form is given in Figure C.1.

The primary objective of the chain-of-custody procedures is to provide an accurate written record that can be used to trace the possession and handling of a sample from the moment of its collection through its analyses. A sample is in custody if it is:

- In someone's physical possession;
- In someone's view;
- Locked up; or
- Kept in a secured area that is restricted to authorized personnel.

Field Custody Procedures

- Sample bottles must be obtained precleaned from the analytical laboratory or directly from a retail source. Coolers or boxes containing cleaned bottles should be sealed with a custody seal during transport to the field or while in storage prior to use.
- As few persons as possible should handle samples.
- The sample collector is personally responsible for the care and custody of samples collected until they are transferred to another person or dispatched properly under chain-of-custody rules.
- The sample collector will record sample data in the field notebook.

Sample Tags and Labels

Sample tags and labels attached to or affixed around the sample container must be used to properly identify all samples taken in the field. The sample tags and labels are to be placed on the bottles so as not to obscure any quality assurance/quality control (QA/QC) data on the bottles; sample information must be printed in a legible manner using waterproof ink. Field identification must be sufficient to enable cross-reference with the logbook (i.e., the sample label on the jar must agree with the description of the sample in the logbook). For chain-of-custody purposes, all QC samples are subject to exactly the same custodial procedures and documentation as real samples.

Custody Seals

Custody seals are preprinted adhesive-backed seals with security slots designed to break if the seals are disturbed. A custody seal is placed over the cap of individual sample bottles by the sampling technician. Sample shipping containers (coolers, cardboard boxes, etc., as appropriate) are sealed in as many places as necessary to ensure security. Seals must be signed and dated before use. Strapping tape should be placed around the lid to ensure that seals are not accidentally broken during shipment and in a manner that allows easy removal by laboratory personnel. On receipt at the laboratory, the custodian must check (and certify) that seals on boxes and bottles are intact.

Chain-of-Custody Record

The chain-of-custody record must be fully completed in duplicate, using black carbon paper where possible, by the field technician who has been designated as responsible for sample shipment to the appropriate laboratory for analysis. In addition, if samples are known to require rapid turnaround in the laboratory, the person completing the chain-of-custody record should note these constraints in the "Remarks" section of the custody record.

Transfer of Custody and Shipment Procedures

- The coolers in which the samples are packed must be accompanied by a chain-of-custody record. When transferring samples, the individuals relinquishing and receiving them must sign, date, and note the time on the record. This record documents sample custody transfer.

- Samples must be dispatched to the analytical laboratory for analysis with a separate chain-of-custody record accompanying each shipment. Shipping containers must be sealed with custody seals for shipment to the laboratory. The

method of shipment, name of courier, and other pertinent information are entered in the "Remarks" section of the chain-of-custody record.

- All shipments must be accompanied by the chain-of-custody record identifying their contents. The original record accompanies the shipment, and one copy is retained by the sampling team leader.

- If sent by mail, the package is registered with return receipt requested. If sent by common carrier, a bill of lading is used. Freight bills, Postal Service receipts, and bills of lading are retained as part of the permanent documentation. Air bill numbers for express mail service must be written on chain-of-custody forms and in the field logbook.

- Samples must be shipped to the analytical laboratory within 24 to 48 hours from the time of collection.

3.2 ANALYTICAL PROGRAM

3.2.1 Analytical Methods and Sampling Intervals

Groundwater

Initially (after the remedy is substantially completed), all four wells will be sampled and analyzed for baseline PCBs. Subsequent monitoring will be conducted annually. Analyze using Method 8080 for PCBs.

After every round of sampling, the frequency of sampling, analytical parameters, and wells to be sampled should be reviewed and adjusted if necessary (see Section 3.3).

3.2.2 QA/QC Samples

Various types of field QC samples are used to check the cleanliness and effectiveness of field handling methods. Field QC samples provide quantitative and qualitative measures of precision, accuracy, representativeness, comparability, and completeness (PARCC) parameters. They are analyzed in the laboratory as samples, and their purpose is to assess the sampling and transport procedures as possible sources of sample contamination and document overall sampling and analytical precision. Field staff may add field blanks or duplicates if field circumstances are such that they consider normal procedures insufficient to prevent or control sample contamination or at the direction of NYSDEC. Detailed documentation of all field QC samples in the site logbooks is mandatory.

Field QC samples and the frequency of analysis for this project are summarized in Table 3-3 and briefly described below.

- **Trip Blanks** are blank samples that assess possible volatile organic contamination from transport conditions. Trip blanks are prepared at the laboratory prior to the sampling event and shipped with the sample bottles. Trip blanks are prepared by adding organic-free water to a 40-ml VOA vial. One trip blank will be used with every batch of water samples shipped for volatile organic analysis. Each trip blank will be transported to the sampling location, handled like a sample, and returned to the laboratory for analysis without being opened in the field.

- **Field Equipment/Rinsate Blanks** are blank samples designed to demonstrate that sampling equipment has been properly prepared and cleaned before field use and that cleaning procedures between samples are sufficient to minimize cross-contamination. Rinsate blanks are prepared by passing analyte-free water over sampling equipment and analyzing the samples for all applicable parameters. If a sampling team is familiar with a particular site, its members may be able to predict which areas or samples are likely to have the highest concentration of contaminants. Unless other constraints apply, these samples should be taken last to avoid excessive contamination of sampling equipment.

- **Field Duplicates** consist of a set of two samples collected independently at a sampling location during a single sampling event. Field duplicates can be sent to the laboratory so that they are indistinguishable from other analytical samples and personnel performing the analyses are not able to determine which samples are field duplicates. Field duplicates are designed to assess the consistency of the overall sampling and analytical system.

3.2.3 Laboratory Qualification

The analytical laboratory to be used for the analyses must maintain NYSDOH Environmental Laboratory Approval Program (ELAP) certification for all subcategories of solid and hazardous waste including NYSDEC Analytical Services Protocol (ASP) Contract Laboratory Program (CLP) metals. The ELAP quality assurance objectives should be met for all analyses.

3.2.4 Data Reporting and Record Keeping

All environmental monitoring results must be reported to NYSDEC within 90 days of the conclusion of sample collection, unless more rapid reporting is required to address an imminent environmental or public health concern. Reporting must include:

- Groundwater Sampling Log Sheet (Figure C.2) which is to be used during groundwater sampling events.

- Analytical results table with date of sample collection, analytical result, sample point designation, applicable water quality standards, method detection limits (MDLs), and Chemical Abstract Service (CAS) numbers for all parameters analyzed;

- Tables or graphical representations comparing current analytical results with past results and upgradient results;

- A graphic interpretation regarding groundwater flow based on water level measurements using 11- by 17- inch scaled site maps;

- A summary of contraventions of water quality standards and/or significant increases in concentrations above existing water quality standards;

- Discussion of results and proposed modifications to the analytical schedules; and

- QA/QC documentation and data quality assessment report.

An annual report must be submitted. This report must contain a summary of environmental quality information as stated above with special note of any changes in quality that occurred during the year. An annual evaluation of data usability and recommendations to NYSDEC/NYSDOH regarding modifications to this O&M Manual should be included. Reports should be sent to:

Gerald Rider, P.E.
Chief, Operation and Maintenance Section
Bureau of Hazardous Site Control
Department of Environmental Remediation
NYSDEC
625 Broadway
Albany, New York 12233-7010

Reginald Parker, P.E.
RHWE
NYSDEC - Region 7
615 Erie Boulevard West
Syracuse, New York 13204-2400

Gary Robinson
Public Health Specialist
NYSDOH
217 South Salina Street
Syracuse, New York 13202

Field activities should be documented in a field sampling logbook, a copy of which should also be submitted with the reports.

3.3 EVALUATION OF MONITORING REPORTS

The four wells that make up the groundwater monitoring network, and the analyses of samples from these points will provide comprehensive data about the quality of the groundwater at the Oswego Castings Site. After the first-year sampling data have been received, NYSDEC and NYSDOH should perform an evaluation of the usefulness of the data derived from the sample points. This evaluation should review the data with regard to sampling frequency, analysis performed, and sample location. If it is apparent that an analyte or group of analytes consistently meets the cleanup goals (groundwater standards), then these analytes should no longer be analyzed for. If it is determined that the data from a point do not change significantly from one sampling event to another, and if the data meets the cleanup goals, that point could be considered for removal the list of sample points.

NYSDEC and NYSDOH should make a determination from the data to either continue sampling at the same or a different frequency. An annual evaluation of the data should be conducted as described above.

As remove monitoring wells are removed from the monitoring network, they should be properly decommissioned following the NYSDEC Groundwater Monitoring Well Decommissioning Procedures, October 1996.

TABLE 3-1

SAMPLE CONTAINERS AND VOLUMES FOR WATER SAMPLES

Type of Analysis	Type and Size of Container	Number of Containers and Sample Volume (per sample)
Extractable Organics, Pesticides/PCBs	1 liter bottles with Teflon-lined caps	Two; fill completely

Note: When project-specific laboratory QC samples are required for every 20 samples per matrix per week, a double volume of the sample should be collected and labeled as the matrix spike/matrix spike duplicate.

TABLE 3-2

SAMPLE PRESERVATION AND HOLDING TIMES FOR SOIL AND WATER SAMPLES

Parameter	Preservative	Maximum Holding Time[a]	
		Soil	Water
PCBs/Pesticides	Cool to 4° C	Extract within 5 days, analyze within 40 days	Extract within 5 days, analyze within 40 days

[a]Holding times are based on verified time of sample receipt (VTSR).

TABLE 3-3 FIELD QC SAMPLES	
Ground and Surface Water and Leachate	
Field duplicate	One/matrix/20 samples (for each analysis)
Trip blank	One/day/water matrix (for volatiles only)
Rinsate blank[a]	One/matrix/20 samples or per sampling event (for each analysis)
Sediments	
Field duplicate	One/matrix/20 samples (for each analysis)

Note: Aqueous blanks shipped with solid samples will be analyzed as water without quality control. Blanks will not be labeled as "solids".

[a]Rinsate blanks are required only for groundwaters where bailers are being decontaminated between samples.

Figure C.1
Sample Chain of Custody Record

CHAIN-OF-CUSTODY

Page ____ of ____

Project No.:	Project Name:	Project Manager:	REMARKS
Samplers: (Signatures)		Field Team Leader:	

STATION NUMBER	DATE	TIME	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE TYPE A/R	SAMPLE INFORMATION EXPECTED COMPOUNDS	STATION LOCATION	NUMBER OF CONTAINERS	REMARKS

Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Ship Via	
Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	BL/Airbill Number	Date
Relinquished By (Signature)	Date/Time	Received for Laboratory By: (Signature)	Relinquished By: (Signature)	Date/Time	Received for Laboratory By: (Signature)		

Distribution: Original Accompanies Shipment Copy to Coordinator Field Files
*See CONCENTRATION RANGE on back of form.

SAMPLE CHAIN-OF-CUSTODY RECORD

FIGURE C.2
SUMMARY OF MONITORING WELL DATA- FIELD SHEET

OSWEGO CASTINGS SITE
GROUNDWATER SAMPLING
Date _____
ANALYSIS FOR PCBs

WELL NO.	BOTTOM DEPTH TOC (FT.)	GW ELEV. TOC (FT.)	AMOUNT OF H_2O (FT.)	WATER PURGED (GAL.)	TIME SAMPLED (HRS.)	TURBIDITY (ntu)	COMMENTS/ OBSERVATIONS
MW-1							
MW-2							
MW-3							
MW-4							

.5 GAL PER FT. WATER = 3 VOLUMES FOR A 2" I.D. MONITORING WELL

The wells were purged of a minimum of three volumes of water. The wells were allowed to settle and a sample was collected. All shallow wells were purged with bottom loaded bailers. Deep wells were purged using a high volume parastallic pump. In general, all wells showed little if any draw down during purging. All samples were collected using detected bailers. At the time of sample collection, a turbidity measurement was made. Samples were collected in 1 liter plastic containers and preserved with HNO_3, and transported to the laboratory.

4. SITE INSPECTION AND MAINTENANCE

Recommended inspection and maintenance items and actions are presented in this section for the Oswego Castings Site.

4.1 GENERAL

The Oswego Castings Site should be inspected annually and at every sampling event and the Inspection Report Form (at the end of this section) properly completed. These inspections should determine the overall condition of the site and note any changes in use of the property. Routine maintenance should also be evaluated during these inspections. A summary report should also be prepared describing the results of the inspection and sampling. The documentation of the inspections and the summary report are discussed in Section 4.2.

4.1.1 Concrete Slab

Purpose

Operable Unit 2 included the installation of a concrete slab in the yard area to prevent contact with PCB contaminated soils above 50 ppm. Also, the existing buildings (related to the former Oswego Castings operations) serve the same purpose with respect to PCB contaminated soils beneath them.

Inspection and Maintenance

The inspections should evaluate the site occupant's performance with respect to 1) routine care of the slab surface (including sweeping and washing with conventional cleaners and detergents) and 2) excessive loading and impacts to the constructed slab are being minimized to the fullest extent practical. All abrasive grit should be removed and corrosive spills wiped up as soon as possible. The site occupant should be notified in writing of any deficiencies in these areas.

Inspect periodically for wear and breaks or gouges in the surface. Conditions of spalling, scaling or cracking should be noted and documented. Note that it might be necessary to isolate damaged areas and restrict activities which may cause further damage prior to repairs be completed.

Particular close attention should be paid to all joints and joint sealants. Note that correct sealant application and maintenance minimize infiltration of surface water and incompressible

materials. Sealants can lose bond with joint reservoir sidewalls or lose internal bond and split open, along with loss of flexibility through natural aging and long term exposure to oxygen, ozone and sunlight. To extend pavement life, joint sealants must be replaced periodically and, therefore, the condition of joints and joint sealants should be evaluated during every inspection.

Any failures of the slab must be evaluated with respect to cause and recommendations provided in the summary report.

Existing buildings should be inspected to determine if any change in use adversely impacts the final remedy.

4.1.2 Former Cooling Water Pond and Landfill Cover Systems

Purpose

The area of the former cooling water pond was used to consolidate soils and sediments contaminated with PCBs below 10 ppm. A geotextile and 12 inches of clean material were placed on top of consolidated materials. During construction, Great Lakes Veneer expressed concerns with the Department's intent to leave the area one foot higher than surrounding grade to allow for settling. In return for minimizing the final elevation to the extent practical, Great Lakes Veneer agreed to placing additional clean materials as needed to account for settling. The former cooling water pond area should not be allowed to settle below the surrounding grade as this would allow significant surface run off to infiltrate into the consolidated materials.

The remaining foundry wastes in the landfill area containing PCBs below 10 ppm were left in place, graded for drainage and covered with a geotextile and six inches of stone.

Inspection and Maintenance

Inspection of these cover systems should focus on the existence of adequate stone cover (i.e., no visible geotextile), positive drainage and changes in site use which adversely impact their integrity.

Recommended maintenance actions would include replacement of damaged or missing geotextile and/or placing additional stone.

4.1.3 Groundwater Monitoring System

Purpose

The groundwater monitoring system consists of four wells. The purpose of this system is to provide points at which the groundwater characteristics can be determined.

Determination of groundwater characteristics is discussed in Section 3.

Inspection and Maintenance

Inspection of the groundwater monitoring system should focus on the following areas:

- Caps;
- Lock;
- Surface seals/pads;
- Markings.

Recommended maintenance actions for these areas are presented in Table 4-1.

4.2 INSPECTION AND MAINTENANCE

Routine inspection and maintenance of the former cooling water pond and landfill cover systems should include a check of the integrity of the geotextile and stone, along with drainage and erosion conditions.

Routine inspection and maintenance of the concrete slab should include inspection for wear and breaks or gouges in the concrete surface; any conditions of spalling, scaling or cracking; and the integrity of joints and joint sealants. Any excessive loading or impacts to the slab should be noted. Periodic replacement of joint sealants must be considered to extend pavement life.

Routine inspection and maintenance of the groundwater monitoring system should include a check of the integrity of caps, locks, surface soils and markings, along with lubrication of the locking mechanisms. Photo documentation is recommended to augment the inspection and maintenance checklist. The site inspector should have the following items for inspection:

- Appropriate health and safety equipment;
- Flashlight;
- Keys for all locks;
- Lock lubricant;

- Survey tape (50- or 100-foot);
- Camera; and
- Logbook.

The attached checklist should be used to conduct and record maintenance items and inspection results. Completed checklists and brief site visit report should be distributed as described in this plan.

Each year, a summary report should be prepared, which includes the following:

- Brief overview;
- Results of inspections during the year;
- Maintenance actions completed;
- Monitoring events completed;
- Results of monitoring and sampling;
- Detailed information on quantity and final disposal of wastes generated;
- Discussion of significant events (i.e., emergencies, severe weather) and observed effect on the site; and
- Summary and recommendations.

4.3 DISPOSAL OF WASTES

4.3.1 Monitoring/Sampling-Derived Waste

Well purge water and liquid decontamination wastes may be disposed of on-site due to the low level of contaminants expected at the site. All expendable materials (e.g., Tyvek, gloves, etc.) generated during sampling should be bagged and disposed off site as solid waste.

TABLE 4-1

GROUNDWATER MONITORING SYSTEM MAINTENANCE ITEMS
OSWEGO CASTINGS SITE
NYSDEC SITE NO. 7-38-033

Inspection Area	Item Noted	Action	Preventive Maintenance
1. Caps	a. Cracked or broken	• Replace.	• Check during sampling
2. Locks	a. Will not open b. Rusted c. Different key for each well	• Break open and replace. • Replace with the same lock number.	• Lubricate during sampling
3. Surface seals	a. Cracked	• Re-grout.	• Inspect during sampling
4. Markings	a. None b. Mislabeled	• Remark.	
5. Water Level	a. Dry b. Silted in or blocked	• DEC/DOH to determine if redrilling to a greater depth is warranted. • DEC/DOH to determine if redrilling is warranted. • Abandon in-place and/or install new well.	• Check during sampling

DATE _____

OSWEGO CASTINGS SITE #7-38-033
INSPECTION REPORT FORM

OVERALL SITE

			COMMENTS?
Drainage Problems	Yes	No	
Erosion Problems	Yes	No	
Note any changes in use of the property			

Groundwater Monitoring System Inspection Area	Item Noted	Action	Preventive Maintenance
1. Caps	a. Cracked or broken	• Replace.	• Check during sampling
2. Locks	a. Will not open b. Rusted c. Different key for each well	• Break open and replace. • Replace with the same lock number.	• Lubricate during sampling
3. Surface seals	a. Cracked	• Re-grout.	• Inspect during sampling
4. Markings	a. None b. Mislabeled	• Remark.	
5. Water Level	a. Dry b. Silted in or blocked	• DEC/DOH to determine if redrilling to a greater depth is warranted. • DEC/DOH to determine if redrilling is warranted. • Abandon in-place and/or install new well.	• Check during sampling

Former Cooling Water Pond and Landfill Cover Systems	Item Noted	Action	Preventive Maintenance
13. Stone	• Geotextile visible	• Replace	• Check during sampling
Geotextile	• Damaged or missing	• Replace	• Check during sampling
Surface Elevation	• Settlement	• Place additional cover	• Check during sampling
Concrete Slab	Item Noted	Action	Preventive Maintenance
Surface	• Wear	• Note and monitor	• Routine sweeping and cleaning
Joints	• Degradation of seal	• Replace	• Routine cleaning
Integrity	• Spalling, scaling or cracking	• Repair •	• Proper maintenance of joint sealants. • Minimize excessive loads and impacts.

Inspector_____

5.0 HEALTH AND SAFETY

5.1 Summary

5.1.1 EMERGENCY CONTACTS

Fire Department	911
Police Department	911
NYSDEC - Region 7, Syracuse Office	315-426-7551
NYSDEC - Albany Office	518-402-9640
NYSDOH - Syracuse Office	315-426-7612

5.1.2 EMERGENCY PROCEDURES

Emergency procedures are described in Section 5.5.2.

5.1.3 SITE SPECIFIC HAZARDS AND TRAINING

Site Specific Hazards are described in Paragraph 5.2. The primary contaminant is PCBs.

For each sampling event, a Field Team Leader and Site Safety Officer should be designated. The Site Safety Officer will be responsible for providing site-specific training to all personnel that work at the site. This training will cover the following topics:

- Names of personnel responsible for site safety and health.
- Safety, health, and other hazards at the site.
- Proper use of personal protective equipment.
- Work practices by which the employee can minimize risk from hazards.
- Acute health effects of compounds at the site.
- Decontamination procedures.

GENERAL HEALTH AND SAFETY REQUIREMENTS

Personnel Protective Equipment

Level D protection will be worn for initial entry on-site and for all activities. Level D protection will consist of:

- Standard work clothes
- Steel-toe safety boots
- Safety glasses or goggles must be worn when splash hazard is present
- Nitrile outer gloves and PVC inner gloves must be worn during all sampling activities
- Hard hat (must be worn during all sampling activities)

AIR MONITORING

No air monitoring will be required during the sampling activities.

5.2 RISK ASSESSMENT

5.2.1 CHEMICAL HAZARDS

The chemical hazards associated with the site is presented in Appendix C.

5.2.2 RADIATION HAZARDS

No radiation hazards are known at the sites included in this project.

5.2.3 PHYSICAL HAZARDS

5.2.3.1 EXPLOSION

No explosive hazards are known to exist at this site.

5.2.3.2 HEAT STRESS

The use of protective equipment may create heat stress. Monitoring of personnel wearing personal protective clothing should commence when the ambient temperature is 70°F or above. Table 5.2.1 presents the suggested frequency for such monitoring. Monitoring frequency should increase as ambient temperature increases or as slow recovery rates are observed. Heat stress monitoring should be performed by a person with a current first aid certification who is trained to recognize heat stress symptoms. For monitoring the body's recuperative abilities to excess heat, one or more of the following techniques will be used. Other methods for determining heat stress monitoring, such as the wet bulb globe temperature (WBGT) Index from American Conference of Governmental Industrial Hygienist (ACGIH) TLV Booklet can be used.

To monitor the worker, measure:

- Heart rate. Count the radial pulse during a 30-second period as early as possible in the rest period.
- If the heart rate exceeds 100 beats per minute at the beginning of the rest period, shorten the next work cycle by one-third and keep the rest period the same.
- If the heart rate still exceeds 100 beats per minute at the next rest period, shorten the following work cycle by one-third.
- Oral temperature. Use a clinical thermometer (3 minutes under the tongue) or similar device to measure the oral temperature at the end of the work period (before drinking).

- If oral temperature exceeds 99.6°F (37.6°C), shorten the next work cycle by one-third without changing the rest period.

- If oral temperature still exceeds 99.6°F (37.6°C) at the beginning of the next rest period, shorten the following cycle by one-third.

- Do not permit a worker to wear a semipermeable or impermeable garment when oral temperature exceeds 100.6°F (38.1°C).

- Prevention of Heat Stress - Proper training and preventative measures will aid in averting loss of worker productivity and serious illness. Heat stress prevention is particularly important because once a person suffers from heat stroke or heat exhaustion, that person may be predisposed to additional heat related illness. To avoid heat stress the following steps should be taken.

- Adjust work schedules.

- Modify work/rest schedules according to monitoring requirements. Mandate work slowdowns as needed.

- Perform work during cooler hours of the day if possible or at night if adequate lighting can be provided.

- Provide shelter (air-conditioned, if possible) or shaded areas to protect personnel during rest periods.

- Maintain worker's body fluids at normal levels. This is necessary to ensure that the cardiovascular system functions adequately. Daily fluid intake must approximately equal the amount of water lost in sweat, i.d., eight fluid ounces (0.23 liters) of water must be ingested for approximately every eight ounces (0.23 kg) of weight lost. The normal thirst mechanism is not sensitive enough to ensure that enough water will be drunk to replace lost sweat. When heavy sweating occurs, encourage the worker to drink more. The following strategies may be useful:

- Maintain water temperature 50° to 60° F (10° to 16.6°C).

- Provide small disposal cups that hold about four ounces (0.1 liter).

- Have workers drink 16 ounces (0.5 liters) of fluid (preferably water or dilute drinks) before beginning work.

- Urge workers to drink a cup or two every 15 to 20 minutes, or at each monitoring break. A total of 1 to 1.6 gallons (4 to 6 liters) of fluid per day are recommended, but more may be necessary to maintain body weight.

- Train workers to recognize the symptoms of heat related illness.

5.2.3.3 COLD-RELATED ILLNESS

If work on this project begins in the winter months, thermal injury due to cold exposure can become a problem for field personnel. Systemic cold exposure is referred to as hypothermia. Local cold exposure is generally called frostbite.

Hypothermia - Hypothermia is defined as a decrease in the patient core temperature below 96° F. The body temperature is normally maintained by a combination of central (brain and spinal cord) and peripheral (skin and muscle) activity. Interferences with any of these mechanisms can result in hypothermia, even in the absence of what normally is considered a "cold" ambient temperature. Symptoms of hypothermia include: shivering, apathy, listlessness, sleepiness, and unconsciousness.

Frostbite - Frostbite is both a general and medical term given to areas of local cold injury. Unlike systemic hypothermia, frostbite rarely occurs unless the ambient temperatures are less than freezing and usually less than 20°F. Symptoms of frostbite are: a sudden blanching or whitening of the skin; the skin has a waxy or white appearance and is firm to the touch; tissues are cold, pale, and solid.

Prevention of Cold-Related Illness - To prevent cold-related illness: Educate workers to recognize the symptoms of frostbite and hypothermia and identify and limit known risk factors: Assure the availability of an enclosed, heated environment on or adjacent to the site.

Assure availability of dry changes of clothing. Assure the availability of warm drinks.

Start (oral) temperature recording at the job site:

- At the Field Team Leader's discretion when suspicion is based on changes in a worker's performance or mental status.

- At a worker's request.

- As a screening measure, two times per shift, under unusually hazardous conditions (e.g., wind-chill less than 20°F, or wind-chill less than 30°F with precipitation).

- As a screening measure whenever any one worker on the site develops hypothermia.

- Any person developing moderate hypothermia (a core temperature of 92°F) cannot return to work for 48 hours.

TABLE 5.2.1

SUGGESTED FREQUENCY OF PHYSIOLOGICAL MONITORING
FOR FIT AND ACCLIMATIZED WORK AREAS

Adjusted Temperature[b]	Normal Work[c] Ensemble	Impermeable Ensemble
90°F (32.2°C) or above	After each 45 minutes of work	After each 15 minutes of work
87.5-90°F (30.8-32.2°C)	After each 60 minutes of work	After each 30 minutes of work
82.5-87.5°F (28.1-30.8°C)	After each 90 minutes of work	After each 60 minutes of work
77.5-82.5°F (25.3-28.1°C)	After each 120 minutes of work	After each 90 minutes of work
72.5-77.5°F (22.5-25.3°C)	After each 150 minutes of work	After each 120 minutes of work

---

a For work levels of 250 kilocalories/hour.

b Calculate the adjusted air temperature (ta adj) by using this equation: ta adj °F = ta °F + (13 x % sunshine). Measure air temperature (ta) with a standard mercury-in-glass thermometer, with the bulb shielded from radiant heat. Estimate percent sunshine by judging what percent time the sun is not covered by clouds that are thick enough to prevent a shadow. (100 percent sunshine = no cloud cover and a sharp, distinct shadow; 0 percent sunshine = no shadows.)

c A normal work ensemble consists of cotton coveralls or other cotton clothing with long sleeves and pants.

5.3 PERSONNEL PROTECTION AND MONITORING

5.3.1 MEDICAL SURVEILLANCE

Personnel involved in this operation must have undergone medical surveillance. Exams are to be conducted at 12-month intervals. The 12-month medical examination includes a complete medical and work history and a standard occupational physical, examination of all major organ systems, complete blood count with differential (CBC), and a SMAC/23 blood chemistry screen which includes calcium, phosphorous, glucose, uric acid, BUN, creatinine, albumin, SGPT, SGOT, LDH, globulin, A/G ratio, alkaline phosphatase, total protein, total bilirubin, triglyceride, cholesterol, and a creatinine/BUN ratio. Additionally a pulmonary function test will be performed by trained personnel to record Forced Vital Capacity (FVC) and Forced Expiratory Volume in second (FEVI.0). An audiogram and visual acuity measurement, including color perception, is provided. The medical exam is performed under the direction of a licensed Occupational Health Physician. A medical certification as to the fitness or unfitness for employment on hazardous waste projects, or any restrictions on his/her utilization that may be indicated, is provided by the physician. This evaluation will be repeated as indicated by substandard performance or evidence of particular stress that is evident by injury or time loss illness on the part of any worker.

5.3.2 SITE-SPECIFIC TRAINING

The Site Health and Safety Officer will be responsible for developing a site specific occupational hazard training program and providing training to all NYSDEC personnel that are to work at the site. This training will consist of the following topics:

- Names of personnel responsible for site safety and health.
- Safety, health, and other hazards at the site.
- Proper use of personal protective equipment.
- Work practices by which the employee can minimize risk from hazards.
- Safe use of engineering controls and equipment on the site.
- Acute effects of compounds at the site.
- Decontamination procedures.
- Upon completion of site-specific training, workers will sign the Site-Specific Training Form.

5.3.3 MONITORING REQUIREMENTS

There is no specific health and safety monitoring associated or anticipated to be conducted during the routine maintenance and monitoring of the site.

5.3.4 PERSONNEL PROTECTIVE EQUIPMENT

5.3.4.1 LEVEL D

Level D protection will be worn for all on-site activities. Level D protection will consist of:

- Standard Work Clothes
- Safety boots with steel-toes
- Nitrile outer and PVC inner gloves (must be worn during all sampling activities)
- Hard hat (must be worn during drilling and excavation activities)
- Splash goggles or safety glasses (where splash hazard is present)

5.4 WORK ZONES AND DECONTAMINATION

5.4.1 SITE WORK ZONES

To reduce the spread of hazardous materials by workers from the contaminated areas to the clean areas, work zones will be delineated at the site. The flow of personnel between the zones should be controlled. The establishment of the work zones will help ensure that personnel are properly protected against the hazards present where they are working, work activities and contamination are confined to the appropriate areas, and personnel can be located and evacuated in an emergency.

5.4.1.1 EXCLUSION ZONE

Exclusion zones will be established at the site for all sampling activities; unprotected onlookers should be located 50 feet upwind of sampling activities.

All personnel within the exclusion zone will be required to use the specified level of protection. No food, drink, or smoking will be allowed in the exclusion or decontamination zones. Contact lenses and cosmetics are not permitted on-site.

5.4.1.2 DECONTAMINATION ZONE

Should it be necessary to establish an exclusion zone, a decontamination zone will be utilized. This zone will be established between the exclusion zone and the support zone, and will include the personnel and equipment necessary for decontamination of equipment and personnel (discussed below). Personnel and equipment in the exclusion zone must pass through this zone before entering the support zone. This zone should always be located upwind of the exclusion zone.

5.4.1.3 SUPPORT ZONE

The support zone will include the remaining areas of the job site. Break areas, operational direction and support facilities (to include supplies, equipment storage and maintenance areas) will be located in this area. No equipment or personnel will be permitted to enter the support zone from the exclusion zone without passing through the personnel or equipment decontamination station. Eating, smoking, and drinking will be allowed only in this area.

5.4.2 DECONTAMINATION

Generally, any water used in decontamination procedures will be disposed of onsite due to the low level of contaminants expected at the site.

5.4.2.1 DECONTAMINATION OF PERSONNEL

Decontamination will not be necessary if only Level D protection is used. However, disposable gloves used during sampling activities should be removed and bagged; personnel should be encouraged to remove clothing and shower as soon as is practicable at the end of the day. All clothing should be machine-washed. All personnel will wash hands and face prior to eating and before and after using the restroom.

5.4.2.2 DECONTAMINATION OF FIELD EQUIPMENT

Field Equipment decontamination procedures are discussed in Section 2.3.4 of the Post Closure Monitoring and Maintenance Plan.

5.5 ACCIDENT PREVENTION CONTINGENCY PLAN

5.5.1 ACCIDENT PREVENTION

5.5.1.1 SITE-SPECIFIC TRAINING

All field personnel will receive health and safety training prior to the initiation of any site activities. On a day-to-day basis, individual personnel should be constantly alert for indicators of potentially hazardous situations and for signs and symptoms in themselves and others that warn of hazardous conditions and exposures. Rapid recognition of dangerous situations can avert an emergency. Before daily work assignments, regular meeting should be held. Discussion should include:

- Tasks to be performed.
- Time constraints (e.g., rest breaks, cartridge changes).
- Hazards that may be encountered, including their effects, how to recognize symptoms or monitor them, concentration limits, or other danger signals.
- Emergency procedures.

5.5.2 CONTINGENCY PLAN

5.5.2.1 EMERGENCY PROCEDURES

In the event that an emergency develops on site, the procedures delineated herein are to be immediately followed. Emergency conditions are considered to exist if:

1) Any member of the field crew is involved in an accident or experiences any adverse effects or symptoms of exposure while on site.

2) A condition is discovered that suggests the existence of a situation more hazardous than anticipated.

General emergency procedures, and specific procedures for personal injury, chemical exposure and radiation exposure, are described below.

5.5.2.2 CHEMICAL EXPOSURE

If a member of the field crew demonstrates symptoms of chemical exposure the procedures outlined below should be followed:

- Another team member (buddy) should remove the individual from the immediate area of contamination. The buddy should communicate to the Field Team Leader (via voice and hand signals) of the chemical exposure. The Field Team Leader should contact the appropriate emergency response agency.

- Precautions should be taken to avoid exposure of other individuals to the chemical.

- If the chemical is on the individual's clothing, the chemical should be neutralized or removed if it is safe to do so.

- If the chemical has contacted the skin, the skin should be washed with copious amounts of water.

- In case of eye contact, an emergency eye wash should be used. Eyes should be washed for at least 15 minutes.

- All chemical exposure incidents must be reported in writing to the Office Health and Safety Representative. The Site Health and Safety Officer or Field Team Leader is responsible for completing the accident report.

5.5.2.3 PERSONAL INJURY

In case of personal injury at the site, the following procedures should be followed:

- Another team member (buddy) should signal the Field Team Leader that an injury has occurred.

- A field team member trained in first aid can administer treatment to an injured worker.

- The victim should then be transported to the nearest hospital or medical center. If necessary, an ambulance should be called to transport the victim.

- For less severe cases, the individual can be taken to the site dispensary.

- The Field Team Leader or Site Health and Safety Officer is responsible for making certain that an Accident Report Form is completed. This form is to be submitted to the Office Health and Safety Representative. Follow-up action should be taken to correct the situation that caused the accident.

5.5.2.4 EVACUATION PROCEDURES

The Field Team Leader will initiate evacuation procedure by signaling to leave the site.

All personnel in the work area should evacuate the area and meet in the common designated area.

All personnel suspected to be in or near the contract work area should be accounted for and the whereabouts of missing persons determined immediately.

Further instruction will then be given by the Field Team Leader.

5.5.2.5 PROCEDURES IMPLEMENTED IN THE EVENT OF A MAJOR FIRE, EXPLOSION, OR ON-SITE HEALTH EMERGENCY CRISIS

- Notify the paramedics and/or fire department, as necessary;
- Signal the evacuation procedure previously outlined and implement the entire procedure;
- Isolate the area;
- Stay upwind of any fire;
- Keep the area surrounding the problem source clear after the incident occurs;
- Complete accident report for and distribute to appropriate personnel.

A decision to notify local residents of emergency conditions at the site, will be made in consultation with local officials and the Fire Department.

APPENDIX A

SECTION 02670
MONITORING WELL INSTALLATION

1. GENERAL

1.1 Scope of Work

A. The **CONTRACTOR** shall furnish all labor, tools, materials, equipment, and incidentals to provide all work necessary to install and develop four (4) shallow overburden monitoring wells, as shown on the plans.

1.2 Submittals

A. The **CONTRACTOR** shall submit the monitoring well installation procedures as part of the Work Plan for the site.

2 PRODUCTS

2.1 Well Casing Materials

A. Each well casing shall consist of riser length and screen length as identified in Part 3 of this Section.

B. Solvents, glues, or other adhesives are prohibited for use on casing joints.

C. Shallow Well

1. Well casing and screen shall be four (4) inch inner diameter, threaded flush joint, Schedule 40 PVC. Casing and screen shall be steam cleaned prior to installation.
2. The screen shall be 0.010" slot Schedule 40 PVC. The bottom plus, on the screen shall be threaded, not slip on.

2.2 Sand Pack

A. The sand pack shall consist of #1 Morie sand (no substitutions).

2.3 Bollards

A. Bollards shall consist of a 6" diameter well casing filled with concrete. The bollard must extend a minimum of 36" above grade and a minimum of 24" below grade. Bollards are to be set in concrete.

3. EXECUTION

3.1 Drilling of Monitoring Wells

A. General

1. **CONTRACTOR** shall drill all monitoring well borings with a drill rig suitable for the work. Boreholes shall be advanced using hollow stem auger and roller bit/core drill equipment.
2. Prior to drilling at each location, the drill rig shall be leveled. Each well shall be installed plumb and true.
3. All equipment placed into the well borings must be properly decontaminated prior to the work, and between each well installation, by steam cleaning.
4. Use of drilling muds, air systems, and drilling lubricants is prohibited.

5. The **CONTRACTOR** shall place new locks on all wells, including existing wells. The locks shall be heavy duty, key locking padlocks, and must be approved by the **DEPARTMENT** prior to purchase. One key shall be able to open all well locks. Four keys for the locks must be given to the **DEPARTMENT** upon completion of the work.

B. Shallow Well

1. Overburden shallow well borings shall be installed with 61/4-inch ID hollow stem augers (HSA) drilled boreholes.
2. A 6-inch diameter temporary casing will be installed in the borehole.
3. A 10-foot well screen shall be placed in the well.

3.2 Well Construction

A. Shallow Well

1. The sand pack will be introduced gradually inside the 6-inch diameter temporary casing, and fill the annular space between the screen and borehole adjacent to the screen, extending one to two feet above the screen. The temporary casing will be withdrawn in increments so that the native formation materials are not allowed to collapse directly against the well casing or screen.
2. A one to two foot thick bentonite pellet seal above the sand pack will be provided by the **CONTRACTOR**. Bentonite will be allowed to hydrate for at least one hour. Cement/bentonite grout will installed above the bentonite seal to within three feet of ground surface. No organic polymer additives ire permitted. The grout will be mixed with a mud pump to a consistency acceptable to the **ENGINEER**.
3. Neat cement or concrete will be used from three feet to the ground surface.

B. An outer protective steel casing will be provided and cemented in place around the riser pipe. The top of the steel casing will extend approximately three feet above the finished grade and two inches above the top of the well casing,. Three feet of steel casing, will be below ground. The monitoring well will have a vented and locked cap. A drain hole shall be drilled at the base of the casing, and a vent hole shall be located at the top of the casing. The cement collar will be tapered away from the well to divert surface runoff from the well.

C. The monitoring wells will have a vented and locked cap. The **CONTRACTOR** shall remove the locks from the existing wells, and shall install heavy duty padlocks on all wells that are keyed the same.

D. All drilling equipment such as augers, casing, bits, and sampling equipment which may come in contact with subsurface materials shall be

steam cleaned before being brought onto the site. The drilling and sampling equipment will be steam cleaned before leaving the site. All PVC materials (screens and risers) will be steam cleaned prior to well installation.

E. Drilling fluids will be properly disposed off site in accordance to all applicable regulations, as approved by the **ENGINEER**.

F. The casing for Well #1 (as identified on contract drawings) will be protected from vehicular traffic by bollards. The **ENGINEER** may require bollards for the other casings if he determines that the well casing is at risk of damage due to vehicular traffic.

3.3 Well Development

A. All installed monitoring wells shall be developed as soon as possible following installation, but not before the well seal and grout have properly set. The entire saturated screened or openhole interval must be developed.

B. The wells shall be developed using either bailing , manual pumping using a Waterra or equal pump, or powered suction-lift pumping, as approved by the **ENGINEER**. Well development shall be initiated gently, and the degree of agitation then slowly increased to remove fines from the well bottom and sand pack. Water must not be introduced into the well during development.

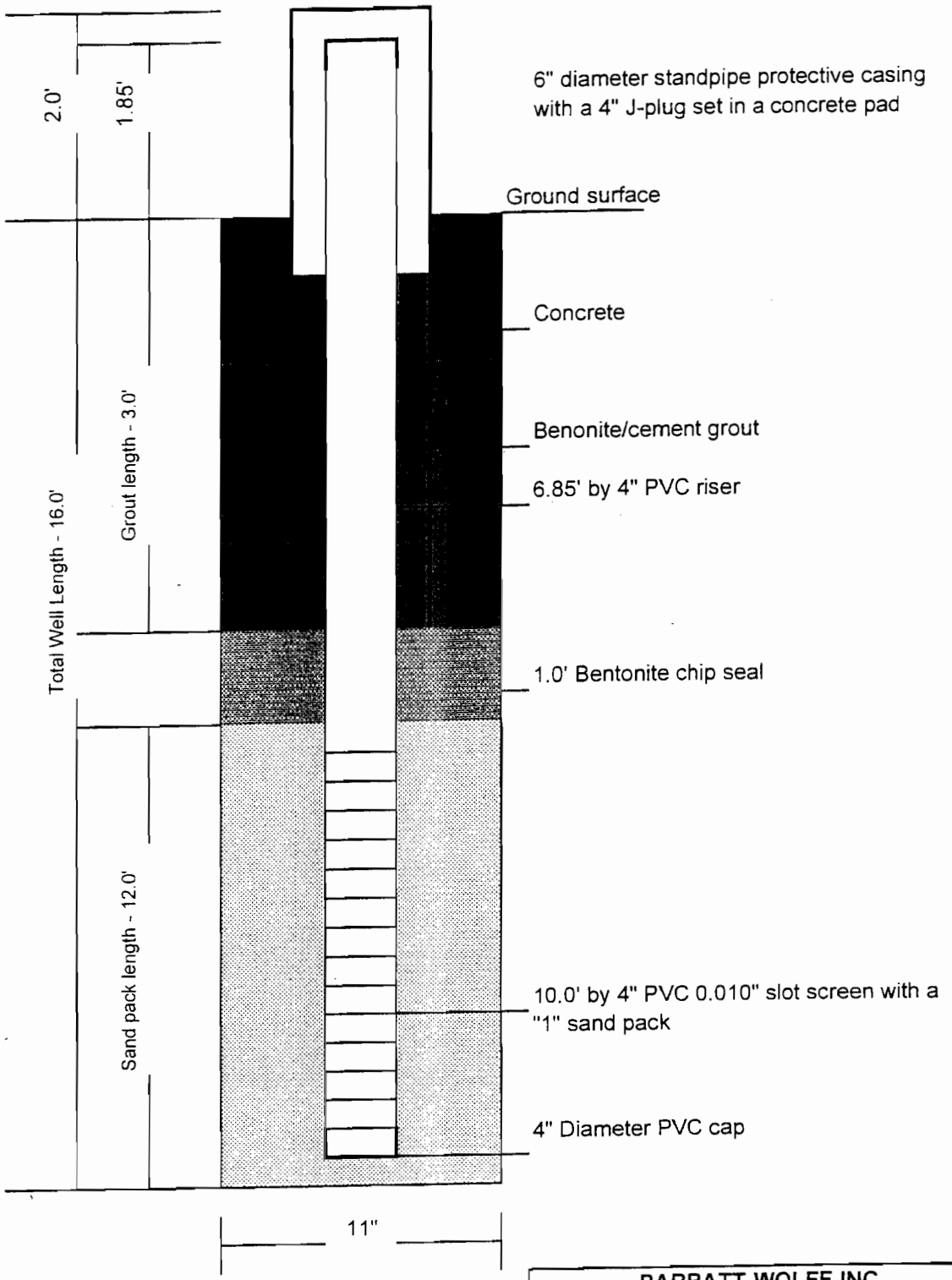
C. Development shall continue until the turbidity in the recovery water is less than 50 NTU'S. If the turbidity exceeds 50 NTU's after 500 gallons have been removed, development shall continue as determined by the **ENGINEER**.

D. **CONTRACTOR** will be responsible for testing and disposing of all development water in accordance to all applicable regulations, as approved by the **ENGINEER**.

3.4 Surveying

A. The locations and elevations of the installed monitoring wells shall be surveyed by a New York State licensed surveyor directly following installation, and located on a site drawing. Elevations are required for the ground surface, top of well casing, and top of protective casing. All elevations must be determined to the nearest 0.01 feet.

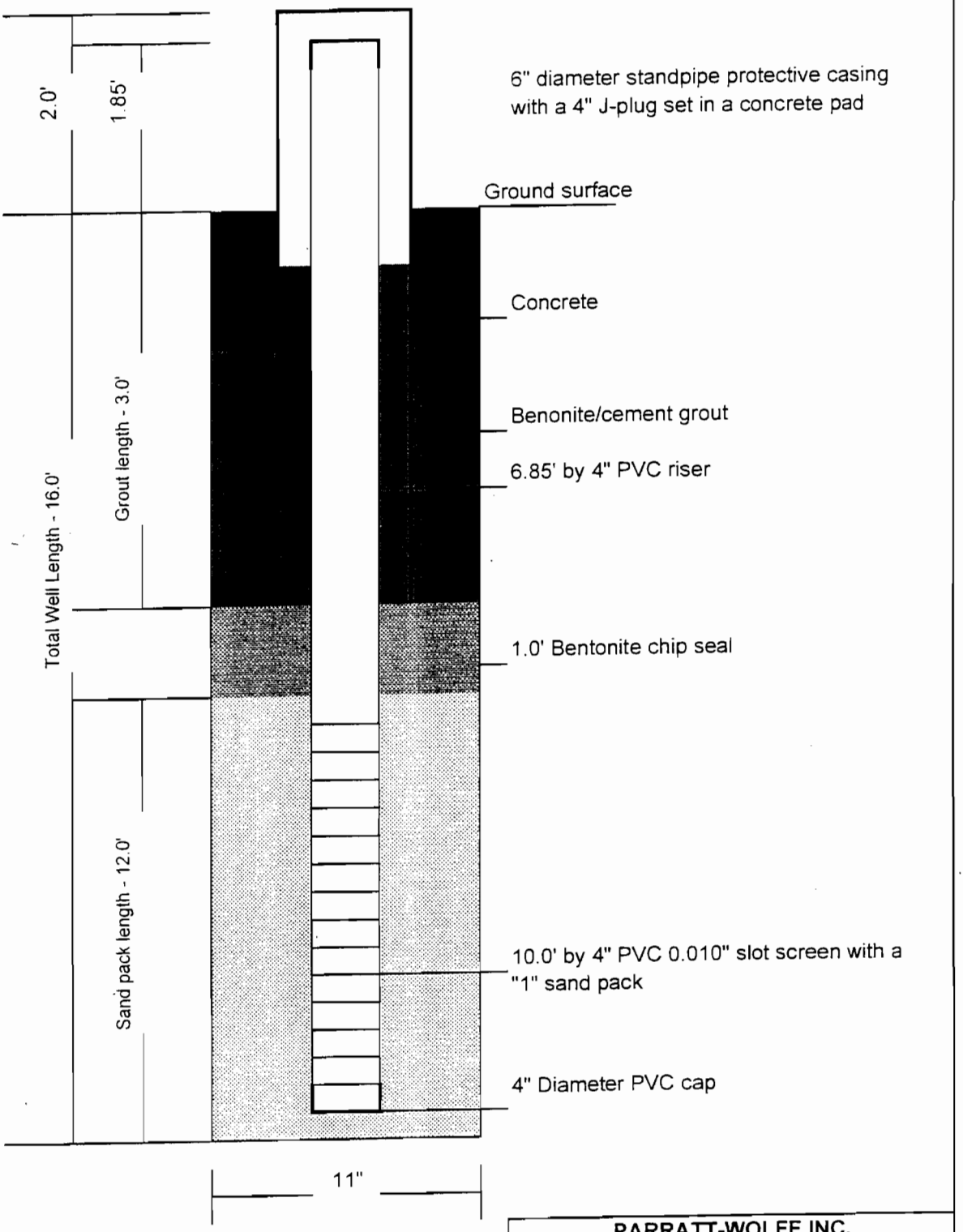
END OF SECTION



PARRATT-WOLFF INC.

MONITORING WELL MW-1
OSWEGO CASTINGS
OSWEGO, NEW YORK

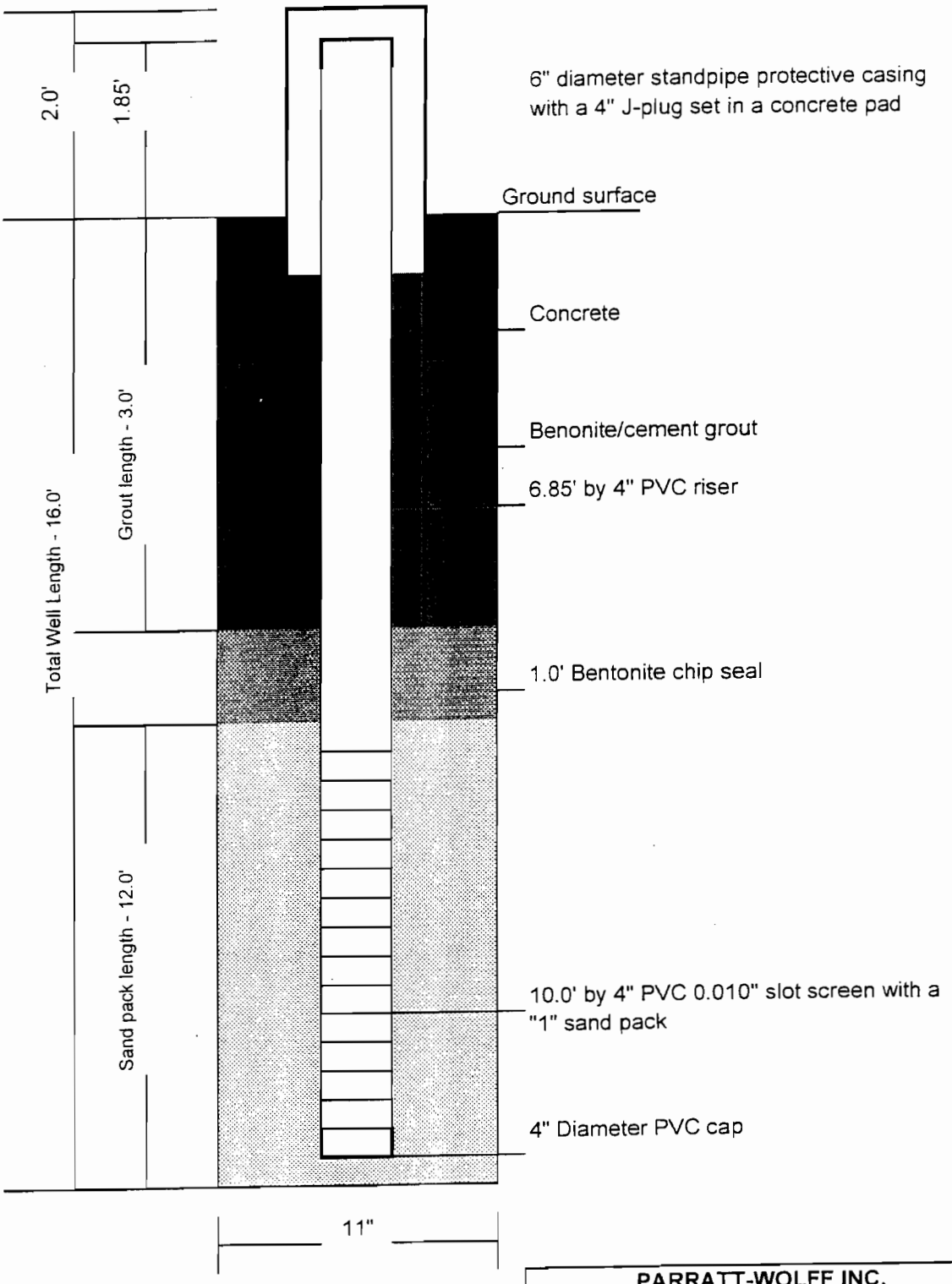
NOT TO SCALE AUGUST 2001



PARRATT-WOLFF INC.

MONITORING WELL MW-2
OSWEGO CASTINGS
OSWEGO, NEW YORK

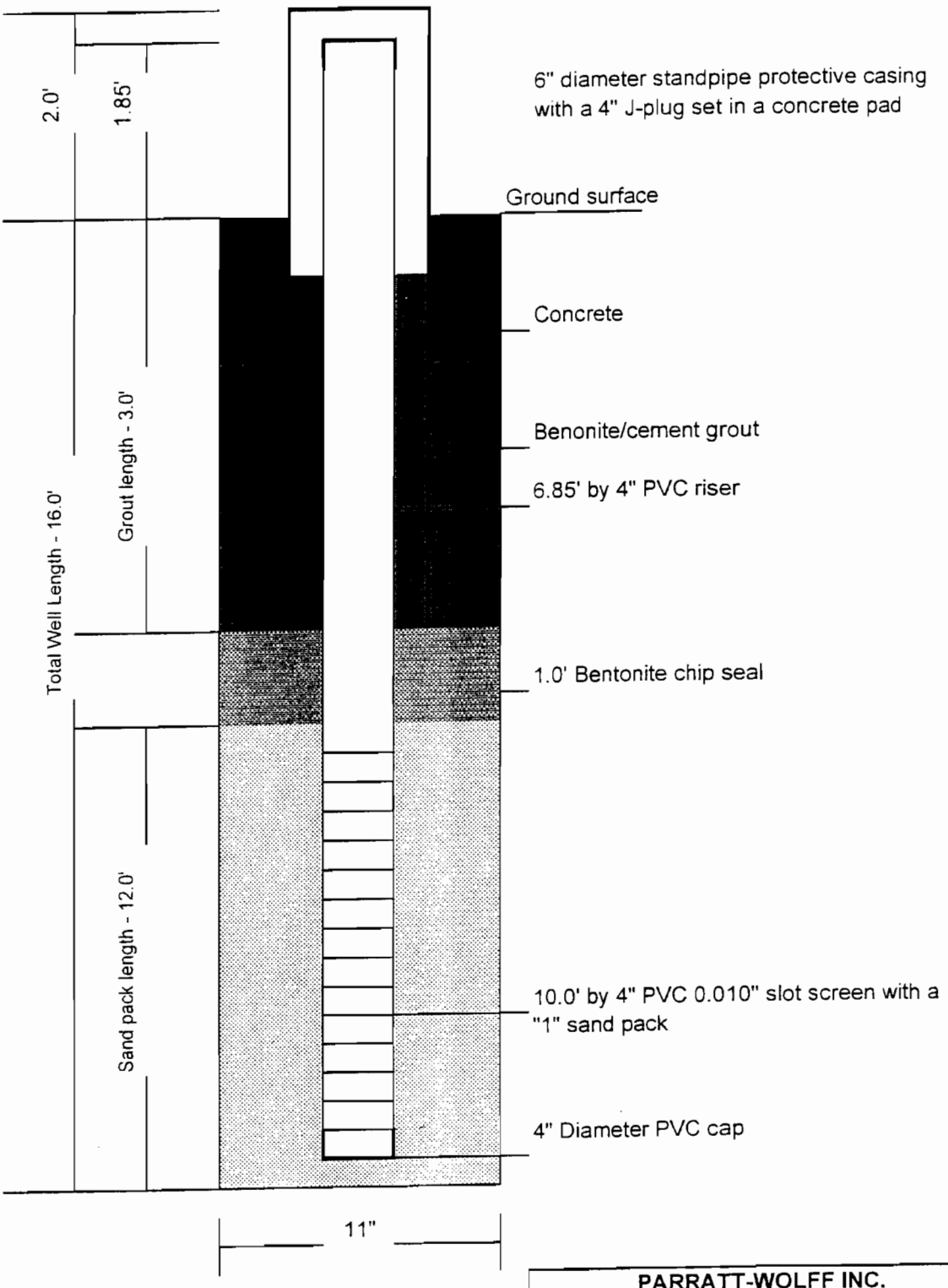
NOT TO SCALE AUGUST 2001



PARRATT-WOLFF INC.

MONITORING WELL MW-3
OSWEGO CASTINGS
OSWEGO, NEW YORK

NOT TO SCALE AUGUST 2001



PARRATT-WOLFF INC.

MONITORING WELL MW-4
OSWEGO CASTINGS
OSWEGO, NEW YORK

NOT TO SCALE AUGUST 2001

APPENDIX B

NIOSH Pocket Guide to Chemical Hazards

Chlorodiphenyl (54% chlorine)	CAS 11097-69-1
$C_6H_3Cl_2C_6H_2Cl_3$ (approx)	**RTECS** TQ1360000
Synonyms & Trade Names Aroclor® 1254, PCB, Polychlorinated biphenyl	**DOT ID & Guide** 2315 171

Exposure Limits	NIOSH REL*: Ca TWA 0.001 mg/m^3 See Appendix A [*Note: The REL also applies to other PCBs.]
	OSHA PEL: TWA 0.5 mg/m^3 [skin]

IDLH Ca [5 mg/m^3] See: IDLH INDEX	**Conversion**

Physical Description
Colorless to pale-yellow, viscous liquid or solid (below 50°F) with a mild, hydrocarbon odor.

MW: 326 (approx)	BP: 689-734°F	FRZ: 50°F	Sol: Insoluble
VP: 0.00006 mmHg	IP: ?		Sp.Gr(77°F): 1.38
Fl.P: NA	UEL: NA	LEL: NA	

Nonflammable Liquid, but exposure in a fire results in the formation of a black soot containing PCBs, polychlorinated dibenzofurans, and chlorinated dibenzo-p-dioxins.

Incompatibilities & Reactivities
Strong oxidizers

Measurement Methods
NIOSH 5503
See: NMAM or OSHA Methods

Personal Protection & Sanitation	**First Aid** (See procedures)
Skin: Prevent skin contact Eyes: Prevent eye contact Wash skin: When contaminated Remove: When wet or contaminated Change: Daily Provide: Eyewash, Quick drench	Eye: Irrigate immediately Skin: Soap wash immediately Breathing: Respiratory support Swallow: Medical attention immediately

Respirator Recommendations NIOSH
At concentrations above the NIOSH REL, or where there is no REL, at any detectable concentration: (APF = 10,000) Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode/(APF = 10,000) Any supplied-air respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained positive-pressure breathing apparatus
Escape: (APF = 50) Any air-purifying, full-facepiece respirator (gas mask) with a chin-style, front- or back-mounted organic vapor canister having a high-efficiency particulate filter/Any appropriate escape-type, self-contained breathing apparatus

Exposure Routes inhalation, skin absorption, ingestion, skin and/or eye contact

Symptoms Irritation eyes, chloracne; liver damage; reproductive effects; [potential occupational carcinogen]

Target Organs Skin, eyes, liver, reproductive system

Cancer Site [in animals: tumors of the pituitary gland & liver, leukemia]

See also: INTRODUCTION See ICSC CARD: 0939 See MEDICAL TESTS: 0176

NIOSH Pocket Guide to Chemical Hazards

Chlorodiphenyl (42% chlorine)	CAS 53469-21-9
$C_6H_4ClC_6H_3Cl_2$ (approx)	RTECS TQ1356000
Synonyms & Trade Names Aroclor® 1242, PCB, Polychlorinated biphenyl	**DOT ID & Guide** 2315 171

Exposure Limits	NIOSH REL*: Ca TWA 0.001 mg/m^3 See Appendix A [*Note: The REL also applies to other PCBs.]
	OSHA PEL: TWA 1 mg/m^3 [skin]
IDLH Ca [5 mg/m^3] See: 53469219	**Conversion**

Physical Description
Colorless to light-colored, viscous liquid with a mild, hydrocarbon odor.

MW: 258 (approx)	BP: 617-691°F	FRZ: -2°F	Sol: Insoluble
VP: 0.001 mmHg	IP: ?		Sp.Gr(77°F): 1.39
Fl.P: NA	UEL: NA	LEL: NA	

Noncombustible Liquid, but exposure in a fire results in the formation of a black soot containing PCBs, polychlorinated dibenzofurans & chlorinated dibenzo-p-dioxins.

Incompatibilities & Reactivities
Strong oxidizers

Measurement Methods
NIOSH 5503
See: NMAM or OSHA Methods

Personal Protection & Sanitation	**First Aid** (See procedures)
Skin: Prevent skin contact Eyes: Prevent eye contact Wash skin: When contaminated Remove: When wet or contaminated Change: Daily Provide: Eyewash, Quick drench	Eye: Irrigate immediately Skin: Soap wash immediately Breathing: Respiratory support Swallow: Medical attention immediately

Respirator Recommendations NIOSH
At concentrations above the NIOSH REL, or where there is no REL, at any detectable concentration: (APF = 10,000) Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode/(APF = 10,000) Any supplied-air respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained positive-pressure breathing apparatus
Escape: (APF = 50) Any air-purifying, full-facepiece respirator (gas mask) with a chin-style, front- or back-mounted organic vapor canister having a high-efficiency particulate filter/Any appropriate escape-type, self-contained breathing apparatus

Exposure Routes inhalation, skin absorption, ingestion, skin and/or eye contact

Symptoms Irritation eyes; chloracne; liver damage; reproductive effects; [potential occupational carcinogen]
Target Organs Skin, eyes, liver, reproductive system **Cancer Site** [in animals: tumors of the pituitary gland & liver, leukemia]
See also: INTRODUCTION See MEDICAL TESTS: 0175

APPENDIX C

SECTION 02230

GEOTEXTILE

1. GENERAL

1.1 Scope of Work

A. The **CONTRACTOR** shall provide all labor, materials, equipment, and services necessary for the placement of geotextile stabilization fabric in the landfill cap and as shown on the drawings and specified.

1.2 Submittals

A. Shop Drawings:

1. Refer to Section 01011 for requirements relating to shop drawing submittals.

2. Submit manufacturer's data, specifications, installation instructions and dimensions.

3. Submit an affidavit certifying that the geotextile furnished complies with all requirements specified herein and is free of any broken needles.

4. No geotextile shall be shipped until the affidavit is submitted to the **ENGINEER**.

1.3 Quality Assurance

A. Manufacturer's Qualifications:

Geotextile manufacturer shall be a specialist in the manufacture of drainage control filter fabric, and must have produced and successfully installed a minimum of five million square feet.

1.4 Product Delivery, Storage and Handling

A. Each roll of geotextile delivered to the site shall be labeled by the manufacturer identifying the manufacturer's name, product identification, lot number, roll number and roll dimensions.

B. Geotextile shall be protected from ultraviolet light exposure, precipitation or other inundation, mud, dirt, dust, puncture, cutting or any other damaging or deleterious conditions. Geotextile rolls shall be shipped and stored in relatively opaque and watertight wrappings.

C. **CONTRACTOR** shall provide all labor and equipment required to assist the **ENGINEER** in inspection of materials upon delivery to the site.

2. PRODUCTS

2.1 Geotextile

A. Geotextile shall be Mirafi 600X or equal, and shall conform to the following:

Fabric Property	Unit	Test Method	Typical Value
Grab Tensile Strength	lb.	ASTMD-1682	300
Grab Tensile Elongation	%	ASTMD-1682	35 (max.)
Modulus (at 10% Elongation)	lb.	ASTMD-1682	140
Trapezodal Tear Strength	lb.	ASTMD-1117	120
Mullen Burst Strength	psi	ASTMD-3786	600+
Puncture Strength	lb.	ASTMD-3787	130
Abrasion Resistance	lb.	ASTMD-3884	100
Coefficient. of Permeability, K	cm/sec	CFMC-GET-2	0.01
Water Flow Rate	gal/min/sf	CFMC-GET-2	50
EOS	US Std. Sieve	COE-CW-02215	20-45

Geotextile shall be woven from monofilaments of polypropylene which are nonbiodegradable and resistant to most soil chemicals, acids and alkalies within a pH range of 3 to 12. The fabric shall be stabilized against UV degradation.

3. EXECUTION

3.1 Installation - General

A. All geotextiles shall be weighted with sandbags when required. Such sandbags shall be installed during placement and shall remain until replaced with cover material.

B. Fabric shall be overlapped side-to-side and end-to-end 12 inches.

C. Geotextiles shall not be exposed to precipitation prior to being installed, and shall not be exposed to direct sunlight for more than 15 days.

D. Install according to manufacturer's recommendations.

3.2 Geotextile Repair

A. Any holes or tears in the fabric shall be repaired as follows:

1. On slopes: A fabric patch shall be sewn into place using a double sewn lock stitch (1/4 in. to 3/4 in. apart and no closer than I inch from any edge). Should any tear exceed 10 percent of the width of the roll, that roll shall be removed from the slope and replaced.

2. Flat areas: A fabric patch shall be spot-seamed in place with a minimum of 24 inches of overlap in all directions.

B. Care shall be taken to remove any soil or other material which may have penetrated the torn geotextile.

3.3 Placement of Cover Materials

A. **CONTRACTOR** shall place all cover materials in such a manner to ensure the geotextile is not damaged; minimal slippage of the geotextile on underlying layers; and no excess tensile stresses in the geotextile.

*** END OF SECTION ***

SECTION 02224

BACKFILL AND CRUSHED STONE

1. GENERAL

1.1 Scope of Work

A. Due to the hazardous nature of the site, the **CONTRACTOR** shall confine all backfilling operations within the limits as specified by the **ENGINEER,** including limits of easement lines and right-of-way, and shall not enter any area outside these limits without prior written consent of the **ENGINEER.**

B. The **CONTRACTOR** shall furnish all labor, tools, materials, equipment and incidentals necessary to backfill and compact specified excavation areas and place and compact crushed stone over the backfilled landfill area as shown and specified..

C. The **CONTRACTOR** shall be responsible for placing suitable fill and following proper compaction methods to properly fill the specified excavation areas.

1.2 Related Sections

Section 01050 Surveys
Section 02220 Excavation
Section 02230 Geotextile
Section 02900 Restoration

1.3 Submittals

The **CONTRACTOR** shall submit:

A. The name and location of each proposed source of backfill and crushed stone.

B. Certification from suppliers that all fill materials to be supplied for use on this Project meet the requirements of this Specification section, and that the materials are clean (meet analytical criteria specified in Section 01425, Verification Sampling - provide one analytical sample per source of material to be used: the list of analytes must include each compound on the target compound list in the NYSDEC ASP). The **ENGINEER** shall use **DEPARTMENT** TAGM 4046 as the basis for acceptance of the fill materials. Certification must be received and approved by the **ENGINEER** prior to delivery of fill materials to the Site. The **ENGINEER** must be present during the acquisition of these samples from each source.

C. Samples of all fill and crushed stone.

D. A typical grain-size analysis, including hydrometer analysis of all proposed fill materials, except fine stone.

E. The liquid limit of the fill materials, except crushed stone.

F. The moisture density curve for the fill material.

G. Compaction testing results.

H. NYSDEC mining permits.

2. PRODUCTS

2.1 Common Fill

A. Common fill shall be well-graded granular material from fine to coarse, obtained from approved natural deposits and unprocessed except for the removal of unacceptable material and stones larger than the maximum size permitted. It shall be substantially free from loam and other organic matter, clay and other fine or harmful substances.

B. Common fill shall meet the following gradation:

Sieve	Percent by Weight Passing
2"	100
1½"	45-80
No. 40	20-50
No. 200	15-30

C. Any material containing vegetative or organic matter, such as peat, organic silt, sod, snow, or other deleterious material is not acceptable. Material that contains large voids when placed, which will allow migration of the overlying and surrounding materials and soil, is also not acceptable.

2.2 Crushed Stone

A. Crushed stone shall be well graded from coarse to fine and free from organic or other deleterious material.

B. Crushed stone shall be as per New York State Department of Transportation (NYSDOT) ***NYSDOT Standard Specifications, Construction and Materials***, January 2, 1990, Section 713-04 and meet the following gradation:

Sieve	Percent by Weight Passing
2"	100
½"	25-60
No. 40	5-40
No. 200	0-10

3. EXECUTION

3.1 General

A. The **ENGINEER** must approve all areas for backfill based on results of verification sampling prior to the start of backfilling.

B. Material shall be placed in uniform lifts not greater than six (6) inches in thickness, unless greater thicknesses are allowed by the **ENGINEER** upon demonstration by the **CONTRACTOR** that the materials and compaction efforts are adequate to obtain the required compaction.

C. Each lift shall be compacted using suitable mechanical compactors (10-ton minimum) such as a rubber tire roller or smooth wheel roller. Lifts shall be compacted a minimum of six passes of the compactor. At the approval of the **ENGINEER,** the fill shall be compacted at a moisture content within 2 percent of optimum at the time of placement. Improperly compacted fill material shall be replaced at the **CONTRACTOR's** expense. Compaction or consolidation achieved by traveling trucks, machines, or other equipment is not acceptable.

D. Backfill areas shall be free of debris, snow, and ice, and ground surfaces shall not be frozen during placement of backfill. Where required, the **CONTRACTOR** shall, at his own expense, add sufficient water during the compaction effort to assure proper density. If, due to the rain or other causes, the material exceeds the optimum moisture content acceptable range for satisfactory compaction, it shall be allowed to dry, assisted by dicing or harrowing, if necessary, before compaction or filling effort is resumed.

E. Erosion protection shall be provided to all areas not having topsoil and seed thereon and seeded areas where an adequate grass cover has not been established.

F. Common Fill Material Testing: Test material in accordance with ASTM C 136 for conformance to gradation limits; ASTM D 1140 for material finer than the No. 200 sieve; ASTM D 1557 for moisture density relations, as applicable. Provide testing for each 1,000 cubic yards of material to be used with a minimum of one sample per borrow source for each material.

3.2 Septic Tank Area

A. The septic tank excavation shall be backfilled with common fill and compacted to the pre-construction grades or as directed by the **ENGINEER.**

3.3 Landfill Excavation Area

A. The landfill excavation shall be backfilled with excavated pond sediments followed by backfilling with adjacent foundry wastes which contain PCB levels below 10 ppm (see Drawing 2). The area reshaped to achieve a subgrade for capping eighteen (18) inches below the original grade.

B. The original slopes shall be restored to direct storm water drainage towards the wetland area and away from the buildings. The foundry waste embankment adjacent to the wetland shall be cut back or extended, as necessary, to provide required backfill material or achieve proper drainage slopes.

C Cap:

1. Twelve (12) inches of common fill shall be placed over the landfill area landfill cover and compacted.

2. Geotextile stabilization fabric shall be placed over the common fill layer as specified in Section 02230.

3. Six (6) inches of crushed stone shall be placed over the geotextile and thoroughly compacted in place by means approved by **ENGINEER.**

*** END OF SECTION ***

APPENDIX D

NORTHERN READY MIX INC.
32 SILK ROAD
FULTON, NY 13069
(315)-598-2141

CONCRETE MIX DESIGN

MIX ID : 4316 [ ] **4000 PSI** 07/10/01

CONTRACTOR : ABSCOPE ENVIRONMENTAL
PROJECT : OSWEGO CASTING
SOURCE OF CONCRETE : NORTHERN READY MIX INC.

WEIGHTS PER CUBIC YARD (SATURATED, SURFACE-DRY)		YIELD, CU FT
LAFARGE CEMENT TYPE I/II, LB	611	3.11
HANSON AGGREGATES, LB	1294	7.68
CALLAHAN INDUSTRIES, LB	1758	10.47
WATER, LB (GAL-US)	284 (34.0)	4.55
TOTAL AIR, %	6.0 +/- 2.0	1.65
	TOTAL	27.46
POLYHEED 997 WATER REDUCER, OZ	48.88	
MBVR AIR ENTRAINING, OZ-US	6.1	
WATER/CEMENT RATIO, LBS/LB	0.46	
SLUMP, IN	5.00 +/-1	
CONCRETE UNIT WEIGHT, PCF	143.7	

AIR ENTRAINMENT TO BE ADJUSTED PER JOB CONDITIONS
PLEASE ORDER BY MIX # 4316

PREPARED BY :

NORTHEPN READY MIX INC.

P. 1

CME Associates, Inc.

Construction Materials Evaluation

MIX DESIGNATION: 4330

LABORATORY TRIAL BATCH

CLIENT:	Northern Aggregates, Inc.	DATE:	04/10/00
PRODUCER:	Northern Ready Mix	REPORT NO.:	4375C-03-0400

COMPONENT MATERIAL SOURCES

CEMENT:	Lafarge Cement Company. Type I/II
FINE AGGREGATE:	Hanson Aggregates, Jamesville, NY
COARSE AGGREGATE:	Callahan Industries
ADMIXTURE:	AEA: MBVR Master Builders WATER REDUCER: Polyheed 997

MIX PROPORTIONS PER CUBIC YARD

CEMENT:	611 lbs.	FINE AGG:	1294 lbs.	COARSE AGG # 1	1758 lbs.
WATER:	216.0 lbs.	W/C:	0.35 lb/lb		
AEA:	4.8 oz.	WATER REDUCER:	18.3 oz.		

PROPERTIES OF THE TRAIL BATCH

SLUMP:	3	INCHES	ASTM C-143
AIR CONTENT:	7.3	PERCENT	ASTM C-231
UNIT WEIGHT:	137.2	POUNDS/C.F.	ASTM C-138
YIELD:	38.3	CU.FT./CU.YD	ASTM C-138
TEMPERATURE:	60	DEGREE'S F	ASTM C-1064

6" X 12" CYLINDER COMPRESSIVE STRENGTH (ASTM C-39)

TEST AGE (DAYS)	DATE TESTED	TOTAL LOAD (POUNDS)	CROSS-SECTIONAL AREA (SQ. IN.)	UNIT STRESS (PSI)
7	04/26	120,160	28.26	4250
7	04/26	120,010	28.26	4280
7	04/26	119,400	28.26	4230
AVERAGE	-	-	-	**4250**
28	05/08	174,870	28.21	6200
28	05/08	175,310	28.21	6210
28	05/08	174,420	28.21	6180
28	05/08	175,030	28.21	6200
AVERAGE	-	-	-	**6200**

This Trial Batch was proportioned by the Client utilizing ACI 211 and was laboratory batched as specified in ASTM C-192.

LAFARGE CANADA INC.

CEMENT MILL TEST REPORT

Period Represented: March 2001
Plant: BATH
Cement Type: II

PHYSICAL DATA		CHEMICAL DATA	Percent
Specific Surface (Blaine) (sq.m./ kg.).....	370	Silicon Dioxide (SiO2).....	20.6
		Aluminum Oxide (Al2O3).....	4.5
Percent Passing 325 Mesh....	96.7		
		Ferric Oxide (Fe2O3).....	3.1
Compressive Strength (psi)			
		Calcium Oxide (CaO).....	63.6
Mortar Cubes			
		Magnesium Oxide (MgO).....	2.3
3 day...	4060		
7 day...	4930	Sulphur Trioxide (SO3).....	2.8
Previous 28 day...		*** Loss on Ignition.....	1.4
		Insoluble Residue.....	0.32
Vicat Time Of Set (min.)	105		
		Free Lime.....	0.7
Air Content (%).....	6.5	Tricalcium Silicate (C3S)...	59.5
Autoclave Expansion (%).....	0.03	Tricalcium Aluminate (C3A)..	6.7
		Total Alkali as Sodium Oxide	0.58

CERTIFIED BY: Lisa d'Estry
Quality Control Technician

We hereby certify that this cement complies with current standard ASTM C-150 specifications.This mill test represents a monthly average.

CEMENT GROUP / BATH PLANT
P.O. Box 160, Bath, Ontario K0H 1G0
Telephone: (613) 352-7711 Fax: (613) 352-5109

Printed on Recycled Paper

Hanson

Hanson Aggregates East
P.O. Box 513
Jamesville, NY 13078
Tel + 315 469 5501
Fax + 315 469 3133

May 7, 2001

Roger Dunham
Northern Ready Mix, Inc.
32 Silk Road
Fulton, NY 13069

Dear Roger:

Re: Concrete Sand Poland

This is to certify that the fine aggregate produced at our Plant # 404, Poland NY location will meet the NYSDOT specification listed under 703, Aggregates. Plant #404 is a NYSDOT approved source # 2-18F holding a current Biennial Test number 99AF124. Below you will find the gradations of the product needed for your plant. These gradations are an average of one hundred stockpile tests taken throughout the 2000 production season.

Concrete Sand

3/8"	#4	#8	#16	#30	#50	#100	FM
100	95.1	91.6	80.0	53.8	15.6	2.4	2.62

Thank you for your interest in our products. Please let me know if I can be of any further assistance.

Sincerely,

Bridget Santa Maria

Bridget Santa Maria
Sales Representative
Hanson

Callanan Industries Inc.

South Bethlehem NY 12161 * (518) 767-2222 * Telefax (518) 767-2040

Location : Oxbow

Time : 9.10am

Material : WASHED 1S

Date : 5/7/01

Sample # 11

Sample Type : Stockpile

Tested By : DON FOSTER

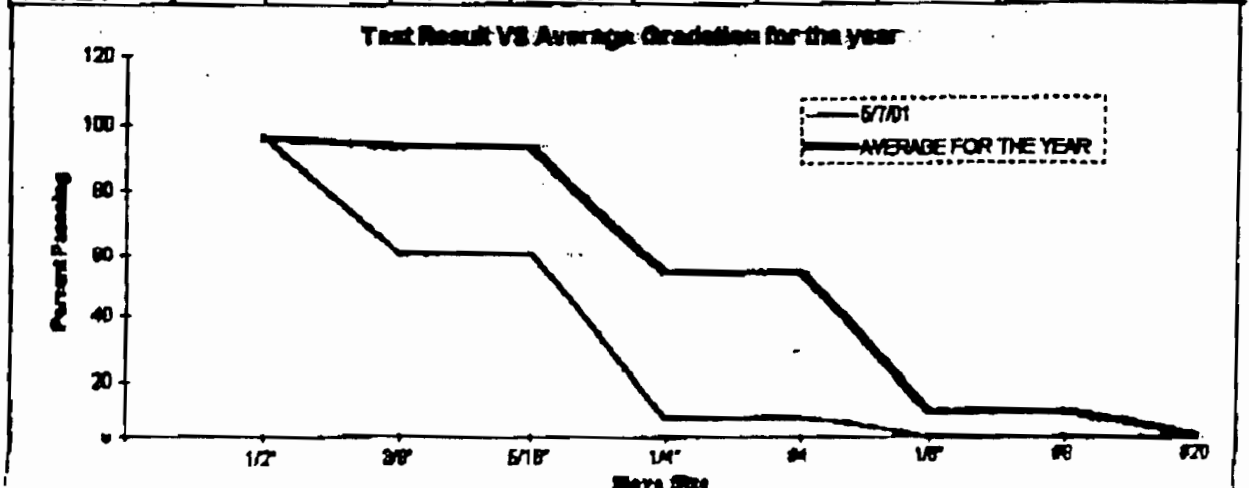
Washtest #200 : 0.40 %

Note: stockpile

Sieve Size	Weight	% Retained	% Passing	NYSDOT Limits
1/2"	377.40	3.66	96.3	100
3/8"	3770.80	36.60	59.7	
5/16"	0.00	0.00	59.7	
1/4"	5287.10	51.31	8.4	0-15
#4	0.00	0.00	8.4	
1/8"	658.50	6.39	2.0	0
#8	0.00	0.00	2.0	
#20	60.40	0.59	1.5	
Pan	149.50	1.45		
Total	10303.70			

Material History . Number of samples = 12

	1/2"	3/8"	5/16"	1/4"	#4	1/8"	#8	#20
5/7/01	96.34	59.74	59.74	8.43	8.43	2.04	2.04	1.45
Target								
Acceptable Limits Min-Max								
Std Dev. of last 5 tests	7.06	16.14	16.14	6.80	6.80	0.59	0.59	0.52
Std Dev. of last 10 tests	6.62	12.81	12.81	47.21	47.21	10.16	10.16	1.81
STD for the year	6.34	12.10	12.10	47.78	47.78	12.81	12.81	2.13
Over 2X Yearly STD		FAIL	FAIL					



Callanan Industries Inc.

South Bethlehem NY 12161 • (518) 767-2222 • Telefax (518) 767-2040

Location : Oxbow

Time : 9.45

Material : WASHED 2S

Date : 5/8/01

Sample # 5

Sample Type : Stockpile

Tested By : DON FOSTER

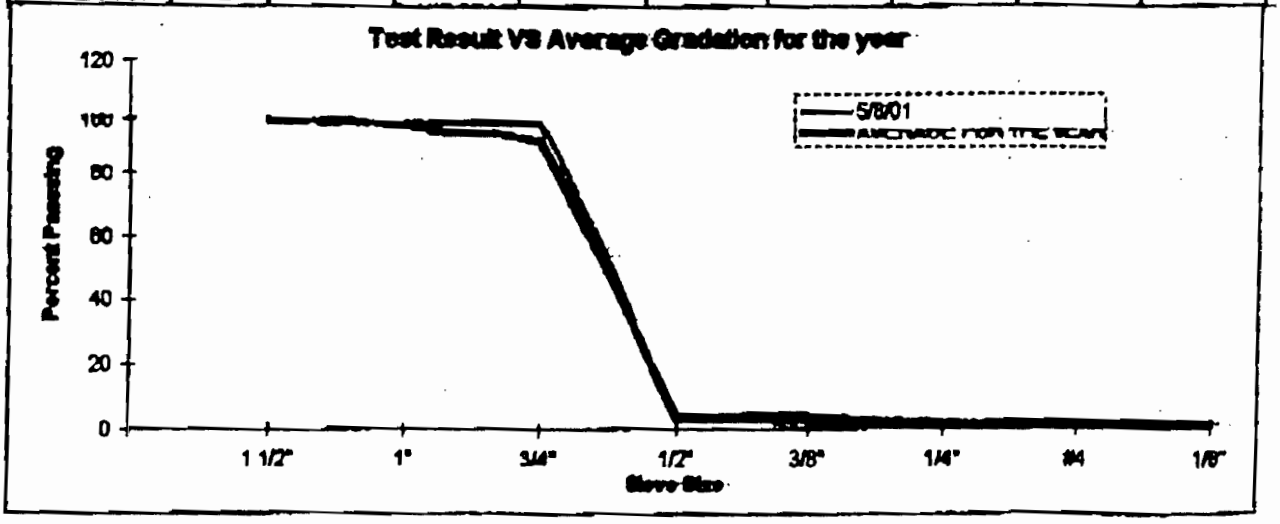
Washtest #200 : 0.85 %

Note: washed no2 stone

Sieve Size	Weight	% Retained	% Passing	NYSDOT Limits
1 1/2"	0.00	0.00	100.0	100
1"	205.40	1.44	98.6	90 - 100
1/2"	13689.50	96.15	2.4	0 - 15
1/4"	89.56	0.63	1.0	
1/8"	23.47	0.16	0.9	
Pan	125.20	0.88		
Total	14237.53			

Material History: Number of samples = 5

	1 1/2"	1"	3/4"	1/2"	3/8"	1/4"	#4	1/8"
5/8/01	100.00	98.56		2.41		1.04		0.88
Target								
AVERAGE FOR THE YEAR	100.00	98.25		3.83		1.47		1.33
Std Dev. of last 6 tests	0.00	0.58		2.28		0.85		0.91
Std Dev. of last 10 tests								
STD for the year	0.00	0.58		2.28		0.85		0.91
Over 2X Yearly STD								



Date Printed = 5/8/01

NEW YORK STATE
DEPARTMENT OF TRANSPORTATION
MATERIALS BUREAU

SOURCE # : 2- 11R TEST # 99AR 60
CALLANAN INDUSTRIES INC BR3a SERIAL # 144213
CLOCKVILLE,NY

On 12/06/99 material represented by sample 144213 was ACCEPTED FOR ITEMS 703-02 (coarse aggregate) NOT INCLUDING HIGH FRICTION AGGREGATE

YSDOT SIZES	NO.2	NO.1	NO.1A
10 Cycle MgSO4		2.7	2.5
25 Cycle freeze-thaw			
25 Cycle 3% freeze-thaw	10.3 based on 3/4" size only		
% Non-carbonate		5	
% Insoluble residue			
L.A. Abrasion Grading B		19.1	

Bulk Specific Gravity SSD	2.69	Gravity & absorption values represent
Bulk Specific Gravity	2.680	this sample only, use average values
Apparent Specific Gravity	2.714	from Aggregate Source Book in all
Absorption	0.5	calculations

OMPOSITION (size 2)	%
LIMESTONE	93
CHERT	5
LIMESTONE ARGILLACEOUS	2

MB VR(M)

Admixture for Entraining Air in Concrete

REQUIREMENTS/ADVANTAGES:

MB VR (Master Builders Neutralized VINSOL* Resin Solution) admixture for entraining air in concrete meets the requirements of ASTM C 260, AASHTO M 154, CRD-C 13 and other Federal and State specifications.

The entrainment of optimum air in concrete results in the following improvements in concrete quality:

- Increased resistance to damage from freezing and thawing[1]
- Increased resistance to scaling from deicing salts[1]
- Reduced permeability — Increased watertightness
- Reduced segregation and bleeding
- Improved plasticity and workability
- Improved properties of mixes used for making concrete block, concrete pipe and other precast products

[1]Concrete durability research has established that the best protection for concrete from the adverse effects of freeze/thaw cycles and deicing salts results from: • proper air content in the hardened concrete; • a suitable air-void system in terms of bubble size and spacing; and • adequate concrete strength, assuming the use of sound aggregates and proper mixing, placing, handling and curing techniques.

When unusually low or high amounts of an air-entraining admixture are required to achieve normal ranges of air content or if the required amount of air-entraining admixture necessary to achieve required levels of air content is observed to change significantly under given conditions, the reason should be investigated. In such cases, it is especially important to determine: (a) that a proper amount of air is contained in the fresh concrete at the point of placement; and (b) that a suitable air-void system (spacing factor) is being obtained in the hardened concrete.

FEATURES/BENEFITS:

Ready to Use — Solution is the proper concentration for rapid, accurate dispensing.
Compatible for Use — MB VR admixture is compatible with concrete containing other admixtures — water-reducers, high-range water-reducers, accelerators, retarders, and water repellents.
The use of MB VR air-entraining admixture with Master Builders water-reducing, set-controlling admixtures forms a desirable combination for producing high-quality normal or lightweight concrete. Heavyweight concrete normally does not contain entrained air.

NOTE: As stated in ACI 212 and other publications, when two or more admixtures are used, each must be added to the mix separately (through dispensers or manually) and must not be mixed with each other prior to adding to the concrete mix.

For optimum, consistent performance, the air-entraining admixture should be dispensed on damp, fine aggregate or with the initial batch water. When using lightweight fine aggregate, field evaluations should be conducted to determine the best method to dispense the air-entraining admixture.

USAGE INFORMATION:

Add MB VR admixture to the concrete mix using a dispenser designed for air-entraining admixtures; or add manually using a suitable measuring device that ensures accuracy within plus or minus 3% of the required amount.
Measure the air content of the trial mix and either increase or decrease the quantity of MB VR admixture to obtain the desired air content in the production mix. Check the air content of the first batch and make further adjustments if needed.

Due to possible changes in the factors that affect the dosage rate of MB VR, frequent checks should be made during the course of the work. Adjustments to the dosage should be based on the amount of entrained air in the mix at the point of placement.

QUANTITY TO USE:

There is no standard dosage rate for MB VR admixture. The exact quantity of air-entraining admixture needed for a given air content of concrete is not predictable because of differences in concrete-making materials. Typical factors which might influence the amount of entrained air are: temperature, cement, sand grading, mix proportions, slump, means of conveying and placing, use of extra fine materials such as fly ash, etc.

The amount of MB VR admixture used will depend upon the amount of entrained air required under actual job conditions. In a trial mix, use 1/4 to 4 fl oz/100 lbs (16 to 260 ml/100 kg) of cement. In mixes containing water reducing, set-controlling admixtures, the amount of MB VR needed may be somewhat less than the amount required in plain concrete. In mixes requiring a higher or lower dosage to obtain the desired air content, consult your local Master Builders representative.

Master Builders Technologies

AIR CONTENT DETERMINATION:

The total air content of normal weight concrete should be measured in strict accordance with ASTM C 231, "Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method" or ASTM C 173, "Standard Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method." The air content of lightweight concrete should only be determined using the Volumetric Method.

The air content should be verified by calculating the gravimetric air content in accordance with ASTM C 138, "Unit Weight, Yield, and Air Content (Gravimetric) of Concrete." If the total air content, as measured by the Pressure Method or Volumetric Method and as verified by the Gravimetric Method, deviates by more than 1-1/2%, the cause should be determined and corrected through equipment calibration or by whatever process is deemed necessary.

TEMPERATURE PRECAUTION:

MB VR admixture should be stored and dispensed at 35°F (2°C) or higher. Although freezing does not harm this product, precautions should be taken to protect it from freezing. If it freezes, thaw and reconstitute by mild mechanical agitation. **Do not use pressurized air for agitation.**

PACKAGING:

MB VR admixture is supplied in 55 U.S. gallon (208 litre) drums and by bulk delivery.

CAUTION:

MB VR admixture is a CAUSTIC solution. Chemical goggles and gloves are recommended if transferring or handling large quantities of material. (See MSDS and/or product label for complete information.)

For additional information on MB VR air-entraining admixture, contact your local Master Builders representative.

Master Builders Technologies®

Master Builders, Inc.
Admixture Division
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Form P-64n
Printed in U.S.A. 992

POLYHEED® 997

DESCRIPTION:

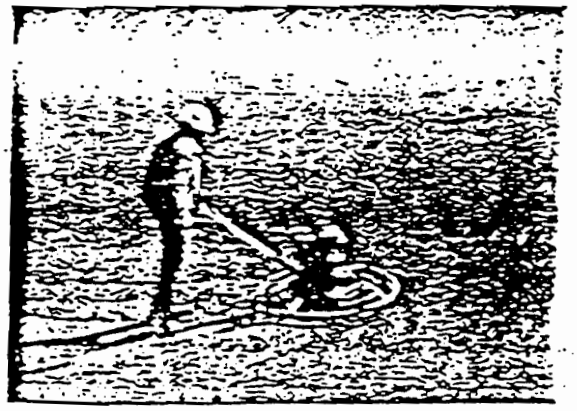
POLYHEED 997 is a ready-to-use liquid admixture for producing more uniform and predictable concrete. POLYHEED 997 admixture is statistically designed and formulated to produce: 1) superior workability and finishability, especially in concrete mixes using harsh aggregates or manufactured sands; 2) noticeably improved performance in all pumping applications, as well as low slump machine placements; and 3) cost effective mid-range slump performance (e.g. 6-8 in). It meets the requirements of ASTM C 494 Type A and F admixtures.

- INCREASED STRENGTH—compressive and flexural at all ages
- RELATIVE DURABILITY TO DAMAGE FROM FREEZING AND THAWING—well above industry standards
- REDUCED WATER CONTENT REQUIRED FOR A GIVEN WORKABILITY
- NORMAL SETTING TIME CHARACTERISTICS throughout the recommended dosage range

ADVANTAGES:

POLYHEED 997 admixture aids in the production of concrete by producing these special qualities:

- IMPROVED WORKABILITY AND PUMPABILITY
- REDUCED SEGREGATION
- SUPERIOR FINISHING CHARACTERISTICS for flatwork and formed surfaces
- EFFECTIVE AS A SINGULAR ADMIXTURE OR AS A COMPONENT IN A MASTER BUILDERS ADMIXTURE SYSTEM
- CONSISTENT PERFORMANCE AT ALL NORMAL RANGE SLUMPS, INCLUDING MID-RANGE (6-8 INCHES)



Mid-range slumps of 6 to 8 inches are economically achieved with POLYHEED 997 admixture when slump retention and normal set times are needed at more flowable concrete slumps. (Consideration of a Rheobuild admixture is suggested for higher slump concrete.)

At different dosages, POLYHEED 997 meets ASTM standards for a Type A and a Type F water reducing and high range water reducing admixture.

PERFORMANCE CHARACTERISTICS

Type A Performance

Mix Data

470 lbs. (213 kg) of Type I cement per cubic yard (cubic meter). Slump 7 inches (17.8 cm). Concrete Temperature 72°F. Ambient Temperature 72°F.

Setting Time Performance[1]

Mix	Initial Set Hours:Minutes	Difference Hours:Minutes
Plain	4:10	X
POLYHEED 997 admixture @		
3 fl. oz./cwt (195 ml/100 kg)	3:50	−:20
5 fl. oz./cwt (325 ml/100 kg)	4:30	+:20
6 fl. oz./cwt (390 ml/100 kg)	4:30	+:20

Compressive Strength Performance

	7 Day			28 Day		
	PSI	MPA	%	PSI	MPA	%
Plain	4190	28.9	100	5650	39.0	100
POLYHEED 997 admixture @						
3 fl. oz./cwt (195 ml/100 kg)	4720	32.5	112	6300	43.4	111
5 fl. oz./cwt (325 ml/100 kg)	4950	34.2	118	6410	44.2	113
6 fl. oz./cwt (390 ml/100 kg)	5190	35.8	124	6710	46.3	119

Type F performance may be achieved at dosages of 8 oz. or greater.

Mix Data

518 lbs. (234 kg) of Type I cement per cubic yard (cubic meter). Slump 4 inches (10.2 cm). Concrete Temperature 72°F. Ambient Temperature 72°F.

Setting Time Performance[1]

Mix	Initial Set Hours:Minutes	Difference Hours:Minutes
Plain	4:55	X
POLYHEED 997 admixture @ 8 fl. oz./cwt. (520 ml/100 kg)	5:10	+:15

Compressive Strength Performance[1]

	1 Day			7 Day		
	PSI	MPA	%	PSI	MPA	%
Plain	1090	7.52	100	3950	27.2	100
POLYHEED 997 admixture @[2] 8 fl. oz./cwt. (520 ml/100 kg)	2120	14.6	195	5410	37.3	137

[1]Note: The data shown is based on controlled laboratory tests. Reasonable variations from the results shown here may be experienced as a result of differences in concrete making materials and job site conditions.

[2]Note: A minimum of 12% water reduction is necessary vs. plain to meet ASTM Type F performance requirements.

WHERE TO USE:

POLYHEED 997 admixture is recommended for use in all concrete where normal setting characteristics, superior workability and finishability qualities are desired.

POLYHEED 997 admixture is particularly useful in providing mid-range slumps in the area of 6-8 inches. Field data have consistently shown improved slump performance, cohesiveness, and pumpability versus traditional admixtures.

As a result of the advantages listed above, this admixture improves conventionally placed concretes containing a wide range of cements, granulated slags, Class C and F fly ashes and aggregates. It improves plain reinforced, precast, lightweight or standard weight concrete, pumped concrete and shotcrete (wet mix).

POLYHEED 997 admixture can be used with air-entraining cements and air-entraining admixtures approved under ASTM, AASHTO and CRD specifications when air-entrained concrete is desired.

Master Builders air-entraining admixtures are recommended for use with POLYHEED 997 admixture when air-entrained concrete is specified or desired.

POLYHEED 997 admixture may be used in all colored and architectural concrete.

When used in conjunction with other admixtures, each admixture must be dispensed separately into the mix.

QUANTITY TO USE:

POLYHEED 997 admixture is recommended for use rate of 3 to 12 fl. oz. per 100 lbs. (195 to 780 ml per of cement for most concrete mixes using normal cor making materials.

POLYHEED 997 admixture will not initiate or promote c of reinforcing steel in concrete. This admixture does contain intentionally added calcium chloride or chlor based ingredients. The admixture, due to chlorides ori from all the ingredients used in its manufacture, cont less than 0.00[illegible]1% (1.1 ppm) chloride ions by weight cement when used at the rate of 1 fl. oz. per 100 lbs. per 100 kg) of cement.

NOTE: As the dosage rate of POLYHEED 997 increas 12 fl. oz. per 100 lbs. (780 ml per 100 kg) of cement, n setting-time characteristics are maintained and early ultimate compressive strengths increase.

Master Builders does not advise employing dosage ra outside the recommended range without trial testing. C your local Master Builders representative for assistanc determining the dosage rate for optimum concrete perfor

PACKAGING:

POLYHEED 997 admixture is supplied in 55 U. S. gall (208 liter) drums and bulk delivery.

TEMPERATURE PRECAUTION:

If POLYHEED 997 admixture has frozen, thaw at 35°F or above and completely reconstitute by mild mechan agitation. Do not use pressurized air for agitation.

For additional information on POLYHEED-997 admixture or on its use in developing a concrete mixture with special performance characteristics, contact your local Master Builders representative.

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Fibermesh® MD Product Bulletin

Making Good Concrete Better®

Description:

Fibermesh® MD micro-reinforcement system for concrete - 100 percent virgin homopolymer polypropylene fibrillated fibers containing no reprocessed olefin materials and specifically engineered and manufactured in an ISO 9002 certified facility, to an optimum gradation, with 25 individual unique fiber designs for use as concrete reinforcement at a minimum of 0.1% by volume. U.L. Classified. Complies with National Building Codes and ASTM C-1116, Type III 4.1.3, ASTM C-1116 Performance Level I and Residual Strength .

Function:

- Replaces welded wire fabric when used for secondary (crack control) reinforcing in concrete
- Inhibits and controls the formation of intrinsic cracking in concrete
- Reinforces against impact forces
- Reinforces against the effect of shattering forces
- Reinforces against material loss from abrading forces
- Reinforces against water migration
- Provides better durability
- Imparts toughness to hardened concrete
- Reduces plastic shrinkage and settlement cracking
- Provides Residual Strength

Advantages:

Accepted by National Codes as an alternate method of secondary reinforcing to welded wire fabric - Non-magnetic - Rustproof - Alkali proof - Requires no minimum amount of concrete cover - Is always positioned in compliance with codes - Safe and easy to use - Reduces construction time - Eliminates welded wire fabric hassle on the jobsite.

Uses:

Applicable to all types of concrete which demonstrate a need for toughness and resistance to intrinsic cracking and improved water tightness.

Examples:

Slab on Grade	Sidewalks	Driveways	Stucco
Curbs	Precast	Water Tanks	Overlays/Toppings
Tilt - Up Panels	Mortar	Composite Decks	Maintenance Jobs
Slope Paving	Walls	Thin Sections	Shotcrete

Chemical and Physical Properties:

Absorption	Nil	Specific Gravity	0.91
Fiber Length	Graded	Modulus (Young's)	0.5 (3.5 kN/mm ^{2})
Melt Point	324° F	Ignition Point	1,100° F
Thermal Conductivity	Low	Electrical Conductivity	Low
Acid & Salt Resistance	High	Alkali Resistance	Alkali Proof

Technical Services:

Trained Fibermesh fibrous concrete specialists are available worldwide to assist and advise in specifications and field service. Fibermesh representatives do not engage in the practice of engineering or supervision of projects and are available solely for service and support of Fibermesh customers.

Application Rate:
The standard application rate for Fibermesh fibers is 1.5 # per cubic yard (.9Kg per cubic meter). For specialty performance see your local Fibermesh representative for recommendations regarding increased application rates. COMPONET RATION TO BE ½LB OF FIBERS TO EACH CUBIC YARD OF CONCRETE PER SECTION 0300.

Mix Designs:
Fibermesh micro-reinforcing is a mechanical, not chemical, process. The addition of Fibermesh fiber does **not** require any additional water nor other mix design changes at normal rates.

Mixing Procedures:
Fibermesh fiber is added to the mixer before, during or after batching the other concrete materials. Mixing time and speed are specified in ASTM C-94.

Finishability:
Fibermesh micro-reinforced concrete can be finished by any finishing technique. Exposed aggregate, broomed and tined surfaces are no problem.

Compatibility:
Fibermesh is compatible with all concrete admixtures and performance enhancing chemicals, but requires no admixtures to work.

Guidelines:
Fibermesh fibers should not be used to replace structural, load bearing reinforcement. Fibermesh fibers should not be used as a means of using thinner concrete sections than original design. Fibermesh fibers should not be used to increase joint spacing past those dimensions suggested by PCA and ACI industry standard guidelines.

Packaging:
Fibermesh fibers are available in a variety of packaging options. The 1.5 pound bag (1 bag per cubic yard) is standard. Special packaging is available for full truckload addition. Bags are packed into cartons, shrink wrapped and palletized for protection during shipping. Both Fas-Pak® and convenience packages are available.

Mini-Specification:
Use only 100 percent virgin polypropylene fibers containing no reprocessed olefin materials and specifically manufactured with 25 individual unique fiber designs to an optimum gradation for use as concrete secondary reinforcement. Application per cubic yard shall equal a minimum of 0.1% (1.5 pounds) by volume (.9Kg per cubic meter). Fibers are for the control of cracking due to drying shrinkage and thermal expansion/contraction, lowered permeability, increased impact capacity, shatter resistance, abrasion resistance and residual strength. Fiber manufacturer must document evidence of 5 year satisfactory performance history, ISO 9002 certification of manufacturing facility, compliance with applicable building codes and ASTM C-1116 Type III, 4.1.3, ASTM C-1116 (Ref: ASTM C-1018) Performance Level 1, I5 outlined in Section 21, Note 17 and an average minimum Residual Strength of 50 psi, of 4 beams from a single batch. Fibrous concrete reinforcement shall be manufactured by Fibermesh, 4019 Industry Drive, Chattanooga, Tennessee, USA, 37416. Phone: (423) 892-7243 • Fax: (423) 499-0753 • E-Mail: fibermesh@aol.com • http://www.fibermesh.com
NOTE: Complete CSI Manu-Spec format specification is available both as hardcopy and IBM diskette from your Fibermesh representative.

Fibermesh® Division Offices

SOUTHERN UNITED STATES DIVISION	(512) 261-4600	FAX. (512) 261-4994
NORTHERN UNITED STATES DIVISION	(303) 670- 0447	FAX: (303) 674-9642
INTERNATIONAL DIVISION	(423) 892-8080	FAX: (423) 892-3506

Fibermesh Worldwide Headquarters, 4019 Industry Drive, Chattanooga, TN 37416 (423) 892-7243 FAX: (423) 499-0753
Fibermesh Europe Ltd., Smeckley Wood Close, Sheepbridge, Chesterfield S41 9PZ England, Phone: (+44) 1246 453102

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Sonneborn

Concrete
Repair
Systems

KURE-N-SEAL 25

Transparent solvent-based acrylic curing, sealing, and dustproofing compound

Features

- Cures...
- Semi-gloss appearance...
- Seals and dustproofs...
- Abrasion resistant...
- Compatible with a variety of adhesives...

Benefits

- Minimizes shrinkage cracking
- Surfaces look newer and brighter
- Surfaces easier to clean and maintain
- Extended wear
- Can be tiled or carpeted over

Where to Use Kure-N-Seal 25

- Freshly placed and finished concrete
- Aged concrete floors
- Exposed aggregate
- Brick floors, terrazzo
- Interior and exterior
- Floors and walls

How to Apply Kure-N-Seal 25

Surface Preparation

Newly placed concrete: Surface must be sound and properly finished. Surface is adequately damp, but not wet, and can no longer be marred by foot traffic.

Newly cured bare concrete: Level any gouged-out spots. Remove all dirt, dust, oil, grease, asphalt, and foreign matter. Cleanse with caustics and detergents as required. Citrus Degreaser is excellent for removing oil stains and many curing compounds (see Form No. SC-256). Rinse thoroughly and allow to dry. Kure-N-Seal 25 may be applied to damp, but not wet surfaces.

Aged concrete: Restore surface to soundness by patching, grouting, filling cracks and holes. Surface must also be free of any dust, dirt, and other foreign matter. Use power tools or strippers to remove any incompatible sealers or coatings. Clean as required, following procedure under "Newly cured bare concrete."

Application

Stir Kure-N-Seal 25 thoroughly before using.

Apply a continuous, uniform film by low-pressure spray only, short-nap roller, or lamb's wool applicator. Canister sprayers are recommended for best results.

For curing, apply first coat evenly and uniformly as soon as possible after final finishing. Apply second coat when all construction is completed and structure is ready for occupancy.

To seal and dustproof, 2 coats must be applied. For sealing new and aged concrete, both coats are applied full strength.

Clean Up

Clean tools and equipment with Reducer 990 immediately after use and while Kure-N-Seal 25 is still wet.

Drying Time

At 65° to 85°F (18° to 29°C) light foot traffic or between coats—3 hours; normal traffic—overnight; maximum hardness—7 days. High humidity will increase drying times.

Maintenance

For maximum life of coating, routinely sweep and wash with conventional cleaners and detergents. Remove all abrasive grit and wipe up corrosive spills as soon as possible. Inspect membrane periodically for wear or breaks and gouges in the surface. If required, areas can be renovated by reapplying Kure-N-Seal 25 to regain original gloss and protection.

For Best Performance

- Do not apply Kure-N-Seal 25 to the interfacing of channels to be caulked with elastomeric sealants, avoid sealant adhesion problems by masking.
- Do not use on surfaces to receive concrete overlays or additional toppings or coatings.
- Not recommended as a release agent or where other sealers or treatments are to be later applied.
- Mechanical methods are recommended for removing Kure-N-Seal 25.
- Kure-N-Seal 25 should not be used in areas requiring resistance to solvents such as gasoline, diesel fuel, or paint thinners.
- Avoid excess moisture until material is fully cured.
- Apply at recommended coverage rates for best results (see Coverage section).
- Although Kure-N-Seal 25 is compatible with a variety of tile, carpet, and floor covering adhesives, a test application is always recommended.
- May rubber burn when subjected to forklift or other wheeled traffic.
- Do not thin.
- Kure-N-Seal 25 may settle and must be stirred thoroughly before and during application.
- Kure-N-Seal 25 can be applied to colored concrete or dry shake hardeners, but mottling may occur.
- Kure-N-Seal 25 will highlight imperfections and may darken the final appearance of the concrete surface.
- Application not recommended when surface temperature exceeds 120°F (49°C).
- For professional use only; not for sale to or use by the general public.
- **Keep away from heat and open flame.**
- If Kure-N-Seal 25 is to be applied in or near areas containing foodstuffs, they should be removed before application; do not return foodstuffs until Kure-N-Seal 25 has fully dried and all solvent vapors have dissipated.
- Heating, ventilation and Conditioning (HVAC) units may draw solvent vapors into occupied building locations. Solvent vapors can be irritating. Do not apply Kure-N-Seal 25 in or around buildings occupied by nonconstruction personnel without consulting building management, and taking appropriate precautions. Use only with adequate ventilation and with a minimum of 6 air changes per hour.
- Make certain the most current version of the data guide is being used; call Customer Service 1-800-433-9517) to verify the most current version.
- Proper application is the responsibility of the user. Field visits by ChemRex Inc. personnel are for the purpose of making technical recommendations only, and are not to supervise or provide quality control on the job site.

Technical Data

Compliances

- ☐ Kure-N-Seal 25 is recommended for use on Class 1, 2, 3, and 4 concrete floors as classified in Table 1.1, ACI Standard 302.1R-77
- ☐ ASTM C 309, Type I, Class A
- ☐ ASTM C 1315-96, Type I, Class B
- ☐ Corps of Engineers CRD-C504-36, Type I (or ID), Class A or B
- ☐ AASHTO M-148
- ☐ USDA approval for use in meat and poultry areas, when fully cured

Test Data

Moisture Retention Test ASTM C 156

	kg/m²
Kure-N-Seal 25 (when applied at 300 sq. ft. per gallon)	.38
Test requirement	< .4

Test results are averages obtained under laboratory conditions. Reasonable variations can be expected.

Properties

Property	Result	Test
Drying Time, hrs	< 4	ASTM C 1315
Solids, %	25	ASTM C 1644
Flashpoint, °F (°C)	> 108°F (40°C)	ASTM D 56
Acid & alkali resistance	no effect observed at 1 & 16 hours	ASTM D 1308
UV light resistance	membrane lighter than Gardner color 3	ASTM C 65
Adhesion of tile cement, psi	> 150	ASTM C 1315

Order Information

Packaging

Kure-N-Seal 25

- ☐ 1 gallon cans (3.7 L)
- ☐ 5 gallon pails (18.9 L)
- ☐ 55 gallon drums (208 L)

Shelf life is 1 year when stored in unopened containers under normal conditions. Keep Kure-N-Seal 25 from freezing in the container; do not store below 35°F (2°C).

Color

Amber, dries clear

Coverage

Coverage rates listed are approximations. Coverage varies with texture and porosity of surface; actual surface profile will determine exact coverage rate.

	Sq. Ft. per Gallon per Coat (M²/L)
Curing only	200 - 400 (4.9 - 9.8)
Dustproofing and sealing	
1st coat	200 - 400 (4.9 - 9.8)
2nd coat	400 - 800 (9.8 - 14.6)
Renovating, dustproofing, and sealing	200 - 300 (4.9 - 7.3)
Under mastic floor adhesives	400 - 800 (9.8 - 14.6)

Caution

Kure-N-Seal™ 25 contains naphtha-light aromatic, 1,2,4 trimethyl benzene xylene, cumene

Risks

Combustible liquid and vapor. May cause skin and eye irritation. May cause dermatitis and allergic responses. Inhalation of vapors may cause irritation and intoxication with headaches, dizziness and nausea. Ingestion may cause irritation. May be absorbed through skin. Repeated or prolonged exposure increases the risk of absorption. Reports associate repeated or prolonged occupational overexposure to solvents with permanent brain, nervous system, liver and kidney damage. INTENTIONAL MISUSE BY DELIBERATELY INHALING THE CONTENTS MAY BE HARMFUL OR FATAL

Precautions

READ MSDS AND TECHNICAL DATA GUIDE BEFORE USING. DO NOT USE UNTIL ALL BYSTANDERS HAVE BEEN WARNED OF PRODUCT HAZARDS. KEEP OUT OF THE REACH OF CHILDREN. KEEP AWAY FROM HEAT, FLAME AND SOURCES OF IGNITION. Vapors are heavier than air. DO NOT cut or weld on or near empty container. Empty container may contain explosive vapors or hazardous residues. Keep container closed. Use only with adequate ventilation. Prevent contact with eyes, skin and clothing. Wash thoroughly after handling. DO NOT breathe vapors. Use impervious gloves, eye protection and if the TLV is exceeded or product is used in a poorly ventilated area, use NIOSH/MSHA approved respiratory protection in accordance with applicable federal, state and local regulations. All label warnings must be observed until container is completely cleaned or reconditioned.

First Aid

In case of eye contact, flush thoroughly with water for at least 15 minutes. SEEK IMMEDIATE MEDICAL ATTENTION. In case of skin contact, wash affected area with soap and water. If irritation persists, SEEK MEDICAL ATTENTION. Remove and wash contaminated clothing. If inhalation causes nasal discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs, or if swallowed, SEEK IMMEDIATE MEDICAL ATTENTION.

Refer to Material Safety Data Sheet (MSDS) for further information.

Proposition 65

This product does not knowingly contain materials listed by the state of California as known to cause cancer and birth defects or other reproductive harm.

VOC Content

645 g/L or 5.4 lbs. per gallon less water and exempt solvents.

For medical emergencies only, call ChemTrec 1-800-424-9300

Limited Warranty Notice

Every reasonable effort is made to apply ChemRex Inc. exacting standards both in the manufacture of our products and in the information which we issue concerning these products and their use. We warrant our products to be of good quality and will replace or at our election refund the purchase price of any products proved defective. Satisfactory results depend not only upon quality products, but also upon many factors beyond our control. Therefore, except for such replacement or refund, CHEMREX INC. MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY, RESPECTING ITS PRODUCTS, and CHEMREX INC. shall have no other liability with respect thereto. Any claim regarding product defect must be received in writing within one (1) year from the date of shipment. No claim will be considered without such written notice or after the specified time interval. User shall determine the suitability of the products for the intended use and assume all risks and liability in connection therewith. Any authorized change in the printed recommendations concerning the use of our products must bear the signature of the ChemRex Inc. Technical Manager.

ChemRex Inc.
Shakopee, MN 55379

Manufacturing Plants: Newark, CA; Denver, CO; Centerville, IN; Fort Wayne, IN; Watertown, MI; Bloomington, MN; Bristol, PA.

Regional Warehouses: Hayward, CA; Ontario, CA; Atlanta, GA; Chicago Heights, IL; Elkton, MD; Brampton, ONT (Canada); Grand Prairie, TX

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TECHNICAL DATA SHEET

HORNBOARD

Asphalt Impregnated Fiber Expansion Joint Filler

1. **DESCRIPTION:** HORNBOARD Asphalt Impregnated Fiber Expansion Filler is composed of tough, resilient, cellulose fibers securely bonded together with a uniform impregnation of bituminous binder and performed into strips or sheets. The material is strong but lightweight; cuts and handles easily; resists breakage. It will not extrude from the joint under normal compression and service temperatures, and does not embrittle in cold weather. Installation is easy. HORNBOARD will not twist, break or deform with ordinary handling. It cuts cleanly, places readily, stays strong and sound through many years of repeated expansion/contraction cycles.

2. **USES:** HORNBOARD is a general, multi-purpose filler for expansion joints in all types of heavy concrete construction. It is specifically engineered for commercial, industrial and public works applications.

3. **COMPOSITION AND MATERIALS:** HORNBOARD is manufactured to provide an expansion joint filler that will conform to the current and future specifications as needed.
Designed to comply with:
AASHTO Spec. M213-81
ASTM Spec. D 1751-83
Fed. Spec. H H-F-341f, Type I
Corps of Engineers Spec. CRD C508-72
FAA Spec. P 501-2.4 & P610-2.7 (1968)

Values presented are typical and not necessarily referenced to create specifications.

4. **SIZES:** HORNBOARD Joint is available in the following sizes:
Thickness: 1/4", 3/8", 1/2", 3/4", 1"
Widths: 3" to 48" and 48" slabs
Length: 5 ft. & 10 ft.

5. **CAUTIONS:** HORNBOARD should not be used in conjunction with polysulfide, acrylic or other polymer-base joint sealants.

6. **ENVIRONMENTAL AND SAFETY PRECAUTIONS:** **Industrial Use Only.** Wash hands thoroughly with soap and clean water after handling or before smoking or eating or rubbing eyes. **KEEP OUT OF REACH OF CHILDREN AND ANIMALS.** Consult Material Safety Data Sheet before using this product. EMERGENCY RESPONSE PHONE NUMBER: (800) 862-2667 TAMMS or (800) 424-9300 CHEMTREC.

7. **TECHNICAL SERVICE:** For application procedures or surface conditions not specified above, please contact:

TAMMS INDUSTRIES
3835 State Route 72, Kirkland, IL 60146
800-862-2667 FAX: 815-522-2323
www.tamms.com

WARRANTIES: Seller warrants that the Products do not infringe upon any copyright, patent, or trademark or trade secret, nor violate the proprietary information rights of any third party. Seller warrants that its Products will conform to and perform in accordance with the Products' specifications. **THE FOREGOING WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THOSE CONCERNING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. LIMITATION ON LIABILITIES:** Because of the difficulty of ascertaining and measuring damages hereunder, it is agreed that, except for claims for bodily injury, Seller's liability to the Buyer or any third party, for any losses or damages, whether direct or otherwise, arising out of the purchase of Product from Seller by Buyer shall not exceed the total amount billed and billable to the Buyer for the Product hereunder. **IN NO EVENT WILL SELLER BE LIABLE FOR ANY LOSS OF PROFITS OR OTHER SPECIAL OR CONSEQUENTIAL DAMAGES, EVEN IF SELLER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.**

TAMMS INDUSTRIES JANUARY 2000 (Replaces 5/99)

TAMMS INDUSTRIES JANUARY 2000 (Replaces 5/99)

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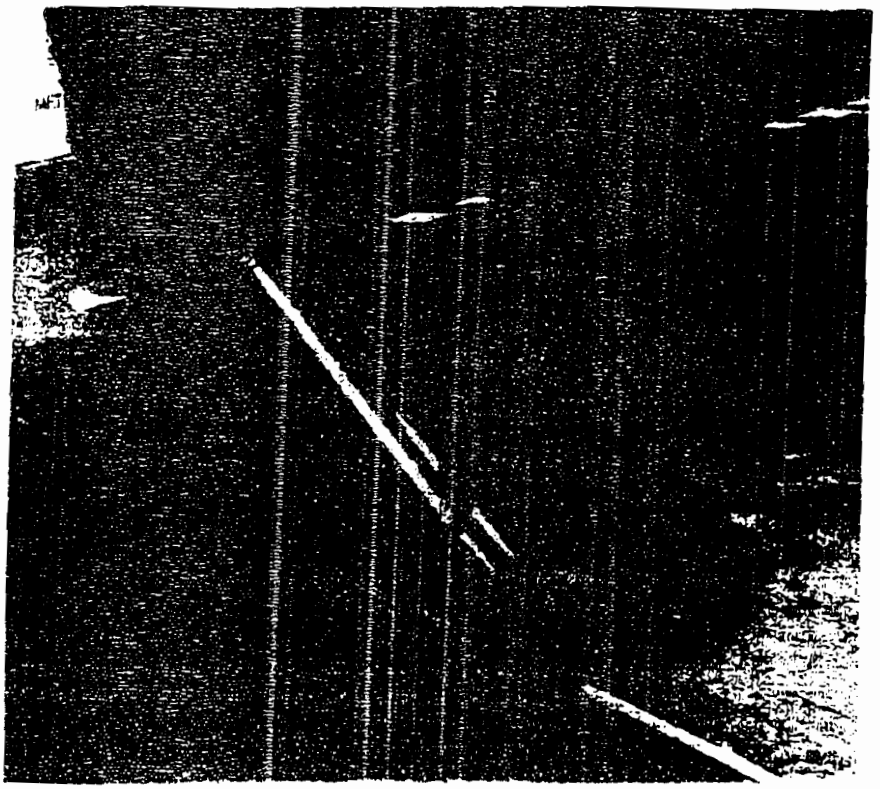
Sonneborn
Sealant Systems

SONOLASTIC®
SL 2™

Self-leveling and slope-grade elastomeric polyurethane sealant for horizontal joints



Where to Use SL 2™

- Concrete expansion joints
- Metal expansion joints
- Interior or exterior
- Sidewalks
- Pavements
- Decks
- Parking ramps
- Precast double T's
- Cantilever decks
- Warehouses
- Balconies
- Industrial applications

Features

- Movement capability ±25%
- Abrasion resistant
- Resists penetration
- Resilient
- Service range from -40°F to 180°F (-40°C to 82°C)
- Resistant to weathering and aging
- Available in custom colors
- Self-leveling and slope grade

Benefits

- Expands and contracts with joint movement
- Handles pedestrian and vehicular traffic
- Withstands pressure from pointed objects
- Resists permanent deformation
- Suitable for all climates
- Long performance
- Can be color matched to any substrate
- Versatility in applications

How to Apply SL 2™

Joint Preparation

1. The number of joints and the joint width should be designed for a maximum of ±25% movement.

2. The depth of the sealant should be 1/2 the width of the joint. The maximum depth is 1/2" (13 mm) and the minimum is 1/4" (6 mm).

3. In deep joints, the sealant depth must be controlled by Closed Cell Backer-Rod or Soft Backer-Rod. (Refer to Form Nos. SJ-403 and SJ-405.) Where the joint depth does not permit the use of backer-rod, a bondbreaker (polyethylene strip) must be used to prevent three-point bonding.

4. To maintain the recommended sealant depth, install backer-rod by compressing and rolling it into the joint channel without stretching it lengthwise. Closed-Cell Backer Rod should be about 1/8" (3 mm) larger in diameter than the width of the joint to allow for compression. Soft Backer Rod should be approximately 25% larger in diameter than the joint width. The sealant does not adhere to it, and no separate bondbreaker is required. Do not prime or puncture the backer-rod.

Surface Preparation

1. It is essential that joints be clean and dry. Joint surfaces must be structurally sound, fully cured, and free of all loose aggregate, paint, oil, grease, asphalt, wax, mastic compounds, waterproofing compounds, form release materials, curing compounds or any other contaminants.

2. **New concrete:** Remove all loose material from joints by wire brushing, sandblast surfaces in contact with form release agents. Fresh concrete must be fully cured. Laitance must be removed by abrading.

3. **Old concrete:** For previously sealed joints, remove all old material by mechanical means. If joint surfaces have absorbed oils, remove sufficient concrete to ensure a clean surface.

Priming

1. Joint surfaces must be primed with Primer 733 (see Form No. SJ-731) before sealing, if the surfaces are other than masonry or concrete. Test first to determine adhesion. Technical assistance is available from ChemRex Inc.

2. Apply primer in a thin, uniform film. Avoid buildup of film.

3. Allow approximately 15 - 30 minutes drying time before applying sealant. (Primer should be tack free.) Sealant must be applied same day as primer.

4. To minimize contamination of adjacent surfaces, apply masking tape and remove before sealant has begun to thicken and set.

Mixing

1. SL 2™ is a three component system and must be thoroughly mixed before use. The oversize base container allows for the addition and mixing of Part B and color pigment into Part A.

2. **1-1/2 gallon (5.67 L) unit:** (1) Transfer Part B to Part A container using a spatula or knife. It is imperative that the entire contents of Part B be combined with Part A. (2) With a slow-speed drill and a sealant mixing paddle, thoroughly mix 2 - 3 minutes. The paddle blade must be kept below the surface of the sealant to avoid whipping in air. (3) Transfer the contents of the pigment can into the mixed Part A and B. Use a spatula or knife, removing the entire contents to ensure consistent color. (4) Continue mixing with a slow-speed drill and sealant paddle until color is uniform. During the process, scrape the sides and bottom of the Part A container can and the paddle itself several times.

3. **3 gallon (11.37 L) unit.** Use 2 Part B and 2 pigment containers for each Part A container. Mix as instructed under 1-1/2 gallon (5.7 L) unit.

4. Pot life of the sealant is dependent upon temperature. See Table 1 for specific data.

Table 1 — Working Times

	Standard Conditions 73°F (23°C)	Colder Temperatures 40°F (4°C)
No accelerator	1-1/2 to 2 hours	4-1/2 to 5-1/2 hours
1 accelerator	30 minutes to 45 minutes	1-1/2 to 2 hours
2 accelerator	30 minutes to 45 minutes	1-1/2 to 2 hours
3 accelerator	—	45 minutes to 1 hour

Application

1. All caulking and sealing should be performed when temperatures are above 40°F (4°C); any moisture or frost on surfaces will adversely affect adhesion.

2. Fill joints from the bottom; avoid bridging of the joint, which may form air voids.

3. For large joints, the self-leveling grade may be poured directly from the can.

4. For smaller joints and for all slope-grade applications, fill the joint by flowing the sealant from a bulk-sealing gun.

5. Light tooling of the slope-grade sealant is recommended to smooth out ripples on sloped surfaces. Tool from the lowest point to the highest. Do not use soap or solvent.

Clean Up

1. Immediately after use and before sealant has cured, clean equipment with Reducer 990 or xylene.

2. The cured sealant may be removed by cutting with a sharp-edged tool, thin films by abrading.

Curing

Cure time will vary with humidity and temperature. Initial cure is within 24 hours and complete cure takes approximately 7 days. Cure rates are dependent on temperature and humidity.

Protect joint from dirt and traffic until cured.

For Best Performance

- Do not allow SL 2™ sealants to come into contact with alcohol based materials or solvents.
- Do not apply polyurethane sealants in the vicinity of uncured silicone sealants.
- SL 2™ is not intended for continuous immersion in water. Contact Technical service for recommendation.
- For slopes up to 12% use SL 2™ Slope Grade. For
- Backer-rods, joint fillers, or bondbreakers must be tight to the sides of the joint to prevent loss of sealant through the bottom.
- For joints subject to puncture by high heels or umbrella points, a stiffer or higher density backup material is required. Cork or rigid resin-impregnated cane-fiber joint fillers are suitable. Separate materials from the sealant by a
- Do not use other caulks or sand as a bottom bed in a joint.
- Do not install when rain is expected before the sealant reaches initial cure (about 12 hours).
- Units of SL 2™ are premeasured; do not use partial units.
- SL 2™ may yellow in the presence of unvented artificial heat, this is a surface phenomenon that does not
- Use only color packs intended for use with SL 2™.
- Make certain the most current version of this data guide is being used; call Customer Service (1-800-433-9547) to verify the most current version.
- Proper application is the responsibility of the user. Field visits by ChemRex Inc. personnel are for the purpose of giving technical recommendations only and are not to supervise or pro-

Technical Data

Compliances

- Federal Specification TT-S-00227E, Type I, Class A
- Corps of Engineers CRD C 506, Type I, Class A
- ASTM C 920, Type M, Grade P, Class 25, Use T and M
- Canadian Specification CAN/CGSB-19.24-M90, Classification MCG 1-40-B-L, No. 81051
- Canadian approval for use in establishments that handle food
- USDA approval for use in areas that handle meat and poultry

Typical Properties of Cured Sealant

Table 2

Property	SL 2 Value	SL 2 Slope Grade Value	Test Method
Tensile strength, psi (MPa)	125 (0.9)	145 (1.0)	ASTM D 412
Elongation, %	240	225	ASTM D 412
Shrinkage	Nil	Nil	
Low temperature flexibility, -15°F (-26°C)	Passes	Passes	ASTM C 793
Service temperature range, -40 to 180°F (-40 to 82°C)	Passes	Passes	
Stain and color change (no visible stain)	None	None	ASTM C 510
Extrusion rate and application life	Passes	Passes	ASTM C 603
Rheological (flow) at 40°F (4°C)	Self-leveling	–	ASTM C 639
Hardness at standard conditions, Shore A	30	30	ASTM C 661
Hardness after heat aging (Maximum Shore A 50)	40	20	ASTM C 661
Tack-free time, hours, (Maximum 72 hours)	<24	<24	ASTM C 679
Movement capability, %	± 25	± 35	ASTM C 719
Bond durability on concrete	Passes	Passes	ASTM C 719
Weight loss after heat aging, %	5	5	ASTM C 792
Cracking & chalking after heat aging	None	None	ASTM C 792
Artificial weathering Xenon arc, 250 hours	Passes	Passes	ASTM C 793
Artificial weathering Xenon arc, 2,000 hours	No surface cracking	No surface cracking	ASTM C 26
Adhesion in peel, on concrete	Passes	Passes	ASTM C 794

Test results are averages obtained under laboratory conditions. Reasonable variations can be expected.

Order Information

Packaging

SL 2™

- 1.5 gallon units (5.67 L) containing Part A and Part B
- 3 gallon units (11.34 L) containing Part A and Part B
- For slope grade SL 2™ Fast-Cure see Form No. SN-330

Primer 733

- 1 pint (473 mL) cans, 12 pints per carton

Coverage rate of primer is approximately 450 linear feet (137 m) per pint for a 1/2" (13 mm) deep joint.

Shelf life of both products is 12 months when stored in unopened containers under normal conditions.

Colors

40 standard, stocked colors are available. Refer to the Rainbow of Colors® popular palette, Form No. SP-041.

455 standard (non-stocked) colors are also available, and custom matching can be done upon request. Refer to the Rainbow of Colors® book.

Available in pretinted colors: Precast gray, Limestone

- 1.5 gallon (5.7 L) units
- 4.5 gallon (17 L) units

Minimum order is 100 pails in 4.5 gallon units.

Coverage

Table 3

Linear Feet per Gallon

Joint Depth (inches)	Joint Width (inches) 1/4"	3/8"	1/2"	5/8"	3/4"	7/8"	1"
1/4	308	205	154	122			
3/8				82	68	58	51
1/2					51	44	38

Linear Meters per Liter

Joint Depth (mm)	Joint Width (mm) 6	10	13	16	19	22	25
6	24.8	16.5	12.4	9.8			
10				6.6	5.0	4.7	4.1
13					4.1	3.5	3.0

Warning

SL 2™ Part A contains calcium carbonate, light aromatic naphtha, 1,2,4-trimethyl benzene, toluene diisocyanate, silicon dioxide, titanium dioxide, mineral spirits (Stoddard type)

Risks

Combustible liquid and vapor. May cause skin and eye irritation. May cause dermatitis and allergic responses. Potential skin and/or respiratory sensitizer. Inhalation of vapors may cause irritation and intoxication with headaches, dizziness and nausea. Ingestion may cause irritation. Reports associate repeated or prolonged occupational overexposure to solvents with permanent brain, nervous system, liver and kidney damage. INTENTIONAL MISUSE BY DELIBERATELY INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

Precautions

KEEP OUT OF THE REACH OF CHILDREN. KEEP AWAY FROM HEAT, FLAME AND SOURCES OF IGNITION. Keep container closed when not in use. Use only with adequate ventilation. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Avoid breathing vapors. DO NOT take internally. Use impervious gloves, eye protection and if the TLV is exceeded or product is used in a poorly ventilated area, use NIOSH/ MSHA approved respiratory protection in accordance with applicable federal, state and local regulations. Empty containers may contain explosive vapors or hazardous residues. All label warnings must be observed until container is commercially cleaned or reconditioned.

First Aid

In case of eye contact, flush thoroughly with water for at least 15 minutes. SEEK IMMEDIATE MEDICAL ATTENTION. In case of skin contact, wash affected areas with soap and water. If irritation persists, SEEK MEDICAL ATTENTION. Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs, or if swallowed, SEEK IMMEDIATE MEDICAL ATTENTION.

Refer to Material Safety Data Sheet (MSDS) for further information.

Proposition 65

This product contains material listed by the State of California as known to cause cancer, birth defects or other reproductive harm.

VOC Content

When mixed, product contains less than 64.0 - 93 g/L or 0.54 - 0.77 lbs./gal. less water and exempt solvents.

Warning

SL 2™ Part B contains toluene diisocyanate

Risks

May cause eye, skin or respiratory irritation. May cause dermatitis and allergic reactions. Potential skin and/or respiratory sensitizer.

Precautions

Prevent contact with skin, eyes or clothing. Wash thoroughly after handling. DO NOT take internally. Ingestion may cause irritation. Use only with adequate ventilation. Keep container closed. Inhalation may cause irritation. Use impervious gloves, eye protection and if the TLV is exceeded or used in a poorly ventilated area, use NIOSH/MSHA approved respiratory protection in accordance with applicable federal, state and local regulations. All label warnings must be observed until container is commercially cleaned or reconditioned.

First Aid

In case of eye contact, flush thoroughly with water for at least 15 minutes. In case of skin contact, wash affected areas with soap and water. If irritation persists, SEEK MEDICAL ATTENTION. Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs, SEEK IMMEDIATE MEDICAL ATTENTION. If swallowed, SEEK IMMEDIATE MEDICAL ATTENTION.

Refer to Material Safety Data Sheet (MSDS) for further information.

Proposition 65

This product contains materials listed by the state of California as known to cause cancer, birth defects, or other reproductive harm.

VOC Content

8.09 g/L or 0.07 lbs/gal less water and exempt solvents

Warning

SL 2™ Accelerator contains toluene diisocyanate mix

Risks

May cause skin, eye or respiratory irritation. May be absorbed through skin. May cause dermatitis and allergic reactions. Ingestion may cause irritation. Repeated or prolonged exposition may affect kidneys.

Precautions

KEEP OUT OF THE REACH OF CHILDREN. Prevent contact with skin, eyes and clothing. Wash thoroughly after handling. DO NOT take internally. Ingestion may cause irritation. Use only with adequate ventilation. Inhalation may cause irritation. Keep container closed. Use impervious gloves, eye protection and if the TLV is exceeded or used in a poorly ventilated area, use NIOSH/MSHA approved respiratory protection in accordance with applicable federal, state and local regulations.

First Aid

In case of eye contact, flush thoroughly with water for at least 15 minutes. In case of skin contact, wash affected areas with soap and water. If irritation persists, SEEK MEDICAL ATTENTION. Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs or if swallowed, SEEK IMMEDIATE MEDICAL ATTENTION.

Refer to Material Safety Data Sheet (MSDS) for further information.

Proposition 65

This product contains materials which are known to the state of California to cause cancer, birth defects, or other reproductive harm.

VOC Content

0 g/L or 0 lbs/gal per gallon less water and exempt solvents

For medical emergencies only, call ChemTrec (1/800/424-9300)

Customer Service: 1/800/446 9517
Technical Service: 1/800/ChemRex (1/800/245 6739)
Web Site: www.chemrex.com

Limited Warranty Notice

Every reasonable effort is made to apply ChemRex Inc. exacting standards both in the manufacture of our products and in the information which we issue concerning these products and their use. We warrant our products to be of good quality and will replace or, at our election, refund the purchase price of any products proved defective. Satisfactory results depend not only upon quality products, but also upon many factors beyond our control. Therefore, except for such replacement or refund, CHEMREX INC. MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY, RESPECTING ITS PRODUCTS, and CHEMREX INC. shall have no other liability with respect thereto. Any claim regarding product defect must be received in writing within one (1) year from the date of shipment. No claim will be considered without such written notice or after the specified time interval. User shall determine the suitability of the products for the intended use and assume all risks and liability in connection therewith. Any authorized change in the printed recommendations concerning the use of our products must bear the signature of the ChemRex Inc. Technical Manager.

Sonneborn

ChemRex Inc.

889 Valley Park Drive, Shakopee, MN 55379

Manufacturing Plants: Allentown, PA; Bloomington, MN; Bristol, PA; Caguas, PR; Centerville, IN; Dalvel, CO; Forest Hill, TX; Fort Wayne, IN; Gurnee, IL; Houston, TX; Lancaster, TX; Moreno, CA; Matawan, MI; Newark, CA; Rancho Cucamonga, CA; Reynolds, GA; Seattle, WA; Streetsboro, OH; Troy City, OH; Toronto (Canada); Montreal (Canada); Edmonton (Canada).

Regional Warehouses: Atlanta, GA; Aurora, IL; Bridgeton, (Canada); Chicago, IL; Irwin, PA; Fairfield, NJ; Hayward, CA; Ontario, CA

(1) ATTN — BOND BREAKER

PRODUCT INFORMATION

Tectyl RUST PREVENTIVES

A PRODUCT OF VALVOLINE OIL COMPANY DIVISION OF ASHLAND PETROLEUM COMPANY

TECTYL 506

Description

TECTYL 506 is a solvent cutback, wax base, corrosion preventive compound. The dry film is firm, amber, waxy and translucent. TECTYL 506 is excellent for long term protection of metallic surfaces against corrosion in either indoor or outdoor exposure and during domestic and international shipments.

Laboratory Data

	Typical Properties English	Metric
Flash, PMCC, Minimum	100°F	37.8°C
Specific Gravity @ 60°F (15.6°C)	0.88	0.88
Recommended Dry Film Thickness	1.3 Mils	32.5 Microns
Theoretical Coverage	650 sq. ft./ U.S. Gallon	16 sq. meters/ liter
Non Volatile % by Weight	53-57	—
Approximate Air Dry Time @ 77°F (25°C)	1 hour	1 hour
High Temperature Flow Point	300°F	148.5°C
Low Temperature Flexibility, (90° bend-No flaking or cracking)	-10°F	-22.5°C
Volatile Organic Content V.O.C.	3.24 lbs./ U.S. Gallon	400 grams/ Liter
Accelerated Corrosion Tests: 5% Salt Spray (Hours)		
(A) *ASTM B-117 @ 1.3 mils, (2x4x1/8 in. Polished Steel Panels)	2000	—
(B) **DIN 50021 @ 32.5 microns (125x200 mm. DIN 1623 Panels)	—	168

*ASTM (American Society for Testing and Materials)
**DIN (Deutsche Industrie Normen)

Benefits

Easy Application
TECTYL 506 is formulated for easy application by spray, dip or brush.

Low-Cost Protection
TECTYL 506 is a one coat rust preventive. The thin film provides high coverage and low cost protection.

7015

The information contained herein is correct to the best of our knowledge. The recommendations or suggestions contained in this bulletin are made without guarantee or representation as to results. We suggest that you evaluate these recommendations and suggestions in your own laboratory prior to use. Our responsibility for claims arising from breach of warranty, negligence, or otherwise is limited to the purchase price of the material. Freedom to use any patent owned by Ashland or others is not to be inferred from any statement contained herein.

Printed in U.S.A.

MATERIAL SAFETY DATA SHEET

The Valvoline Company

Page 001
Date Prepared: 08/21/98
Date Printed: 10/17/98
MSDS No: 306.0001438-012.001

TECTYL 506

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity
Product Name: TECTYL 506
Product Code: 50010145
General or Generic ID: SOLVENT-BASED RUST PREVENTATIVE

Company
The Valvoline Company
P.O. Box 14000
Lexington, KY 40512

Telephone Numbers
Emergency: 1-800-274-5263
Information: 1-606-357-7347

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)	CAS Number	% (by weight)
CALCIUM SALT OF OXIDIZED PETROLATUM	68425-34-3	74.0- 84.0
ALIPHATIC HYDROCARBONS (STODDARD TYPE)	8052-41-3	16.0- 26.0

3. HAZARDS IDENTIFICATION

Potential Health Effects

Eye
Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.

Skin
May cause mild skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, drying and cracking of skin, and skin burns.

Swallowing
Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. This material can enter the lungs during swallowing or vomiting and cause lung inflammation and/or damage.

Inhalation
Breathing of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful.

Symptoms of Exposure
Stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness).

Target Organ Effects
Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans, and may aggravate pre-existing disorders of these organs: central nervous system effects.

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MATERIAL SAFETY DATA SHEET

The Valvoline Company

Date Prepared: 08/21/98
Date Printed: 10/17/98
MSDS No: 505.0001458-012.001

TECTYL 508

Developmental Information
No data

Cancer Information
No data

Other Health Effects
No data

Primary Route(s) of Entry
Inhalation, Skin contact.

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4. FIRST AID MEASURES

Eyes
If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

Skin
Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.

Swallowing
Do not induce vomiting. This material is an aspiration hazard. If individual is drowsy or unconscious, place on left side with the head down. Seek medical attention. If possible, do not leave individual unattended.

Inhalation
If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.

Note to Physicians
No data

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5. FIRE FIGHTING MEASURES

Flash Point
106.0 F (41.1 C) PMCC

Explosive Limit
(for component) Lower 1.0 Upper 6.0 %

Autoignition Temperature
No data

Hazardous Products of Combustion
May form: carbon dioxide and carbon monoxide, sulfur compounds, various hydrocarbons.

Continued On Next Page

MATERIAL SAFETY DATA SHEET

Fire and Explosion Hazards
Vapors are heavier than air and may travel along the ground or be moved by ventilation and ignited by heat, pilot lights, other flames and ignition sources at locations distant from material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.

Extinguishing Media
regular foam, carbon dioxide, dry chemical.

Fire Fighting Instructions
Water may be used to extinguish fire by cooling, and diluting liquid with water. Wear a self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode with appropriate turn-out gear and chemical resistant personal protective equipment. Refer to the personal protective equipment section of this MSDS.

NFPA Rating
Health - 1, Flammability - 2, Reactivity - 0

6. ACCIDENTAL RELEASE MEASURES

Small Spill
Eliminate all sources of ignition such as flares, flames (including pilot lights), and electrical sparks. Absorb liquid on vermiculite, floor absorbent or other absorbent material.

Large Spill
Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source. Prevent from entering drains, sewers, streams or other bodies of water. Prevent from spreading. If runoff occurs, notify authorities as required. Pump or vacuum transfer spilled product to clean containers for recovery. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to containers for disposal.

7. HANDLING AND STORAGE

Handling
Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. All five gallon pails and larger metal containers including tank cars and tank trucks should be grounded and/or bonded when material is transferred.

Storage
Not applicable

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection
Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. Consult your safety representative.

Continued On Next Page

MATERIAL SAFETY DATA SHEET

Skin Protection
Wear resistant gloves such as: neoprene. To prevent repeated or prolonged skin contact, wear impervious clothing and boots..

Respiratory Protections
If workplace exposure limit(s) of product or any component is exceeded (See Exposure Guidelines), a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (consult your industrial hygienist). Engineering or administrative controls should be implemented to reduce exposure.

Engineering Controls
Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

Exposure Guidelines
Component

CALCIUM SALT OF OXIDIZED PETROLATUM (68425-34-3)
No exposure limits established

ALIPHATIC HYDROCARBONS (STODDARD TYPE) (8052-41-3)
OSHA VPEL 100.000 ppm - TWA
ACGIH TLV 100.000 ppm - TWA

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point
(for component) 315.0 F (157.2 C)

Vapor Pressure
(for component) 2.000 mmHg

Specific Vapor Density
> 1.000 @ AIR=1

Specific Gravity
.890 @ 77.00 F

Liquid Density
7.310 lbs/gal @ 77.00 F
.890 kg/l @ 25.00 C

Percent Volatiles (Including Water)
50.0 - 54.0 %

Volatile Organic Compounds (VOC) (Maximum)
3.480 lbs/gal

Evaporation Rate
SLOWER THAN ETHYL ETHER

Continued On Next Page

MATERIAL SAFETY DATA SHEET

The Valvoline Company

Date Prepared: 08/21/98
Date Printed: 10/17/98
MSDS No: 506.000143-012.001

TECTYL 506

Appearance
TRANSLUCENT

State
LIQUID

Physical Form
No data

Color
AMBER

Odor
No data

pH
Not applicable

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10. STABILITY AND REACTIVITY

Hazardous Polymerization
Product will not undergo hazardous polymerization.

Hazardous Decomposition
May form: carbon dioxide and carbon monoxide, sulfur compounds, various hydrocarbons.

Chemical Stability
Stable.

Incompatibility
Avoid contact with: strong oxidizing agents.

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11. TOXICOLOGICAL INFORMATION

No data

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12. ECOLOGICAL INFORMATION

No data

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13. DISPOSAL CONSIDERATION

Waste Management Information
Dispose of in accordance with all applicable local, state and federal regulations.

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MATERIAL SAFETY DATA SHEET

The Valvoline Company

Page 006
Date Prepared: 08/21/98
Date Printed: 10/17/98
MSDS No: 506.0001458-012.001

TECTYL 506

14. TRANSPORT INFORMATION

DOT Information - 49 CFR 172.101
DOT Description:
COMBUSTIBLE LIQUID, N.O.S.,NA 1993,III

Container/Mode:
DRUMS/SURFACE - NO EXEMPTIONS

NOS Component:
ALIPHATIC HYDROCARBONS (STODDARD TYPE)

RQ (Reportable Quantity) - 49 CFR 172.101
Not applicable

15. REGULATORY INFORMATION

US Federal Regulations
TSCA (Toxic Substances Control Act) Status
TSCA (UNITED STATES) The intentional ingredients of this product are listed.

CERCLA RQ - 40 CFR 302.4
None

SARA 302 Components - 40 CFR 355 Appendix A
None

Section 311/312 Hazard Class - 40 CFR 370.2
Immediate(X) Delayed( ) Fire(X) Reactive( ) Sudden Release of Pressure( )

SARA 313 Components - 40 CFR 372.65
None

International Regulations
Inventory Status
Not determined

State and Local Regulations
California Proposition 65
None

New Jersey RTK Label Information
STODDARD SOLVENT 8052-41-3

Pennsylvania RTK Label Information
STODDARD SOLVENT 8052-41-3

16. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

Last Page

(2)

CO·STEEL SAYREVILLE

NORTH CROSSMAN RD
P.O. Box 249
SAYREVILLE, NJ, USA
08871-0249

FAX: (732)721-5674 TEL: (732)721-6600

TESTING LABORATORY REPORT
COMPTE RENDU DU LABORATOIRE D'ESSAI

BILL OF LADING NO DE/ CONN. 218302

- PHYSICAL PROPERTIES - METALLURGICAL PROPERTIES - CHEMICAL ANALYSIS
- PROPRIETES PHYSIQUES - PROPRIETES METALLURGICAL - ANALYSE CHIMIQUE

THIS REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL, THIS REPORT RELATES ONLY TO THE ITEMS TESTED.
THE CHEMISTRY ANALYSIS WAS DETERMINED IN ACCORDANCE WITH TEST METHODS ASTM E 415 AND/OR ASTM E 1019.

SHIP TO / EXPEDIERA

MEADOW BURKE PRODUCTS
565 OAK RIDGE ROAD
HAZLETON, PA, USA
18201
Attn:JOHN WOITKO

Julius J. Bergonch
Plant Metallurgical Engineer

CO·STEEL SAYREVILLE

CERTIFIES THAT THE RESULTS BELOW ARE A TRUE AND CORRECT COPY OF THE RECORDS PREPARED AND MAINTAINED BY THE AFOREMENTIONED COMPANY, IN COMPLIANCE WITH THE REQUIREMENTS OF THE SPECIFICATIONS CITED BELOW.

THIS PRODUCT HAS BEEN MELTED AND MANUFACTURED IN U.S.A.

MATERIAL TESTED / MATERIAU EPROUVE	GRADE / NUANCE	CONTROL NO. / NO. DE CONTROLE	CUSTOMER P.O. NO. / NO DE COMM DU CLIENT
EPOXY ROUNDS 1 1/8" ROUNDS EPOXY(33 FT 5 IN)	ASTM A615 GR60	61167202	000155

TEST RESULTS FOR HEAT N10071 HEAT SEQ 1

SAMPLE	C	MN	P	S	SI
1	.42000	.79000	.00500	.05800	.20000

MECHANICAL TESTS SAMPLE NUMBER 1 YIELD: 71025.0 PSI, TENSILE: 105229.0 PSI %ELONGATION: 16.0 - BEND TEST PASSED

EPOXY ROUNDS 1 1/4 ROUNDS EPOXY(20 FT)	ASTM A615 GR60	62520901	010898

TEST RESULTS FOR HEAT N12308 HEAT SEQ 1

SAMPLE	C	MN	P	S	SI
1	.42000	.81000	.00600	.04700	.18000

MECHANICAL TESTS SAMPLE NUMBER 1 YIELD: 67878.0 PSI, TENSILE: 95368.0 PSI %ELONGATION: 13.0 - BEND TEST PASSED

EPOXY ROUNDS 1 1/4 ROUNDS EPOXY(20 FT)	ASTM A615 GR60	62520901	010898

TEST RESULTS FOR HEAT N12310 HEAT SEQ 1

SAMPLE	C	MN	P	S	SI
1	.43000	.87000	.01200	.04800	.18000

MECHANICAL TESTS SAMPLE NUMBER 1 YIELD: 66509.0 PSI, TENSILE: 107699.0 PSI %ELONGATION: 12.0 - BEND TEST PASSED

EPOXY ROUNDS 1" RDS EPOXY(20 FT)	C.S.A. G40.21-98 44W	62971001	000155

TEST RESULTS FOR HEAT N14072 HEAT SEQ 1

SAMPLE	C	MN	P	S	SI	CU	NI	CR	MO	SN	V
1	.17000	.75200	.02300	.05700	.18200	.45700	.14600	.10400	.03500	.02400	.00000

MECHANICAL TESTS SAMPLE NUMBER 1 YIELD: 53731.0 PSI, TENSILE: 75885.0 PSI %ELONGATION: 25.0

EPOXY ROUNDS 1 1/8" ROUNDS EPOXY(20 FT)	ASTM A615 GR60	62971002	000155

TEST RESULTS FOR HEAT N12332 HEAT SEQ 1

SAMPLE	C	MN	P	S	SI
1	.43000	.87000	.01700	.04300	.22000

MECHANICAL TESTS SAMPLE NUMBER 1 YIELD: 80280.0 PSI, TENSILE: 114283.0 PSI %ELONGATION: 13.0 - BEND TEST PASSED

(3)

Lilly Industries, Inc.(z))

CERTIFICATION of COMPLIANCE
C of C 3-95-PC

Date: 04-7-00

Customer: Co-Steel

Address: N. Crossman Road

City: Sayreville State/Zip: NJ 08871

Factory Order Number: na

Specification: ASTM A775, ASHTO M284, ASHTO M254

Lilly Product Code: 720AC09 GREENBAR FUSION BOND EPOXY POWDER COATING

Batch Number: 0030192

Production Date: 04-06-00

Batch Size: 26,620 lbs est.

I hereby certify that the above lot of material was manufactured to formulation, meeting all the requirements of the above specification and that this material is chemically the same material that was tested by Valley Forge Laboratories of Devon, PA.

Shawn Mullendore
Process control

1136 Fayette
North Kansas City, MO 64116
(816) 421-7400
Fax: (816) 421-4563

CO·STEEL SAYREVILLE

NORTH CROSSMAN RD

SAYREVILLE, New Jersey, USA, 08871-0249

TEL: (732) 721-6600 FAX: (732) 721-6674

(4)

EPOXY COATING DIVISION
EPOXY TESTING LABORATORY REPORT

Bill of Lading No: 210302

Load No: 235146

Ship To Customer

MEADOW BURKE PRODUCTS
Attention: JOHN WOITKO
565 OAK RIDGE ROAD
HAZLETON, , PA, USA ,18201

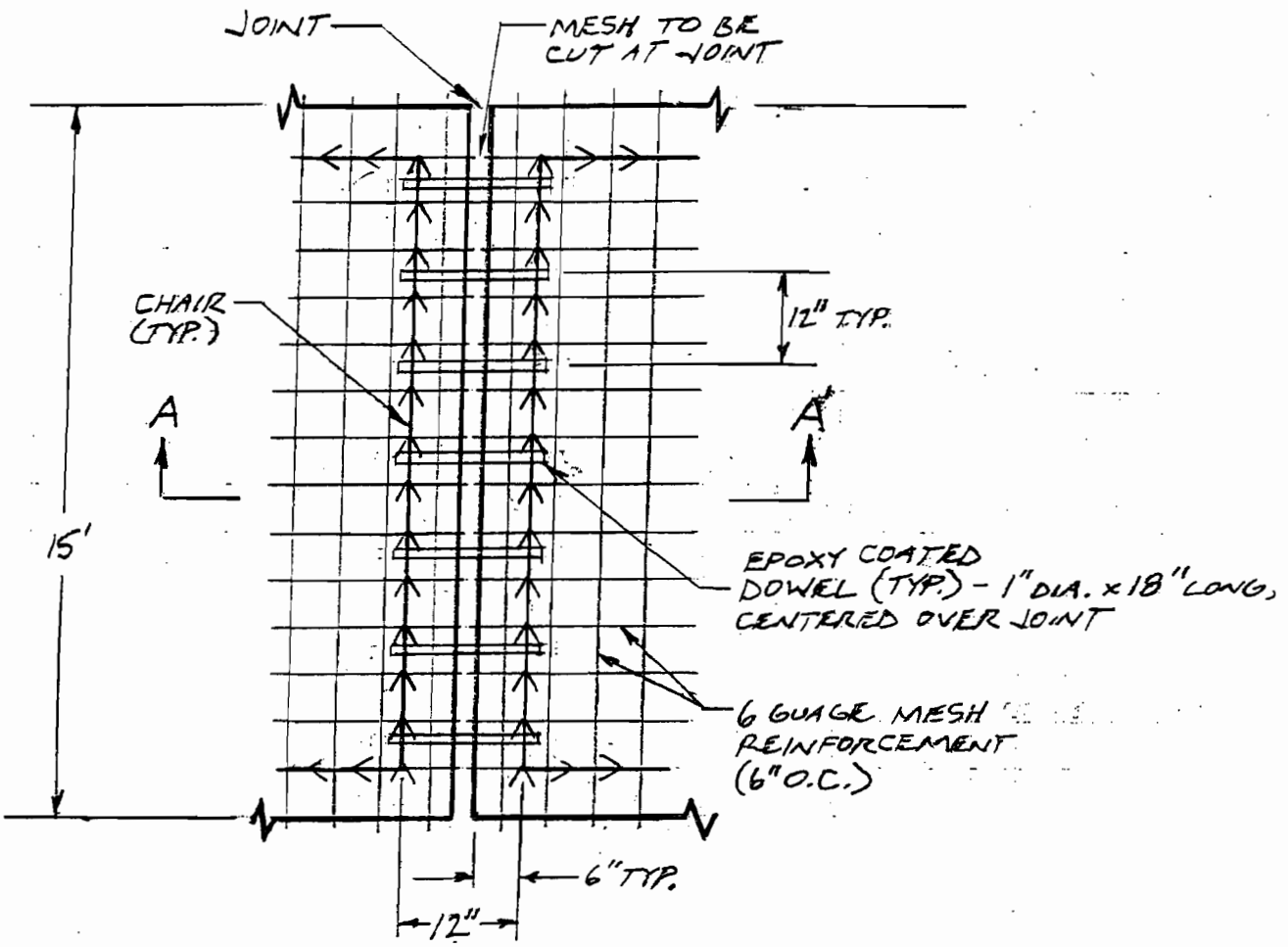
3668 1

Q/A Manager

This is to certify that the steel reinforcement bars listed below have been epoxy coated in accordance with the epoxy powder manufactures product data recommendations and complies with those parmeters set forth in the current editions of ASTM. ASTM specifications A775 and AASHTO specification M284. This product has been melted and manufactured in USA.

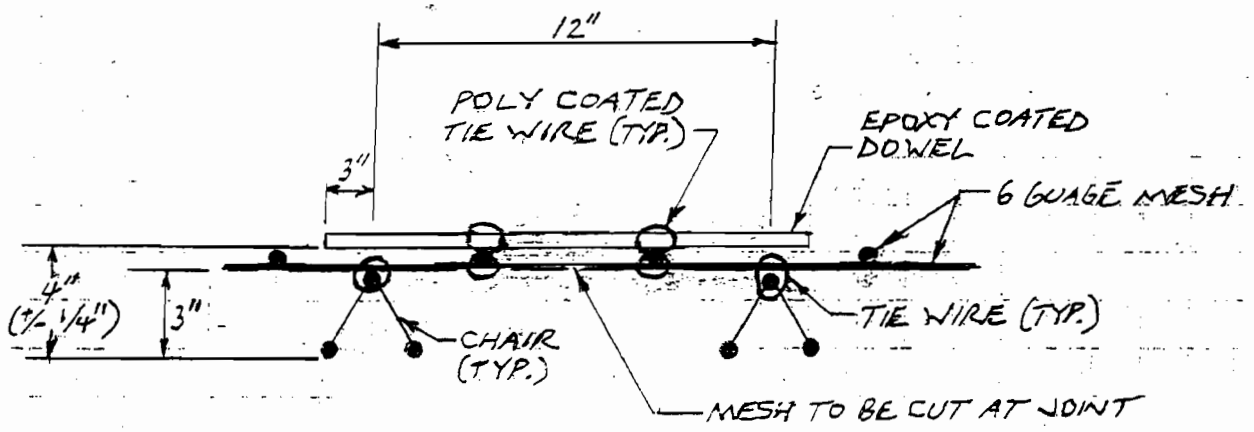
Epoxy Tag	Mill Tag	Heat No	Product	Grade	PCS	Length	Powder MFG	Powder Type	Powder Bat No	Coat Temp	Cure Time	Tolerance	Bend Test	Holiday Test	Order No
717703	1272282	N 10071	1 1/8" ROUNDS EPOXY	R60	54 -	33 FT 5 IN	MORTON	10	291201170	440 F	30 SEC	10 +8, 12	PASS	PASS	000155
724269	1272456	N 12310	1 1/4 ROUNDS EPOXY	R60	75 -	20 FT	LILLY	720	40123	440 F	30 SEC	10 +8, 12	PASS	PASS	010898
724270	1272452	N 12310	1 1/4 ROUNDS EPOXY	R60	75 -	20 FT				440 F	30 SEC	10 +8, 12	PASS	PASS	
725513	1272240	N 12332	1 1/8" ROUNDS EPOXY	R60	90 -	20 FT	morton	10	200304446	440 F	30 SEC	10 +8, 12	PASS	PASS	000155
725542	1326353	N 14072	1" RDS EPOXY	44W	96 -	20 FT	[illegible]y	720	40122	440 F	30 SEC	10 +8, 12	PASS	PASS	000155
725606	1272497	N 12308	1 1/4 ROUNDS EPOXY	R60	75 -	20 FT	MORTON	10	20030-1449	440 F	30 SEC	10 +8, 12	PASS	PASS	010898

OSWEGO CASTINGS



CONTROL JOINT PLAN

(NOT TO SCALE)



SECTION A-A' (TYP. AT CONTROL JOINT)

NOT TO SCALE

APPENDIX E

How to reseal pavement joints

Proper joint preparation and sealant installation help extend pavement life by keeping out water and incompressible materials

Over time, all pavement joint sealants suffer accumulated distress. Sealants can lose bond with joint reservoir sidewalls or lose internal bond and split open. They can also lose their flexibility through natural aging and long-term exposure to oxygen, ozone, and sunlight.

Distressed sealants allow water to seep through joints, which can soften and erode the subbase or subgrade. This degradation can result in loss of structural support and pavement settlement and faulting. Incompressible materials can also enter joints and obstruct pavement expansion, which can cause spalling of the joint faces.

To extend pavement life, joint sealants must be replaced periodically. Correct sealant application and maintenance minimize infiltration of surface water and incompressible materials.

In concrete pavement restoration (CPR), which often includes full- and partial-depth repair and diamond grinding, resealing joints is the last technique in the sequence. Successful resealing consists of five steps:

1. Removing old sealant
2. Shaping the reservoir
3. Cleaning the reservoir
4. Installing the backer rod
5. Installing the sealant

Removing old sealant

Simply pouring new sealant over an existing sealant will not restore pavement joints. Removing the old sealant and cleaning the joint faces are essential steps. These processes provide a surface to which the new sealant can bond. It is imperative that methods for removing old sealant do not damage the joint reservoir. The following methods provide acceptable results:

Manual removal. Typically, compression seals can be easily removed by hand. This simple method provides a quick result whenever feasible and does not leave much material on the reservoir sidewalls.

Sawing. The most common and efficient removal method is sawing with diamond blades (Figure 1). This method is efficient because sawing also shapes the reservoir for the new material. However, it may not be effective on sticky sealing materials such as PVC coal tar. Sticky materials can clog diamond blades.

Plowing. Plowing can be very effective for removing most of the old sealant. A small plow pulled through the reservoir dislodges the material. Be careful, however, when selecting the plow design. Avoid V-shaped plows because they tend to scour the reservoir corners and can easily spall the surrounding concrete. Very little damage occurs with a rectangular plow.

Cutting. Cutting requires a worker to run a knife blade along the faces of the joint. Afterward, the sealant easily pulls free by hand.

All photos by American Concrete Pavement Association

Reservoir preparation is the most important step of a joint resealing project. Above, a worker sandblasts the top of a joint face to provide a clean bonding surface for the sealant.

Shaping the reservoir

Saws can be used to widen the sealant reservoir after the sealant is removed. Saws with dry or wet diamond blades are acceptable. The blades remove any remaining old sealant and provide the proper dimensions for the new sealant.

In certain instances, this step may not be required. Shaping is unnecessary if the sealant was removed by hand and the existing reservoir provides adequate dimensions. Sawing out the old sealant typically provides an adequate reservoir and should not require this step either.

Some minor spalling along the joint face will not inhibit performance of

most sealants. However, some patching may be needed for larger spalls. The specifications should detail areas requiring patching so that these areas can be repaired before cleaning the reservoir and installing the sealant.

Resealing pavements containing plastic or metal joint inserts requires first removing the insert. Afterward, sawing provides smooth vertical faces for the new sealant.

Cleaning the reservoir

Cleaning is the most important aspect of joint sealing. For every liquid sealant, manufacturers require essentially the same cleaning procedures. Likewise, the performance claims of any liquid sealant product are predicated on those cleaning procedures.

Reservoir faces require a thorough cleaning to ensure good sealant adhesion and long-term performance. No dust, dirt, or visible traces of old sealant should remain on the joint faces after cleaning. The ability to attain this condition may depend on the reservoir width. Most contractors report that it is easier to consistently clean joints if they are at least ⅜ inch wide. Cleaning ¼-inch or even ½-inch joints is very difficult.

Do not use chemical solvents to wash the joint reservoir. Solvents can carry contaminants into pores and surface voids on the reservoir faces. These contaminants will inhibit bonding of the new sealant.

Proper cleaning requires mechanical action and pure water flushing to remove any contaminants. Use the following procedures:

1. Immediately after sawing, wash away the slurry from the sawing operation. Perform this operation in one direction to minimize contamination of surrounding areas.
2. After the joint has dried sufficiently, sandblast the joint to remove any remaining residue. Do not sandblast straight into the joint. Hold the sandblast nozzle close to the surface at an angle to clean the top inch of the joint face. One pass along each reservoir face provides excellent results. This not only cleans the joint faces, it provides texture to improve sealant adhesion.
3. To ensure that the sealant enters a clean reservoir, airblast the joint and pavement surface to remove sand, dirt, and dust just before pumping the sealant. Make sure the air compressor does not introduce oil into the lines because this will contaminate the joint faces. The compressor should deliver air at a minimum of 120 cubic feet per minute and develop at least 90 psi nozzle pressure. Consider using a vacuum sweeper and hand brooms to keep the surrounding pavement clean.

Compression seals do not require steps two or three.

Installing backer rods

Install backer rods after cleaning the joint but before installing the liquid sealant. The backer rod must be compatible with the liquid sealant and have a diameter about 25% greater than the reservoir width. Backer rods can be placed easily with a double-wheeled, steel roller or any smooth, blunt tool that will force it into the joint uniformly to the desired depth (Figure 2). A steel roller allows exchange of the center insertion wheel to create different depths and provides the most consistent results. Slightly faulted joints may require a single-wheel roller. Ensuring that the backer rod is at the proper depth cannot be overemphasized. Good practice is to roll the insertion wheel over the backer rod twice.

Installing the sealant

Before installing the sealant, wipe the reservoir sidewalls with your finger to check for dirt and dust (Figure 3). If you find any traces of contamination, reclean the joint.

Installation requirements are slightly different for each sealant type. For most liquid sealants, manufacturers recommend some curing time before opening the pavement to traffic. Some liquid sealant manufacturers also place limits on the ambient and pavement temperatures required for installation. Compression seal manufactur-

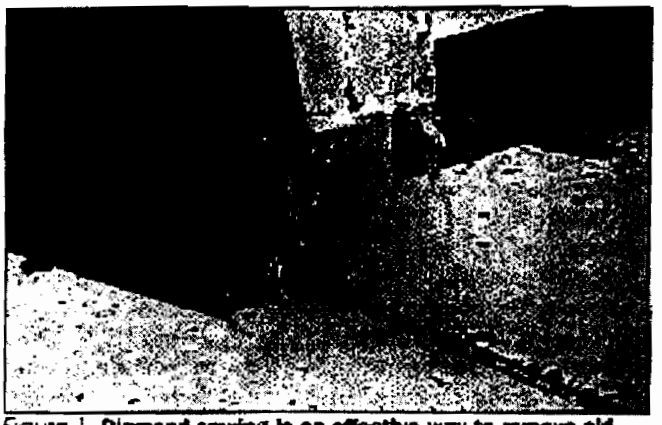


Figure 1. **Diamond sawing is an effective way to remove old sealant and to widen joints to provide the proper shape factor.**

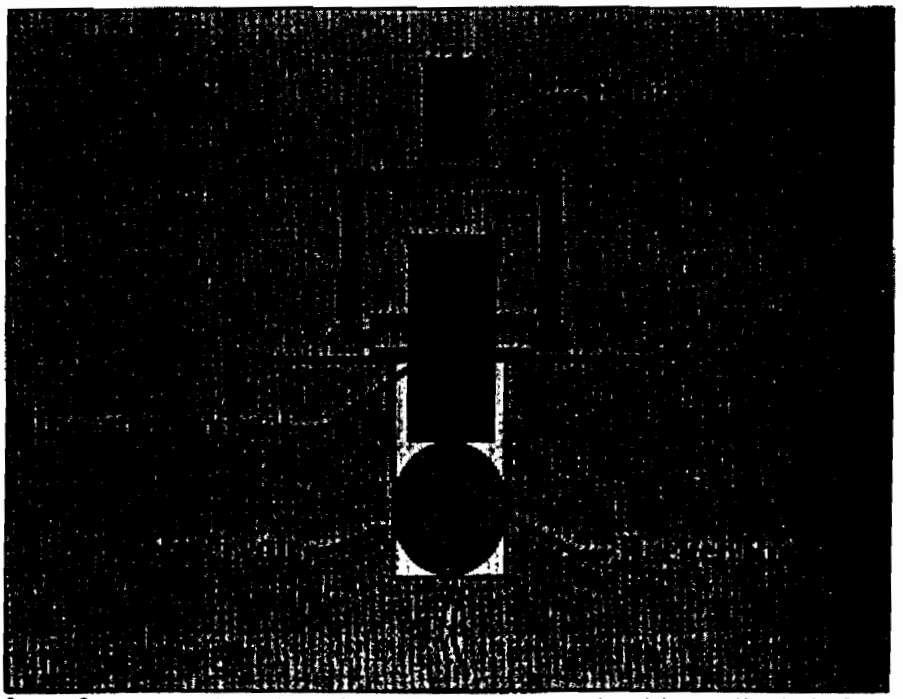


Figure 2. **A double-wheeled, steel roller forces backer rod into joints to the desired depth.**

ers specify desirable limits on sealant stretch and lubrication. Always consult the sealant manufacturer for particular product recommendations.

Liquid sealants. Pay special attention to the temperature of hot-pour liquid sealants before installing them. No sealant should be installed before it reaches proper installation temperature. Approximately one gallon of material is unusable because cooled sealant and flushing oil remains in the pumping unit hoses and nozzle. Discard this material and begin pumping only after fresh sealant is ejected from the nozzle at an acceptable temperature.

All liquid sealants require uniform installation. Pump the sealant through a nozzle sized for the width of the joint reservoir. The nozzle should fit into the reservoir to allow pumping to the bottom. Filling the reservoir from the bottom up reduces the chances of trapping air pockets in the sealant. Drawing the nozzle toward you rather than pushing it results in fewer voids and a more uniform sealant cross section. Do not fill the reservoir all the way to the top. Recess the sealant at least ¼ to ⅜ inch below the surface of the pavement.

Low-modulus silicone sealants that are not self-leveling require tooling to provide the desired results. After pumping the sealant, draw a tool or backer rod strip over the fresh sealant. This forces the sealant into contact with the sidewalls at the top of the reservoir and produces the desired shape (Figure 4). Tool the sealant within 10 minutes of installation, because, after this time, the sealant will begin to cure and form a "skin."

The reservoir walls *must be dry* before installing a liquid sealant. Water will boil when placed in contact with hot-pour materials, forming steam that will bubble the sealant. Water will also inhibit silicone sealant adherence. Most silicone manufacturers require a surface-dry condition before installation. This includes drying the reservoir walls after water flushing or rainfall. Follow the manufacturer's guidelines for optimum seal adherence. Moisture removal is not as critical for compression sealants.

When transverse joints are sealed with silicone and longitudinal joints are sealed with hot-pour material, seal the transverse reservoirs first. Some contamination of the longitudinal reservoirs will occur while placing the silicone; however, silicone is somewhat more viscous than hot-pour sealants and the longitudinal joint contamination will be tolerable.

It is important to examine all sealants after installation. A knife blade pushed down along the joint face provides an excellent tool for checking sealant adhesion (Figure 5). A loose, effortless penetration indicates adhesion loss, while good adhesion provides resistance.

Testing of silicone sealant curing can only be completed after 14 to 21 days. For a quick check, remove a small 2-inch-long sample of sealant, and stretch the segment about 50% for about 10 seconds before releasing it. A fairly fast and uniform relaxation of the sample indicates adequate curing. Slow rebound and curling of the sample indicates differential curing. The curl results from the upper (cured) seal retracting faster than the lower (less cured) portion. It is important to repair the 2-inch gap in the sealant where the sample was extracted. Use the same brand of sealant to take advantage of the good adherence the material has to itself.

Figure 3. **Dirt and dust on the reservoir sidewalls will inhibit bonding of the sealant. If you find any traces of contamination, reclean the joint.**

Figure 4. **Low-modulus silicone sealants that are not self-leveling require tooling. This forces the sealant into contact with the sidewalls at the top of the reservoir and produces the desired shape factor.**

Compression seals. A compression sealing operation requires application of a lubricant/adhesive to the sealant edges and/or reservoir sidewalls. The compression seal is then mechanically compressed and inserted into the reservoir. The lubricant/adhesive material eases sealant insertion and forms a weak adhesive to help hold the seal in place.

Inspect the joint walls before sealant installation to find any suspect areas. Raveling, spalling, or other irregularities in the joint walls pose potential problems. These areas could reduce the seal's lateral pressure and allow the seal to extrude or pop from the joint. The engineer and contractor should agree on potential problem areas before the contract is complete and seal damage occurs.

Sealant stretch of 3% or less is desirable. Some neoprene seals are capable of stretching as much as 50%. Stretching reduces the cross section and compression recovery of the sealant. More than 5% stretch is excessive and could be detrimental. Some sealants can later break into pieces if stretched excessively during installation. Pay special attention during installation to avoid twisting, nicking, or stretching the sealant.

To monitor sealant stretch, lay a length of sealant parallel to the joint and cut the seal to the exact length. After installing the seal, measure the length of any protruding seal, and divide this number by the original seal length to determine stretch percentage.

Figure 5. A knife blade pushed down along the joint face provides an excellent tool for checking sealant adhesion. A loose, effortless penetration indicates adhesion loss, while good adhesion provides resistance.

Most compression seal manufacturers make equipment for accurate seal installation. The most common are compress-eject machines. The machines compress and insert a seal to a desired depth in a continuous motion. The most advanced equipment automatically applies lubricant/adhesive along the sealant edges. Compress-eject machines remove most stretching and twisting problems that accompany hand installation. The machines are usually self-propelled with a guide that keeps them on course over the joint.

Burrs along the sawed joints may make seal installation difficult. Dragging a blunt, pointed tool along sawed joints removes sharp edges. A mechanized wire brush will also remove burrs and provide consistent results. While this simple step eases seal installation, it may contaminate clean joints and should be done only when needed and before cleaning the reservoir.

Whenever possible, avoid splicing compression seals. Splices are discontinuities prone to moisture infiltration and dislodging by traffic. Use only one length of compression seal for transverse joints less than 25 feet long. For transverse joints on wider pavements, one splice is acceptable. For longitudinal joints, cut the compression seal at the transverse joint crossings.

Acknowledgment

This article is based on information from *Joint and Crack Sealing and Repair for Concrete Pavements*, American Concrete Pavement Association, 1993. For more information, contact ACPA, 3800 N. Wilke Rd., Suite 490, Arlington Heights, IL 60004 (708-966-2272).

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Dowel retrofit restores pavement load transfer

When combined with diamond grinding, it provides a long-lasting solution to faulted joints and cracks

By James W. Mack, P.E.

High-production slot cutting has been the driving force behind the renewed interest in dowel bar retrofit.

Concrete pavements have been serving the United States well for more than 100 years. The first, built in Bellefontaine, Ohio, in 1893, carried traffic until its 100th anniversary in 1993. Throughout this century of service, concrete pavements have had one primary location of weakness—the joints.

Because concrete shrinks as it gains strength and hardens, joints are placed at certain intervals to control the location and pattern of the cracking. Today, modern pavement jointing details include dowels, proper joint reservoir design, and durable sealants. Proper details, along with regular maintenance programs, have made possible the construction of durable, high-quality joints that help concrete pavements perform for many years.

Unfortunately, many roads built in the past do not contain joints with the proper design features. Pavement designers often placed the joints too far apart and did not use dowels because of underpredicted traffic volumes. Some of these pavements have carried up to three times more traffic than their design. Consequently, they have lost their load transfer capability, which consisted mainly of aggregate interlock. Load transfer is a slab's ability to transfer part of its load to its neighboring slab. The higher the load transfer, the better the pavement performs. Pavements with poor load transfer often suffer from joint faulting.

Until very recently, the two most common practices roadway agencies used to fix roughness and faulting were asphalt overlays and diamond grinding. The problem with these methods is that they cover up or remove the faulting, but do not address the problem of poor load transfer at the joints and cracks. Reflection cracks quickly deteriorate asphalt overlays, and faulting often returns to diamond-ground surfaces. Either way, the life of the improvement rarely exceeds 8 to 10 years.

However, recent improvements in concrete pavement restoration techniques have provided a better solution to the problem of poor load transfer. Dowel bar retrofit is an operation in which slots are cut into the concrete across the joints and cracks, and dowels are placed in the slots to restore the

and prevents them from locking up or tying the pavement together. Slots are cut between 1¼ and 2½ inches wide and slightly deeper than half the slab depth. This puts the dowel at the slab mid-depth after placement (Figure 2).

The most effective slot pattern appears to be three slots per wheel path. The outside wheel path dowels should start 12 to 18 inches in from the pavement edge and be separated by 12 to 15 inches. The inside wheel path dowels should start 18 to 24 inches in from the center line and be separated by 12 to 15 inches (Figure 3).

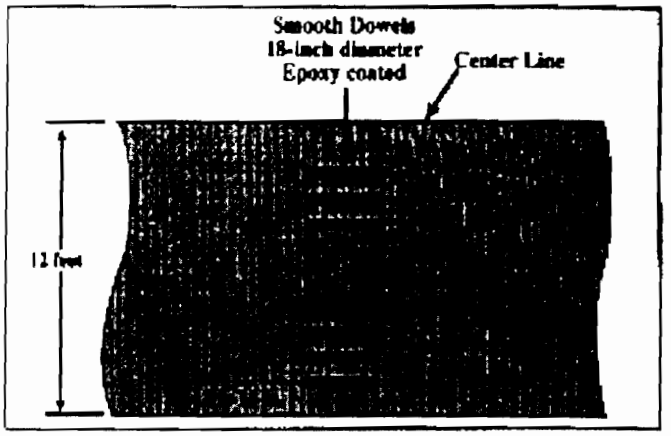


Figure 3. **Three slots per wheel path is a typical slot pattern.**

Preparing the slots

If the slots are sawed, slot preparation consists of removing the fins, flattening the bottom of the slots, cleaning the slots, and caulking the joints or cracks. If a milling machine is used, slot preparation consists of cleaning the slots and caulking the joints or cracks.

To remove the fins after sawing, use a hand-held jackhammer no heavier than 30 pounds to chip out the concrete. Larger jackhammers may break through the concrete, which will then require a full-depth repair. One technique to remove the fins is to place the jackhammer at the end of the fin and jackhammer down and along the bottom of the sawcuts (Figure 4). Another is to place the jackhammer along the side of the slot and break off the fin. Either way, with some practice, most workers can remove a fin in two or three large pieces.

After removing the fins, flatten the bottom with a small hammerhead bit mounted on the jackhammer. This removes rocks and stubble from the slot bottom. Rocks and stubble can prevent proper dowel alignment by keeping the dowel from sitting level. They can also prevent the patching material from completely encasing the dowel. Improper dowel alignment and incomplete encasement can result in pavement lockup or dowel socketing. Pavement lockup is the inability of the joint or crack to open and close with temperature changes. Dowel socketing is the widening of the dowel hole, which leads to loss of load transfer.

The slot must be clean when placing the dowel and patching material. Otherwise, the patch material may not bond to the slot sides. To clean the slot, sandblast the sides and bottom, then airblast them. To determine if the slot is clean, wipe your hand along the slot sides and bottom. If there is laitance or dust on your hand, the slot is not clean and will need to be recleaned.

The final step in slot preparation is caulking the joint or crack on the bottom and sides of the slot. This keeps the patching material from entering the joint or crack. If the patching material gets into the joint, point bearing stresses can develop when the joint closes, causing spalling and possibly failing the repair.

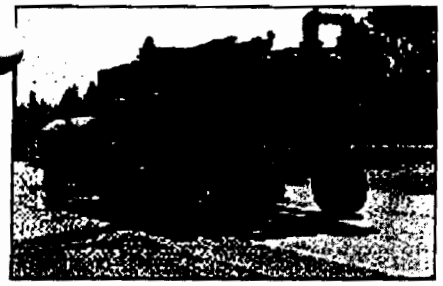
Placing the dowels

The dowels used for retrofitting are the same as those used for new concrete pavement construction, with a few modifications. Their minimum length is 14 inches. They must be long enough to have at least 6 inches on each side of the joint or crack being repaired when placed in the slot. However, due to construction and field variability, most agencies have used 18-inch-long dowels in their major repair projects. The minimum dowel diameter is either 1¼ or 1½ inches, depending on the slab thickness. Finally, the dowels should be epoxy-coated over the entire bar, including the ends, to prevent the corrosion that can cause the pavement to lock up.

Before placing it into the slot, fit the dowel with a ¼-inch nonmetallic expansion cap, a plastic foam or filler-board joint reformer, and nonmetallic chairs (Figure 5). Placed on one end or both ends of the dowel, expansion caps allow the joint to open and close after installation. Placed at the dowel midpoint, the plastic foam joint reformer also allows slab movement by keeping patching material out of the joint. Nonmetallic chairs are placed at each end of the dowel to lift the dowel ½ inch off the slot bottom and ½ inch away from the saw kerf ends. A ½-inch clearance at the bottom and sides of the dowel ensures that the patch material will be able to completely encapsulate the dowel. It is important to use nonmetallic chairs and endcaps on the dowels. Otherwise, the dowel may corrode and cause pavement lockup.

Before placing the dowel in the

Figure 4. **One technique to remove the fins is to place the jackhammer at the end of the fin and jackhammer down and along the bottom of the sawcuts. With some practice, most workers can remove a fin in two or three large pieces.**



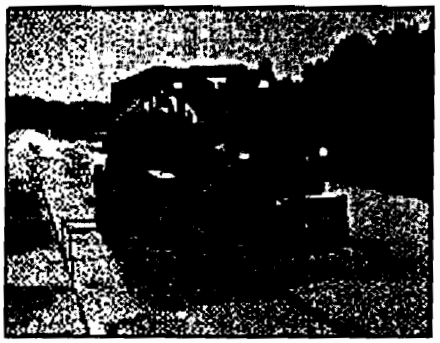


Figure 1. **The machine above saws the edges of all six dowel slots at one time. The machine below saws three slots at a time. After sawing, traffic can be returned to the pavement until the fins between the sawcuts are removed.**

ad transfer. When combined with diamond grinding, dowel retrofit increases the load transfer capabilities and structural capacity of the pavement and removes its roughness.

Dowel bar retrofit is a relatively simple procedure that consists of five main operations:

1. Cutting the slots
2. Preparing the slots
3. Placing the dowel bars
4. Backfilling the slots
5. Opening the pavement to traffic

Cutting the slots

Advancements in slot-cutting equipment have been the driving force behind the renewed interest in dowel bar retrofit. Manufacturers have developed two types of equipment that are capable of cutting slots quickly and efficiently: the diamond-saw slot cutter and the modified milling machine. Of the two, the diamond-saw slot cutter is the most reliable and proven method, while the modified milling machine has been used only experimentally.

Diamond-saw slot cutting. In diamond-saw slot cutting, multiple sawcuts are made that form the edges of the slots. The cutting operation leaves fins in between the sawcuts that must be removed. Currently, there are machines that are capable of cutting either three slots (one wheel path) or six slots (two wheel paths) in one pass (Figure 1).

To cut the slots, the saw head is placed before the joint or crack, then plunged into the concrete and advanced across the joint or crack. Typically, the saw operator must make more than one plunge to cut the slot to its required depth. The plunging and moving back and forth across the repair area creates a flat bottom along the slot that is used to keep the dowel in proper alignment. The slot must be long enough to allow the dowel to sit at the bottom of the slot without its ends hitting the curves of the sawcuts. Typically, this requires the surface length of the sawcut to be 3 feet for an 18-inch-long dowel bar. After sawing, traffic can be returned to the pavement until the fins are removed.

Modified milling machine. When milling the slots, the modified milling machine is placed before the joint or crack, then plunged into the concrete and moved across the repair area. The advantage of milling is that it creates the slot in one pass and does not leave concrete fins that need to be broken out. However, because the milling operation creates open slots, you can't allow traffic on the pavement; you must complete the entire dowel retrofit operation in one stage.

Some agencies have raised concerns about the milling process causing microcracking at the slot edges and fractures at the crack or joint faces. They suspect that the microcracks and fractures may decrease the long-term durability of the dowel retrofit. Presently, the Indiana Department of Transportation is investigating the possible detrimental side effects of milling the slots.

When creating the slots, it is essential that they are cut parallel to the center line of the pavement. This keeps the dowels in proper alignment

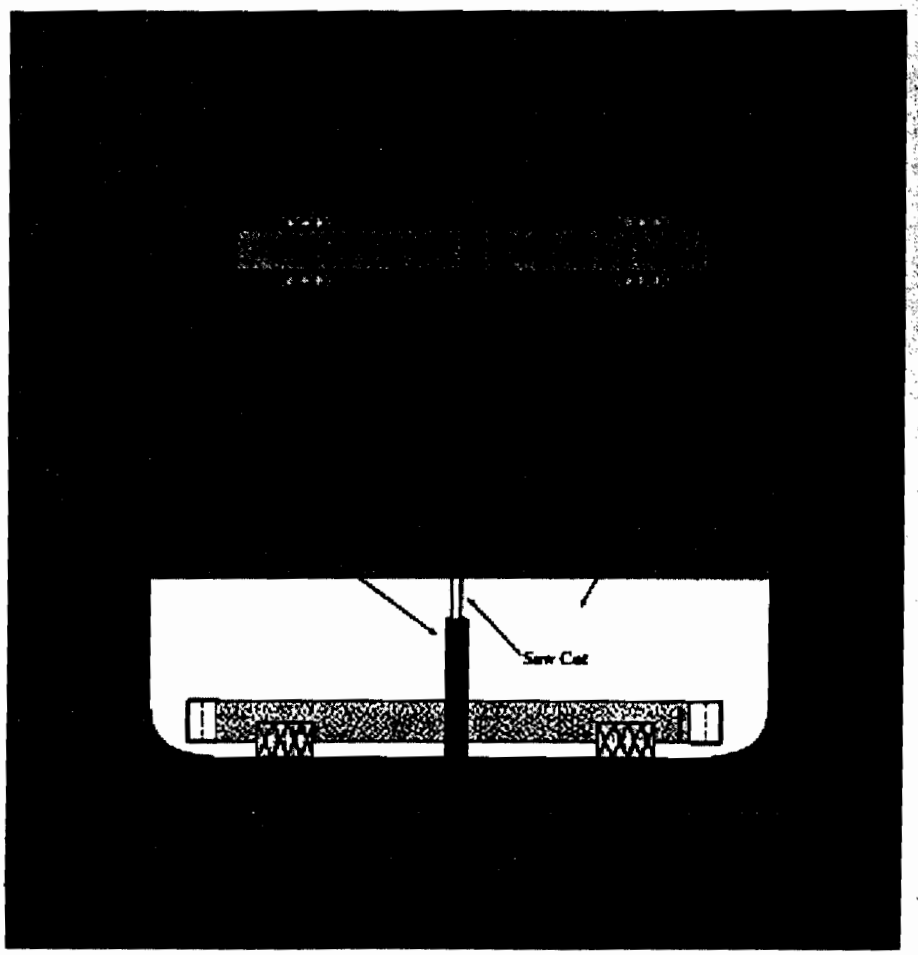


Figure 2. **Plan and elevation views of dowel retrofit details.**

slot, cover it with a debonding agent such as form oil or grease so that it can move within the patch after it has hardened. However, make sure that no oil or grease falls onto any of the slot surfaces. Oil or grease will keep the patch material from bonding to the slot, which could cause the patch to fail. Some agencies have tried placing a sleeve over the dowel, but this is not recommended. Sleeves build an inherent looseness into the slot that could cause the dowel to socket and fail.

To insert the dowel properly, place it so that the chair legs are in the sawcut kerfs at the bottom of the slot. This maintains proper dowel alignment by keeping the dowel horizontal and parallel to the pavement center line and surface. The joint reformer should be over the joint or crack with half of the dowel on each side of the joint. The legs and sides of the chairs should also be snug against the slot wall. This keeps the dowel from moving and becoming misaligned during placement of the patch material.

Backfilling the slots

Generally, any material that works for a partial-depth repair should work as a patch material for a dowel retrofit. The patch material should have thermal properties similar to concrete and have little or no shrinkage. It should also set and develop strength quickly so the repair can support traffic as soon as possible.

Several state agencies have used both fast-track concrete mixes and proprietary mixes successfully. The fast-track concrete mixes usually contain Type III cement, accelerators, and aluminum powder. Accelerators shorten the concrete set time and aluminum powder reduces its shrinkage. However, be careful when using chloride accelerators. Too much chloride accelerator may cause the dowel bar to corrode. For proprietary mixes to perform well, you need to follow the manufacturer's recommendations closely. For both the fast-track concrete and proprietary mixes, use a maximum aggregate size of ⅜ inch. This helps ensure that the dowel bar is completely encased by the patch material.

Figure 5. **Before placing it into the slot, fit the dowel with ¼-inch nonmetallic expansion caps, a plastic foam or filler-board joint reformer, and nonmetallic chairs.**

To place the patch material, shovel the concrete into the slot and consolidate it in the slot and around the dowel bar with a spud vibrator. Be careful not to hit the dowel bar with the vibrator when placing the patch material. This may knock the dowel out of alignment. After consolidating the concrete, you may want to put a curing compound on the patch, depending on the weather conditions. Although hot and windy conditions will probably require a curing compound, cool, calm conditions will not. The finish of the patch usually is not crucial since the entire pavement surface is usually diamond ground shortly after the dowel retrofit is complete.

Opening to traffic

You can allow traffic back onto the dowel retrofit when the patch material has gained adequate strength. Recent fast-track studies have shown that the minimum compressive strength required to open a repair to traffic is about 2000 psi for a slab that is 8 inches thick or greater. Most fast-track concrete mixes and proprietary mixes can gain this strength within two to six hours after placement. A recent dowel retrofit job in Washington state used a patch material that reached 4000 psi compressive strength in about two hours. Once the dowel retrofit is complete and open to traffic, the entire pavement should be diamond ground. This will remove the joint faulting and imperfections left after the patching procedure and restore the rideability of the roadway.

For more information on dowel retrofitting concrete pavements, contact:

ACPA-IGGA
5156 Cainsville Rd.
Lebanon, TN 37090
(615) 449-8026

ACPA
5420 Old Orchard Rd.
Suite A100
Skokie, IL 60077
(847) 966-2272

Jim Mack is Director of Engineering and Rehabilitation for the American Concrete Pavement Association.

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Fast full-depth pavement repair

To open a pavement to traffic quickly, it takes more than just fast-setting concrete

By Gerald F. Voigt

Full-depth pavement repair entails removing and replacing at least a portion of a slab to the bottom of the concrete, in order to restore areas of deterioration. Full-depth repairs can improve pavement rideability and structural integrity and can extend pavement service life. A major factor when installing full-depth repairs is opening them to traffic quickly. Several key factors that will help reduce the time necessary to install a full-depth repair in a concrete pavement include:

- Choice of repair size
- Method of old concrete removal
- Dowel installation equipment
- Patching material selection
- Placing and curing provisions
- Opening-to-traffic criteria

The methods used to remove old concrete, install dowels, and place and cure the repair concrete can greatly affect total repair time.

Repair size

The size and geometry of a repair can affect the speed of completion. Accurately defining repair boundaries is essential to completing a project quickly. Deterioration that is found outside of original repair boundaries after work has begun requires additional time-consuming sawcuts and concrete removal.

Except for on low-traffic roadways, all full-depth repairs should extend the full width of one lane. Under heavy traffic, full-width patches are large enough to avoid rocking, a problem often seen in smaller patches. Full-width patches also provide adequate room in the removal area for time-saving dowel-hole drill rigs and compaction equipment.

To simplify concrete removal, remove the concrete in rectangular sections. Don't make notches or diagonal cuts in the pavement. Doing so may reduce material costs, but it complicates sawcutting and concrete removal operations.

A time-consuming and costly step in the pavement patching process is preparing the transverse joints, which includes sawing the perimeter, drilling and grouting dowel holes, placing the dowels, and sealing the joint. It's often cheaper and faster to combine two adjacent patches into one large patch, because this reduces the number of transverse joints you have to prepare. Table 1 provides an estimate of the distance between patches when the cost of additional patching and curing is equivalent to the cost of preparing two patch joints (one from each patch). When two patches are closer than the distances shown in the table, it is probably more cost-effective to combine them into one large patch.

Removing old concrete

Before removing deteriorated concrete, isolate the area from adjacent concrete and shoulder materials using full-depth sawcuts. The full-depth cuts separate the segment of deteriorated concrete and allow room for its removal with minimal damage to surrounding material. To expedite the repair, make the sawcuts well in advance of concrete removal and placing operations, so that removal and placing operations will never be held up while waiting for sawing. Traffic can continue over sawcut sections that are waiting to be removed, but avoid keeping the area open longer than about two days. This will reduce the chance of traffic punching the patches into the subgrade.

Whenever possible, lift deteriorated concrete out of place rather than breaking it. Lifting the old concrete imparts no damage to the subbase and usually is faster and requires less labor than breaking the concrete before removal. The most common liftout method uses a steel chain connected to lift pins (Figure 1). Other time-saving lift equipment includes forklift devices, vertical bridges, and torque claw attachments for front-end loaders.

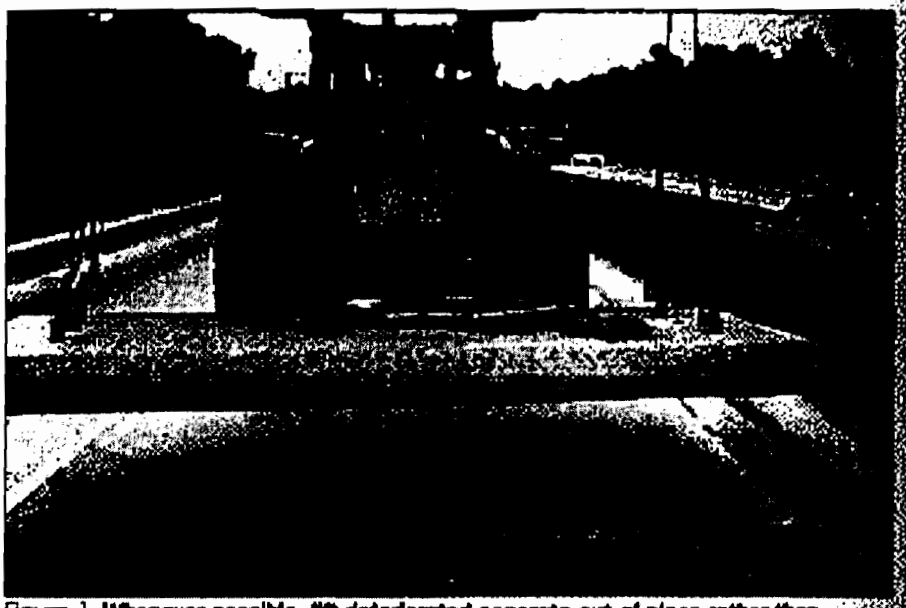


Figure 1. Whenever possible, lift deteriorated concrete out of place rather than breaking it. Lifting the old concrete imparts no damage to the subbase and usually is faster and requires less labor than breaking the concrete before removal.

Installing dowels

For most full-depth repairs of jointed pavements (except light-traffic plain pavements less than 7 inches thick), doweled transverse joints are essential for load transfer. Generally, 1¼-inch-diameter dowel bars provide effective load transfer for full-depth repairs in airport, interstate highway, or industrial pavements. For light-traffic highways and pavements less than 10 inches thick, 1¼-inch-diameter dowels are acceptable.

Dowel bars slip into holes drilled into the edge of the existing slab. Automatic dowel drilling rigs produce straight, consistent holes faster than single, hand-held drills (Figure 2). Modern dowel drilling rigs mount on a boom or on a frame with wheels and are maneuverable on a jobsite. However, single, frame-mounted, or hand-held drills are necessary where there is not enough room for the multiple-drill rigs.

Both standard pneumatic or hydraulic percussion drills are acceptable for drilling dowel holes. Both drill a typical dowel hole in about 30 seconds. Avoid electric-pneumatic rotary drills where speed and production are essential because they take three to four times longer to drill each hole.

After drilling, clean out the dowel holes. Insert an air nozzle into the hole to force out all dust and debris. Dust and dirt prevent the epoxy or non-shrink grout from bonding to the concrete around the hole perimeter. Oil also prevents good bonding. Therefore, always check the air for oil and moisture contamination from the compressor by blowing some air into a piece of dry cloth.

Place the anchoring material using a long nozzle that feeds the material to the back of the hole. This ensures that the anchoring material will flow forward along the entire dowel embedment length during insertion and decreases the likelihood of leaving voids between the dowel and the concrete. Prefabricated epoxy cartridges are available that supply enough material for one or two holes, but a faster and cheaper system for large projects is to use a pressurized injection system from bulk epoxy containers.

Patches in continuously reinforced pavements require splicing to the existing steel embedded in the old concrete. Splicing the old steel requires careful hand chipping with light jackhammers, which slows production. To reduce patching time, some agencies avoid splicing to the

Table 1. Criteria for Combining Adjacent Patches

Minimum cost-effective distance in feet between two patches

Slab Thickness (inches)	Patch (Lane) Width			
	9 Feet	10 Feet	11 Feet	12 Feet
7.0	17	15	14	13
8.0	15	13	12	11
9.0	13	12	11	10
10.0	12	11	10	9
11.0	11	10	9	8
12.0	10	9	8	8
15.0	8	8	7	6

It's often cheaper and faster to combine two adjacent patches into one large patch because this reduces the number of transverse joints that need to be prepared. If two patches are closer than the distances shown above, it is probably more cost-effective to combine them into one large patch.

old steel by drilling holes and anchoring all new reinforcing bars into the old concrete. This procedure makes the repair faster because it does not require hand chipping to expose the lap length of existing reinforcing bars. Hole cleaning and grouting steps should conform to those for dowel bars in jointed pavements.

Selecting a repair material

Patch mixes for full-depth repairs often use ASTM C 150 Types I, II, or III portland cement. The target slump ranges from about 2 to 4 inches to provide adequate finishibility. Most patch mixes require 4.5% to 7.5% entrained air, but this may vary by climate and the maximum size of the coarse aggregate. Laboratory testing of each patching mix is necessary to ensure that it meets the field requirements.

Mix proportions will depend on the pavement opening requirements. Mixes containing Type III cement or calcium chloride accelerators are common for the early strength gain necessary for quick opening. Proprietary cements also are available that gain strength very quickly. Using insulating blankets (or boards) during the first few hours after placement also improves the strength development of any mix by holding in the heat from cement hydration. Table 2 provides the approximate time necessary for different mixes to reach 2000 psi, a strength often required before opening the pavement to traffic.

Mixes using Type III cement may require slightly more mix water than a similar mix with Type I portland cement. However, too much extra water can cause the concrete to suffer from high shrinkage during curing. Consider using a water-reducing admixture to disperse cement particles and reduce the extra water necessary for thorough mixing.

Precautions are necessary when using a calcium chloride accelerator. Initial set may occur within 30 minutes on warm days, so use only 1% calcium chloride by weight of cement when air temperature exceeds 80° F. Up to 2% is acceptable in lower temperatures. For on-site mixing, add calcium chloride in liquid form to the mixer before adding other admixtures.

Placing and curing

Place concrete into the repair area from ready mix trucks or other mobile batch vehicles. The chute operator should distribute the concrete evenly to avoid the need for excessive shoveling. Attaining good concrete consolidation around dowel bars and along the patch perimeter is important to achieve long-term performance. Vertical penetrations of a standard spud vibrator will adequately mobilize the patching concrete. Do not drag the vibrator through the mix because this may cause segregation and loss of entrained air.

Figure 2. Automatic dowel drilling rigs produce straight, consistent holes faster than single, hand-held drills.

For high-early-strength patch mixes, the first few hours after placing the concrete are the most critical. Proper curing is essential to maintain a satisfactory moisture and temperature condition in the concrete after placement. As soon as possible, apply a liquid-membrane-forming curing compound at a rate of about 200 square feet per gallon and cover the patches with insulating mats. Place polyethylene sheeting between the mats and fresh concrete to avoid marring the patch surface.

Opening to traffic

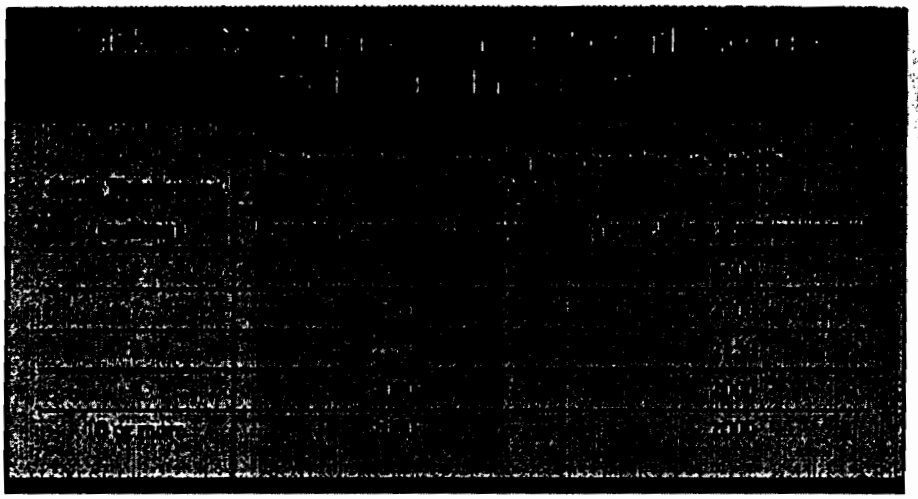
Table 3 provides minimum concrete compressive strengths necessary to open the full-depth repairs to traffic. Most patch mixes fall into one of three categories depending on the time it usually takes them to reach these minimum compressive strengths: 4- to 6-hour mixes, 12- to 24-hour mixes, and 24- to 72-hour mixes. For the 4- to 6-hour and 12-

Table 2. Compressive Strength Development of Repair Concretes

For Mixes Containing:	Typical Time to Opening Strength (Approx. 2000 psi)
Certain blended cements	2-4 hours
Sulfo-aluminate cements	2-4 hours
Type III cement with nonchloride accelerating admixture	4-6 hours
Type III cement with calcium chloride accelerator	4-6 hours
Type I cement with calcium chloride accelerator	6-8 hours
Type III cement with Type A water-reducing admixture	12-24 hours
Type I cement (air-entrained paving mix without fly ash)	24-72 hours

to 24-hour mixes, the concrete strength should be measured to determine if it is ready to accept traffic. Small variations in air temperature can have a great effect on the strength development of these mixes. Portable beam or cylinder test devices, maturity meters, or pulse-velocity devices can be used.

The 12- to 24-hour mixes are conventional mixes and are often used when fast turnaround is not critical. Paying close attention to the strength development of these mixes is often not necessary—specifying a minimum time after placement is sensible in these situations.



Acknowledgment

This article is based on the newly revised American Concrete Pavement Association technical publication TB002P *Guidelines for Full-Depth Repair*. For more information, contact: ACPA, 5420 Old Orchard Rd., Suite A100, Skokie, IL 60077 (847-966-2272).

Gerald F. Voigt, P.E., is Director of Technical Services for the American Concrete Pavement Association, Skokie, Ill.

AMERICAN CONCRETE PAVEMENT ASSOCIATION

acpa

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APPENDIX F

APPENDIX G

-M. Crudin

New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Construction Services, 12th Floor
625 Broadway, Albany, New York 12233-7013
Phone: (518) 402-9814 • **FAX:** (518) 402-9819
Website: www.dec.state.ny.us

Erin M. Crotty
Commissioner

NOV 15 2001

Mr. Gary Canfield
Great Lakes Veneer Corporation
375 Mitchell Street
Oswego, NY 13126

Dear Mr. Canfield:

Re: Site No. 7-38-033
Oswego Castings

The purpose of this letter is to resolve issues related to the maintenance of the concrete slab installed at your facility. In response to assertions you made in the first part of your letter of December 14, 2000 (enclosed), I note that the Department has evaluated your business activities and has attempted to design the slab accordingly. It is not our intention that you restrict the normal course of your business, but rather simply be cognizant of the existence of the cap, its intended purpose and take reasonable care to avoid damage to its integrity. I believe your staff have a certain amount of discretion in the course of normal operations to minimize excessive loading and impacts to the constructed slab.

Although the Department is unwilling to agree to an annual fixed dollar commitment per your request, we would be willing to agree that Great Lakes Veneer and its successor owners of the site be responsible for routine and periodic maintenance and failure of the slab caused by the fault of Great Lakes Veneer. Failure of the slab itself would not be the responsibility of the site occupant (unless the site occupant caused such failure) provided that Great Lakes Veneer agrees to take reasonable care in the normal course of business and there are no significant changes in use with regards to activities which take place on the slab. Routine and periodic maintenance and any repairs to failures of the slab caused by the fault of Great Lakes Veneer would be at Great Lakes Veneer's own cost and expense.

Routine and periodic maintenance would be defined to include:

- Routine care of the slab surface, including sweeping and washing with conventional cleaners and detergents. All abrasive grit should be removed and corrosive spills wiped up as soon as possible.

- Waterproof sealants should be applied to any hairline cracks to retard slab deterioration in the specific area of the crack.

- Particular close attention should be paid to all joints and joint sealants. Note that correct sealant application and maintenance minimizes infiltration of surface water and incompressible materials. Sealants can lose bond with joint reservoir sidewalls or lose internal bond and split open, along with loss of flexibility through natural aging and long-term exposure to oxygen, ozone and sunlight. To extend pavement life, joint sealants must be replaced periodically and, therefore, the condition of joints and joint sealants should be monitored. It's anticipated that a portion of the joints will need to be resealed from time to time to maintain the integrity of the slab.

- Inspect periodically for wear and breaks or gouges in the surface. Conditions of spalling, scaling or cracking should be noted and the Department notified in writing. Routine maintenance of such areas should be performed promptly by Great Lakes Veneer.

- NYS registered professional engineering annual inspection report. Any failures of the slab must be evaluated with respect to cause and recommendations for repair provided in the report. Your engineer's evaluation should address any long- term or recurring maintenance concerns.

- It may be necessary to isolate a portion of the slab to restrict activities and prevent further damage to the slab until adequate repairs are completed.

I would also point out that the geotextile and stone covers over the former cooling water pond and landfill areas must remain undisturbed. Also, in accordance with the wishes of Gary Barnett of Great Lakes Veneer, the cover over the cooling water pond was reduced to one foot. Originally, two foot of cover was specified to account for any future settlement. Mr. Barnett agreed to place any additional material required to address future settlement.

Your December 14, 2000 letter also raised some concerns with the proposed language of the deed restriction transmitted to you on October 17, 2000. The deed restrictions have been redrafted (enclosed) to address your concerns. The Department requests that these restrictions be recorded at your earliest convenience and the appropriate documentation be forwarded to my attention.

Two (2) copies of this letter are included. If Great Lakes Veneer is in agreement with this proposal, please sign and have notarized below, return one copy to my attention and this will constitute the maintenance agreement for the site. In any event, this letter outlines the technical maintenance requirements for the slab and Great Lakes Veneer should take reasonable care of it as of the date you occupy it.

If you have any questions, please call me at (518) 402-9812.

Sincerely,

Michael J. Cruden, P.E.
Project Manager
Western Field Services Section
Bureau of Construction Services
Division of Environmental Remediation

Enclosure

_____
Accepted By

STATE OF)
) SS:
COUNTY OF)

On the ___ day of _____, 20__, before me personally came _____, to me known, who being duly sworn, did depose and say that (s)he resides in _____, New York; that (s)he is _____ of _____, the corporation described in and which executed the above instrument; that (s)he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by authority of the Board of Directors of said corporation and that (s)he signed his/her name thereto by the same authority.

_____
Notary Public

Enclosures
MJC:mm
bcc: G. Harris
M. Cruden
M. Ryan
J. May
D. Desnoyers
Dayfile
e:oswego.maintenance.wpd

GREAT LAKES VENEER, CORP.

[illegible] • Oswego, New York 13126
Office: 315-342-9178 • Fax: 315-342-9179

December 14, 2000

Mr. William S. Ottaway, P.E.
Project Engineer
NYS Department of Environmental Conservation
Bureau of Western Remedial Action, Room 348
50 Wolf Road
Albany, New York 12230-7010

Dear Mr. Ottaway:

I am in receipt of your letter dated November 17, 2000 in which you request response from Great Lakes Veneer, Corp. concerning design and maintenance of your proposed concrete slab.

As we have stated in the past, the use of the area that you are proposing to cap with concrete is subject to daily heavy equipment operation. We are in the hardwood lumber manufacturing business. The subject area is used to debark and stockpile hardwood sawlogs measuring up to twenty feet in length and 40" in diameter. It is common for as many as 40 to 50 logs to be placed in a pile in this area. They regularly role and fall from the pile as they are moved by loaders to the production area. It is not uncommon for logs to be dropped by the loaders from as high as 12 feet. This area also receives fully loaded tractor trailers weighing as much as 60,000 pounds. It is not unusual for logs to drop to the ground as they are unloaded from the trailers. Logs are also delivered to this area by trucks equipped with dump beds. As many as 25 logs can hit the ground at the same time within a small area as they are off-loaded.

I have attempted to describe the abusive activity that occurs in this area in the normal course of our business. You have asked us to evaluate the design of the slab you have proposed to accommodate a fail safe cover. We are not qualified to pass judgement on the engineering of the slab, nor do we think it is our responsibility to do so. We have described the use of the area. It is harsh and aggressive. We propose a cap that will survive such treatment, without fail.

The proposed deed restriction alludes to identifying slab damage as being caused by use or design flaw. Our intended use is abusive. We know it, we intend to continue it, and we have, and are, telling you that up front. If the slab is damaged by our using it the way we have described then the damage can not be from misuse. Any resulting damage, by default, must result from design deficiencies.

The objective of the slab is to contain the contamination that lies beneath. The DEC is proposing the method of containment based on the DEC's knowledge and experience in PCB migration. If at any time after slab installation the DEC determines that containment is less than satisfactory, we contend that the original design was insufficient or that the theories of adequate containment employed by the DEC have changed. Any additional remedial action would be the DEC's responsibility.

We acknowledge that over time even properly designed and installed concrete will develop a small number of hairline cracks. We do however contend that the discovery of numerous hairline cracks and those that develop into larger surface separations suggests an improper and insufficient concrete application. Our understanding from previous conversations with the DEC is that minor surface separations do not necessarily indicate that the required integrity of the slab has been destroyed. We understand that if left untreated these cracks may develop into larger fissures that may render the slab ineffective as a containment device.

We propose that Great Lakes Veneer, Corp. and successor owners of the site be responsible for the application of waterproof sealants to the reasonably occurring hairline cracks designed to retard slab deterioration in the specific area of the crack. Site owners should not be held responsible for the repair or replacement of the slab or slab sections that have develop excessive hairline cracks or larger surface separations.

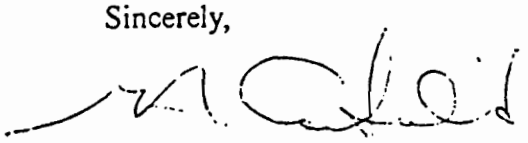
I have introduced the nebulous terms, "reasonably occurring" and "excessive" when referring to the physical condition of the slab. In an effort to avoid a debate to define these terms I suggest that "reasonable" and "excessive" lie on either side of an annual fixed dollar commitment. I propose that Great Lakes Veneer, Corp. be responsible annually for the first $2,500 of required slab maintenance cost, specifically including hairline crack treatment and NYS registered professional engineering annual inspection reports. Annual expenditures beyond $2,500 will be deemed necessitated by a required repair as determined by the DEC.

Before closing I would like to address two areas in the proposed deed restriction that need modification. First, I would like to see some clarity to the last sentence on paragraph 2. As written it is very open-ended pertaining to the handling and disposal of encountered PCB contaminated soil. I presume it is intended to refer to any contaminated soil uncovered or brought to the surface resulting from a DEC approved slab penetration requested by the Owner. I have no problem with an Owner being accountable for this specific responsibility. I would request that if my interpretation is correct a few words of limitation be added the last sentence.

Second, I am also concerned with the apparent open-ended nature of paragraph 4. It appears that this paragraph would hold an Owner hostage for any and all, existing and future institutional and engineering controls required by the DEC. This is far too encompassing. What are all the institutional and engineering controls? What could they become? Why should an Owner be responsible for something that doesn't currently exist? Certainly you can be more specific so we could evaluate our potential exposure. As written, paragraph 4 is a problem.

I trust I have addressed the unresolved issues as presented in your letter. Please review what I have written and get back to us with the next step in the process necessary to move forward. Thank you.

Sincerely,



Gary A. Canfield

Cc: Patrick Jones
Gary Barnett
Edward A. Mervine

Deed Restriction

A. The Owner shall, within 30 days of Owner's receipt of the Department's request to file a deed restriction, record an instrument with the Oswego County Clerk, to run with the land, that:

1. Shall prohibit the Site from ever being used for purposes other than for the current use as an industrial/commercial facility (excluding day care/child care facilities, health care facilities and eating establishments), if such other use requires the penetration of the foundation slab or excavation below the foundation slab without the express written waiver of such prohibition by the Department, or if at such time the Department shall no longer exist, any New York State department, bureau, or other entity replacing the Department;

2. Shall require Owner and Owner's successors and assigns to provide 30 days notice to the Department prior to penetrating or otherwise disturbing the floor slab and the cap in the yard area and to obtain the Department's approval, or if at such time the Department shall no longer exist, any New York State department, bureau, or other entity replacing the Department, of a remediation plan as part of any proposal to penetrate the floor slab and remove PCB contaminated soil. The handling and disposal of any PCB contaminated soil encountered as a result of a slab penetration shall be the responsibility of the Owner and Owner's successors and assigns.

3. Shall require Owner and Owner's successors and assigns to provide an annual inspection report, prepared by a NYS registered professional engineer, certifying that the foundation slab is intact and that there has been no penetration of the slab or excavation of soil from below the slab;

4. Shall require Owner and Owner's successors and assigns to continue in full force and effect any and all institutional and engineering controls (floor slab and cap in the yard area, geotextile and stone covers over the former cooling water pond and landfill areas, deed restriction and the monitoring wells) required by the Department unless a written waiver from such controls is obtained from the Department; and

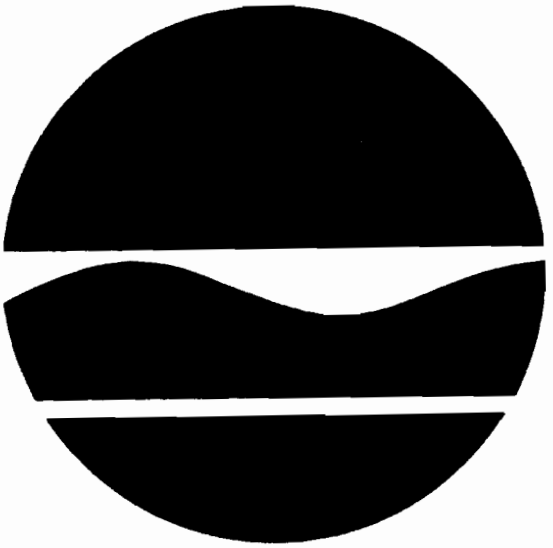
5. Shall provide that Owner, on behalf of itself and its successors and assigns, hereby consents to the enforcement by Department, or if at such time the Department shall no longer exist, any New York State department, bureau, or other entity replacing the Department, of the prohibitions and restrictions that this Paragraph requires to be recorded, and hereby covenants not to contest such enforcement.

B. Within 30 days of the filing of the deed restriction, Owner shall provide the Department with a copy of the instrument reflecting the deed restriction certified by the Oswego County Clerk to be a true and faithful copy of the instrument as recorded in the Office of the Oswego County Clerk.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

REMEDIATION SUMMARY REPORT

OSWEGO CASTINGS SITE
CITY OF OSWEGO, OSWEGO COUNTY
CONTRACT NO. D004283
SITE NO. 7-38-033



January 2002

New York State Department of Environmental Conservation
GEORGE E. PATAKI, *Governor* ERIN CROTTY *Commissioner*

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EXECUTIVE SUMMARY

The New York State Department of Environmental Conservation's (NYSDEC) Bureau of Construction Services provided construction management and NYSDEC's Region 7 Office provided construction inspection during the yard and buildings operable unit 2 project at the Oswego Castings site (NYSDEC Site No. 7-38-033), Oswego, New York. This included full-time inspection and monitoring of remedial activities to ensure conformation with contract documents. Remediation work commenced on July 16, 2001, and substantial completion of the project was accomplished by November 28, 2001.

The remediation activities completed at the site under this project included excavation and consolidation of sediments and soils into the former cooling water pond, installation of a concrete cap over the yard area, excavation of a new pond, installation of four monitoring wells and site restoration. The contractor also encountered a former fuel oil line not shown on the plans and was tasked to investigate some roof leaks which might have resulted from an interim remedial measure conducted previously at the site.

Remediation was performed by Abscope Environmental, Inc. of Canastota, New York. Abscope was selected through competitive bidding to perform the work. Abscope submitted the lowest of 4 bids at $419,675.00. The engineer's estimate for the work was $400,329.90. A copy of the bid tabulation is included in Table 2.

There was a change order for removal of 2 drums left behind from the yard area investigation, excavation of the footers for the debarker, removal of fuel contaminated soil and debris, regrading of the completed sub-base and modifications to existing doors to account for the slab interfering with the operation of the doors, replacement of the computer for the resident inspector, additional stone cover in the area of the former landfill, removal of excess contaminated materials which would not fit under the slab and could not be placed in the former cooling water pond, additional costs for pressure testing and disinfection of the water line, additional costs for site restoration and investigation of roof leaks. The change order also adjusted unit price quantities based on actual measurements for payment. The final contract amount was $507,960.37. Table 3 depicts a breakdown of the final contract price by task.

Construction was completed in accordance with the contract documents entitled *Contract*

Documents, Oswego Casting Site, Operable Unit Number 2, Yard and Buildings (NYSDEC March 1, 2001).

1.0 SITE BACKGROUND

1.1 LOCATION

The Oswego Castings site is a Class 2 site listed in the Registry of Inactive Hazardous Waste Disposal Sites in New York State. The site is approximately 10 acres in size (out of an overall property size of 23 acres) and is located on Mitchell Street in the City of Oswego, Oswego County. The site is located in a residential/commercial area.

1.2 HISTORY

Oswego Castings, Inc., a subsidiary of Oberdorfer Foundries, Inc., operated an aluminum die casting facility at the site from 1956 to 1986, after which time foundry operations were discontinued and the equipment removed. During the operation of the foundry, the disposal of core sands and foundry wastes occurred behind the manufacturing buildings. In addition, PCBs were present in wastes discharged to the ground surface near the wetland via process line/septic tank discharge line. PCBs were present in the wastes and in surface soils and sediments at the site above 50 ppm. It is believed that the PCBs were introduced into the process from leaks in hydraulic equipment and from core sand binders and coatings applied to core sand surfaces. Before they were banned in 1977, PCBs were used in high temperature hydraulic fluids and casting agents because of their desirable heat resistant properties.

After the facility closed, PCBs were detected at the site during an investigation performed by a prospective buyer. Preliminary investigations of the facility were then performed by Oberdorfer Foundries starting in June 1988, which identified the presence of PCBs above the hazardous classification of 50 ppm. Based on these investigations, the facility was designated as a class 2 inactive hazardous waste site in June of 1989. Subsequently, the responsible party (PRP) and the Department completed a remedial investigation/feasibility study (RI/FS).

The selected remedy included:

- Removal and off-site disposal of surface soils and sediments contaminated with PCBs above 1 ppm.

- Removal and off-site disposal of subsurface soils and sediments contaminated with PCBs above 10 ppm.

- Remaining foundry wastes in the former landfill area containing PCBs below 10 ppm were to be consolidated and covered with a geotextile and stone cover.

The Record of Decision was signed on March 28, 1997.

The Department competitively bid a construction contract to implement the remedy and the majority of the contaminated soils and sediments identified in the RI/FS were removed from the site. However, it was discovered that the contamination extended under the sawmill building and across the yard area. Additionally, the water in the cooling water pond exceeded discharge limits and could not be pumped directly to the downstream wetland without treatment. These discoveries greatly increased the scope of work and, therefore, the Department decided to address these areas in a second construction contract.

In between construction contracts, the Department conducted an interim remedial measure to remove contaminated ballast from the facility roof, since it was suspected that elevated PCB levels in the cooling water pond were the result of discharges from the roof drains.

2.0 SUMMARY OF REMEDIAL WORK

2.1 GENERAL OVERVIEW

A pre-construction conference was held at the site on July 12, 2001. In attendance were Michael Cruden, NYSDEC's Project Manager, John May, NYSDEC Construction Inspector, Rob Gray, Abscope's Project Manager and representatives of Great Lakes Veneer and Murphy Contracting. Notice to Proceed was granted on July 16, 2001.

Abscope mobilized to the site, providing an office trailer with electrical power, telephone and fax services and a project sign. Rick Den Haese was assigned as site superintendent by Abscope. The site superintendent was responsible for supervising Abscope's field personnel and subcontractors engaged in site operations, and assisting Rob Gray in project management activities. Site surveying was performed by Russell Getman of Oswego, New York. A complete list of subcontractors is included as Table 1.

2.2 HEALTH AND SAFETY

Abscope subcontracted with O'Rourke, Inc. to prepare a site specific health and safety plan and provide a health and safety technician during work at the site. O'Rourke, Inc. was responsible for conducting safety meetings, personal and perimeter air monitoring. Documentation air monitoring results are included in Appendix B.

The level of protection for workers for the majority of the work performed on-site was Modified Level D, which required the donning of safety glasses, rubber overboots, and gloves; in addition to the typical level D protection (field clothes, hard hats and steel toe boots).

Abscope constructed a decontamination pad. Certificates of decontamination were prepared for equipment decontamination and signed by the site health and safety officer.

Abscope maintained site security in accordance with the contract.

2.3 PRE-EXCAVATION SAMPLING

The sediment of the existing downstream pond was sampled to confirm the proposed extent of the removal figure 3 of the contract documents. Based on the results it was apparent that virtually all of the sediments in this existing pond was contaminated with PCBs in excess of 1 ppm. Also, samples at the northern edge (in the direction of the proposed grading for the new pond) of the proposed removal also exceeded 1 ppm.

Additional sampling was conducted with the understanding that 1) sediments needed to be sampled to confirm if above or below 1 ppm to determine if they had to be buried in the cooling water pond and 2) the proposed foot print of the new pond would not be increased. No sample results exceeded 10 ppm. All results are included in Appendix C.

2.4 SOIL AND OTHER MATERIALS HANDLING

2.4.1 WATER AND SANITARY SEWER LINES

The water and sanitary sewer lines were installed according to the specifications. The water line initially failed the pressure test due to the misuse of gaskets, but eventually passed. The water line was properly disinfected. Great Lakes Veneer had Abscope install a fire hydrant on the end of the water line at their own cost. The majority of the manhole at the end of the sanitary sewer line was pumped full of concrete to eliminate it acting like a sump (i.e., the majority of the volume of the

manhole was not needed to house a terminal end of a sewer line).

2.4.2 PONDS

The new pond was excavated and surveyed following the sediment sampling. Excess clean materials were placed along the western edge to build up that embankment. The roof drain was dye tested by the Department to determine the correct discharge pipe. The specifications required the existing roof drain discharge be extended over to the cooling water pond overflow pipe, which is not feasible due to the different elevations. Therefore, the existing discharge was extended across the former cooling water pond to daylight in the new pond allowing for gravity flow. The line was routed along the undisturbed bank of the pond to minimize settling adjacent to the pipe (considering much of the backfill could not be compacted due to the nature of the materials and high moisture content during draw down of the pond).

The former cooling water pond was pumped into the new pond with appropriate sediment and turbidity controls. The pond was pumped down until one foot of water remained and then it was backfilled with stockpiled materials form the yard area and sediment removal.

Great Lakes Veneer requested that the Department attempt to have the final elevations of the former cooling water pond match the surrounding elevations as much as practical. The pond was backfilled with the intent of maintaining at least one foot of clean cover. Although Great Lakes was dissatisfied with the unstable fill in this area, it was always the Department's intention that the area would settle and firm up over time due to the nature of the materials placed there (i.e., sediments, high moisture content, etc.).

2.4.3 AREA A

Abscope removed "known clean" and "nearly clean" materials from area A and a portion of area C prior to regrading, installing sub-base, forming, reinforcing and pouring the first section of the slab. During this time period, Abscope also excavated for the support footings for the debarker in area B (note that Great Lakes Veneer was responsible for pouring the concrete for the footers). At the pre-construction conference, the concrete subcontractor requested a no cost substitution to use one layer of 6 gauge, 6 x 6 reinforcing mesh placed on 3" chairs. This stiffer wire would help minimize the reinforcement falling off or through the chair supports and ending up at or near the bottom of the slab.

Delays in obtaining properly coated dowels caused Abscope to fall behind schedule and, ultimately, to reduce the area of the first pour by eliminating the section north of the sawmill building.

Abscope did not have enough of the dowels to complete the entire pour. This section was covered with plastic to protect from accumulating sawdust.

Support structure for Great Lakes process equipment and a chunk of concrete protruding from the existing building were isolated with expansion joint material prior to the pour. The initial pour was performed on September 6, 2001 and the joints were caulked September 27. It was necessary to allow 21 days for the concrete to cure prior to caulking, due to concerns with the shrinkage of the fresh concrete. The caulk was allowed to cure for seven days to October 4 prior to Great Lakes being granted use of the pad.

At the preconstruction conference the concrete subcontractor also proposed soft cutting in lieu of saw cutting. Soft cuts were made within one hour of pouring the concrete. This method controls cracking in slabs up to 16" thick and had been known to work well on other slabs poured on-site for Great Lakes Veneer.

One section of the slab had a depression outside the tolerances of the specifications and required corrective action by the concrete subcontractor. The subcontractor proposed grinding down a portion of the slab to drain the depression towards adjacent sections. Also, the soft cut joints had to be re-cut to meet the width for the caulking material specified by the contract and the manufacturer.

The section north of the sawmill building was poured with the initial pour of Area B on September 14.

2.4.4 AREA B

Abscope prepared the subgrade, formed and installed reinforcing and poured a 15' strip along the main plant on September 14 to provide access to the debarker.

On October 15, Abscope poured the remaining portion of Area B. There were the following issues with this pour: 1) the contractor did not soft cut the joints, electing to wait until the following day to saw cut them; 2) the concrete testing subcontractor was not on-site and cylinders were not collected until the latter half of the pour and 3) the western edge of the slab is lower than the existing asphalt pavement. The Department will monitor the slab for uncontrolled cracking and, although Abscope offered to take cores to determine the strength, the Department reserved the right pending results of the testing that was performed. All other tests easily passed the 4000 psi requirement. Abscope had to feather the slab/asphalt interface to match grades.

2.4.5 AREA C

The contractor poured the remaining section of Area C on October 23, 2001. A rainfall event

just prior to this date necessitated the removal of additional sub-base which had become sloppy and unstable. The contractor decided to increase the thickness of the slab in this area to between ten and fifteen inches at his own cost.

Subsequently, the contractor caulked the remaining areas of the slab and repaired the low spot in Area A referenced above. Actual substantial completion was schedule to account for occupancy of the entire slab by Great Lakes following complete curing of the concrete and caulk. Punch list type work performed by Abscope included placement of silt fence along the perimeter of the former cooling water pond to minimize traffic across this area, placement of hay used to protect the slab during curing on disturbed areas adjacent to the property line and pouring of the concrete sections immediately above the footers for the debarker.

2.4.6 FORMER LANDFILL AREA

The grading plan originally envisioned in the contract documents (i.e., directing surface drainage to the new pond) was not feasible, since the surrounding grades had been modified by the site occupant to facilitate business operations. A drainage swale had been cut to the north of the former landfill area and an access road and log storage area existed in the area where drainage was to be directed to the new pond. Therefore, it was necessary to re-grade the former landfill area to drain to the drainage swale. The as-builts from contract one were compared to Abscope's re-grading plan to confirm that a minimum one foot cover would exist over all areas of the former landfill in accordance with the Record of Decision.

2.5 MONITORING WELLS

The monitoring wells were installed by Parratt Wolff, Inc. as shown by the well logs in Appendix F. No bollards were installed for wells 2, 3 and 4 since they are not located in traffic areas. Proposed well location 3 (shown on figure 6 of the contract documents) was moved to the west, since the new storage building is actually located west of its depicted position. Well 4 was moved to the east to get it out of area where snow removal occurs each winter. The wells were not developed due to the dry summer conditions, since no water was encountered during installation. The well locations were surveyed in and are shown on the as-builts.

2.6 CHANGE ORDERS

Two drums remained from the yard area investigation. Personnel protective equipment was

disposed with similar materials generated by Abscope during their work. Soils were sampled for PCBs and found to be between 10 and 50 ppm and, therefore, were placed beneath the concrete pad. This work increased Abscope's measurement for payment for sampling by one sample.

The contract required Abscope to coordinate with Great Lakes Veneer the installation of the debarker on the concrete slab. There was at first some confusion between the parties as to where the debarker would be relocated to and what support was required, along with the fact that relocating to Area B also impacted the pour of that area. Great Lakes Veneer's engineer produced documentation from the manufacturer which included a number of piers and also requested thickened concrete in a number of areas to address the future addition of a metal detector and further mechanized feed. Gary Barnett of Great Lakes Veneer indicated that additional concrete for these uses was likely un-necessary since typically logs were fed one at a time. Fourteen piers were required with thickened concrete to address the current feed to the debarker. The Department agreed to only incorporate existing equipment (the debarker) at this time and further agreed to task its contractor to excavate the piers due to the presence of contaminated soils, since there was no written agreement as to responsibilities in place at this time. Great Lakes was responsible for installing the piers and relocating the debarker, which they verbally agreed to. Abscope then installed isolation joints around the piers per the contract. Although support and relocation of the debarker should have been resolved during design, the Department dodged any claims for delay due to a concurrent delay situation with the dowels required as part of the concrete reinforcement. This work increased Abscope's measurement for payment for excavation by 20 cubic yards.

The contract documents were missing the referenced specifications for pipe testing and disinfection, which was completed on a time and materials basis. The referenced specifications for restoration were also missing and this work was also completed on a time and material basis.

Abscope encountered an old pipe during excavation work for the water line extension, which was apparently a process line for No. 6 fuel oil. Removal of product and contaminated soil was handled on a time and material basis. Based on the presence of the fuel oil, this material was considered unsuitable for placement in the former cooling water pond and was disposed off-site. Soils were shipped to Model City and contaminated waters to Industrial Oil.

The design elevations of the concrete slab did not take into account the existing doorways to the plant facility and were keyed to the inside floor elevation. Unfortunately, this required regrading of the completed subgrade, along with modifications to the existing doors. The installed slab would prevent the original doors from opening.

The Department's resident inspector's field computer broke down during the work and had to be replaced. It was determined that 1) the computer could not be repaired cost effectively and 2) the contractor could procure the same computer at a cost below the state contract rate and in a more timely manner.

The contractor was directed to place additional stone in the area of the former landfill to maintain a six inch cover of stone over the filter fabric. This was necessary to maintain the minimum cover required by the Record of Decision.

In the regrading of the various portions of the yard area, excess soils remained which would not fit under the new slab or in the consolidation area within the former cooling water pond. Complicating matters was the fact that soils with PCBs above 50 ppm, which did not fit beneath the slab, could not be placed in the cooling water pond in any event. Also, the sequencing of the work resulted in some excess soils which could not be placed in either location, since the cooling water pond was filled and covered and the majority of the yard area had already been covered by concrete. This required the materials to be characterized and disposed off-site.

There were the following reasons for these excess soils:

1. Excavation for the debarker footings and a deeper excavation to allow for a thickened portion of the slab to support a feed to the debarker resulted in the removal of additional hazardous soils. This could not be foreseen, since the configuration of the support structure for the debarker was not provided to the Department until after construction had started.

2. The design elevations of the concrete slab did not take into account the existing doorways to the plant facility and were keyed to the inside floor elevation. Unfortunately, this required regrading of the completed subgrade, along with modifications to the existing doors. The installed slab would have prevented the original doors from opening. This is clearly a design omission which resulted in the removal of additional hazardous materials.

3. It appears that the ability to "lose" hazardous soils underneath the concrete slab through regrading was over estimated, since the majority of the excavated areas are filled by the concrete, stone sub-base and the slope of the

finished pad. In other words, the depth of the excavations vs. final grades diminish as one moves out to the edges of the slab and, therefore, the volume of the fill required was much less than anticipated. The contract did state that excess materials requiring off-site disposal would be handled via change order on a time and materials basis.

4. Sequencing of the work reduced our options in consolidating contaminated soils on-site, since portions of the yard area became covered with concrete and the former cooling water pond was filled and covered. Note also that soils with PCBs above 50 ppm could not be placed in the cooling water pond.

5. The non-hazardous materials were a result of soils in one area identified in the contract as "known clean" visually matched soils previously known to be contaminated. The soils were segregated, sampled and determined to be non-hazardous, but above levels which would allow us to leave them on-site

Finally, the Department tasked Abscope to investigate roof leaks on a portion of the facility. As a matter of background, PCB contaminated roof ballast was determined to be the source of contamination in the on-site cooling water pond from storm water discharges via roof drains. An interim remedial measure (IRM) to remove the contaminated ballast and replace it with clean material was performed to eliminate the source. The existing integrity of the roof from the standpoint of water tightness was not improved upon, with the exception of roof and flashing repairs completed as part of the IRM. The roof leaked before the IRM and continues to leak after it.

During the IRM, Malcolm Pirnie noted the overall poor condition of the roof, numerous cracks were observed and that delaminating of the plies of the built up roofing system was apparent in some areas. Also, extensive degradation of the flashing and metal fascia was noted. At the time of the IRM, the roof was at or near the end of its design life.

However, Great Lakes Veneer, the current site occupant, has asserted that the work performed during the IRM damaged a portion of the roof which now leaks worse than it did previously. There is no warranty from the contractor who performed the IRM, since it was an environmental removal versus a roof installation project.

In the interests of resolving its dispute with Great Lakes Veneer, the Department agreed to make a reasonable effort (i.e., hire a qualified roofing contractor) to repair a portion of the roof.

Great Lakes Veneer acknowledges the age and poor condition of the roof, notes that complete replacement of the roof is likely necessary and accepts that any further work cannot be warranted by a roofing subcontractor. Great Lakes Veneer accepts full responsibility for the roof following this additional repair work.

In obtaining quotes from qualified roofers, it was determined that spot repair of the roof was not feasible due to its current condition. However, it was known from previous work that water ponded on the roof during rain events, so resetting the existing roof drains and/or adding an additional drain(s) would likely alleviate the problems Great Lakes Veneer was experiencing with leaks. This would allow them to put off full replacement of the roof until sufficient monies were available. However, the roofer determined that based on the actual configuration of the roof system, additional drains could not be placed in the center of the roof without causing additional leaking (i.e., the leaking conditions might actually be worsened). Therefore, the Department concluded that the existing roof, based on its age and condition, was irreparable and needed to be replaced.

The change order also adjusted the estimated quantities for various unit price items (length of water, storm and sewer lines installed, square footage of concrete pad, excavation, sampling, site services, health & safety and square footage of geotextile) based on actual measurements made in the field.

3.0 CONCLUSIONS AND RECOMMENDATIONS

It is recommended that with the completion of this project and the implementation of long term monitoring, that the Oswego Castings site be reclassified on the NYS Registry of Inactive Hazardous Waste Sites. The site's status should be changed to class 4 to reflect that long term maintenance and monitoring is underway.

However, the following should be noted carefully with respect to any potential future use of the site:

1. The cleanup goal for PCBs was 1 ppm from the surface to 12" below grade and 10 ppm below 1 foot. Any future disturbance of the remaining soil or sediment surfaces might result in materials containing PCBs in excess of 1 ppm being on or within 1 foot of the surface.

2. Significantly higher concentrations of PCBs were detected under the sawmill building and in the yard area. These remain beneath the building and under the concrete cap installed in the yard area.

3. Future redevelopment activities should be monitored carefully to prevent any impacts to the remedy.

4. Routine monitoring of the concrete cap, along with the geotextile and stone covers over the former cooling water pond and landfill areas, is necessary to ensure Great Lakes Veneer's on-site activities do not compromise their integrity.

Finally, there was some uncontrolled cracking during construction of the concrete slab. "Uncontrolled" cracking refers to cracks which appear at locations other than at the saw cut construction joints while the concrete cures. These cracks appeared at the manhole and at the outside corners of the main plant within the courtyard. It appears that contraction joints should have been saw cut directly at these locations (in lieu of spacing them fifteen feet on center) to control the inevitable formation of contraction cracks. Based on recommendations of the concrete subcontractor and technical literature of the industry, it was determined that no corrective action was needed at this time, since the cracks were very thin. However, these areas should be monitored closely during the long term monitoring and maintenance program.

4.0 CONSTRUCTION CERTIFICATION

Construction was completed in accordance with the contract documents entitled: "Oswego Castings Site, Operable Unit Number 2, Yard and Buildings, Site No. 7-38-033" and dated March 1, 2001.

P.E. Seal

Signed: _____

Michael J. Cruden, P.E.

Dated: 1/8/08

TABLES

TABLE 1

SUBCONTRACTORS

Subcontractor	Work
Murphy Contracting, Inc.	Concrete Slab
Marathon Iron Works	Reinforcement
O'Rourke, Inc.	Air Monitoring/HASP
Parratt Wolff, Inc.	Monitoring Wells
Van der Horst Geotechnical Engineering, P.C.	Geotechnical Testing
Friends Laboratory, Inc.	Environmental Analyses
Russell Getman	Surveyor

OSWEGO CASTINGS SITE
SITE NO. 7-38-033
CONCRETE SLAB

TABLE 2

ITEM	DESCRIPTION	UNIT	QUANTITY	ENGINEER'S ESTIMATE UNIT BID	ENGINEER'S ESTIMATE SUBTOTAL	Abscope UNIT BID	Abscope SUBTOTAL	Environmental Target Group UNIT BID	Environmental Target Group SUBTOTAL	of Central NY UNIT BID	of Central NY SUBTOTAL	Integrated Technical Services UNIT BID	Integrated Technical Services SUBTOTAL	Tyree Organization UNIT BID	Tyree Organization SUBTOTAL	UNIT PRICE COMPARISON LOW	UNIT PRICE COMPARISON AVERAGE
1	SITE PREP	L.S	1	$20,000.00	$20,000.00	$35,000.00	$35,000.00	$55,000.00	$55,000.00	$62,700.00	$62,700.00	$71,527.00	$71,527.00	$35,000.00	$56,056.75		
2	SITE SERV	DAY	120	$250.00	$30,000.00	$50.00	$6,000.00	$100.00	$12,000.00	$650.00	$78,000.00	$295.00	$35,400.00	$50.00	$273.75		
3	HEALTH & SAFETY	DAY	90	$450.00	$40,500.00	$100.00	$9,000.00	$400.00	$36,000.00	$405.00	$36,450.00	$120.00	$10,800.00	$100.00	$256.25		
4A	WATERLINE	LF	165	$11.66	$1,923.90	$75.00	$12,375.00	$76.00	$12,540.00	$36.00	$5,940.00	$55.00	$9,075.00	$36.00	$60.50		
4B	SANITARY SEWER	LF	155	$8.70	$1,346.50	$65.00	$10,075.00	$72.00	$11,160.00	$87.00	$13,485.00	$92.00	$14,260.00	$65.00	$79.00		
4C	STORM SEWER	LF	125	$14.94	$1,867.50	$65.00	$8,125.00	$90.00	$11,250.00	$36.00	$4,500.00	$50.00	$6,250.00	$36.00	$60.25		
5A	YARD AREA	CY	1340	$27.50	$36,850.00	$15.00	$20,100.00	$14.50	$19,430.00	$12.00	$16,080.00	$35.00	$46,900.00	$12.00	$19.13		
5B	WETLAND	CY	830	$40.00	$33,200.00	$15.00	$12,450.00	$14.50	$12,035.00	$15.50	$12,865.00	$44.00	$36,520.00	$14.50	$22.25		
5C	NEW POND	CY	1300	$20.00	$26,000.00	$15.00	$19,500.00	$16.00	$20,800.00	$9.50	$12,350.00	$35.00	$45,500.00	$9.50	$18.88		
6	SLAB	SF	36000	$4.56	$164,860.00	$6.75	$243,000.00	$6.00	$216,000.00	$7.15	$257,400.00	$8.00	$288,000.00	$6.00	$6.98		
7A	SITE RESTORE	L.S.	1	$20,000.00	$20,000.00	$12,000.00	$12,000.00	$6,500.00	$6,500.00	$4,850.00	$4,850.00	$14,769.00	$14,769.00	$4,850.00	$9,529.75		
7B	FORMER LANDFILL	CY	1000	$11.75	$11,750.00	$15.00	$15,000.00	$12.00	$12,000.00	$7.50	$7,500.00	$17.00	$17,000.00	$7.50	$12.88		
7C	GEOTEXTILE	SF	24000	$0.27	$6,360.00	$0.20	$4,800.00	$0.25	$6,000.00	$0.25	$6,000.00	$0.26	$6,240.00	$0.20	$0.24		
8	SAMPLES	EACH	25	$130.00	$3,250.00	$250.00	$6,250.00	$195.00	$4,875.00	$136.00	$3,400.00	$130.00	$3,250.00	$130.00	$177.75		
9	WELLS	LF	60	$40.00	$2,400.00	$100.00	$6,000.00	$145.00	$8,700.00	$130.00	$7,800.00	$100.00	$6,000.00	$100.00	$118.75		
				TOTAL BID	$400,329.90		$419,675.00		$444,290.00		$529,320.00		$611,491.00				
				POLL LIAB	$10,000.00		$5,000.00		$7,500.00		$8,077.00		$50,000.00				

LOW BID	$419,675.00
VAR W/ENG	4.83%
SPREAD	$191,816.00
AVG BID	$501,194.00

Table 3 **Oswego Castings** **Final Costs**

BID ITEM	UNIT	ESTIMATED QUANTITY	BID UNIT PRICE	BID ITEM COST	ACTUAL QUANTITY	ACTUAL ITEM COST
SITE PREP	L.S	1	$35,000.00	$35,000.00	1.00	$35,000.00
SITE SERV	DAY	120	$50.00	$6,000.00	102.00	$5,100.00
HEALTH & SAFETY	DAY	90	$100.00	$9,000.00	26.00	$2,600.00
WATERLINE	LF	165	$75.00	$12,375.00	187.00	$14,025.00
SANITARY SEWER	LF	155	$65.00	$10,075.00	148.00	$9,620.00
STORM SEWER	LF	125	$65.00	$8,125.00	190.00	$12,350.00
YARD AREA	CY	1340	$15.00	$20,100.00	1603.44	$24,051.60
WETLAND	CY	830	$15.00	$12,450.00	947.72	$14,215.80
NEW POND	CY	1300	$15.00	$19,500.00	1227.28	$18,409.20
SLAB	SF	36000	$6.75	$243,000.00	36096.98	$243,654.62
SITE RESTORE	L.S.	1	$12,000.00	$12,000.00	1.00	$12,000.00
FORMER LANDFILL	CY	1000	$15.00	$15,000.00	1615.40	$24,231.00
GEOTEXTILE	SF	24000	$0.20	$4,800.00	24890.00	$4,978.00
SAMPLES	EACH	25	$250.00	$6,250.00	32.00	$8,000.00
WELLS	LF	60	$100.00	$6,000.00	60	$6,000.00
			ORIGINAL	$419,675.00	ACTUAL	$434,235.22
		Change Order 1	**Items:**			
			Restoration		*Time & Materials*	$1,076.82
			Test & Disinfect		*Time & Materials*	$2,250.09
			Roof		*Time & Materials*	$504.00
			Old Pipe		*Time & Materials*	$6,432.62
			Computer		*Time & Materials*	$1,829.30
			Regrade/Doors		*Time & Materials*	$5,883.68
			Stone		*Time & Materials*	$3,861.92
			Excess Soils		*Time & Materials*	$51,886.72
			FINAL	CONTRACT	PRICE	**$507,960.37**

APPENDIX A

APPENDIX B

Air Monitoring Data Sheet

Revised September 1996

Project Name	Project Location	Sampling Date	26 July, 01
Oswego Castings (G.L.V.)	Oswego New York	Contract Number	DC04283

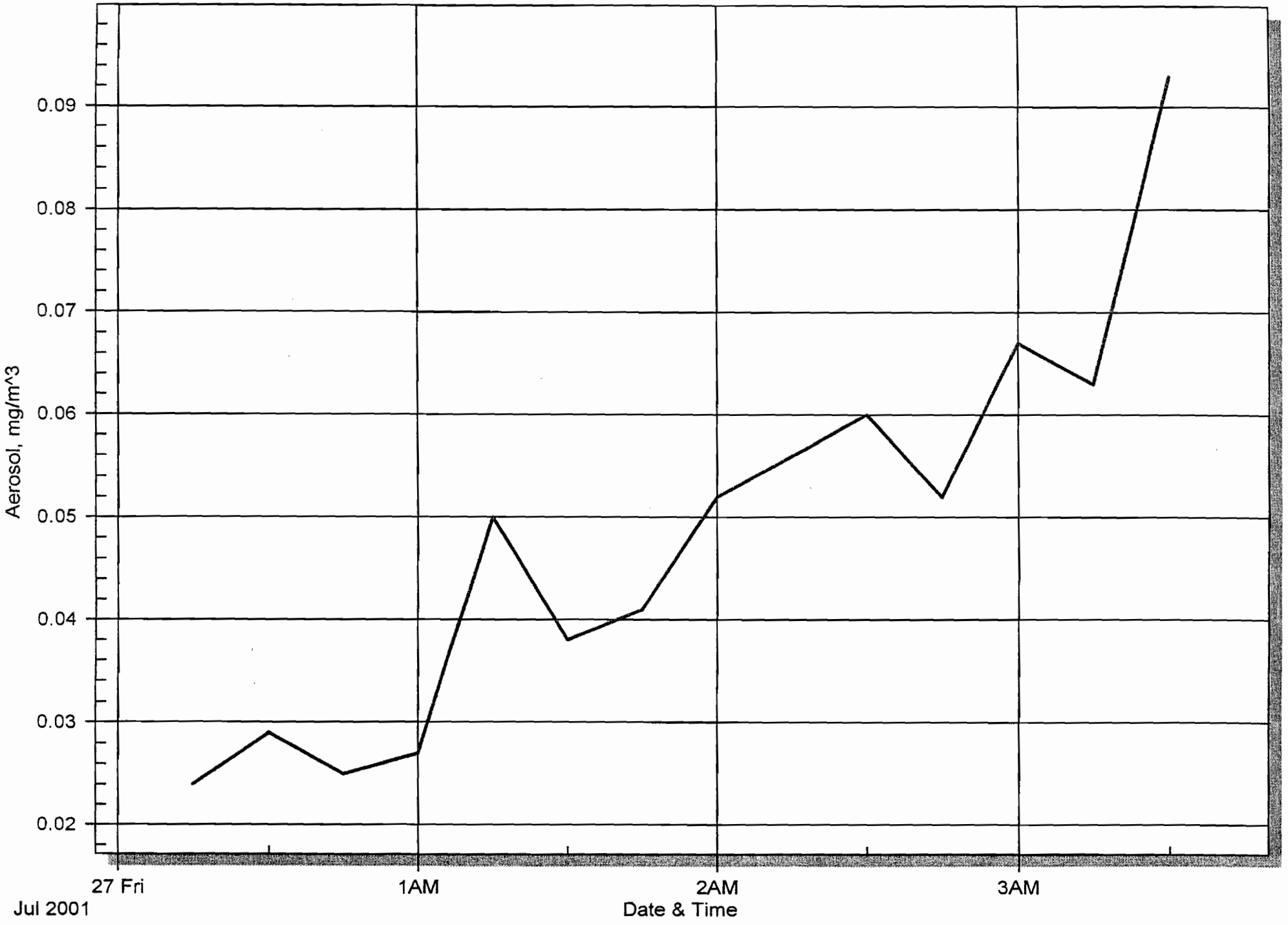
Pump ID No.	Sample Location	Employee	Start Time	End Time	Duration (min)	Flow Rate (l/min)	Air Volume (l)	Analysis Required
590104	Upwind	OCUW26-7D	10 35	2:20	221	2.0	442	TOTAL DUST
624467	" "	OCUW26-7	"	"	222	.2	44.4	PCB
21593	" "	DUSTRAK	"	"	—	2.0	—	—
575876	Down wind	OCDW26-7D	10:30	2:25	226	2.0	452	TOTAL DUST
6000763	" "	OCDW26-7	"	"	227	.2	45.4	PCB
14217	" "	DUSTRAK	"	"	—	2.0	—	—

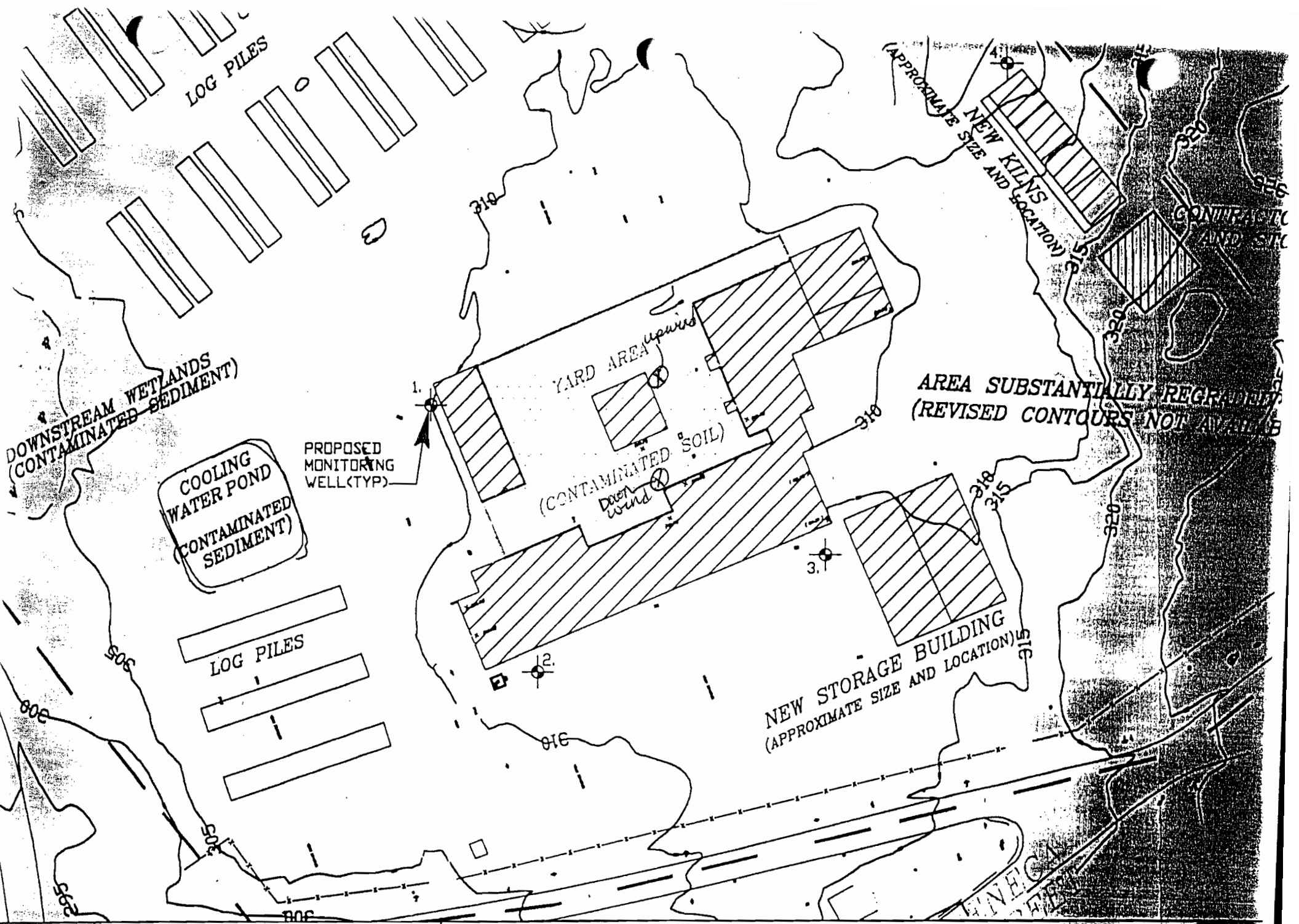
Technicians Name	Bruce Floyd	Date/Time	26 Aug 01	Signature	Bruce W. Floyd
Comments					

* Annotated everything from original sheet (A FIELD Pump Data Sheet) to this Document.

Great La[illegible] Veneer

26 July, 2001 Upwind





OTES:

THE CASING FOR WELL 1 SHALL BE PROTECTED FROM VEHICULAR TRAFFIC WITH [illegible] STEEL CASING FILLED WITH CONCRETE.

26 July, 2001

STATE OF NEW

Air Monitoring Data Sheet

Revised September 1996

Project Name	Project Location	Sampling Date	27 July, 2001
Oswego Castings (G.L.V.)	Oswego NY	Contract Number	D004283

Pump ID No.	Sample Location	Employee	Start Time	End Time	Duration (min)	Flow Rate (l/min)	Air Volume (l)	Analysis Required
624512	Up Wind	OCUW27	840	3:00	258	.2	71.6	PCB
600241	Down Wind	OCDW27	|	|	259	.2	71.8	PCB
575876	Up Wind	OCUW27-TD	|	|	258	2.0	716	TOTAL DUST
600163	Down Wind	OCDW27-TD	|	|	259	2.0	718	TOTAL DUST
21593	Up Wind	OCUW	|	|	—	2.0	—	DUSTRAK
14217	Down Wind	OCDW	—	—	—	2.0	—	DUSTRAK
624167	Work Area	Work Area St.	1100	230	147	.2	29.4	PCB
590104	Work Area	Work Area St.	1100	230	147	2.0	294	TOTAL DUST
21589	Work Area	Work Area St.	1100	230	—	2.0	—	DUSTRAK
		ST. = STATION						

Technicians Name	~~Bruce Floyd~~	Date/Time	27 July, 200	Signature	Bruce W. Floyd

Comments

* Annotated every thing from (Field Pump Data Sheet) to this Document.

Oswego Castings/Grea[illegible]es Veneer 7/27/01

Date	Time	Temp Out	Heat Index	Wind Chill	Hi Temp	Low Temp	Hum Out	Dew Pt.	Wind Speed	Hi	Dir	Rain	Bar	Temp In	Hum In	Arc Per
7/27/01	12:30p	69.4	67.6	69.4	69.4	67.6	42	45.3	4.0	10.0	NNW	0.00	30.507	75.7	34	30
7/27/01	1:00p	68.9	67.1	68.9	69.9	68.8	46	47.3	4.0	10.0	NNW	0.00	30.499	74.7	36	30
7/27/01	1:30p	69.8	68.0	69.8	70.6	68.6	43	46.3	4.0	11.0	NNW	0.00	30.495	74.0	36	30
7/27/01	2:00p	72.3	70.4	72.3	72.5	69.8	39	45.9	2.0	7.0	NNW	0.00	30.488	74.2	36	30
7/27/01	2:30p	73.3	71.5	73.3	73.5	72.3	39	46.8	2.0	7.0	NNW	0.00	30.484	73.1	36	30
7/27/01	3:00p	70.9	68.7	70.9	73.3	70.4	38	44.0	3.0	8.0	NNW	0.00	30.467	71.2	37	30
7/27/01	3:30p	71.1	69.3	71.1	71.6	69.8	40	45.5	3.0	7.0	NNW	0.00	30.459	70.7	38	30
7/27/01	4:00p	71.1	69.3	71.1	71.8	70.1	44	48.1	3.0	8.0	N	0.00	30.454	70.2	39	30
7/27/01	4:30p	69.4	67.6	69.4	71.1	69.4	45	47.1	3.0	10.0	NNW	0.05	30.456	67.7	42	30
7/27/01	5:00p	69.1	67.3	69.1	69.6	69.1	45	46.9	3.0	6.0	W	0.00	30.458	67.5	41	30
7/27/01	5:30p	68.8	67.0	68.8	68.8	68.6	47	47.7	3.0	8.0	W	0.00	30.453	65.8	41	30
7/27/01	6:00p	68.8	67.0	68.8	68.9	68.6	47	47.7	3.0	8.0	W	0.00	30.445	70.4	38	30
7/27/01	6:30p	68.4	66.6	68.4	68.6	68.4	45	46.2	4.0	7.0	W	0.00	30.445	69.4	40	30
7/27/01	7:00p	68.1	66.3	68.1	68.4	67.9	50	48.8	3.0	7.0	W	0.00	30.445	72.6	37	30
7/27/01	7:30p	67.6	65.4	67.6	68.3	67.6	50	48.3	2.0	5.0	W	0.00	30.437	69.7	37	30
7/27/01	8:00p	66.8	64.3	66.8	67.6	66.8	55	50.1	1.0	3.0	W	0.00	30.433	64.9	40	30
7/27/01	8:30p	66.1	63.6	66.1	66.4	66.1	56	49.9	1.0	5.0	W	0.00	30.440	63.3	41	30
7/27/01	9:00p	65.3	63.1	65.3	66.0	65.3	61	51.5	0.0	2.0	WNW	0.00	30.443	63.0	42	30
7/27/01	9:30p	58.9	57.4	58.9	65.3	58.9	79	52.4	0.0	2.0	SSE	0.00	30.453	62.2	42	30
7/27/01	10:00p	57.0	57.0	57.0	58.7	57.0	84	52.2	0.0	1.0	SE	0.00	30.463	61.0	41	30
7/27/01	10:30p	55.7	55.7	55.7	57.0	55.7	86	51.6	0.0	2.0	SE	0.00	30.458	61.4	41	30
7/27/01	11:00p	54.5	54.5	54.5	55.7	54.5	88	51.0	0.0	2.0	SE	0.00	30.460	61.4	41	30
7/27/01	11:30p	54.4	54.4	54.4	54.5	54.4	89	51.2	0.0	2.0	SE	0.00	30.468	61.1	41	30
7/27/01	12:00p	53.5	53.5	53.5	54.4	53.5	89	50.3	0.0	0.0	N	0.00	30.470	60.8	41	30

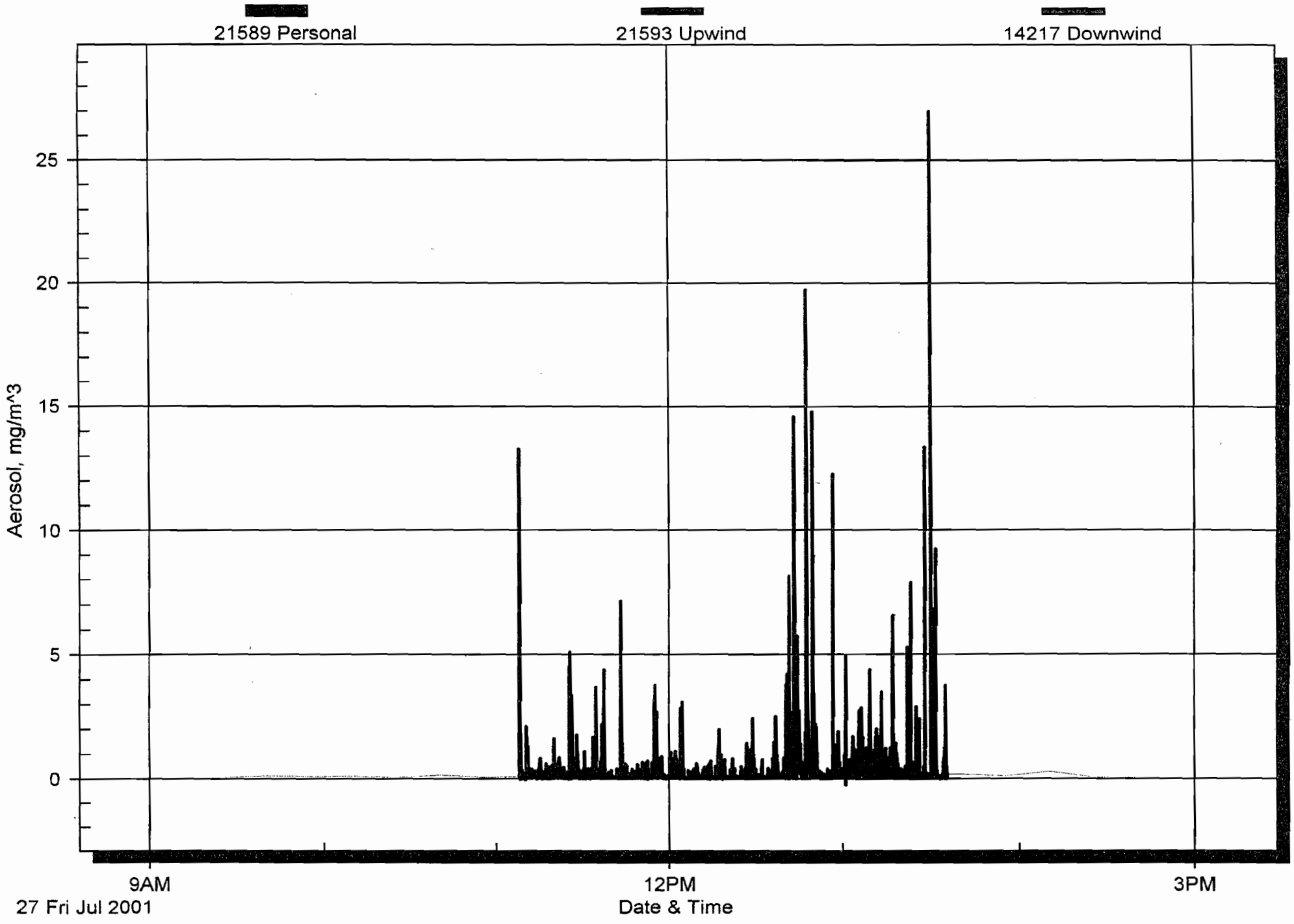
Current Graph: Graph
Start time: 09:10:13 07/27/2001 Stop time: 14:53:56 07/27/2001

Legend: 21589 Per: 14217 Downwind

Channel:	Aerosol	Aerosol
(Units)	mg/m^3	mg/m^3
Average:	0.304	0.109
Lowest point:	-0.253	0.053
Time	13:01:07	14:40:13
Date	07/27/2001	07/27/2001
Highest point:	26.983	0.298
Time	13:30:05	14:10:13
Date	07/27/2001	07/27/2001
Log interval: hh:mm:ss	00:00:01	00:15:00

Great La[illegible]s Veneer

27 July ,01



Galson Laboratories

6601 Kirkville Road
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LABORATORY ANALYSIS REPORT

Client : O'Rourke Incorporated
Site : Oswego Castings G. Lake Veneer
Project No. : 7-38-033

Date Sampled : 27-JUL-01 Account No.: 12312
Date Received : 27-JUL-01 Login No. : L73328
Date Analyzed : 01-AUG-01 - 02-AUG-01

Total Dust

Sample ID	Lab ID	Air Vol m3	Total mg	Conc mg/m3
OCUW27-7D	L73328-1	0.716	0.345	0.48
OCDW27-7D	L73328-2	0.718	0.293	0.41
PERSEXC.B	L73328-3	0.294	<0.05	<0.2

COMMENTS: PNOR = Particulates Not Otherwise Regulated.

Level of quantitation: 0.05 mg
Analytical Method : NIOSH 0500; GRAV
OSHA PEL (TWA) : PNOR 15 mg/m3
Collection Media : PVC PW

Submitted by: LK
Approved by : Oommen Kappil
Date : 02-AUG-01
QC by:
NYS DOH # : 11626

< -Less Than mg -Milligrams m3 -Cubic Meters kg -Kilograms
> -Greater Than ug -Micrograms l -Liters NS -Not Specified
NA -Not Applicable ND -Not Detected ppm -Parts per Million

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LABORATORY ANALYSIS REPORT

Client : O'Rourke Incorporated
Site : Oswego Castings G. Lake Veneer
Project No. : 7-38-033

Date Sampled : 27-JUL-01
Date Received : 27-JUL-01
Date Analyzed : 04-AUG-01

Account No.: 12312
Login No. : L73328

PCB (Aroclors 1016-1260)

Sample ID	Lab ID	Air Vol liter	Front ug	Back ug	Total ug	Conc mg/m3
OCUW27	L73328-4	71.6	<0.05	<0.05	<0.05	<0.0007
OCDW27	L73328-5	71.8	<0.05	<0.05	<0.05	<0.0007
PERSEXC.A	L73328-6	29.4	<0.05	<0.05	<0.05	<0.002

COMMENTS: Total ug corrected for a desorption efficiency of 100%.

Level of quantitation: 0.05 ug
Analytical Method : NIOSH 5503; GC/ECD
OSHA PEL (TWA) : 0.5-1 mg/m3
Collection Media : Filter & Tube

Submitted by: cmh
Approved by : dkf
Date : 06-AUG-01
QC by:
NYS DOH # : 11626

< -Less Than
> -Greater Than
NA -Not Applicable
mg -Milligrams
ug -Micrograms
ND -Not Detected
m3 -Cubic Meters
l -Liters
ppm -Parts per Million
kg -Kilograms
NS -Not Specified

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Fax: (315) 437-0571

Request For Industrial Hygiene Analysis

Company Name: O'Rourke Inc.
Site Name: Oswego Castings Great Lake Veneer
Sampled By: Bruce Floyd | Project #: 7-38-033

Send Report to: O'Rourke Inc. | Invoice to: O'Rourke Inc.

☐ Purchase order number
(or)
☐ Credit Card (type) Card # Exp Date
☐ Verbal Authorization

☒ Standard Turn-Around Time OR ☐ Rush: Date and Time Requested: / / am pm
☐ Phone Results to: Phone # ( ) - - ext.
☒ Fax Results to: ATTN: Bruce Floyd Fax # 315-342-2062
☐ Email Results to:

Sample Identification	Date Sampled	Sample Medium Catalog # / Lot #	Air Sample Volume (liters)*	Analysis Requested	Method Reference
OCUW27-7D	27 July 01	CASSETTES TOTAL DUST	716	TOTAL DUST	NIOSH 0500
OCDW27-7D	27 July 01	CASSETTES TOTAL DUST	718	TOTAL DUST	NIOSH 0500
PERSEXC. B	27 July 01	TOTAL DUST CASSETTES	294	TOTAL DUST	NIOSH 0500
OCUW27	27 July 01	Florisil tubes filter/tubes	71.6	PCB	NIOSH 5503
OCDW27	27 July 01	Florisil tubes	71.8	PCB	NIOSH 5503
PERSEXC. A	27 July 01	Florisil tubes	29.4	PCB	NIOSH 5503

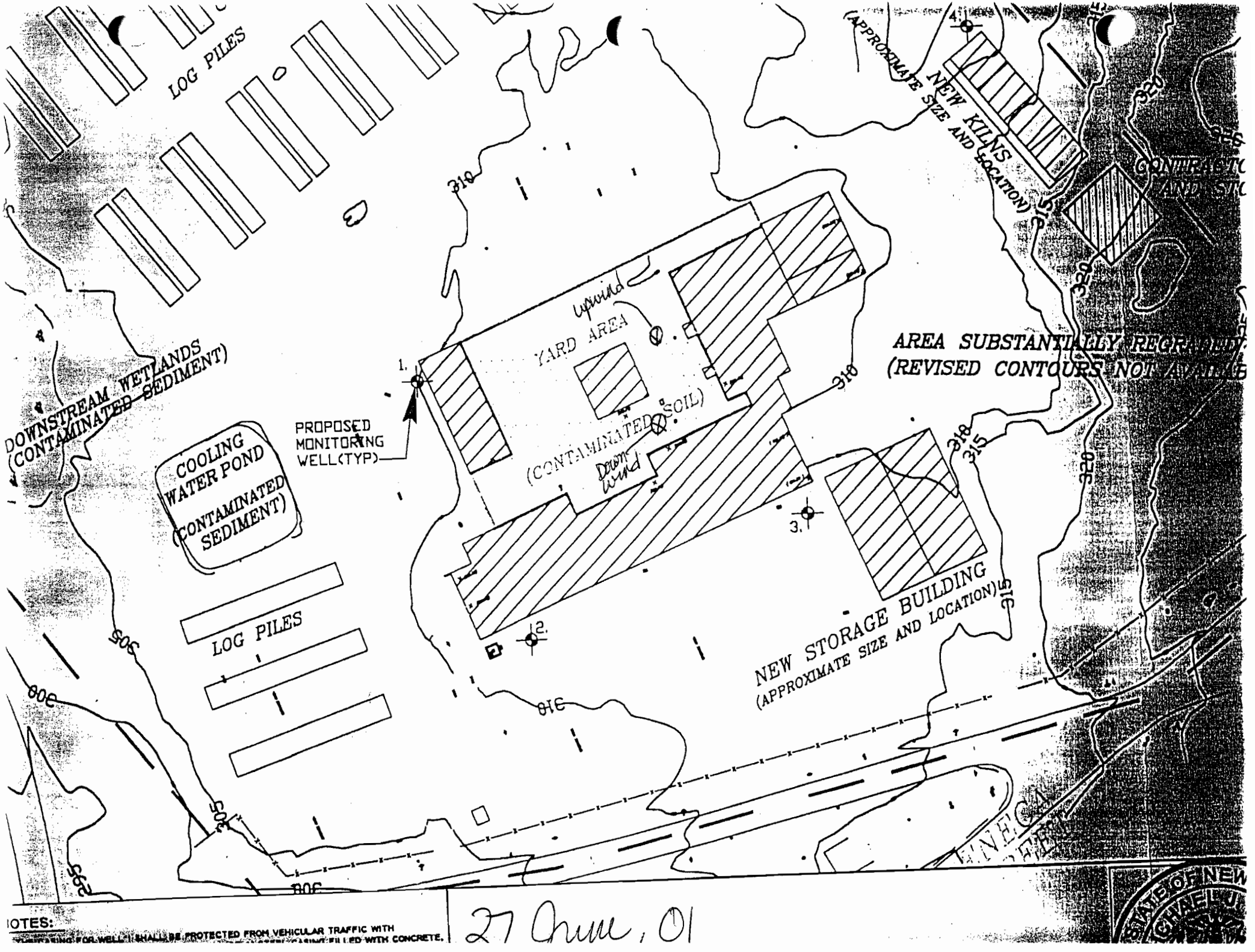
*For passive monitors please list time exposed in minutes.

Comments (Please list any known interferences present in sampling area): Blanks not submitted/bp

Chain of Custody	Print Name	Signature	Date/Time
Relinquished by:	Bruce Floyd	Bruce Floyd	7/29/01 409
Received by LAB.	M. Krause	M. Krause	7/27/01 419

Samples received after 3pm will be considered as next day's business.

LAB ORIGINAL



NOTES:

...WELL SHALL BE PROTECTED FROM VEHICULAR TRAFFIC WITH ... FILLED WITH CONCRETE.

27 June, 01

Air Monitoring Data Sheet

Revised September 1996

Project Name	Project Location	Sampling Date	30 July, 2001
Oswego Castings (G.L.U.)	Oswego NY	Contract Number	D004283

Pump ID No.	Sample Location	Employee	Start Time	End Time	Duration (min)	Flow Rate (l/min)	Air Volume (l)	Analysis Required
21593	UPWIND	DUSTRAX	8:55	15:15	368	2.0	—	—
575876	〃		〃	〃	〃	2.0	772	TOTAL DUST
624512	〃		〃	〃	〃	.2	77.2	PCB
14217	DOWN WIND	DUSTRAX	8:50	15:15	385	2.0	—	—
600763	〃		〃	〃	〃	2.0	770	TOTAL DUST
600241	〃		〃	〃	〃	.2	77.0	PCB
21589	WORK AREA	DUSTRAX	10:30	15:15	293	2.0	—	—
590104	〃		〃	〃	〃	2.0	586	TOTAL DUST
624467	〃		〃	〃	〃	.2	58.6	PCB
	NOTHING		MORE					

Technicians Name	Bruce Floyd	Date/Time	30 July, 2001	Signature	Bruce W. Floyd
Comments	Was able to program DUSTRAX today. Work area is very dusty a good portion of this is due to (G.L.U.) Heavy Equip. traveling back and forth w/ or w/o Logs. Also Deparker is constantly going creating lots of dust & wood chips & sawdust. Hydrospe Crew working in trench today w/ water line.				

Oswego Castings/Grea as Veneer 7/30/01

Date	Time	Temp Out	Heat Index	Wind Chill	Hi Temp	Low Temp	Hum Out	Dew Pt.	Wind Speed	Hi	Dir	Rain	Bar	Temp In	Hum In	Arc Per
7/30/01	12:00a	--	--	--	--	--	--	--	0.0	0.0	---	0.00	30.265	61.8	43	30
7/30/01	12:30a	--	--	--	--	--	--	--	0.0	0.0	---	0.00	30.270	62.1	43	30
7/30/01	1:00a	--	--	--	--	--	--	--	0.0	0.0	---	0.00	30.273	62.2	43	30
7/30/01	1:30a	--	--	--	--	--	--	--	0.0	0.0	---	0.00	30.274	62.2	43	30
7/30/01	2:00a	--	--	--	--	--	--	--	0.0	0.0	---	0.00	30.280	62.2	43	30
7/30/01	2:30a	--	--	--	--	--	--	--	0.0	0.0	---	0.00	30.276	62.2	44	30
7/30/01	3:00a	--	--	--	--	--	--	--	0.0	0.0	---	0.00	30.264	62.2	44	30
7/30/01	3:30a	--	--	--	--	--	--	--	0.0	0.0	---	0.00	30.263	62.2	44	30
7/30/01	4:00a	--	--	--	--	--	--	--	0.0	0.0	---	0.00	30.262	62.2	44	30
7/30/01	4:30a	--	--	--	--	--	--	--	0.0	0.0	---	0.00	30.265	62.2	44	30
7/30/01	5:00a	--	--	--	--	--	--	--	0.0	0.0	---	0.00	30.270	62.2	44	30
7/30/01	5:30a	--	--	--	--	--	--	--	0.0	0.0	---	0.00	30.283	62.2	44	30
7/30/01	6:00a	--	--	--	--	--	--	--	0.0	0.0	---	0.00	30.288	62.2	44	30
7/30/01	6:30a	--	--	--	--	--	--	--	0.0	0.0	---	0.00	30.293	62.4	44	30
7/30/01	7:00a	--	--	--	--	--	--	--	0.0	0.0	---	0.00	30.305	64.0	43	30
7/30/01	7:30a	--	--	--	--	--	--	--	0.0	0.0	---	0.00	30.313	67.7	57	30
7/30/01	8:00a	--	--	--	--	--	--	--	3.0	3.0	E	0.00	30.316	67.0	47	30
7/30/01	8:30a	--	--	--	--	--	--	--	0.0	0.0	---	0.00	30.317	65.9	47	30
7/30/01	9:00a	--	--	--	--	--	--	--	0.0	0.0	---	0.00	30.319	66.1	45	30
7/30/01	9:30a	--	--	--	--	--	--	--	0.0	0.0	---	0.00	30.321	66.9	45	30
7/30/01	10:00a	--	--	--	--	--	--	--	0.0	0.0	---	0.00	30.324	68.4	47	30
7/30/01	10:30a	--	--	--	--	--	--	--	0.0	0.0	---	0.00	30.327	70.4	47	30
7/30/01	11:00a	--	--	--	--	--	--	--	0.0	0.0	---	0.00	30.326	70.9	45	30
7/30/01	11:30a	76.7	76.7	76.7	76.8	76.3	56	59.8	2.0	10.0	SSE	0.03	30.302	73.5	44	30
7/30/01	12:00p	76.3	76.3	76.3	76.8	75.8	55	58.9	2.0	7.0	ESE	0.00	30.295	73.6	43	30
7/30/01	12:30p	77.6	77.8	77.6	77.6	76.0	54	59.6	2.0	12.0	SE	0.00	30.276	72.1	42	30
7/30/01	1:00p	79.2	79.2	79.2	79.4	77.6	50	59.0	3.0	8.0	SSW	0.00	30.273	71.2	41	30
7/30/01	1:30p	78.6	78.6	78.6	79.6	77.7	49	57.8	2.0	8.0	SSE	0.00	30.277	70.4	41	30
7/30/01	2:00p	76.1	76.5	76.1	79.4	76.1	62	62.1	2.0	7.0	NW	0.00	30.285	69.6	39	30
7/30/01	2:30p	77.4	77.7	77.4	77.4	75.3	57	61.0	3.0	8.0	N	0.00	30.278	68.7	42	30
7/30/01	3:00p	77.4	77.6	76.7	78.8	77.4	56	60.5	5.0	11.0	N	0.00	30.274	67.4	41	30
7/30/01	3:30p	76.5	76.5	75.8	77.4	76.3	58	60.6	5.0	12.0	NW	0.00	30.274	67.7	46	30
7/30/01	4:00p	77.2	77.3	76.5	77.2	76.5	55	59.8	5.0	10.0	N	0.00	30.261	66.7	49	30
7/30/01	4:30p	73.0	71.3	73.0	77.4	73.0	41	47.9	0.0	6.0	NNW	0.00	30.248	66.9	48	30
7/30/01	5:00p	68.4	66.6	68.4	73.0	68.4	41	43.8	0.0	0.0	N	0.00	30.254	65.1	44	30
7/30/01	5:30p	67.1	64.0	67.1	68.4	67.1	45	45.0	0.0	0.0	N	0.00	30.257	64.9	46	30
7/30/01	6:00p	66.3	63.3	66.3	67.1	66.3	50	47.1	0.0	0.0	N	0.00	30.271	64.6	50	30
7/30/01	6:30p	66.4	63.2	66.4	66.4	66.3	47	45.5	0.0	0.0	N	0.00	30.274	63.0	48	30
7/30/01	7:00p	65.6	62.3	65.6	66.4	65.6	47	44.8	0.0	0.0	N	0.00	30.277	62.9	48	30
7/30/01	7:30p	66.4	62.9	66.4	66.4	65.6	44	43.8	0.0	0.0	N	0.00	30.286	62.9	48	30
7/30/01	8:00p	65.3	61.8	65.3	66.4	65.3	46	44.0	0.0	0.0	N	0.00	30.294	62.4	48	30
7/30/01	8:30p	64.2	60.7	64.2	65.3	64.2	47	43.5	0.0	0.0	N	0.00	30.285	62.2	48	30
7/30/01	9:00p	63.2	59.7	63.2	64.2	63.2	48	43.2	0.0	0.0	N	0.00	30.296	62.2	48	30
7/30/01	9:30p	62.6	59.0	62.6	63.2	62.6	48	42.6	0.0	0.0	N	0.00	30.302	61.9	47	30
7/30/01	10:00p	62.1	58.5	62.1	62.6	62.1	48	42.2	0.0	0.0	N	0.00	30.316	61.8	47	30
7/30/01	10:30p	61.8	58.1	61.8	62.1	61.8	48	41.9	0.0	0.0	N	0.00	30.324	61.4	46	30
7/30/01	11:00p	61.5	57.9	61.5	61.8	61.5	48	41.6	0.0	0.0	N	0.00	30.325	61.1	46	30
7/30/01	11:30p	61.2	57.6	61.2	61.5	61.2	48	41.3	0.0	0.0	N	0.00	30.307	60.8	46	30
7/30/01	12:00p	61.0	57.4	61.0	61.2	61.0	48	41.2	0.0	0.0	N	0.00	30.310	60.2	46	30

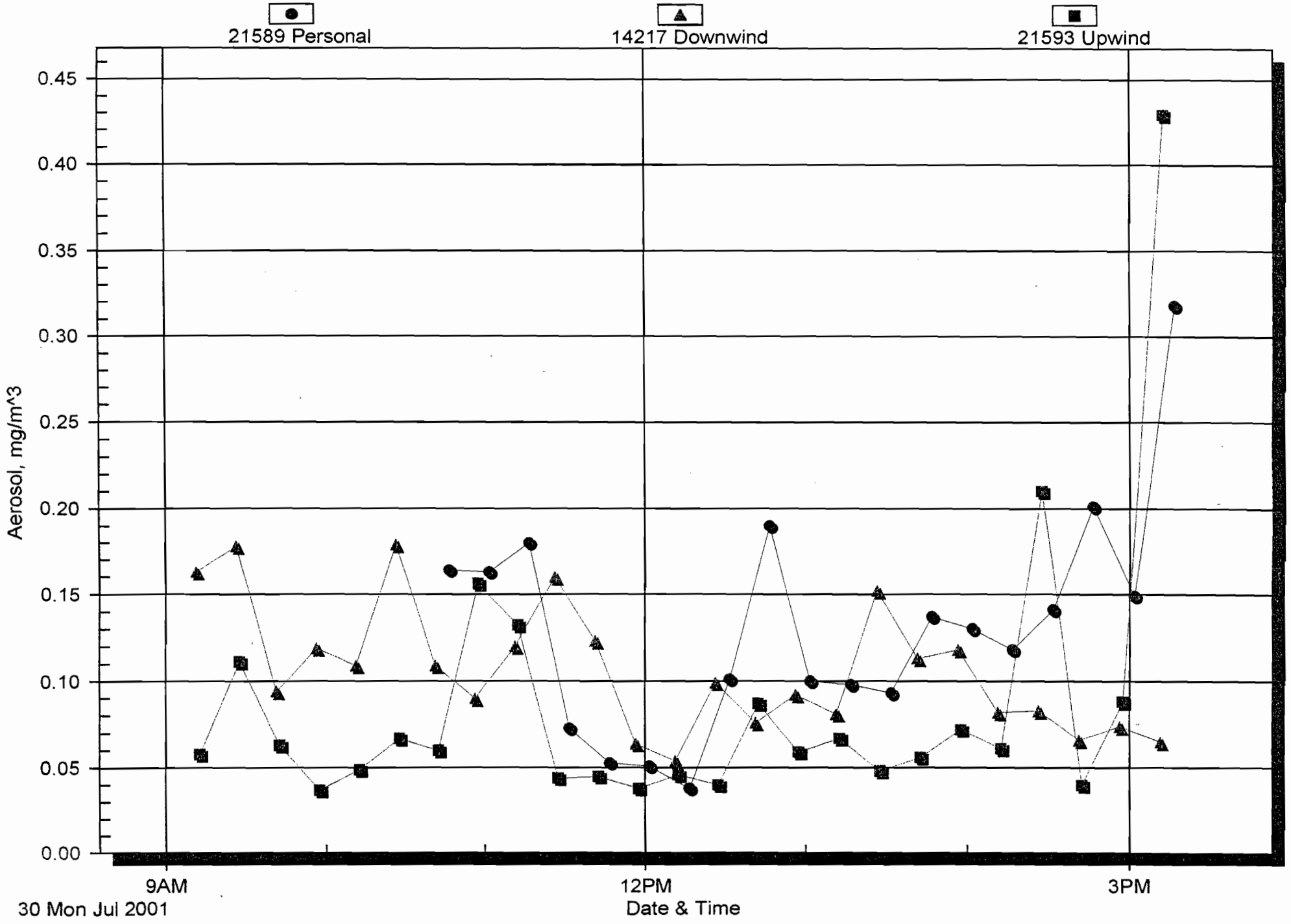
Current Graph: 30th G.L.V. Graph
Start time: 08:56:28 07/30/2001 Stop time: 15:16:49 07/30/2001

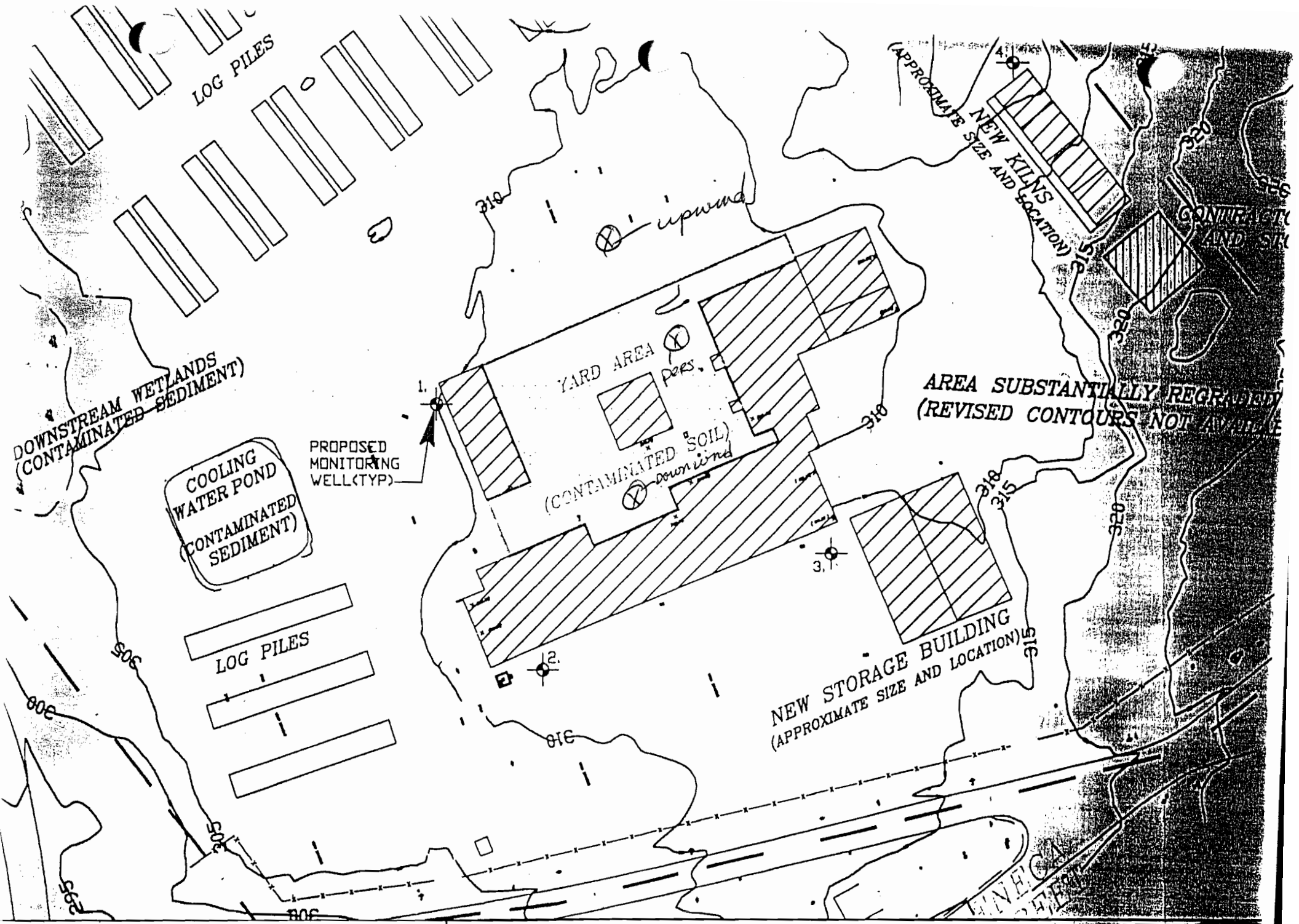
Legend: 21589 Per; 14217 Dow 21593 Upwind

Channel:	Aerosol	Aerosol	Aerosol
(Units)	mg/m^3	mg/m^3	mg/m^3
Average:	0.131	0.107	0.087
Lowest point:	0.038	0.054	0.037
Time	12:16:49	12:11:28	09:57:37
Date	07/30/2001	07/30/2001	07/30/2001
Highest point:	0.318	0.179	0.429
Time	15:16:49	10:26:28	15:12:37
Date	07/30/2001	07/30/2001	07/30/2001
Log interval: hh:mm:ss	00:15:00	00:15:00	00:15:00

Great Lak[illegible] Veneer

30 July, 01





OTES:

THE CASING FOR WELL 1 SHALL BE PROTECTED FROM VEHICULAR TRAFFIC WITH [illegible] OR A 4" STEEL CASING FILLED WITH CONCRETE.

30 July, 2001

Air Monitoring Data Sheet

Revised September 1996

Project Name	Project Location	Sampling Date	31 July, 2001
Oswego Castings (G.L.V.)	Oswego NY	Contract Number	D004283

Pump ID No.	Sample Location	Employee	Start Time	End Time	Duration (min)	Flow Rate (l/min)	Air Volume (l)	Analysis Required
624512	Up Wind		8:30	3:30	422	.2	84.4	PCB
600241	Down Wind		8:30	3:30	414	.2	82.8	PCB
624467	Work Area		8:30	3:30	441	.2	88.2	PCB
575376	Up Wind		8:30	3:30	422	2.0	844	TOTAL DUST
600763	Down Wind		8:30	3:30	414	2.0	828	TOTAL DUST
21593	Up Wind	Dustrax	8:30	3:30	437	2.0	—	—
4217	Down Wind	Dustrax	8:30	3:30	437	2.0	—	—
21589	Work Area	Dustrax	8:30	3:30	437	2.0	—	—

Technicians Name	Bruce Floyd	Date/Time	31 July, 2001 16:00	Signature	Bruce W. Floyd

Comments: Work Area to which samples are located is a very dusty area not totaly to Abscope crew. Great Lakes Veneer has large front end loaders which carry Logs to and fro (past area Air monitoring Stations) this heavy equip. Kicks up Lots of dust and there are 4 to 5 running at 1 time. Also in area is a log Debarker that creates, dust, sawdust Large & small.

Abscope working w/ sewer Line & trench.

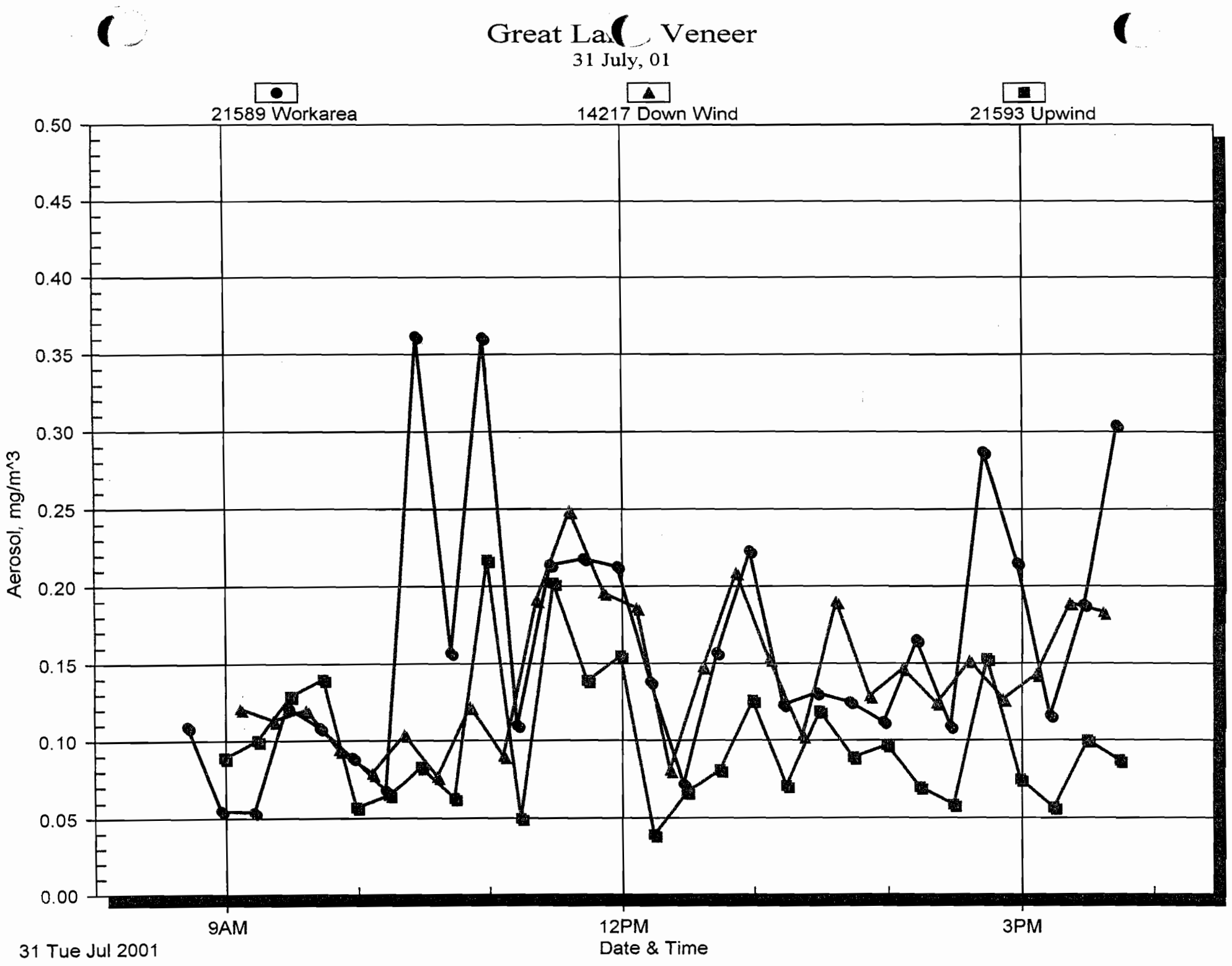
Oswego Castings/Great Lakes Veneer 7/31/01

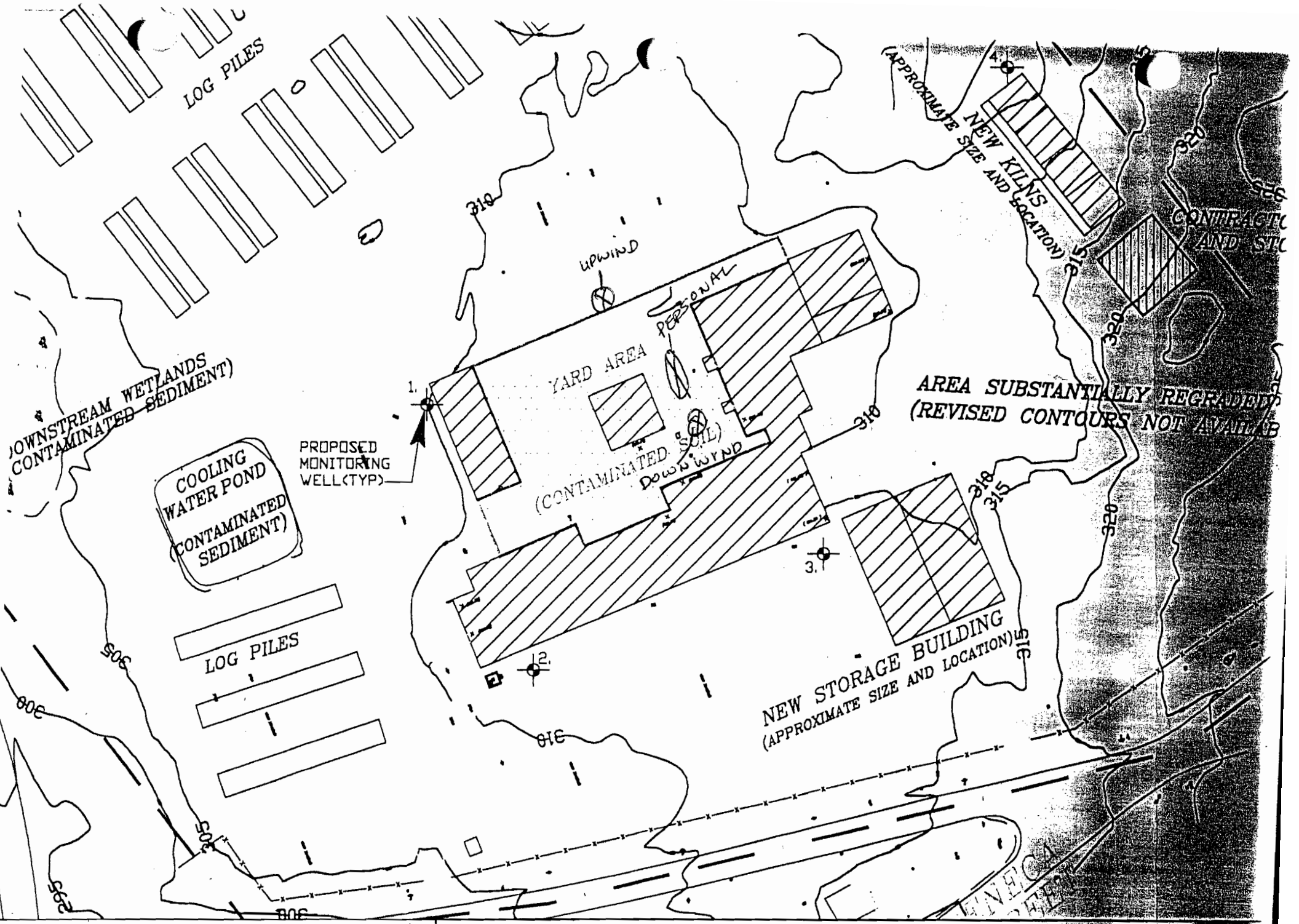
Date	Time	Temp Out	Heat Index	Wind Chill	Hi Temp	Low Temp	Hum Out	Dew Pt.	Wind Speed	Hi	Dir	Rain	Bar	Temp In	Hum In	Arc Per
7/31/01	12:00a	61.0	57.4	61.0	61.2	61.0	48	41.2	0.0	0.0	N	0.00	30.310	60.2	46	30
7/31/01	12:30a	61.0	57.4	61.0	61.0	60.9	48	41.2	0.0	0.0	N	0.00	30.305	61.0	45	30
7/31/01	1:00a	60.7	57.3	60.7	61.0	60.7	47	40.3	0.0	0.0	N	0.00	30.299	60.2	45	30
7/31/01	1:30a	60.7	57.3	60.7	60.7	60.5	47	40.3	0.0	0.0	N	0.00	30.306	60.7	45	30
7/31/01	2:00a	60.9	57.3	60.9	60.9	60.7	48	41.1	0.0	0.0	N	0.00	30.305	61.0	44	30
7/31/01	2:30a	60.7	57.3	60.7	61.0	60.7	44	38.6	0.0	1.0	E	0.00	30.301	59.9	44	30
7/31/01	3:00a	60.4	57.2	60.4	60.5	60.4	44	38.4	0.0	0.0	N	0.00	30.306	60.3	44	30
7/31/01	3:30a	60.4	57.2	60.4	60.4	60.4	44	38.4	0.0	0.0	N	0.00	30.312	60.5	44	30
7/31/01	4:00a	60.4	57.2	60.4	60.4	60.4	44	38.4	0.0	0.0	N	0.00	30.321	60.7	43	30
7/31/01	4:30a	60.5	57.2	60.5	60.5	60.4	44	38.5	0.0	0.0	N	0.00	30.340	60.7	43	30
7/31/01	5:00a	60.5	57.2	60.5	60.5	60.5	43	37.9	0.0	0.0	N	0.00	30.348	60.7	43	30
7/31/01	5:30a	60.5	57.2	60.5	60.5	60.5	43	37.9	0.0	0.0	N	0.00	30.357	60.5	43	30
7/31/01	6:00a	60.5	57.2	60.5	60.5	60.5	43	37.9	0.0	0.0	N	0.00	30.374	60.5	43	30
7/31/01	6:30a	60.4	57.2	60.4	60.5	60.4	43	37.8	0.0	0.0	N	0.00	30.385	60.8	43	30
7/31/01	7:00a	60.7	57.3	60.7	60.7	60.4	44	38.6	0.0	0.0	N	0.00	30.393	62.1	43	30
7/31/01	7:30a	64.2	63.9	64.2	64.2	60.5	87	60.2	2.0	7.0	SSE	0.00	30.404	64.6	60	30
7/31/01	8:00a	67.3	67.8	67.3	67.3	64.2	83	62.0	1.0	5.0	SE	0.00	30.410	65.4	60	30
7/31/01	8:30a	69.8	71.2	69.8	69.8	67.4	78	62.6	1.0	7.0	SE	0.00	30.414	65.3	53	30
7/31/01	9:00a	72.8	74.2	72.8	72.8	69.8	74	64.0	1.0	6.0	ESE	0.00	30.410	65.8	48	30
7/31/01	9:30a	75.3	76.7	75.3	75.3	72.8	68	64.0	1.0	5.0	SE	0.00	30.410	66.9	48	30
7/31/01	10:00a	76.7	77.2	76.7	76.8	75.3	63	63.2	1.0	6.0	ENE	0.00	30.408	67.9	48	30
7/31/01	10:30a	78.3	79.0	78.3	78.5	76.7	56	61.3	2.0	7.0	ENE	0.00	30.402	68.4	46	30
7/31/01	11:00a	76.1	77.5	76.1	78.6	76.1	68	64.8	3.0	7.0	NNW	0.00	30.405	69.2	43	30
7/31/01	11:30a	76.1	77.9	76.1	76.7	75.4	70	65.6	4.0	8.0	NNW	0.00	30.404	69.4	42	30
7/31/01	12:00p	76.0	77.8	75.2	76.0	75.6	70	65.5	5.0	8.0	NNW	0.00	30.399	69.2	45	30
7/31/01	12:30p	77.0	78.6	76.3	77.0	75.4	69	66.0	5.0	8.0	NNW	0.00	30.398	71.2	45	30
7/31/01	1:00p	76.3	78.5	75.5	77.6	75.3	74	67.4	5.0	10.0	NNW	0.00	30.396	70.4	40	30
7/31/01	1:30p	76.0	78.0	76.0	76.5	75.8	73	66.7	4.0	10.0	NNW	0.00	30.398	70.1	42	30
7/31/01	2:00p	77.6	79.6	76.9	77.7	76.0	71	67.4	5.0	10.0	NNW	0.00	30.396	68.7	41	30
7/31/01	2:30p	77.9	79.2	77.9	78.3	77.2	65	65.2	4.0	8.0	NNW	0.00	30.389	69.4	45	30
7/31/01	3:00p	79.0	80.6	79.0	79.0	77.9	59	63.4	4.0	10.0	NNW	0.00	30.397	68.2	44	30
7/31/01	3:30p	78.5	80.2	78.5	79.0	78.1	65	65.8	4.0	10.0	NNW	0.00	30.399	67.5	48	30
7/31/01	4:00p	78.3	79.6	78.3	78.8	78.1	61	63.7	4.0	10.0	NNW	0.00	30.395	68.0	46	30
7/31/01	4:30p	79.4	78.1	79.4	79.8	78.5	33	47.8	3.0	7.0	N	0.00	30.379	67.9	48	30
7/31/01	5:00p	74.4	72.6	74.4	79.4	74.4	39	47.8	0.0	8.0	E	0.00	30.372	66.6	47	30
7/31/01	5:30p	70.4	68.6	70.4	74.4	70.4	41	45.6	0.0	0.0	N	0.00	30.383	65.6	45	30
7/31/01	6:00p	67.4	64.8	67.4	70.4	67.4	48	47.0	0.0	0.0	N	0.00	30.393	65.3	49	30
7/31/01	6:30p	65.6	62.5	65.6	67.4	65.6	50	46.5	0.0	0.0	N	0.00	30.382	64.0	48	30
7/31/01	7:00p	64.8	61.6	64.8	65.6	64.8	50	45.7	0.0	0.0	N	0.00	30.386	63.5	48	30
7/31/01	7:30p	64.5	61.3	64.5	64.8	64.5	50	45.4	0.0	0.0	N	0.00	30.387	63.3	47	30
7/31/01	8:00p	64.2	60.9	64.2	64.5	64.2	50	45.2	0.0	0.0	N	0.00	30.389	63.2	48	30
7/31/01	8:30p	63.5	60.2	63.5	64.2	63.5	50	44.5	0.0	0.0	N	0.00	30.397	63.0	48	30
7/31/01	9:00p	63.1	59.7	63.1	63.5	63.1	50	44.2	0.0	0.0	N	0.00	30.404	62.9	47	30
7/31/01	9:30p	62.4	58.8	62.4	63.1	62.4	48	42.4	0.0	0.0	N	0.00	30.407	62.4	46	30
7/31/01	10:00p	62.0	58.3	62.0	62.4	62.0	47	41.5	0.0	0.0	N	0.00	30.412	61.8	45	30
7/31/01	10:30p	61.6	57.8	61.6	62.0	61.6	46	40.6	0.0	0.0	N	0.00	30.415	61.4	45	30
7/31/01	11:00p	61.3	57.7	61.3	61.6	61.3	48	41.4	0.0	0.0	N	0.00	30.421	61.6	45	30
7/31/01	11:30p	61.0	57.4	61.0	61.3	61.0	48	41.2	0.0	0.0	N	0.00	30.431	61.1	45	30
7/31/01	12:00p	60.7	57.3	60.7	61.0	60.7	48	40.9	0.0	0.0	N	0.00	30.440	60.7	45	30

Current Graph: 31st O.C. GLV
Start time: 08:27:50 07/31/2001 Stop time: 15:44:20 07/31/2001

Legend: 21589 Worl 14217 Dowi 21593 Upwind

Channel:	Aerosol	Aerosol	Aerosol
(Units)	mg/m^3	mg/m^3	mg/m^3
Average:	0.162	0.141	0.099
Lowest point:	0.054	0.077	0.039
Time	09:12:50	10:36:34	12:14:20
Date	07/31/2001	07/31/2001	07/31/2001
Highest point:	0.362	0.249	0.217
Time	10:27:50	11:36:34	10:59:20
Date	07/31/2001	07/31/2001	07/31/2001
Log interval: hh:mm:ss	00:15:00	00:15:00	00:15:00


Great La Veneer
31 July, 01
21589 Workarea
14217 Down Wind
21593 Upwind
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
Aerosol, mg/m^3
9AM
12PM
3PM
Date & Time
31 Tue Jul 2001



TES:

HE CASING FOR WELL 1 SHALL BE PROTECTED FROM VEHICULAR TRAFFIC WITH
... SHALL BE A" STEEL CASING FILLED WITH CONCRETE.

31 July 01

STATE OF NEW

Air Monitoring Data Sheet

Revised September 1996

Project Name	Project Location	Sampling Date	1 Aug. 2001
Oswego Castings (G.L.O.)	Oswego NY	Contract Number	D004283

Pump ID No.	Sample Location	~~Employee~~	Start Time	End Time	Duration (min)	Flow Rate (l/min)	Air Volume (l)	Analysis Required
21593	Upwind	Dustrax	8:00	12:00	225	2.0	—	—
575896	Upwind	OCUW1-80	〃	〃	〃	2.0	450	Total Dust
624512	Upwind	OCUW1	〃	〃	〃	.2	45.0	PCB
14217	Down Wind	Dustrax	8:10	12:05	214	2.0	—	—
600963	Down Wind	OCDW1-80	〃	〃	〃	2.0	428	Total Dust
600241	Down Wind	OCDW1	〃	〃	〃	.2	42.8	PCB
21589	Work Area	Dustrax	8:15	12:10	3hrs.	2.0	—	—

Technicians Name	Bruce Floyd	Date/Time	1 Aug. 01	Signature	Bruce W. Floyd
Comments	* High traffic area. due to Great Lakes Veneer equip. (Heavy) & Debarker, saw dust truck & piles every where. Abscope working in Area A digging mass ~~Area~~. Equip. excavator Down.				

Oswego Castings/Great Lakes Veneer 8/01/01

Date	Time	Temp Out	Heat Index	Wind Chill	Hi Temp	Low Temp	Hum Out	Dew Pt.	Wind Speed	Hi	Dir	Rain	Bar	Temp In	Hum In	Arc Per
8/01/01	12:00a	60.7	57.3	60.7	61.0	60.7	48	40.9	0.0	0.0	N	0.00	30.440	60.7	45	30
8/01/01	12:30a	60.7	57.3	60.7	60.7	60.7	47	40.3	0.0	0.0	N	0.00	30.439	61.0	44	30
8/01/01	1:00a	60.2	57.2	60.2	60.7	60.2	47	39.9	0.0	0.0	N	0.00	30.439	60.5	44	30
8/01/01	1:30a	60.4	57.3	60.4	60.4	60.2	48	40.6	0.0	0.0	N	0.00	30.431	60.8	44	30
8/01/01	2:00a	60.2	57.2	60.2	60.4	60.2	47	39.9	0.0	0.0	N	0.00	30.433	60.0	44	30
8/01/01	2:30a	60.1	57.2	60.1	60.2	60.1	47	39.8	0.0	0.0	N	0.00	30.434	60.5	44	30
8/01/01	3:00a	60.2	57.2	60.2	60.2	60.1	49	41.0	0.0	0.0	N	0.00	30.432	60.7	43	30
8/01/01	3:30a	60.4	57.2	60.4	60.4	60.2	46	39.5	0.0	1.0	E	0.00	30.435	60.8	43	30
8/01/01	4:00a	60.4	57.2	60.4	60.4	60.4	46	39.5	0.0	0.0	N	0.00	30.433	60.8	43	30
8/01/01	4:30a	60.5	57.3	60.5	60.5	60.4	45	39.0	0.0	0.0	N	0.00	30.447	61.0	43	30
8/01/01	5:00a	60.7	57.3	60.7	60.7	60.5	45	39.2	0.0	0.0	N	0.00	30.449	61.0	43	30
8/01/01	5:30a	60.5	57.3	60.5	60.7	60.5	45	39.0	0.0	0.0	N	0.00	30.455	60.0	43	30
8/01/01	6:00a	60.2	57.2	60.2	60.5	60.2	45	38.8	0.0	0.0	N	0.00	30.469	60.5	43	30
8/01/01	6:30a	60.5	57.2	60.5	60.5	60.2	44	38.5	0.0	0.0	N	0.00	30.474	61.0	43	30
8/01/01	7:00a	64.0	60.1	64.0	64.0	60.5	42	40.4	0.0	0.0	N	0.00	30.481	61.6	44	30
8/01/01	7:30a	67.8	69.3	67.8	67.8	64.0	85	63.1	0.0	3.0	S	0.00	30.486	64.6	61	30
8/01/01	8:00a	70.6	72.4	70.6	70.8	67.8	80	64.1	1.0	6.0	SSW	0.00	30.487	65.4	66	30
8/01/01	8:30a	72.5	74.1	72.5	72.5	70.6	78	65.2	2.0	7.0	SSE	0.00	30.490	66.2	55	30
8/01/01	9:00a	74.6	76.4	74.6	74.6	72.5	74	65.8	1.0	6.0	SSW	0.00	30.502	66.2	56	30
8/01/01	9:30a	77.2	79.0	77.2	77.2	74.7	70	66.7	1.0	6.0	SSW	0.00	30.500	67.2	57	30
8/01/01	10:00a	79.0	80.9	79.0	79.0	77.2	65	66.2	1.0	6.0	S	0.00	30.486	68.5	56	30
8/01/01	10:30a	81.2	82.6	81.2	81.2	79.0	57	64.5	1.0	5.0	SSW	0.00	30.486	69.9	58	30
8/01/01	11:00a	83.8	86.7	83.8	84.0	81.2	58	67.4	1.0	5.0	N	0.00	30.484	71.1	46	30
8/01/01	11:30a	82.4	84.4	82.4	83.8	82.2	59	66.6	2.0	6.0	N	0.00	30.487	72.1	46	30
8/01/01	12:00p	81.1	83.6	81.1	82.4	80.5	63	67.3	2.0	7.0	N	0.00	30.486	72.1	45	30
8/01/01	12:30p	80.3	82.4	80.3	81.2	80.3	62	66.1	3.0	7.0	N	0.00	30.485	72.6	43	30
8/01/01	1:00p	81.1	82.6	80.6	81.1	79.6	58	64.9	5.0	10.0	N	0.00	30.477	72.6	42	30
8/01/01	1:30p	82.6	84.6	82.6	82.6	81.1	56	65.3	4.0	10.0	N	0.00	30.467	71.6	40	30
8/01/01	2:00p	83.8	85.2	83.8	83.8	82.6	48	62.0	4.0	8.0	N	0.00	30.455	70.6	41	30
8/01/01	2:30p	83.8	84.3	83.8	85.1	83.8	43	58.9	3.0	8.0	N	0.00	30.450	70.1	42	30
8/01/01	3:00p	83.4	83.9	83.0	84.0	83.0	43	58.6	5.0	8.0	N	0.00	30.445	69.7	44	30
8/01/01	3:30p	84.7	84.5	84.7	84.7	83.4	39	57.0	4.0	10.0	N	0.00	30.423	68.7	44	30
8/01/01	4:00p	85.3	84.9	85.3	85.5	84.7	38	56.8	3.0	7.0	N	0.00	30.404	67.7	47	30
8/01/01	4:30p	80.7	78.9	80.7	85.7	80.7	27	43.6	1.0	7.0	N	0.00	30.397	65.9	46	30
8/01/01	5:00p	74.6	72.8	74.6	80.5	74.6	33	43.6	0.0	0.0	N	0.00	30.403	64.3	48	30
8/01/01	5:30p	71.5	69.4	71.5	74.6	71.5	38	44.5	0.0	0.0	N	0.00	30.410	63.3	49	30
8/01/01	6:00p	69.9	68.1	69.9	71.5	69.9	40	44.5	0.0	0.0	N	0.00	30.415	62.9	50	30
8/01/01	6:30p	69.1	67.3	69.1	69.9	69.1	41	44.4	0.0	0.0	N	0.00	30.404	62.2	50	30
8/01/01	7:00p	69.1	67.3	69.1	69.3	69.1	40	43.8	0.0	0.0	N	0.00	30.397	61.6	50	30
8/01/01	7:30p	67.8	65.5	67.8	69.1	67.8	39	41.9	0.0	0.0	N	0.00	30.394	60.2	49	30
8/01/01	8:00p	68.3	66.5	68.3	68.3	67.6	41	43.7	0.0	0.0	N	0.00	30.391	61.0	50	30
8/01/01	8:30p	66.3	62.5	66.3	68.3	66.3	41	41.9	0.0	0.0	N	0.00	30.391	60.0	50	30
8/01/01	9:00p	64.7	60.8	64.7	66.1	64.7	42	41.1	0.0	0.0	N	0.00	30.389	59.6	50	30
8/01/01	9:30p	63.9	60.0	63.9	64.7	63.9	43	41.0	0.0	0.0	N	0.00	30.393	59.4	49	30
8/01/01	10:00p	63.2	59.3	63.2	63.9	63.2	44	40.9	0.0	0.0	N	0.00	30.394	58.8	49	30
8/01/01	10:30p	62.7	58.8	62.7	63.2	62.7	44	40.5	0.0	0.0	N	0.00	30.387	58.8	48	30
8/01/01	11:00p	62.6	58.8	62.6	62.7	62.6	45	40.9	0.0	0.0	N	0.00	30.378	59.7	48	30
8/01/01	11:30p	62.3	58.4	62.3	62.6	62.3	45	40.7	0.0	0.0	N	0.00	30.370	60.2	49	30
8/01/01	12:00p	62.1	58.2	62.1	62.3	62.1	45	40.5	0.0	0.0	N	0.00	30.364	59.9	48	30

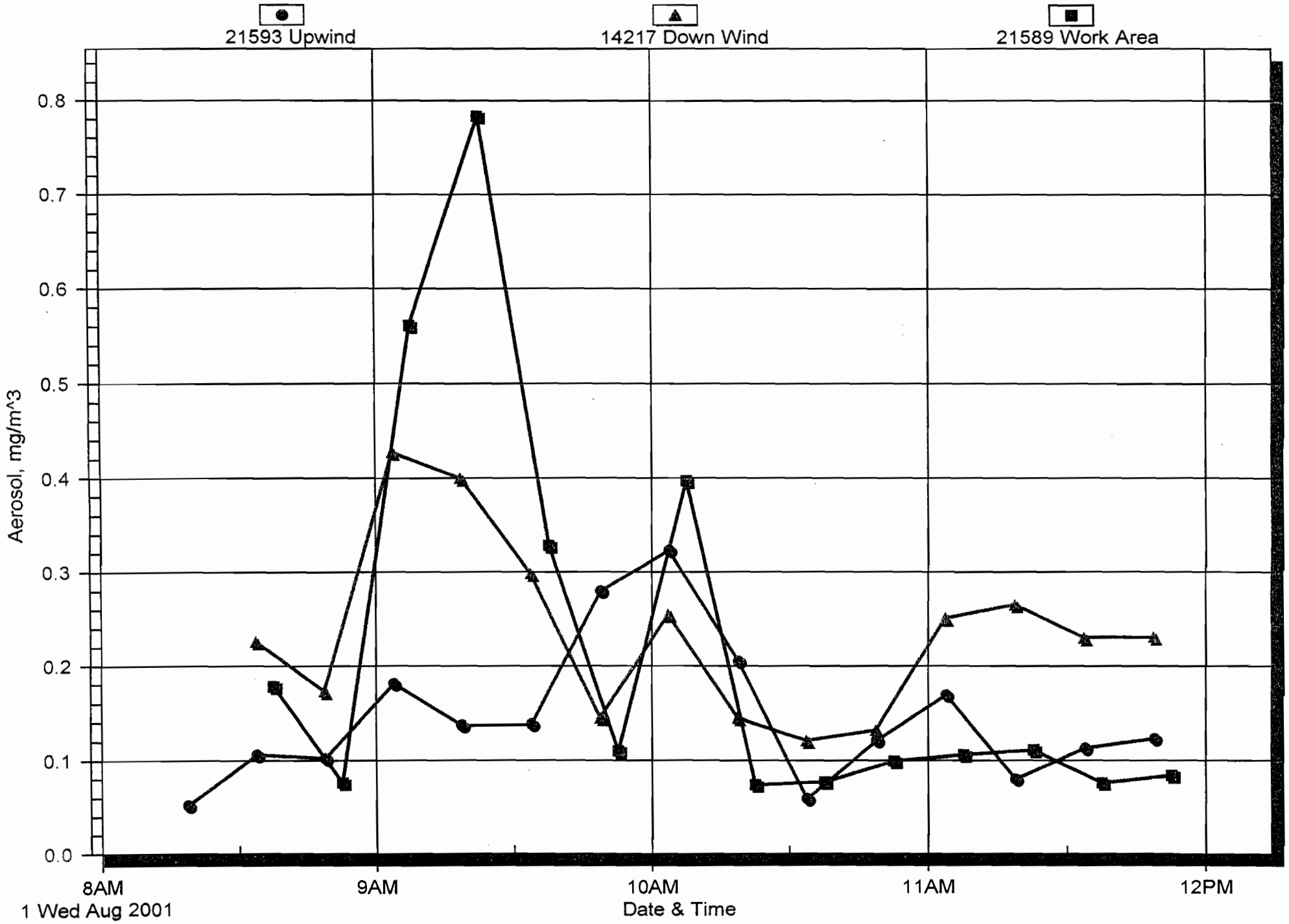
Current Graph: 1 August, 01
Start time: 08:03:54 08/01/2001 Stop time: 11:52:40 08/01/2001

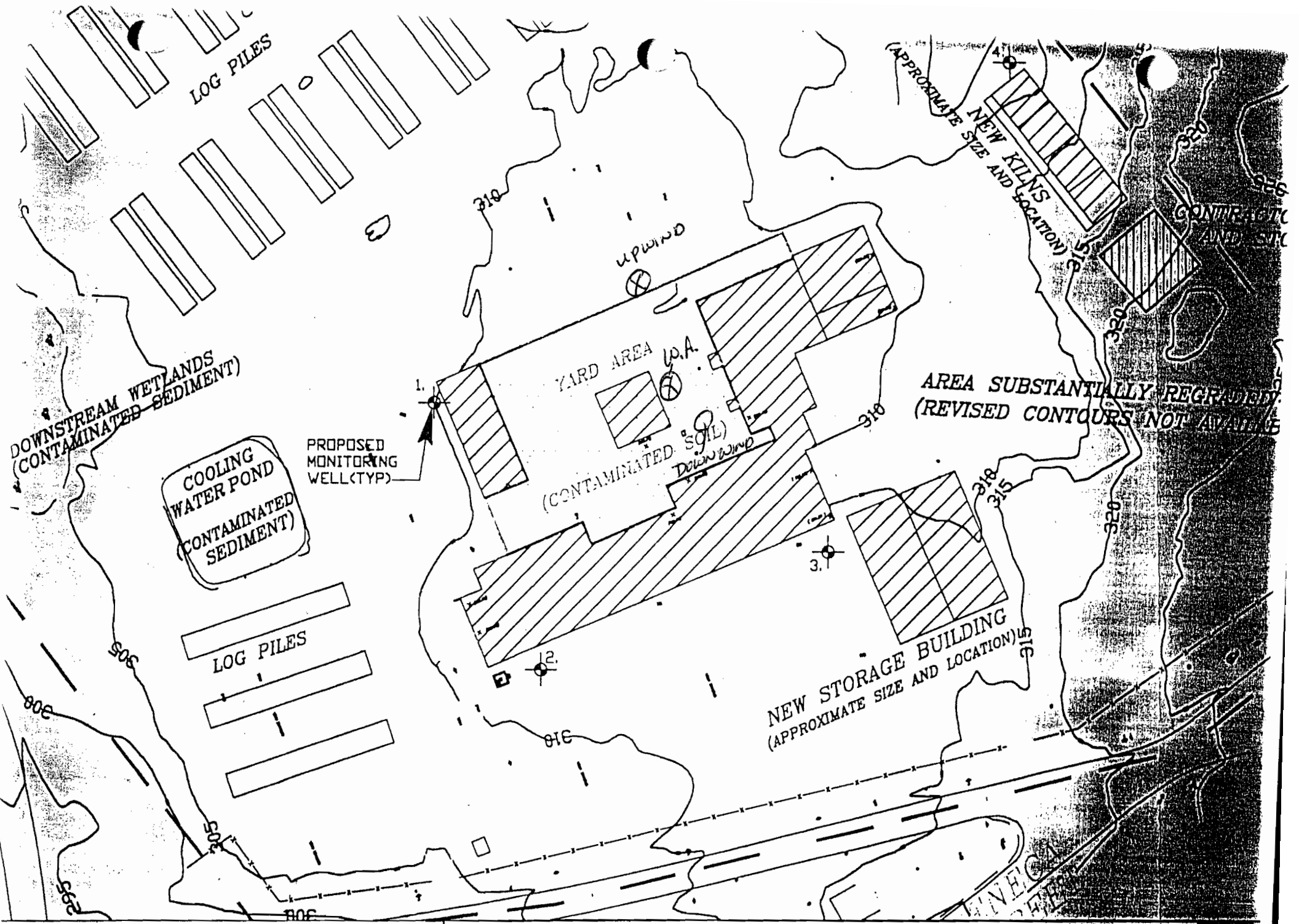
Legend: 21593 Upw. 14217 Dowi 21589 Work Area

Channel:	Aerosol	Aerosol	Aerosol
(Units)	mg/m^3	mg/m^3	mg/m^3
Average:	0.146	0.236	0.219
Lowest point:	0.052	0.121	0.074
Time	08:18:54	10:33:40	10:22:40
Date	08/01/2001	08/01/2001	08/01/2001
Highest point:	0.323	0.428	0.783
Time	10:03:54	09:03:40	09:22:40
Date	08/01/2001	08/01/2001	08/01/2001
Log interval: hh:mm:ss	00:15:00	00:15:00	00:15:00

Great Lak[illegible] Veneer

1 August, 01





OTES:

THE CASING FOR WELL 1 SHALL BE PROTECTED FROM VEHICULAR TRAFFIC WITH
STEEL CASING FILLED WITH CONCRETE.

1 Aug, 2001

STATE OF NEW

Air Monitoring Data Sheet

Revised September 1996

Project Name	Project Location	Sampling Date	2 August, 2001
Oswego Castings (G.C.V.)	Oswego, New York	Contract Number	D004283

Pump ID No.	Sample Location	~~Employee~~	Start Time	End Time	Duration (min)	Flow Rate (l/min)	Air Volume (l)	Analysis Required
21593	upwind (See map)	Dustrak	745	325	—	2.0	—	—
575876	" "	Total Dust OCDW2-80	|	|	454	2.0	908	Total Dust
624512	" "	florisil OCDW2	|	|	454	.2	90.8	PCB
14217	Down wind (see map)	Dustrax	750	330	452	2.0	—	—
600763	" "	Total Dust OCDW2-80	|	|	~~[illegible]~~	2.0	904	Total Dust
600241	" "	florisil OCDW2	|	|	~~[illegible]~~	.2	90.4	PCB
21589	Work Area	Dustrax	755	3:30	—	2.0	—	—
624467	Randy Danhaese	Excavator Operator → Rick Danhaese	7:30	3:35	624	.2	124.8	PCB

Technicians Name	Bruce Floyd	Date/Time	2 Aug 01 1400	Signature	Bruce W. Floyd

Comments: X Placed (PCB) Sample in cab of excavator w/ operator Rick Danhaese Placed pumps in Area's-U.W, D.W, W/A. Wind were reversed from there normal pattern today. Randy & myself spent good portion of morning Wetting down area along w/ 1 GW employee.

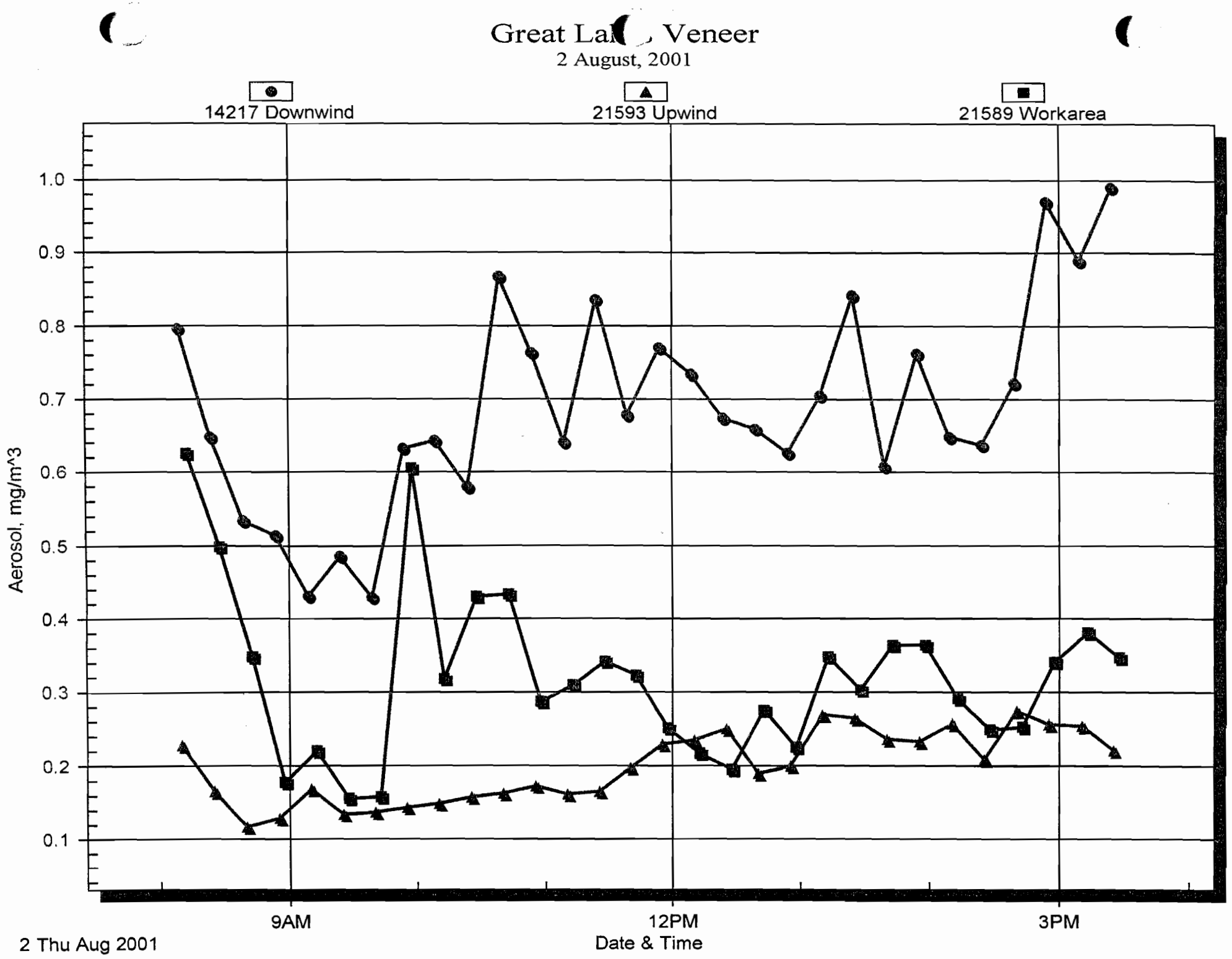
Oswego Castings/Great[illegible]s Veneer 8/02/01

Date	Time	Temp Out	Heat Index	Wind Chill	Hi Temp	Low Temp	Hum Out	Dew Pt.	Wind Speed	Hi	Dir	Rain	Bar	Temp In	Hum In	Arc Per
8/02/01	12:00a	62.1	58.2	62.1	62.3	62.1	45	40.5	0.0	0.0	N	0.00	30.364	59.9	48	30
8/02/01	12:30a	61.8	57.9	61.8	62.1	61.8	45	40.2	0.0	0.0	N	0.00	30.364	59.3	48	30
8/02/01	1:00a	61.8	57.9	61.8	62.0	61.8	45	40.2	0.0	0.0	N	0.00	30.351	59.4	46	30
8/02/01	1:30a	61.6	57.9	61.6	61.8	61.6	47	41.2	0.0	0.0	N	0.00	30.345	60.5	48	30
8/02/01	2:00a	61.5	57.9	61.5	61.8	61.5	48	41.6	0.0	0.0	N	0.00	30.343	59.7	48	30
8/02/01	2:30a	61.5	57.7	61.5	61.6	61.5	45	39.9	0.0	1.0	ENE	0.00	30.345	58.7	48	30
8/02/01	3:00a	61.5	57.8	61.5	61.5	61.3	47	41.1	0.0	0.0	N	0.00	30.350	60.5	49	30
8/02/01	3:30a	61.3	57.5	61.3	61.5	61.3	45	39.8	0.0	0.0	N	0.00	30.349	59.9	48	30
8/02/01	4:00a	61.3	57.5	61.3	61.5	61.3	45	39.8	0.0	0.0	N	0.00	30.345	58.5	48	30
8/02/01	4:30a	61.2	57.5	61.2	61.3	61.2	45	39.7	0.0	0.0	N	0.00	30.350	60.0	48	30
8/02/01	5:00a	61.0	57.3	61.0	61.3	61.0	45	39.5	0.0	0.0	N	0.00	30.344	58.8	48	30
8/02/01	5:30a	61.0	57.3	61.0	61.0	61.0	45	39.5	0.0	0.0	N	0.00	30.344	60.3	47	30
8/02/01	6:00a	60.9	57.3	60.9	61.2	60.9	45	39.4	0.0	0.0	N	0.00	30.344	59.0	48	30
8/02/01	6:30a	61.0	57.3	61.0	61.0	60.9	46	40.1	0.0	0.0	N	0.00	30.345	60.5	47	30
8/02/01	7:00a	61.0	57.3	61.0	61.0	61.0	46	40.1	0.0	0.0	N	0.00	30.346	60.3	48	30
8/02/01	7:30a	71.8	73.3	71.8	71.8	61.0	78	64.6	1.0	6.0	SSW	0.00	30.337	61.3	53	30
8/02/01	8:00a	74.9	76.7	74.9	74.9	71.8	74	66.1	1.0	6.0	SSW	0.00	30.335	64.6	63	30
8/02/01	8:30a	77.2	79.2	77.2	77.2	74.9	71	67.1	2.0	8.0	SSW	0.00	30.334	63.6	55	30
8/02/01	9:00a	79.6	81.7	79.6	79.8	77.4	64	66.3	2.0	8.0	SW	0.00	30.324	64.0	49	30
8/02/01	9:30a	81.8	84.5	81.8	81.8	79.6	63	68.0	3.0	10.0	SSW	0.00	30.324	63.6	50	30
8/02/01	10:00a	83.2	86.2	83.2	83.2	81.1	61	68.3	2.0	8.0	SW	0.00	30.319	66.1	56	30
8/02/01	10:30a	84.1	87.3	84.1	84.3	83.2	58	67.7	3.0	10.0	SSW	0.00	30.316	65.8	52	30
8/02/01	11:00a	84.9	89.2	84.9	84.9	83.0	60	69.5	3.0	10.0	SW	0.00	30.310	65.4	55	30
8/02/01	11:30a	87.2	92.7	87.2	87.2	85.1	57	70.1	3.0	11.0	SW	0.00	30.309	67.4	54	30
8/02/01	12:00p	87.8	91.8	87.8	88.8	87.2	51	67.4	2.0	8.0	NNW	0.00	30.303	68.5	57	30
8/02/01	12:30p	85.7	89.8	85.7	87.8	85.7	57	68.7	3.0	8.0	NNW	0.00	30.298	68.9	50	30
8/02/01	1:00p	87.0	92.0	87.0	88.4	85.5	56	69.4	2.0	6.0	NNW	0.00	30.284	68.2	58	30
8/02/01	1:30p	85.5	89.8	85.5	87.0	85.1	58	69.0	2.0	6.0	NNW	0.00	30.273	67.7	49	30
8/02/01	2:00p	85.3	89.1	85.3	85.5	84.3	57	68.3	2.0	5.0	NNW	0.00	30.269	67.9	61	30
8/02/01	2:30p	88.6	92.3	88.6	88.6	85.3	48	66.4	2.0	7.0	NNW	0.00	30.262	67.7	51	30
8/02/01	3:00p	85.5	88.9	85.5	88.6	85.5	55	67.5	2.0	5.0	NNW	0.00	30.259	66.9	52	30
8/02/01	3:30p	85.7	89.1	85.7	85.7	85.1	55	67.7	0.0	2.0	NW	0.00	30.252	65.6	50	30
8/02/01	4:00p	85.9	86.6	85.9	86.5	85.7	44	61.5	0.0	2.0	SSW	0.00	30.235	64.5	50	30
8/02/01	4:30p	84.0	82.0	84.0	86.1	84.0	29	48.3	0.0	2.0	NW	0.00	30.226	65.4	57	30
8/02/01	5:00p	72.3	70.6	72.3	84.0	72.3	42	47.9	0.0	0.0	N	0.00	30.225	63.6	49	30
8/02/01	5:30p	65.8	62.7	65.8	72.1	65.8	49	46.1	0.0	0.0	N	0.00	30.228	62.7	50	30
8/02/01	6:00p	63.2	60.1	63.2	65.8	63.2	53	45.8	0.0	0.0	N	0.00	30.220	62.2	51	30
8/02/01	6:30p	62.1	59.0	62.1	63.2	62.1	55	45.7	0.0	0.0	N	0.00	30.216	62.1	52	30
8/02/01	7:00p	61.8	58.8	61.8	62.1	61.8	57	46.4	0.0	0.0	N	0.00	30.215	62.1	53	30
8/02/01	7:30p	61.5	58.4	61.5	61.8	61.5	56	45.7	0.0	0.0	N	0.00	30.200	61.8	53	30
8/02/01	8:00p	61.8	58.9	61.8	61.8	61.5	58	46.9	0.0	0.0	N	0.00	30.194	62.4	54	30
8/02/01	8:30p	61.5	58.6	61.5	61.8	61.5	59	47.0	0.0	0.0	N	0.00	30.184	61.4	54	30
8/02/01	9:00p	61.3	58.2	61.3	61.6	61.3	56	45.5	0.0	0.0	N	0.00	30.188	61.3	52	30
8/02/01	9:30p	61.3	58.0	61.3	61.5	61.3	54	44.5	0.0	0.0	N	0.00	30.195	61.4	52	30
8/02/01	10:00p	61.2	57.9	61.2	61.3	61.0	54	44.4	0.0	0.0	N	0.00	30.194	61.4	51	30
8/02/01	10:30p	61.0	57.9	61.0	61.2	60.9	56	45.2	0.0	0.0	N	0.00	30.190	61.4	52	30
8/02/01	11:00p	60.9	57.9	60.9	61.0	60.7	57	45.6	0.0	0.0	N	0.00	30.184	61.0	54	30
8/02/01	11:30p	60.7	57.7	60.7	60.9	60.7	56	44.9	0.0	0.0	N	0.00	30.174	61.0	53	30
8/02/01	12:00p	60.7	57.6	60.7	60.9	60.7	55	44.4	0.0	0.0	N	0.00	30.171	60.2	53	30

Current Graph: 2nd Aug 01, OCGLV
Start time: 07:53:58 08/02/2001 Stop time: 15:27:58 08/02/2001

Legend: 14217 Dowi 21593 Upw. 21589 Workarea

Channel:	Aerosol	Aerosol	Aerosol
(Units)	mg/m^3	mg/m^3	mg/m^3
Average:	0.690	0.199	0.321
Lowest point:	0.429	0.117	0.156
Time	09:38:58	08:40:19	09:27:58
Date	08/02/2001	08/02/2001	08/02/2001
Highest point:	0.990	0.274	0.626
Time	15:23:58	14:40:19	08:12:58
Date	08/02/2001	08/02/2001	08/02/2001
Log interval: hh:mm:ss	00:15:00	00:15:00	00:15:00


Great La Veneer
2 August, 2001
14217 Downwind
21593 Upwind
21589 Workarea
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
Aerosol, mg/m^3
9AM
12PM
3PM
2 Thu Aug 2001
Date & Time

Galson
Laboratories
6601 Kirkville Road
P.O. Box 369
E. Syracuse, NY 13057
Tel: (315) 437-7252 888-577-Labs (5227)
Fax: (315) 437-0571

Request For Industrial Hygiene Analysis

Company Name: O'Rourke Inc.
Site Name: Oswego Castings (Great Lakes Veneer)
Sampled By: Bruce Floyd | Project #: D004783

Send Report to: O'Rourke Inc.
P.O. Box
Owego NY 13827

Invoice to: O'Rourke Inc
P.O. Box
Owego NY 13827

☐ Purchase order number _____
(or)
☐ Credit Card (type) _____ Card # _____ Exp Date _____
☐ Verbal Authorization _____

☒ Standard Turn-Around Time OR ☐ Rush: Date and Time Requested: __/__/__ am pm
☐ Phone Results to: _____ Phone # ( ) - - ext.
☒ Fax Results to: Bruce Floyd Fax # ( ) - -
☐ Email Results to: _____

Sample Identification	Date Sampled	Sample Medium Catalog # / Lot #	Air Sample Volume (liters)*	Analysis Requested	Method Reference
OCUW2-8D	2 Aug 01	37 mm 5 µ PVC (BB)	908	TOTAL DUST	N0500
OCUW2	2 Aug 01	florisil tube Filter (BB)	90.8	PCB	N 5503
OCDW2-8D	2 Aug 01	37 mm 5µ	904	TOTAL DUST	N0500
OCDW2	2 Aug 01	florisil tube	90.4	PCB	N5503
Rick Danhaese	2 Aug 01	florisil tube	124.8	PCB	N5503
Pers. TRE. 2	31 July 01	florisil tube	88.2	PCB	N5503

*For passive monitors please list time exposed in minutes.

Comments (Please list any known interferences present in sampling area): Blanks not submitted/BB

Chain of Custody	Print Name	Signature	Date/Time
Relinquished by:	Bruce Floyd	Bruce W. Floyd	3 Aug 01 1645
Received by LAB.	Bruce Baxter	Bruce Baxter	8/3 @ 1645

Samples received after 3pm will be considered as next day's business.

LAB ORIGINAL

Galson Laboratories

6601 Kirkville Road
E. Syracuse, NY 13057-0369
Phone: (315) 432-5227
Fax: (315) 437-0571
www.galsonlabs.com

LABORATORY ANALYSIS REPORT

Client : O'Rourke Incorporated
Site : Oswego Castings(Great Lakes)
Project No. : D004283

Date Sampled : 02-AUG-01
Date Received : 03-AUG-01
Date Analyzed : 07-AUG-01

Account No.: 12312
Login No. : L73526

Total Dust

Sample ID	Lab ID	Air Vol m3	Total mg	Conc mg/m3
OCUW2-8D	L73526-1	0.908	0.370	0.41
OCDW2-8D	L73526-2	0.904	0.838	0.93

COMMENTS: PNOR = Particulates Not Otherwise Regulated.

Level of quantitation: 0.05 mg
Analytical Method : NIOSH 0500; GRAV
OSHA PEL (TWA) : PNOR 15 mg/m3
Collection Media : PVC PW

Submitted by: LK
Approved by : Oommen Kappil
Date : 10-AUG-01
QC by:
NYS DOH # : 11626

< -Less Than
> -Greater Than
NA -Not Applicable
mg -Milligrams
ug -Micrograms
ND -Not Detected
m3 -Cubic Meters
l -Liters
ppm -Parts per Million
kg -Kilograms
NS -Not Specified

Galson Laboratories
6601 Kirkville Road
E. Syracuse, NY 13057-0369
Phone: (315) 432-5227
Fax: (315) 437-0571
www.galsonlabs.com

LABORATORY ANALYSIS REPORT

Client : O'Rourke Incorporated
Site : Oswego Castings(Great Lakes)
Project No. : D004283

Date Sampled : 31-JUL-01 - 02-AUG-01 Account No.: 12312
Date Received : 03-AUG-01 Login No. : L73526
Date Analyzed : 10-AUG-01

PCB (Aroclors 1016-1260)

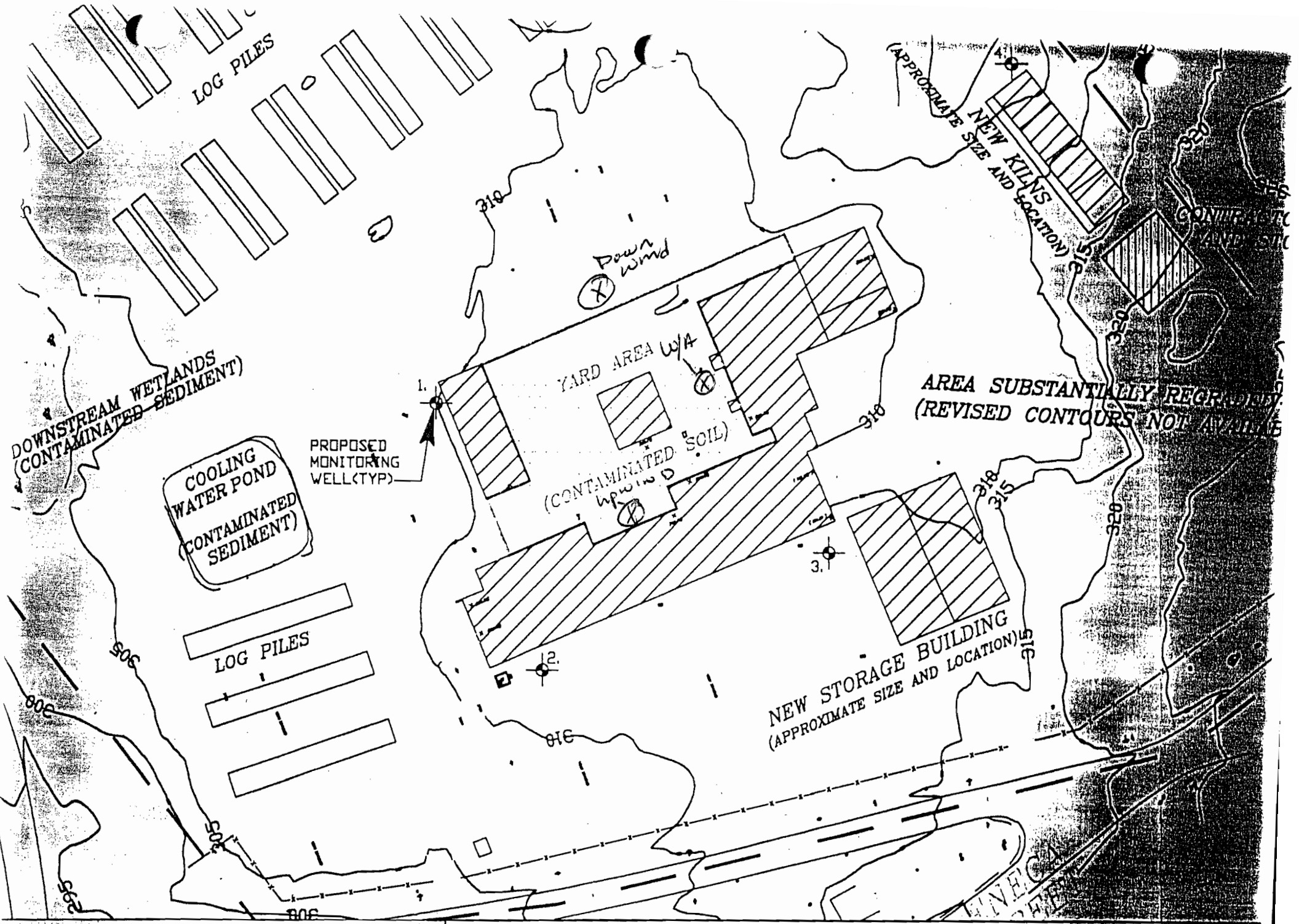
	Sample ID	Lab ID	Air Vol liter	Front ug	Back ug	Total ug	Conc mg/m3
	OCUW2	L73526-3	90.8	<0.05	<0.05	<0.05	<0.0006
	OCDW2	L73526-4	90.4	<0.05	<0.05	<0.05	<0.0006
*	RICK DANHAESE	L73526-5	124.8	0.50	<0.05	0.50	0.004
*	PERS. TRE. 2	L73526-6	88.2	0.23	<0.05	0.23	0.003

COMMENTS: * Aroclor 1242 pattern.
Total ug corrected for a desorption efficiency of 100%.

Level of quantitation: 0.05 ug
Analytical Method : NIOSH 5503; GC/ECD
OSHA PEL (TWA) : 0.5-1 mg/m3
Collection Media : Filter & Tube

Submitted by: cmh
Approved by : dkf
Date : 13-AUG-01
QC by:
NYS DOH # : 11626

< -Less Than mg -Milligrams m3 -Cubic Meters kg -Kilograms
> -Greater Than ug -Micrograms l -Liters NS -Not Specified
NA -Not Applicable ND -Not Detected ppm -Parts per Million



OTES:

YUP CASING FOR WELL 1 SHALL BE PROTECTED FROM VEHICULAR TRAFFIC WITH
STEEL CASING FILLED WITH CONCRETE.

2 Aug, 2001

Air Monitoring Data Sheet

Revised September 1996

Project Name	Project Location	Sampling Date	3 Aug, 2001
Oswego Casting (Great Lakes Veneer)	Oswego, New York	Contract Number	D004283

Pump ID No.	Sample Location	Employee	Start Time	End Time	Duration (min)	Flow Rate (l/min)	Air Volume (l)	Analysis Required
21593	Upwind	DUSTRAX	7:55	330	461	2.0	—	N/A
575876	" "	Sample ID# OCUW3-8D	↓	↓	↓	2.0	922	TOTAL DUST
624512	" "	OCUW3	↓	↓	↓	.2	92.2	PCB
14217	Downwind	DUSTRAX	7:50	335	453	2.0	—	N/A
600763	" "	OCDW3-8D	↓	↓	↓	2.0	906	TOTAL DUST
600241	" "	OCDW3	↓	↓	↓	.2	90.6	PCB
21589	Work Area	DUSTRAX	↓	↓	—	2.0	—	N/A
624467	Personal	—	—	—	—	—	—	NONE SAMP

Technicians Name	Bruce Floyd	Date/Time	3 Aug, 2001	Signature	Bruce W Floyd

Comments: * Went to extreme measures today in wetting down areas around and in the Work Area. Then left sprinkler going. No PID checks were done today. Sending Thursday's set of samples out for DEC choice. Also sending 2 PCB Samples.

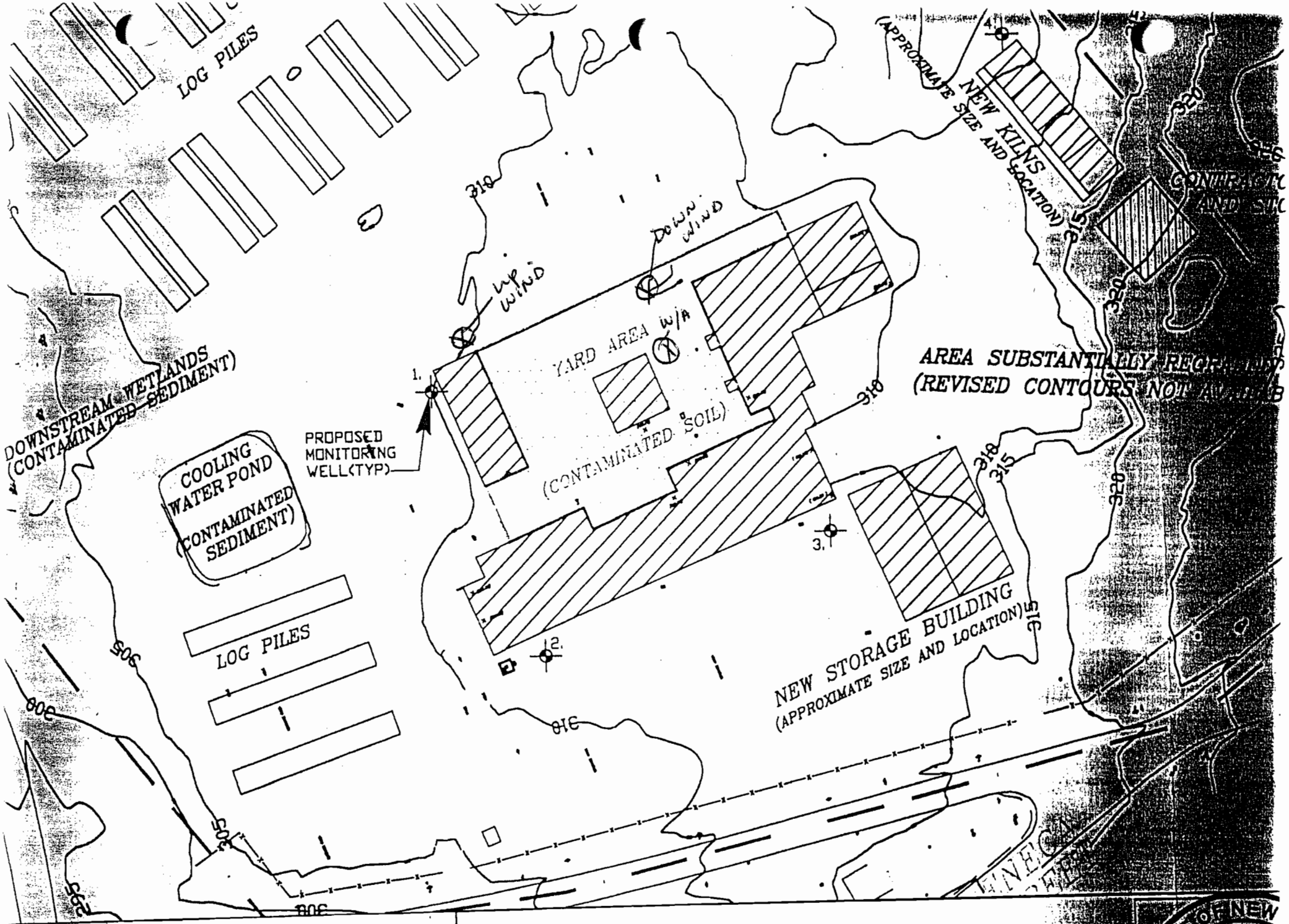
Oswego Castings/Great Lakes Veneer 8/03/01

Date	Time	Temp Out	Heat Index	Wind Chill	Hi Temp	Low Temp	Hum Out	Dew Pt.	Wind Speed	Hi	Dir	Rain	Bar	Temp In	Hum In	Arc Per
8/03/01	12:00a	60.7	57.6	60.7	60.9	60.7	55	44.4	0.0	0.0	N	0.00	30.171	60.2	53	30
8/03/01	12:30a	60.7	57.6	60.7	60.9	60.7	55	44.4	0.0	0.0	N	0.00	30.165	59.9	53	30
8/03/01	1:00a	60.9	57.9	60.9	60.9	60.7	57	45.6	0.0	0.0	N	0.00	30.159	59.9	55	30
8/03/01	1:30a	60.9	57.9	60.9	61.0	60.9	57	45.6	0.0	0.0	N	0.00	30.150	60.5	53	30
8/03/01	2:00a	60.7	57.7	60.7	61.0	60.7	56	44.9	0.0	0.0	N	0.00	30.145	60.7	53	30
8/03/01	2:30a	60.9	58.0	60.9	60.9	60.5	59	46.5	0.0	0.0	N	0.00	30.146	61.0	55	30
8/03/01	3:00a	61.0	58.3	61.0	61.0	60.5	62	47.9	0.0	0.0	N	0.00	30.146	61.4	57	30
8/03/01	3:30a	61.2	58.5	61.2	61.2	60.9	61	47.6	0.0	1.0	ENE	0.00	30.142	61.6	58	30
8/03/01	4:00a	61.0	58.3	61.0	61.2	60.9	62	47.9	0.0	0.0	N	0.00	30.132	61.1	58	30
8/03/01	4:30a	60.9	58.1	60.9	61.0	60.9	60	46.9	0.0	0.0	N	0.00	30.133	61.0	56	30
8/03/01	5:00a	60.9	58.0	60.9	61.0	60.7	59	46.5	0.0	0.0	N	0.00	30.129	60.8	56	30
8/03/01	5:30a	60.7	57.7	60.7	60.9	60.7	57	45.4	0.0	0.0	N	0.00	30.131	60.0	55	30
8/03/01	6:00a	60.7	57.8	60.7	61.0	60.7	58	45.8	0.0	0.0	N	0.00	30.132	60.3	55	30
8/03/01	6:30a	60.7	57.8	60.7	60.9	60.7	59	46.3	0.0	0.0	N	0.00	30.133	60.5	55	30
8/03/01	7:00a	66.4	67.7	66.4	66.4	60.7	100	66.4	0.0	3.0	WSW	0.01	30.131	60.3	61	30
8/03/01	7:30a	73.7	77.3	73.7	73.7	66.3	100	73.7	0.0	5.0	SW	0.00	30.128	64.5	81	30
8/03/01	8:00a	76.0	79.6	76.0	76.0	73.7	90	72.9	1.0	6.0	NW	0.00	30.129	64.8	63	30
8/03/01	8:30a	77.2	80.9	77.2	77.4	76.0	87	73.0	1.0	5.0	N	0.00	30.134	61.6	59	30
8/03/01	9:00a	77.4	81.2	77.4	77.6	76.5	86	72.9	1.0	6.0	NW	0.00	30.133	62.4	63	30
8/03/01	9:30a	76.8	80.3	76.8	77.9	76.8	87	72.6	1.0	7.0	NW	0.00	30.134	61.8	60	30
8/03/01	10:00a	77.2	80.9	77.2	77.6	76.8	85	72.3	1.0	6.0	NW	0.00	30.135	62.7	60	30
8/03/01	10:30a	79.0	83.2	79.0	79.0	77.2	82	73.0	1.0	6.0	NNW	0.00	30.125	62.1	57	30
8/03/01	11:00a	78.8	82.7	78.8	79.6	78.6	81	72.5	2.0	7.0	N	0.00	30.125	62.7	56	30
8/03/01	11:30a	77.4	81.2	77.4	78.8	77.4	85	72.5	3.0	7.0	N	0.00	30.128	62.9	57	30
8/03/01	12:00p	78.6	82.6	78.6	79.0	77.0	82	72.6	3.0	7.0	N	0.00	30.119	65.1	60	30
8/03/01	12:30p	78.8	83.1	78.8	78.8	77.7	83	73.2	3.0	8.0	N	0.00	30.109	66.1	55	30
8/03/01	1:00p	77.9	81.9	77.9	80.3	77.9	84	72.7	3.0	7.0	N	0.00	30.101	64.9	52	30
8/03/01	1:30p	77.6	81.6	77.6	77.9	77.2	86	73.1	3.0	7.0	N	0.00	30.094	64.6	54	30
8/03/01	2:00p	78.5	82.6	78.5	78.5	77.6	83	72.9	2.0	7.0	N	0.00	30.082	63.3	55	30
8/03/01	2:30p	78.1	82.0	78.1	78.8	77.6	83	72.5	2.0	6.0	N	0.00	30.072	63.3	58	30
8/03/01	3:00p	78.1	82.2	78.1	78.1	77.0	84	72.9	3.0	7.0	N	0.00	30.069	64.5	61	30
8/03/01	3:30p	77.4	81.2	77.4	78.3	76.8	85	72.5	2.0	6.0	N	0.00	30.068	63.3	57	30
8/03/01	4:00p	77.9	81.7	77.9	78.1	77.4	82	72.0	2.0	5.0	N	0.00	30.055	62.2	56	30
8/03/01	4:30p	78.5	78.3	78.5	78.8	77.9	45	55.4	1.0	3.0	N	0.00	30.046	63.2	69	30
8/03/01	5:00p	73.2	72.4	73.2	78.5	73.2	47	51.8	0.0	0.0	N	0.00	30.060	64.3	58	30
8/03/01	5:30p	69.1	67.3	69.1	73.2	69.1	44	46.3	0.0	0.0	N	0.00	30.063	61.6	53	30
8/03/01	6:00p	66.3	62.9	66.3	69.1	66.3	45	44.3	0.0	0.0	N	0.00	30.050	60.0	53	30
8/03/01	6:30p	64.3	60.8	64.3	66.1	64.3	47	43.6	0.0	0.0	N	0.00	30.048	59.3	53	30
8/03/01	7:00p	63.5	60.1	63.5	64.3	63.5	49	44.0	0.0	0.0	N	0.00	30.062	59.1	54	30
8/03/01	7:30p	62.9	59.4	62.9	63.5	62.9	49	43.4	0.0	0.0	N	0.00	30.053	58.7	54	30
8/03/01	8:00p	62.1	58.4	62.1	62.9	62.1	47	41.6	0.0	0.0	N	0.00	30.056	57.4	53	30
8/03/01	8:30p	61.0	57.3	61.0	62.1	61.0	47	40.6	0.0	0.0	N	0.00	30.047	56.1	53	30
8/03/01	9:00p	59.6	57.2	59.6	61.0	59.6	47	39.3	0.0	0.0	N	0.00	30.063	54.9	53	30
8/03/01	9:30p	58.7	57.1	58.7	59.6	58.7	51	40.6	0.0	0.0	N	0.00	30.057	55.2	56	30
8/03/01	10:00p	58.0	57.1	58.0	58.7	58.0	50	39.5	0.0	0.0	N	0.00	30.068	54.2	55	30
8/03/01	10:30p	57.5	57.1	57.5	58.0	57.5	50	39.0	0.0	0.0	N	0.00	30.059	54.0	54	30
8/03/01	11:00p	57.2	57.0	57.2	57.5	57.2	50	38.7	0.0	0.0	N	0.00	30.065	54.5	53	30
8/03/01	11:30p	57.0	57.0	57.0	57.2	57.0	53	40.0	0.0	0.0	N	0.00	30.087	54.5	55	30
8/03/01	12:00p	56.7	56.7	56.7	57.0	56.7	55	40.7	0.0	0.0	N	0.00	30.081	54.9	57	30

Current Graph: 3 Aug, 01 OCGLV
Start time: 07:56:41 08/03/2001 Stop time: 15:27:59 08/03/2001

Legend: 14217 Dowl 21589 Worl 21593 Upwind

Channel:	Aerosol	Aerosol	Aerosol
(Units)	mg/m^3	mg/m^3	mg/m^3
Average:	0.518	0.271	0.176
Lowest point:	0.155	0.073	0.055
Time	14:41:41	14:57:07	14:57:59
Date	08/03/2001	08/03/2001	08/03/2001
Highest point:	2.656	0.947	0.687
Time	08:26:41	08:12:07	08:12:59
Date	08/03/2001	08/03/2001	08/03/2001
Log interval: hh:mm:ss	00:15:00	00:15:00	00:15:00



NOTES:

THE CASING FOR WELL 1 SHALL BE PROTECTED FROM VEHICULAR TRAFFIC WITH

3 Aug 61

Air Monitoring Data Sheet

Project Name	Project Location	Sampling Date	6 August 2001
Oswego Casting (Great Lakes Veneer)	Oswego, New York	Contract Number	D004283

Pump ID No.	Sample Location	Employee	Start Time	End Time	Duration (min)	Flow Rate (l/min)	Air Volume (l)	Sample Number
21593	Upwind	DUSTRAK	0800	1400	441	2.0		N/A
575876	"	"	OCDW6-8D			2.0	882	
624512	"	"	OCDW6			2	88.2	
14217	Downwind	DUSTRAK			443	2.0		N/A
600763	"	"	OCDW6-8D			2.0	886	
600241	"	"	OCDW6			2	88.6	
21589	Work Area	DUSTRAK				2.0		N/A
624467	Personal	NONE TODAY						

Technicians Name	Bruce Floyd	Date/Time	6 Aug, 01	Signature	Bruce Floyd
Comments	* Samples put into area's of work & Up & Down Wind areas. Weather is suppost to be high 90's Hot & Hazy - very dust at 0730 Morning.				

Oswego Castings/Great Lakes Veneer 8/06/01

Date	Time	Temp Out	Heat Index	Wind Chill	Hi Temp	Low Temp	Hum Out	Dew Pt.	Wind Speed	Hi	Dir	Rain	Bar	Temp In	Hum In	Arc Per
8/06/01	12:00a	56.3	56.3	56.3	56.6	56.3	50	37.9	0.0	0.0	N	0.00	30.307	54.3	53	30
8/06/01	12:30a	56.2	56.2	56.2	56.3	56.2	50	37.8	0.0	0.0	N	0.00	30.309	53.6	52	30
8/06/01	1:00a	56.0	56.0	56.0	56.2	55.9	50	37.6	0.0	0.0	N	0.00	30.303	53.4	52	30
8/06/01	1:30a	55.7	55.7	55.7	56.0	55.7	50	37.3	0.0	0.0	N	0.00	30.299	53.4	52	30
8/06/01	2:00a	55.7	55.7	55.7	55.7	55.7	50	37.3	0.0	0.0	N	0.00	30.300	52.8	52	30
8/06/01	2:30a	55.6	55.6	55.6	55.7	55.6	51	37.7	0.0	0.0	N	0.00	30.299	53.3	51	30
8/06/01	3:00a	55.6	55.6	55.6	55.6	55.6	52	38.2	0.0	0.0	N	0.00	30.297	53.9	53	30
8/06/01	3:30a	55.4	55.4	55.4	55.6	55.4	51	37.6	0.0	0.0	N	0.00	30.290	53.7	52	30
8/06/01	4:00a	55.3	55.3	55.3	55.4	55.3	51	37.5	0.0	0.0	N	0.00	30.291	53.1	52	30
8/06/01	4:30a	55.3	55.3	55.3	55.3	55.3	51	37.5	0.0	0.0	N	0.00	30.287	52.7	52	30
8/06/01	5:00a	55.1	55.1	55.1	55.3	55.1	50	36.8	0.0	0.0	N	0.00	30.294	53.3	50	30
8/06/01	5:30a	55.1	55.1	55.1	55.1	55.0	54	38.7	0.0	0.0	N	0.00	30.293	54.0	52	30
8/06/01	6:00a	55.0	55.0	55.0	55.1	55.0	53	38.2	0.0	0.0	N	0.00	30.293	53.6	51	30
8/06/01	6:30a	54.8	54.8	54.8	55.0	54.8	50	36.5	0.0	1.0	N	0.00	30.298	53.1	50	30
8/06/01	7:00a	60.5	60.6	60.5	60.5	54.8	100	60.5	0.0	3.0	S	0.00	30.299	55.4	66	30
8/06/01	7:30a	68.6	70.4	68.6	68.6	60.5	85	63.9	1.0	6.0	S	0.00	30.298	63.5	77	30
8/06/01	8:00a	72.3	73.8	72.3	72.3	68.6	77	64.7	1.0	5.0	SSE	0.00	30.293	61.9	57	30
8/06/01	8:30a	73.3	74.9	73.3	73.5	72.3	73	64.1	2.0	8.0	S	0.00	30.289	60.5	53	30
8/06/01	9:00a	76.7	77.1	76.7	76.7	73.3	62	62.7	2.0	7.0	S	0.00	30.298	60.5	56	30
8/06/01	9:30a	79.6	81.2	79.6	79.6	76.7	59	64.0	1.0	6.0	S	0.00	30.302	62.5	59	30
8/06/01	10:00a	82.4	84.1	82.4	82.4	79.6	53	63.5	1.0	6.0	SW	0.00	30.292	65.3	52	30
8/06/01	10:30a	84.3	85.7	84.3	84.7	82.2	48	62.5	1.0	5.0	NNW	0.00	30.288	65.4	48	30
8/06/01	11:00a	87.2	87.1	87.2	87.2	84.3	39	59.2	2.0	6.0	NNW	0.00	30.282	65.6	48	30
8/06/01	11:30a	88.4	86.8	88.4	88.6	87.0	31	53.9	2.0	7.0	N	0.00	30.272	66.4	48	30
8/06/01	12:00p	89.5	87.9	89.5	89.7	88.0	30	54.0	2.0	8.0	NNW	0.00	30.268	67.2	48	30
8/06/01	12:30p	89.3	88.2	89.3	90.1	89.3	32	55.6	1.0	7.0	N	0.00	30.266	70.2	50	30
8/06/01	1:00p	88.8	87.3	88.8	89.3	88.2	31	54.3	2.0	7.0	N	0.00	30.262	68.5	46	30
8/06/01	1:30p	89.3	88.2	89.3	89.5	88.4	32	55.6	2.0	10.0	N	0.00	30.248	68.0	47	30
8/06/01	2:00p	89.7	87.6	89.7	90.1	88.8	27	51.3	3.0	8.0	N	0.00	30.233	67.4	47	30
8/06/01	2:30p	91.2	89.6	91.2	91.8	89.7	26	51.5	2.0	8.0	N	0.00	30.221	66.9	47	30
8/06/01	3:00p	91.8	91.7	91.8	91.8	90.1	30	56.0	2.0	8.0	N	0.00	30.217	66.9	50	30
8/06/01	3:30p	92.7	92.7	92.7	92.7	91.4	30	56.7	2.0	7.0	NW	0.00	30.209	68.0	52	30
8/06/01	4:00p	90.5	89.6	90.5	92.7	89.9	30	54.8	2.0	6.0	NNW	0.00	30.204	67.0	51	30
8/06/01	4:30p	90.5	89.3	90.5	91.4	90.5	29	53.9	2.0	6.0	NW	0.00	30.194	66.9	52	30
8/06/01	5:00p	89.7	88.8	89.7	90.5	89.7	32	55.9	2.0	7.0	NNW	0.00	30.188	67.7	51	30
8/06/01	5:30p	88.8	87.6	88.8	89.9	88.8	32	55.1	2.0	6.0	NNW	0.00	30.176	66.2	51	30
8/06/01	6:00p	89.3	88.2	89.3	89.3	88.6	32	55.6	1.0	5.0	NNW	0.00	30.167	65.4	51	30
8/06/01	6:30p	88.2	86.4	88.2	89.3	88.2	30	52.9	1.0	7.0	SW	0.00	30.155	64.8	51	30
8/06/01	7:00p	87.4	86.2	87.4	88.2	87.4	33	54.8	1.0	7.0	SW	0.00	30.149	64.3	51	30
8/06/01	7:30p	85.7	85.0	85.7	87.4	85.7	36	55.7	1.0	6.0	SW	0.00	30.140	63.3	50	30
8/06/01	8:00p	83.2	83.7	83.2	85.7	83.2	43	58.4	0.0	3.0	SSW	0.00	30.141	61.9	49	30
8/06/01	8:30p	81.2	81.6	81.2	83.0	81.2	46	58.5	0.0	0.0	N	0.00	30.138	60.0	49	30
8/06/01	9:00p	78.6	78.9	78.6	81.2	78.6	52	59.5	0.0	0.0	N	0.00	30.140	58.2	49	30
8/06/01	9:30p	79.8	79.8	79.8	79.8	78.1	47	57.8	1.0	6.0	SW	0.00	30.138	56.5	51	30
8/06/01	10:00p	80.7	80.9	80.7	80.7	79.9	47	58.6	2.0	6.0	SW	0.00	30.146	55.8	52	30
8/06/01	10:30p	81.1	81.5	81.1	81.1	80.7	47	59.0	2.0	7.0	SW	0.00	30.148	55.1	53	30
8/06/01	11:00p	79.4	79.4	79.4	81.4	79.4	49	58.6	1.0	6.0	SSW	0.00	30.152	56.1	54	30
8/06/01	11:30p	80.1	80.1	80.1	80.1	79.2	45	56.8	2.0	7.0	SW	0.00	30.148	54.9	55	30
8/06/01	12:00p	79.8	79.8	79.8	80.1	79.8	47	57.8	2.0	7.0	SW	0.00	30.149	55.5	53	30

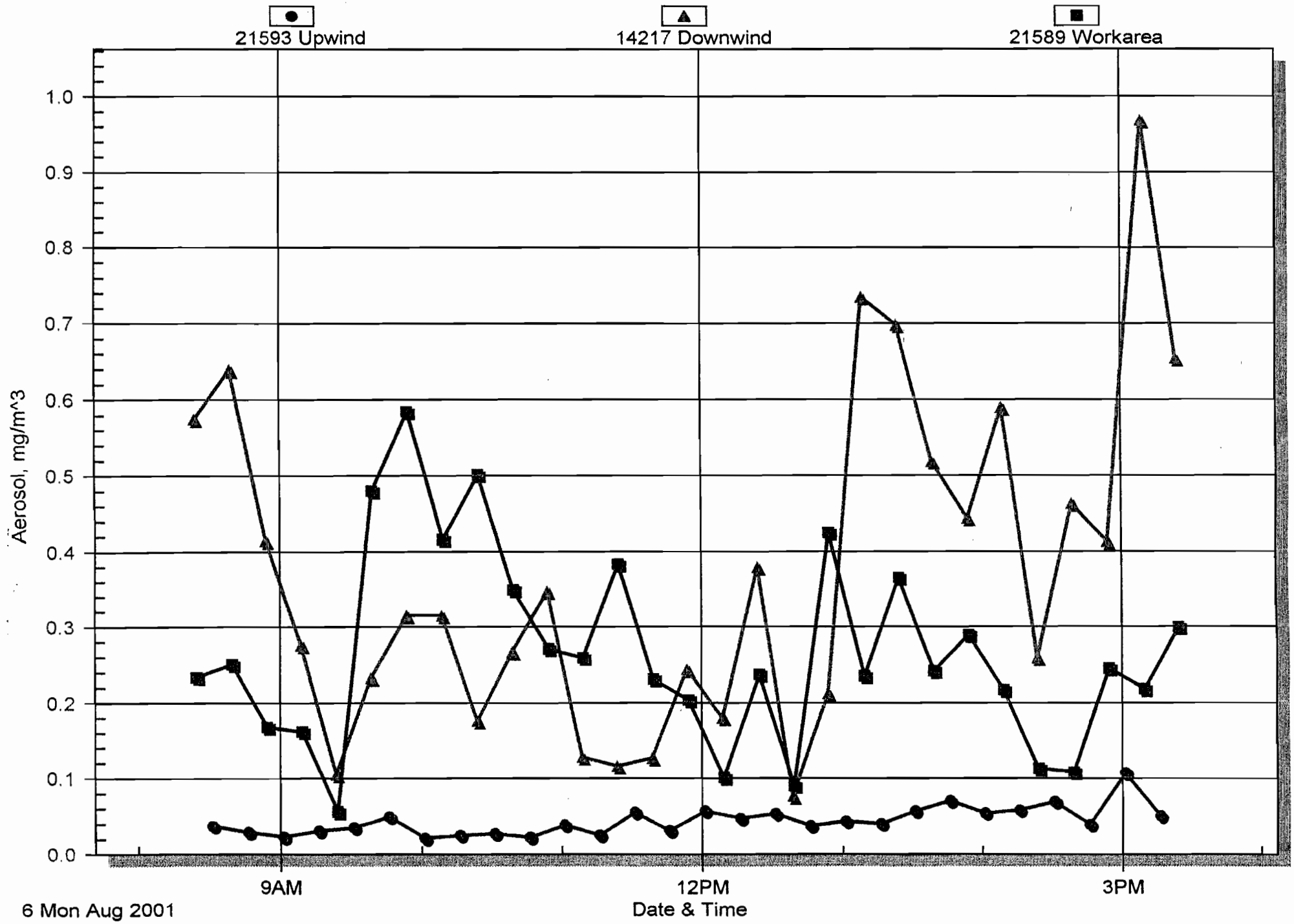
Current Graph: 6 Aug,01 OCGLV
Start time: 08:08:55 08/06/2001 Stop time: 15:24:31 08/06/2001

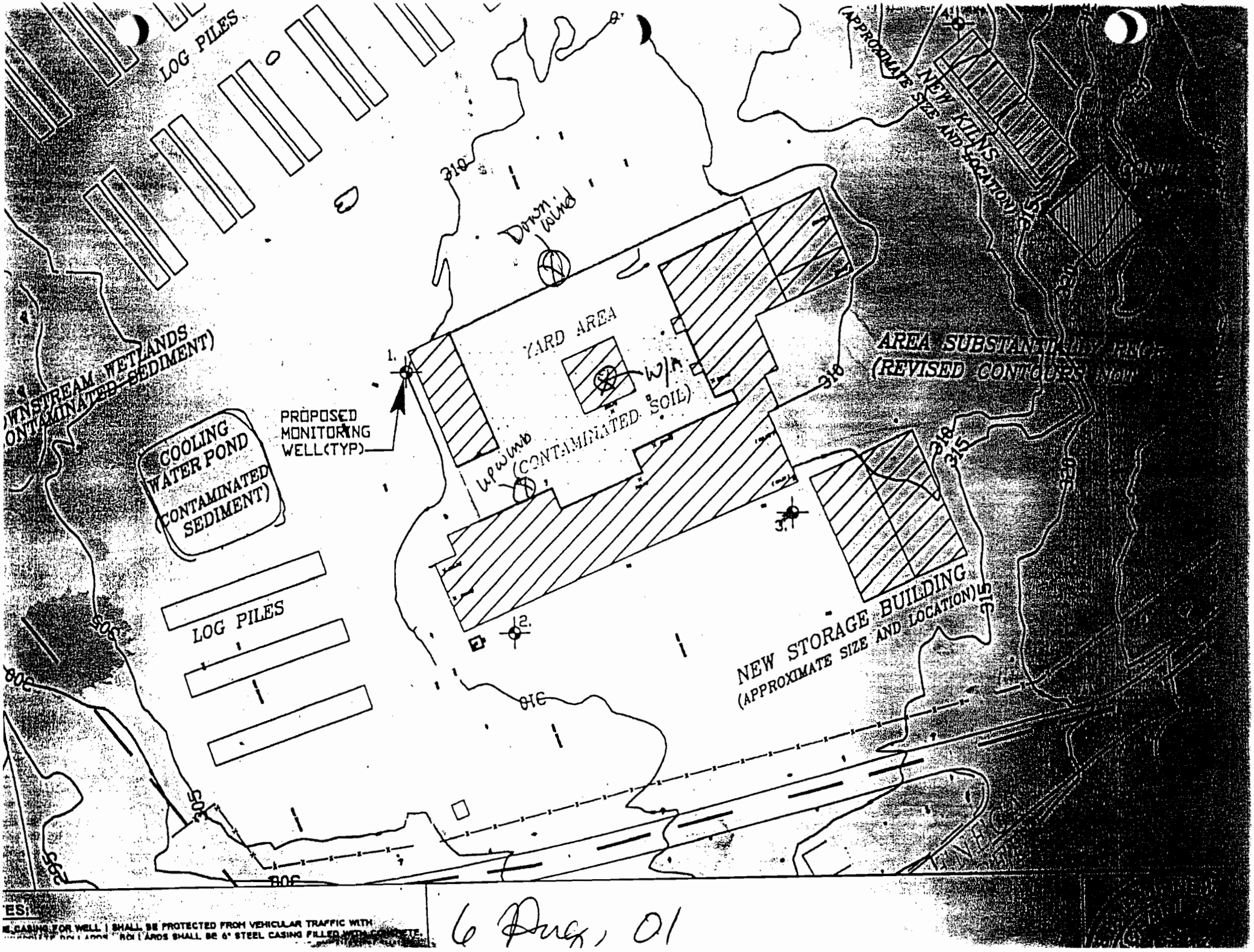
Legend: 21593 Upw. 14217 Dowi 21589 Workarea

Channel:	Aerosol	Aerosol	Aerosol
(Units)	mg/m^3	mg/m^3	mg/m^3
Average:	0.044	0.375	0.267
Lowest point:	0.021	0.076	0.056
Time	10:01:20	12:38:55	09:24:31
Date	08/06/2001	08/06/2001	08/06/2001
Highest point:	0.107	0.968	0.585
Time	15:01:20	15:08:55	09:54:31
Date	08/06/2001	08/06/2001	08/06/2001
Log interval: hh:mm:ss	00:15:00	00:15:00	00:15:00

Great La s Veneer

6 August,2001




LOG PILES
(APPROXIMATE SIZE AND LOCATION)
NEW KILNS
Down wind
YARD AREA
W/A
(CONTAMINATED SOIL)
AREA SUBSTANTIALLY REDUCED
(REVISED CONTOURS NOW
DOWNSTREAM WETLANDS
(CONTAMINATED SEDIMENT)
PROPOSED
MONITORING
WELL(TYP)
COOLING
WATER POND
(CONTAMINATED
SEDIMENT)
LOG PILES
NEW STORAGE BUILDING
(APPROXIMATE SIZE AND LOCATION)
1.
2.
3.
310
315
316
318
320
322
308
ES:
E CASING FOR WELL 1 SHALL BE PROTECTED FROM VEHICULAR TRAFFIC WITH
ROLLARDS SHALL BE 6" STEEL CASING FILLED WITH CONCRETE.
6 Dec, 01

Air Monitoring Data Sheet

Revised September 1996

Project Name	Project Location	Sampling Date	21 Aug, 2001
Oswego Casting (Great Lakes Veneer)	Oswego, New York	Contract Number	D004283

Pump ID No.	Sample Location	Employee	Start Time	End Time	Duration (min)	Flow Rate (l/min)	Air Volume (l)	Analysis Required
21593	Upwind	DUSTRAX	750	3:00	421	2.0	—	N/A
575876	" "	TOTAL DUST ID# OCUW21-8D	|	|	|	2.0	842	TOTAL DUST
624512	" "	PCB (Florisil) ID# OCUW21	|	|	|	.2	84.2	PCB
14217	Downwind	DUSTRAX	750	3:00	425	2.0	~~850~~	N/A
600763	" "	TOTAL DUST ID# OCDW21-8D	|	|	|	2.0	850	TOTAL DUST
600241	" "	PCB (Florisil) ID# OCDW21	|	|	|	.2	85.0	PCB
21589	Work Area	DUSTRAX	— NO SAMPLE —					N/A
624467	Personal	— NO SAMPLE —						

Technicians Name	Bruce Floyd	Date/Time	21 Aug 01	Signature	Bruce O. Floyd
Comments	* Ground is very saturated and there is no visible dust cover with Abscope and G.i.U. Heavy Equipment working in area. Abscope is working in corner of building.				

Oswego Castings/Grea ces Veneer 8/21/01

Date	Time	Temp Out	Heat Index	Wind Chill	Hi Temp	Low Temp	Hum Out	Dew Pt.	Wind Speed	Hi	Dir	Rain	Bar	Temp In	Hum In	Arc Per
8/21/01	12:00a	65.3	66.3	65.3	65.3	65.3	100	65.3	0.0	1.0	S	0.00	30.058	65.8	49	30
8/21/01	12:30a	65.6	66.7	65.6	65.6	65.3	100	65.6	0.0	1.0	S	0.00	30.062	65.9	49	30
8/21/01	1:00a	64.7	65.5	64.7	65.6	64.7	100	64.7	0.0	2.0	S	0.00	30.059	66.1	49	30
8/21/01	1:30a	65.6	66.7	65.6	65.6	64.7	100	65.6	0.0	1.0	SSW	0.00	30.063	66.1	49	30
8/21/01	2:00a	67.4	68.6	67.4	67.4	65.6	93	65.3	1.0	6.0	WSW	0.00	30.062	66.2	49	30
8/21/01	2:30a	67.4	68.8	67.4	67.9	67.4	96	66.2	2.0	8.0	SW	0.00	30.054	66.4	50	30
8/21/01	3:00a	67.4	68.6	67.4	67.4	67.3	93	65.3	2.0	7.0	SW	0.00	30.053	64.8	48	30
8/21/01	3:30a	67.1	68.2	67.1	67.4	67.1	95	65.6	1.0	5.0	SSW	0.00	30.054	65.4	49	30
8/21/01	4:00a	67.1	68.2	67.1	67.3	67.1	95	65.6	2.0	8.0	SW	0.00	30.055	65.8	49	30
8/21/01	4:30a	66.1	66.9	66.1	67.1	66.1	95	64.6	1.0	6.0	SW	0.00	30.056	66.1	49	30
8/21/01	5:00a	65.2	65.8	65.2	66.1	65.2	96	64.0	1.0	5.0	SW	0.00	30.063	66.1	49	30
8/21/01	5:30a	65.2	65.6	65.2	65.2	65.0	93	63.1	1.0	5.0	SW	0.00	30.067	66.1	49	30
8/21/01	6:00a	65.5	66.1	65.5	65.5	65.2	94	63.7	1.0	6.0	SW	0.00	30.073	66.1	50	30
8/21/01	6:30a	65.5	66.1	65.5	65.6	65.5	94	63.7	1.0	6.0	SW	0.00	30.083	66.2	50	30
8/21/01	7:00a	66.0	66.6	66.0	66.0	65.5	93	63.9	1.0	6.0	SSW	0.00	30.090	67.2	57	30
8/21/01	7:30a	66.3	67.1	66.3	66.3	66.0	94	64.5	1.0	6.0	SSW	0.00	30.091	65.8	53	30
8/21/01	8:00a	66.8	67.7	66.8	66.8	66.3	94	65.0	2.0	6.0	SW	0.00	30.098	67.4	56	30
8/21/01	8:30a	67.4	68.8	67.4	67.4	66.8	96	66.2	2.0	7.0	SW	0.00	30.101	66.4	54	30
8/21/01	9:00a	69.1	71.1	69.1	69.1	67.6	92	66.7	2.0	8.0	WSW	0.00	30.105	66.7	53	30
8/21/01	9:30a	70.4	72.2	70.4	70.6	69.1	90	67.3	3.0	13.0	WSW	0.00	30.106	66.2	53	30
8/21/01	10:00a	69.9	71.9	69.9	70.6	69.8	91	67.2	3.0	11.0	WSW	0.00	30.112	67.0	56	30
8/21/01	10:30a	70.4	72.2	70.4	71.1	70.1	89	67.0	3.0	11.0	WSW	0.00	30.113	66.1	56	30
8/21/01	11:00a	69.4	71.6	69.4	70.4	69.3	93	67.3	3.0	13.0	WSW	0.00	30.117	65.4	60	30
8/21/01	11:30a	69.3	72.1	69.3	69.4	68.6	98	68.7	2.0	8.0	SW	0.01	30.116	64.3	56	30
8/21/01	12:00p	67.9	69.7	67.9	69.3	67.6	100	67.9	1.0	10.0	N	0.20	30.123	64.6	58	30
8/21/01	12:30p	69.9	72.9	69.9	69.9	67.9	97	69.0	1.0	7.0	N	0.00	30.124	65.4	62	30
8/21/01	1:00p	71.3	73.8	71.3	71.3	69.9	94	69.5	2.0	7.0	N	0.00	30.127	65.9	61	30
8/21/01	1:30p	72.7	74.7	72.7	72.7	71.3	91	69.9	2.0	10.0	N	0.00	30.126	66.6	60	30
8/21/01	2:00p	73.9	76.0	73.9	73.9	72.5	86	69.4	2.0	11.0	N	0.00	30.130	68.0	61	30
8/21/01	2:30p	73.7	75.8	73.7	73.9	73.0	86	69.2	3.0	12.0	N	0.00	30.127	68.5	69	30
8/21/01	3:00p	73.9	75.8	73.9	74.2	73.7	81	67.7	3.0	11.0	N	0.00	30.128	68.0	65	30
8/21/01	3:30p	73.7	75.5	73.7	74.2	73.7	81	67.5	2.0	12.0	N	0.00	30.127	66.7	66	30
8/21/01	4:00p	74.0	76.0	74.0	74.0	73.7	83	68.5	2.0	10.0	N	0.00	30.127	66.9	62	30
8/21/01	4:30p	74.0	75.9	74.0	74.2	73.9	81	67.8	2.0	10.0	N	0.00	30.124	66.4	68	30
8/21/01	5:00p	74.0	75.9	74.0	74.0	73.5	82	68.2	2.0	11.0	WSW	0.00	30.127	69.4	73	30
8/21/01	5:30p	74.0	75.8	74.0	74.4	74.0	77	66.3	2.0	12.0	N	0.00	30.122	67.2	62	30
8/21/01	6:00p	74.0	75.8	74.0	74.0	73.9	79	67.1	2.0	12.0	N	0.00	30.126	65.9	58	30
8/21/01	6:30p	73.9	75.7	73.9	74.0	73.9	78	66.6	2.0	12.0	N	0.00	30.124	65.4	56	30
8/21/01	7:00p	73.5	75.3	73.5	73.9	73.5	79	66.6	1.0	7.0	N	0.00	30.124	65.1	56	30
8/21/01	7:30p	72.8	74.6	72.8	73.5	72.8	83	67.3	1.0	5.0	N	0.00	30.121	64.9	55	30
8/21/01	8:00p	72.1	73.9	72.1	72.8	72.1	85	67.3	1.0	5.0	N	0.00	30.122	64.9	55	30
8/21/01	8:30p	72.1	73.9	72.1	72.3	72.1	84	67.0	1.0	5.0	N	0.00	30.130	65.4	58	30
8/21/01	9:00p	72.1	73.9	72.1	72.3	72.1	85	67.3	1.0	6.0	N	0.00	30.137	65.3	59	30
8/21/01	9:30p	72.3	74.1	72.3	72.3	72.1	85	67.5	1.0	6.0	N	0.00	30.145	64.6	58	30
8/21/01	10:00p	72.8	74.6	72.8	72.8	72.3	82	67.0	2.0	8.0	N	0.00	30.150	64.6	58	30
8/21/01	10:30p	72.7	74.5	72.7	72.8	72.7	84	67.6	2.0	8.0	N	0.00	30.155	65.4	56	30
8/21/01	11:00p	72.5	74.3	72.5	72.7	72.5	86	68.1	2.0	8.0	N	0.00	30.160	65.6	60	30
8/21/01	11:30p	72.3	74.1	72.3	72.5	72.3	90	69.2	1.0	6.0	N	0.00	30.165	65.1	59	30
8/21/01	12:00p	72.3	74.1	72.3	72.3	72.3	90	69.2	1.0	7.0	SE	0.00	30.167	64.5	57	30

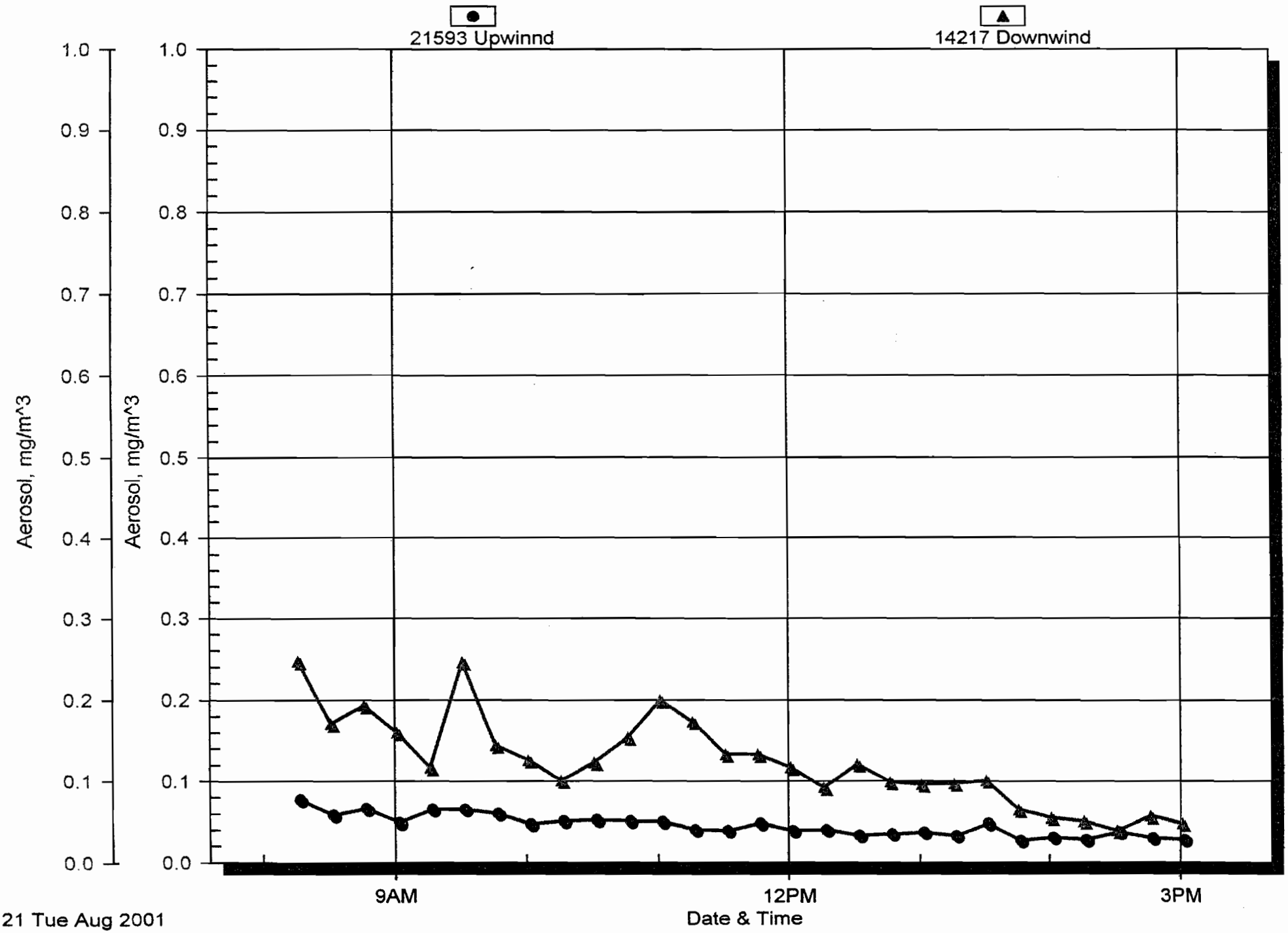
Current Graph: OSGLV 21ST
Start time: 08:01:00 08/21/2001 Stop time: 15:01:57 08/21/2001

Legend: 21593 Upw. 14217 Downwind

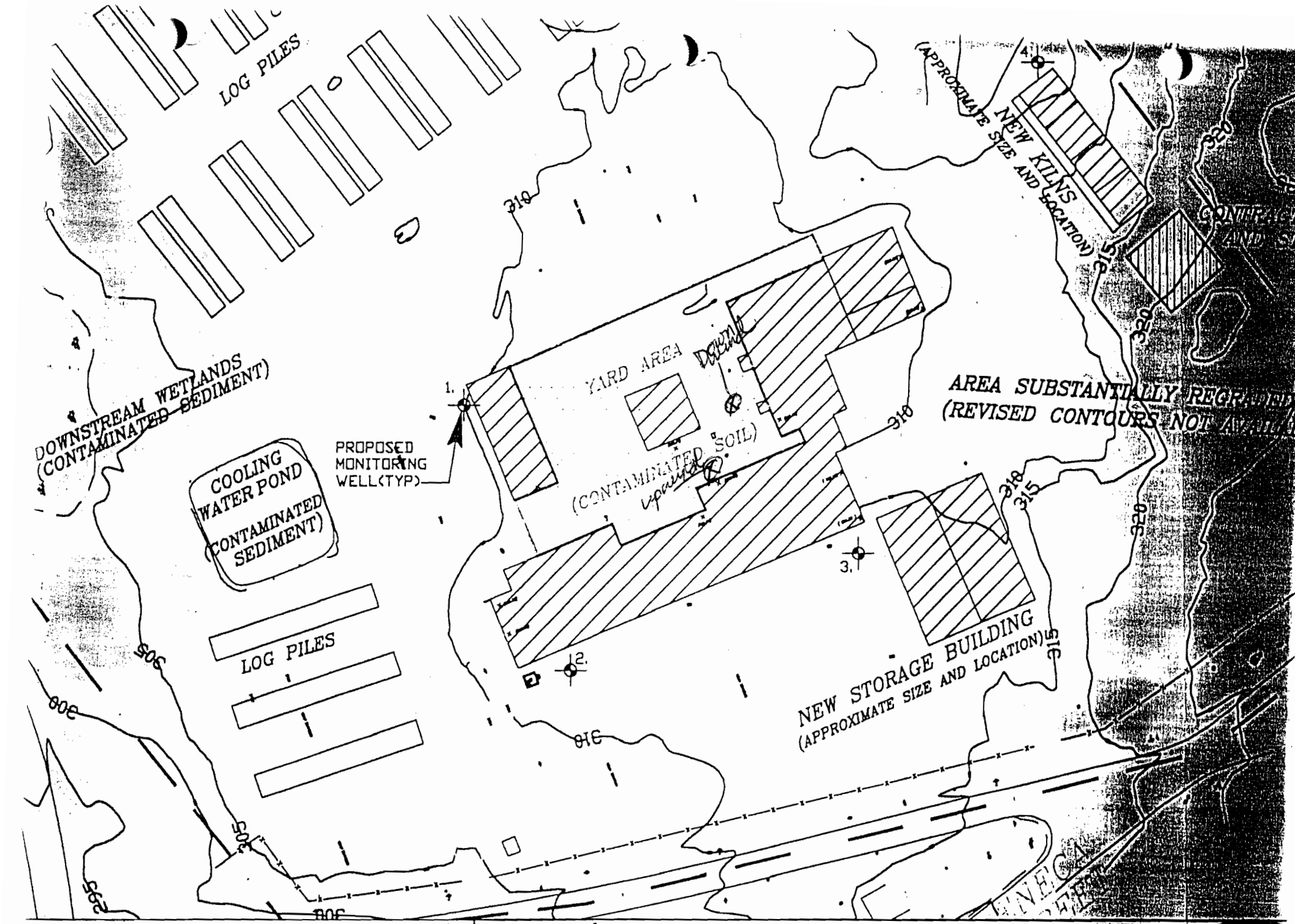
Channel:	Aerosol	Aerosol
(Units)	mg/m^3	mg/m^3
Average:	0.045	0.124
Lowest point:	0.027	0.039
Time	13:46:57	14:31:00
Date	08/21/2001	08/21/2001
Highest point:	0.077	0.247
Time	08:16:57	08:16:00
Date	08/21/2001	08/21/2001
Log interval: hh:mm:ss	00:15:00	00:15:00

Great La[illegible]s Veneer

21 August, 2001



21 Tue Aug 2001



NOTES:

THE CASING FOR WELL 1 SHALL BE PROTECTED FROM VEHICULAR TRAFFIC WITH [illegible] BOLLARDS SHALL BE 6" STEEL CASING FILLED WITH CONCRETE.

21 Aug, 2001

STATE OF NEW

Galson
Laboratories
6601 Kirkville Road
P.O. Box 369
E. Syracuse, NY 13057
Tel: (315) 437-7252 888-577-Labs (5227)
Fax: (315) 437-0571

Request For Industrial Hygiene Analysis

Company Name: O'Rourke Inc.
Site Name: Oswego Castings (Great Lakes Veneer)
Sampled By: Bruce Floyd
Project #: D004283

Send Report to: O'Rourke Inc.
P.O. Box 341
Owego NY 13827

Invoice to: O'Rourke Inc.
P.O. Box 341
Owego NY 13827

☐ Purchase order number _____
(or)
☐ Credit Card (type) _____ Card # _____ Exp Date _____
☐ Verbal Authorization _____

☒ Standard Turn-Around Time OR ☐ Rush: Date and Time Requested: __/__/__ am pm
☐ Phone Results to: _____ Phone # ( ) - - ext.
☒ Fax Results to: Bruce Floyd (607) 687-7445 AND Fax # > (315-342-2062
☐ Email Results to: _____

Sample Identification	Date Sampled	Sample Medium Catalog # / Lot #	Air Sample Volume (liters)*	Analysis Requested	Method Reference
OCUW21-8D	21 Aug, 01	37mm 5u	842	TOTAL DUST	N0500
OCUW21	21 Aug, 01	florisil tube	84.2	PCB	N5503
OCDW21-8D	21 Aug, 01	37mm 5u	850	TOTAL DUST	N0500
OCDW21	21 Aug, 01	florisil tube	85.0	PCB	N5503
OCUW6-8D	6 Aug, 01	37mm 5u	882	TOTAL DUST	N0500
OCUW6	6 Aug, 01	florisil tube	88.2	PCB	N5503
OCDW6-8D	6 Aug, 01	37mm 5u	884	TOTAL DUST	N0500
OCDW6	6 Aug, 01	florisil tube	88.6	PCB	N5503

Pump Loan User

*For passive monitors please list time exposed in minutes.

Comments (Please list any known interferences present in sampling area): _____

Note! PCB samples are filter/tube/BB
Blanks not submitted/BB

Chain of Custody	Print Name	Signature	Date/Time
Relinquished by:	Bruce Floyd	Bruce W. Floyd	21 Aug, 01
Received by LAB.	Bruce Baxter	Bruce Baxter	8/21@1613

Samples received after 3pm will be considered as next day's business.

LAB ORIGINAL

Galson Laboratories

6601 Kirkville Road
E. Syracuse, NY 13057-0369
Phone: (315) 432-5227
Fax: (315) 437-0571
www.galsonlabs.com

LABORATORY ANALYSIS REPORT

Client : O'Rourke Incorporated
Site : Oswego Castings (Great Lakes)
Project No. : D004283

Date Sampled : 06-AUG-01 - 21-AUG-01 Account No.: 12312
Date Received : 21-AUG-01 Login No. : L74010
Date Analyzed : 27-AUG-01

Total Dust

Sample ID	Lab ID	Air Vol m3	Total mg	Conc mg/m3
OCUW21-8D	L74010-1	0.842	0.142	0.17
OCDW21-8D	L74010-2	0.850	0.093	0.11
OCUW6-8D	L74010-3	0.882	0.189	0.21
OCDW6-8D	L74010-4	0.886	1.22	1.4

COMMENTS: PNOR = Particulates Not Otherwise Regulated.

Level of quantitation: 0.05 mg
Analytical Method : NIOSH 0500; GRAV
OSHA PEL (TWA) : PNOR 15 mg/m3
Collection Media : PVC PW

Submitted by: tk
Approved by : Oommen Kappil
Date : 27-AUG-01
QC by:
NYS DOH # : 11626

< -Less Than mg -Milligrams m3 -Cubic Meters kg -Kilograms
> -Greater Than ug -Micrograms l -Liters NS -Not Specified
NA -Not Applicable ND -Not Detected ppm -Parts per Million

Galson Laboratories

6601 Kirkville Road
E. Syracuse, NY 13057-0369
Phone: (315) 432-5227
Fax: (315) 437-0571
www.galsonlabs.com

LABORATORY ANALYSIS REPORT

Client : O'Rourke Incorporated
Site : Oswego Castings (Great Lakes)
Project No. : D004283

Date Sampled : 06-AUG-01 - 21-AUG-01 Account No.: 12312
Date Received : 21-AUG-01 Login No. : L74010
Date Analyzed : 29-AUG-01

PCB (Aroclors 1016-1260)

Sample ID	Lab ID	Air Vol liter	Front ug	Back ug	Total ug	Conc mg/m3
OCUW21	L74010-5	84.2	<0.05	<0.05	<0.05	<0.0006
OCDW21	L74010-6	85	<0.05	<0.05	<0.05	<0.0006
OCUW6	L74010-7	88.2	<0.05	<0.05	<0.05	<0.0006
OCDW6	L74010-8	88.6	<0.05	<0.05	<0.05	<0.0006

COMMENTS: Total ug corrected for a desorption efficiency of 100%.

Level of quantitation: 0.05 ug
Analytical Method : NIOSH 5503; GC/ECD
OSHA PEL (TWA) : 0.5-1 mg/m3
Collection Media : Filter & Tube

Submitted by: CMH
Approved by : DKF
Date : 29-AUG-01
QC by:
NYS DOH # : 11626

< -Less Than mg -Milligrams m3 -Cubic Meters kg -Kilograms
> -Greater Than ug -Micrograms l -Liters NS -Not Specified
NA -Not Applicable ND -Not Detected ppm -Parts per Million

Air Monitoring Data Sheet

Revised September 1996

Project Name	Project Location	Sampling Date	8-23-01
Oswego Casting (Great Lakes Veneer)	Oswego, New York	Contract Number	D004283

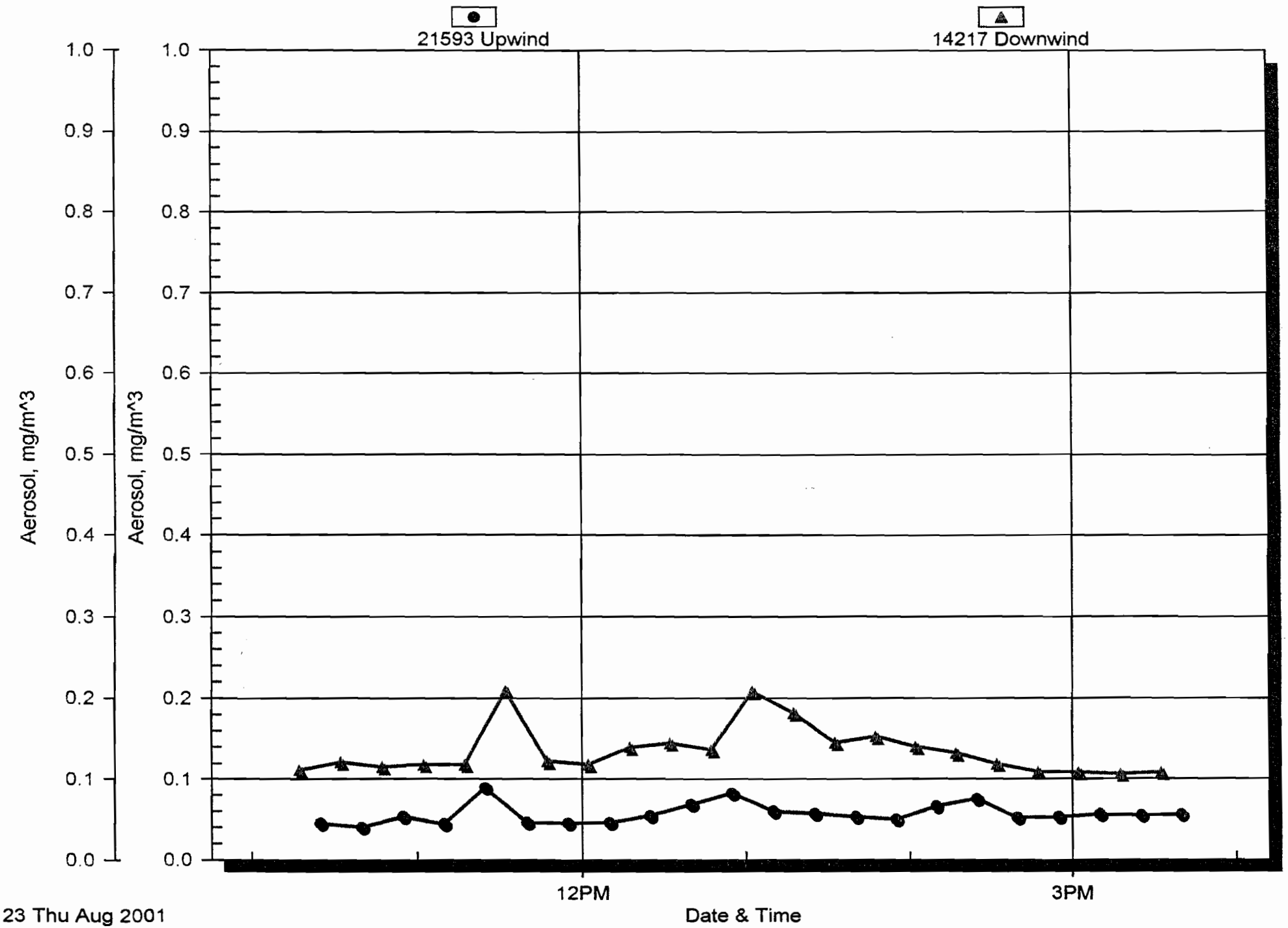
Pump ID No.	Sample Location	Employee	Start Time	End Time	Duration (min)	Flow Rate (l/min)	Air Volume (l)	Analysis Required
21593	Upwind	DUSTRAX	10.30	3:00	270	2.0	540	N/A
575876	" "	Total Dust ID #	1030	3:00	↓	2.0	540	TOTAL DUST
624512	" "	PCB (Florisil) ID #	10.30	3:00	↓	0.2	54	PCB
14217	Downwind	DUSTRAX	1035	3:05	270	2.0	540	N/A
600763	" "	Total Dust ID #	10:35	3:05	↓	2.0	540	TOTAL DUST
600241	" "	PCB (Florisil) ID #	1035	3:05	↓	0.2	54	PCB
21589	Work Area	DUSTRAX	—	No	Sample	—	—	N/A
624467	Personal	—	No	Sample	—	—	—	—

Technicians Name	~~Bruce Floyd~~ Ashley Coleman	Date/Time	23 Aug. 01	Signature	Ashley Coleman
Comments	* Ground is dry. Dusty when ~~trucks~~ trucks drive through work site. Cloudy, looks like it might rain. Temp. is 74° F. Sky cleared up later in the day.				

O'Rourke Incorporated

Great La[illegible]s Veneer

23 August, 2001



Air Monitoring Data Sheet

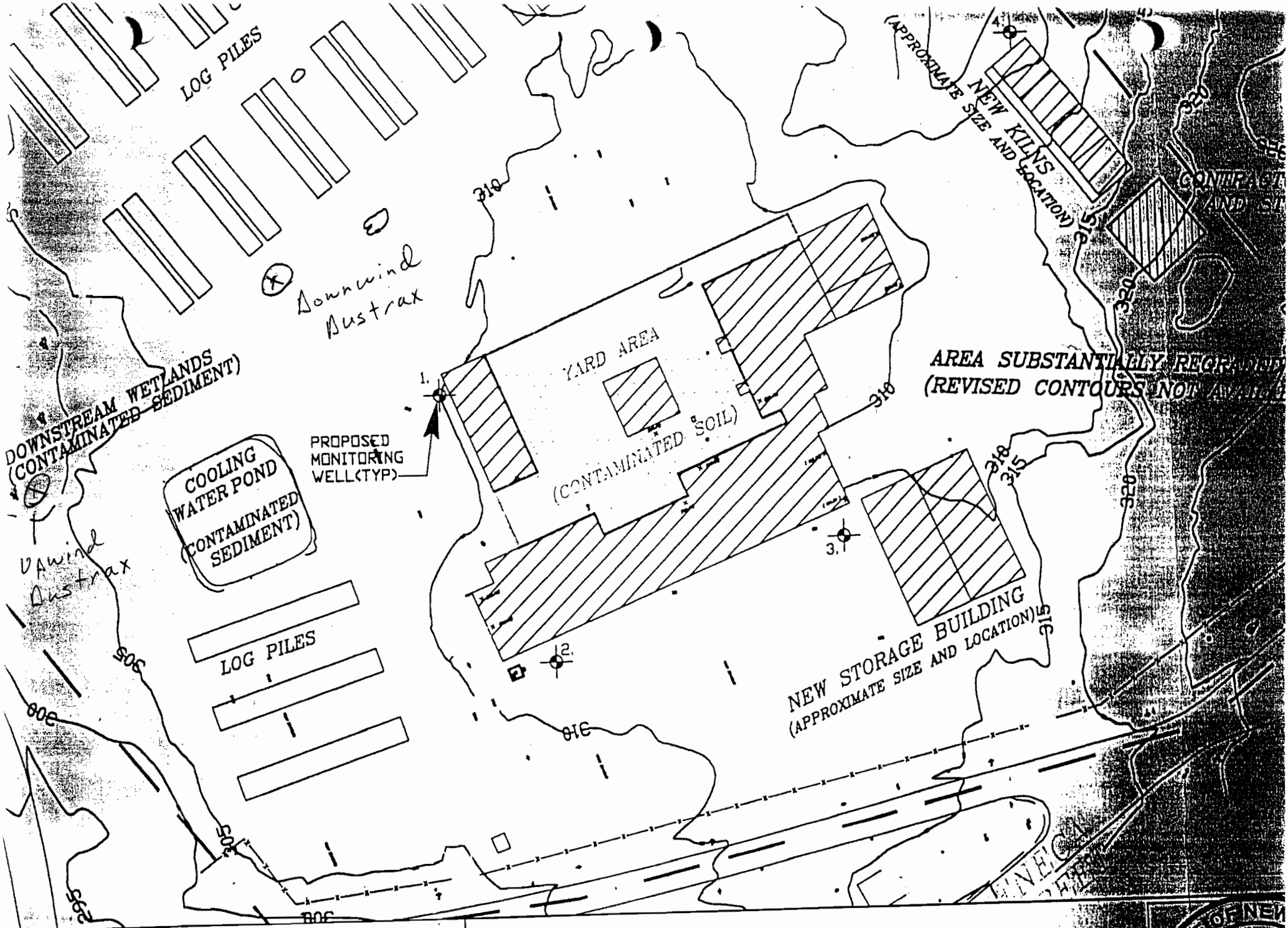
Revised September 1996

Project Name	Project Location	Sampling Date	8-23-01
Oswego Casting (Great Lakes Veneer)	Oswego, New York	Contract Number	D004283

Pump ID No.	Sample Location	Employee	Start Time	End Time	Duration (min)	Flow Rate (l/min)	Air Volume (l)	Analysis Required
21593	Upwind	DUSTRAX	10.30	3:00	270	2.0	540	N/A
575876	" "	Total Dust ID #	10.30	3:00	↓	2.0	540	TOTAL DUST
624512	" "	PCB (Florisil) ID #	10.30	3:00	↓	0.2	54	PCB
14217	Downwind	DUSTRAX	10:35	3:05	270	2.0	540	N/A
600763	" "	Total Dust ID #	10:35	3:05	↓	2.0	540	TOTAL DUST
600241	" "	PCB (Florisil) ID #	10:35	3:05	↓	0.2	54	PCB
21589	Work Area	DUSTRAX	—	No	Sample	—	—	N/A
624467	Personal	—	No	Sample	—	—	—	—

Technicians Name	Ashley Coleman ~~Bruce Floyd~~	Date/Time	23 Aug. 01	Signature	Ashley Coleman

Comments: * Ground is dry. Dusty when ~~truck~~ trucks drive through work site. Cloudy, looks like it might rain. Temp. is 74° F. Sky cleared up later in the day.



NOTES:

THE CASING FOR WELL 1 SHALL BE PROTECTED FROM VEHICULAR TRAFFIC WITH [illegible] BOLLARDS SHALL BE 6" STEEL CASING FILLED WITH CONCRETE.

23 August 2001

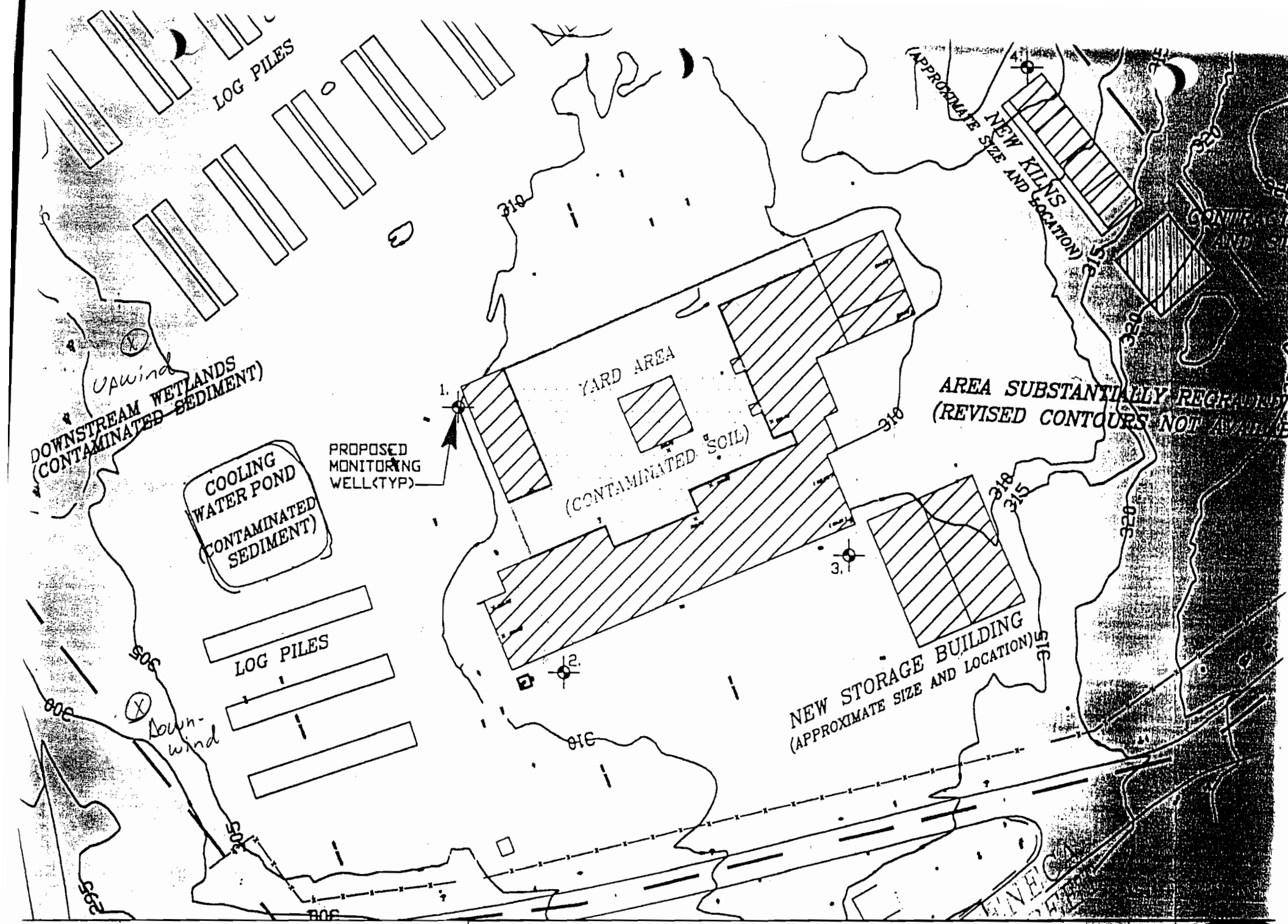
Air Monitoring Data Sheet

Revised September 1996

Project Name	Project Location	Sampling Date	8-24-01
Oswego Casting (Great Lakes Veneer)	Oswego, New York	Contract Number	D004283

Pump ID No.	Sample Location	Employee	Start Time	End Time	Duration (min)	Flow Rate (l/min)	Air Volume (l)	Analysis Required
21593	Upwind	DUSTRAX	10:30	3:00	270	2.0	540	N/A
575876	" "	Total Dust IA #	10:30	3:00	270	2.0	540	TOTAL DUST
624512	" "	ACB (Florisil) IA #	10:30	3:00	270	0.2	540	PCB
14217	Downwind	DUSTRAX	10:35	3:05	270	2.0	540	N/A
600763	" "	Total Dust IA #	10:35	3:05	270	2.0	540	TOTAL DUST
600241	" "	ACB (Florisil) IA #	10:35	3:05	270	0.2	540	PCB
21589	Work Area	DUSTRAX	—	—	No Sample	—	—	N/A
624467	Personal	—	—	No Sample	—	—	—	—

Technicians Name	~~Bruce Floyd~~ Ashley Coleman	Date/Time	8-24-01	Signature	Ashley Coleman
Comments	Ground is very dry. Breezy clear skies. Tempeture is 70°F				



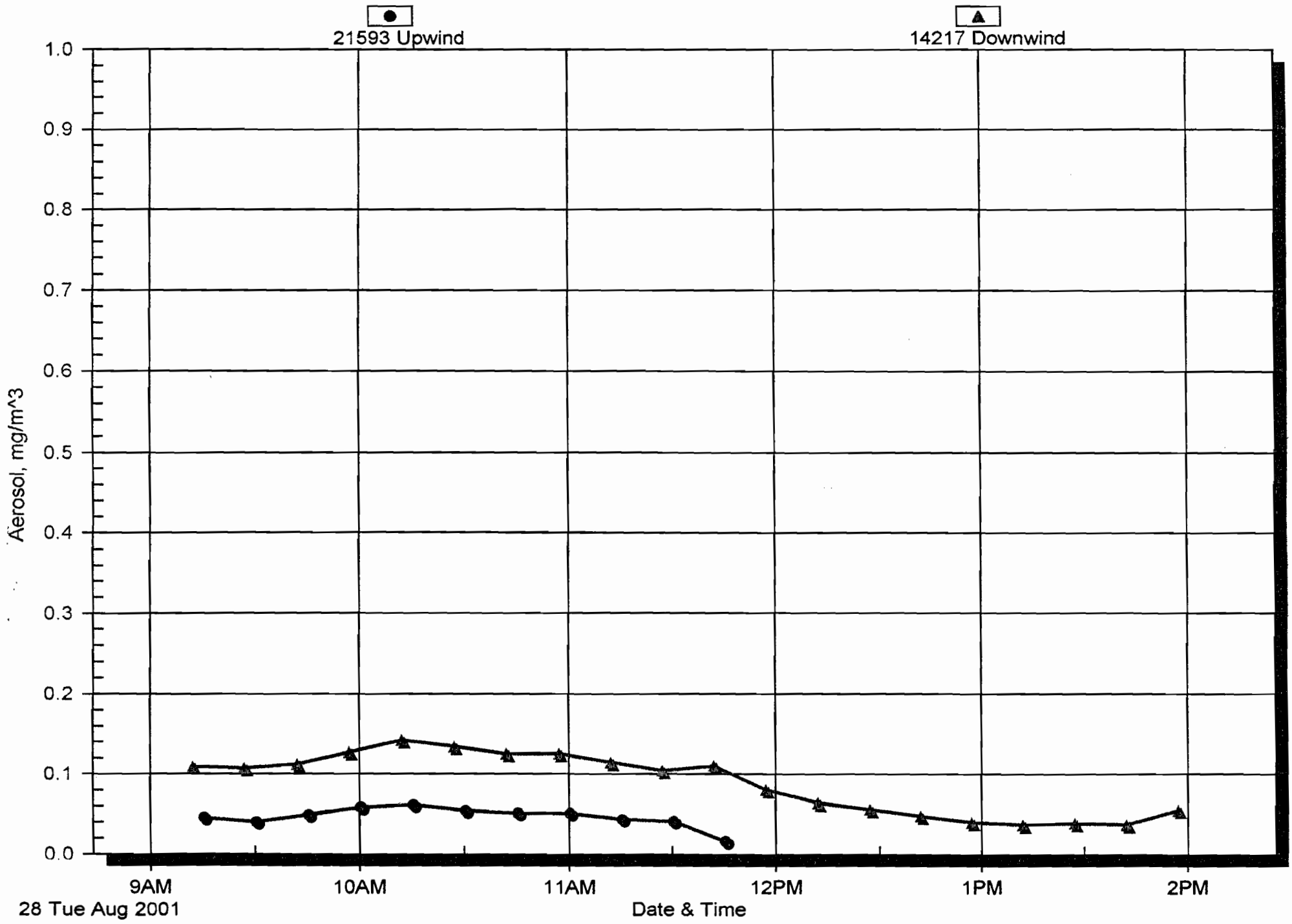
NOTES:

THE CASING FOR WELL 1 SHALL BE PROTECTED FROM VEHICULAR TRAFFIC WITH ... SHALL BE 6" STEEL CASING FILLED WITH CONCRETE.

August 28, 2001

Great La[illegible]s Veneer

28 August, 2001



Current Graph: OCGLV 28TH
Start time: 08:57:10 08/28/2001 Stop time: 14:15:27 08/28/2001

Legend: 21593 Upw. 14217 Downwind

Channel:	Aerosol	Aerosol
(Units)	mg/m^3	mg/m^3
Average:	-0.024	0.088
Lowest point:	-0.121	0.037
Time	12:45:27	13:12:10
Date	08/28/2001	08/28/2001
Highest point:	0.061	0.142
Time	10:15:27	10:12:10
Date	08/28/2001	08/28/2001
Log interval: hh:mm:ss	00:15:00	00:15:00

Oswego Castings/Grea[illegible]es Veneer 8/28/01

Date	Time	Temp Out	Heat Index	Wind Chill	Hi Temp	Low Temp	Hum Out	Dew Pt.	Wind Speed	Hi	Dir	Rain	Bar	Temp In	Hum In	Arc Per
8/28/01	12:00a	64.3	64.5	64.3	64.3	63.7	93	62.2	0.0	5.0	SSW	0.00	30.006	64.1	49	30
8/28/01	12:30a	63.9	64.3	63.9	64.3	63.9	96	62.7	0.0	2.0	SW	0.00	30.010	64.3	49	30
8/28/01	1:00a	63.5	63.9	63.5	63.9	63.5	97	62.6	0.0	3.0	SSW	0.00	30.010	64.3	49	30
8/28/01	1:30a	63.7	64.0	63.7	63.7	63.4	96	62.5	1.0	7.0	SSW	0.00	29.997	64.1	49	30
8/28/01	2:00a	63.5	63.9	63.5	63.9	63.5	98	62.9	2.0	5.0	SW	0.00	29.995	64.1	49	30
8/28/01	2:30a	63.5	64.1	63.5	63.7	63.5	100	63.5	1.0	5.0	SW	0.00	29.991	64.1	49	30
8/28/01	3:00a	62.9	63.4	62.9	63.5	62.9	100	62.9	0.0	3.0	SSW	0.00	29.984	64.1	49	30
8/28/01	3:30a	62.7	63.1	62.7	62.9	62.7	100	62.7	0.0	5.0	SW	0.00	29.986	64.0	49	30
8/28/01	4:00a	62.1	62.4	62.1	62.7	62.1	100	62.1	0.0	3.0	SW	0.00	29.992	63.8	49	30
8/28/01	4:30a	61.5	61.8	61.5	62.1	61.5	100	61.5	0.0	5.0	SSW	0.00	29.995	63.8	49	30
8/28/01	5:00a	61.3	61.5	61.3	61.5	61.3	100	61.3	1.0	6.0	SSW	0.00	29.999	63.6	49	30
8/28/01	5:30a	61.2	61.4	61.2	61.3	61.2	100	61.2	1.0	7.0	SSW	0.00	29.989	63.5	49	30
8/28/01	6:00a	61.2	61.4	61.2	61.2	61.2	100	61.2	1.0	6.0	SSW	0.00	29.976	63.3	49	30
8/28/01	6:30a	61.2	61.3	61.2	61.2	61.2	99	60.9	1.0	6.0	SSW	0.00	29.972	63.2	49	30
8/28/01	7:00a	62.3	62.4	62.3	62.3	61.2	97	61.4	1.0	7.0	SSW	0.00	29.987	63.6	51	30
8/28/01	7:30a	62.9	62.9	62.9	62.9	62.3	94	61.1	2.0	6.0	SSW	0.00	29.993	64.9	51	30
8/28/01	8:00a	64.3	64.6	64.3	64.3	62.9	94	62.5	1.0	6.0	SSW	0.00	29.972	66.7	66	30
8/28/01	8:30a	65.2	65.8	65.2	65.2	64.3	96	64.0	1.0	3.0	ENE	0.00	29.980	66.2	60	30
8/28/01	9:00a	65.8	66.7	65.8	65.8	65.2	97	64.9	0.0	5.0	ESE	0.00	29.983	66.7	62	30
8/28/01	9:30a	65.0	65.8	65.0	65.8	65.0	99	64.7	1.0	7.0	N	0.05	30.056	67.5	65	30
8/28/01	10:00a	64.2	64.9	64.2	65.0	64.2	100	64.2	0.0	2.0	NE	0.08	30.009	67.9	65	30
8/28/01	10:30a	63.7	64.3	63.7	64.2	63.7	100	63.7	0.0	3.0	SSW	0.02	30.004	68.2	65	30
8/28/01	11:00a	63.9	64.6	63.9	64.0	63.7	100	63.9	1.0	6.0	SSW	0.00	29.991	67.4	61	30
8/28/01	11:30a	65.0	65.9	65.0	65.0	63.9	100	65.0	2.0	7.0	SSW	0.00	29.983	68.2	68	30
8/28/01	12:00p	66.1	67.3	66.1	66.1	65.0	100	66.1	3.0	11.0	SSW	0.00	29.979	69.7	70	30
8/28/01	12:30p	68.3	70.3	68.3	68.3	66.1	97	67.4	3.0	11.0	SW	0.00	29.978	69.4	67	30
8/28/01	1:00p	69.9	72.7	69.9	70.1	68.3	96	68.7	4.0	12.0	SW	0.00	29.975	70.1	65	30
8/28/01	1:30p	71.5	73.5	71.5	71.6	69.8	91	68.7	2.0	8.0	SW	0.00	29.976	71.2	72	30
8/28/01	2:00p	73.3	75.2	73.3	73.3	71.6	86	68.9	2.0	10.0	SSW	0.00	29.965	71.6	70	30
8/28/01	2:30p	74.0	76.4	74.0	74.0	72.8	90	70.9	3.0	10.0	SW	0.00	29.952	70.9	58	30
8/28/01	3:00p	73.0	74.8	73.0	74.2	73.0	89	69.6	3.0	8.0	SW	0.00	29.950	69.9	56	30
8/28/01	3:30p	71.8	73.6	71.8	73.0	71.8	89	68.4	2.0	8.0	SW	0.00	29.957	69.4	57	30
8/28/01	4:00p	72.7	74.7	72.7	72.8	71.6	91	69.9	1.0	8.0	WSW	0.00	29.966	69.0	60	30
8/28/01	4:30p	72.3	74.6	72.3	72.7	72.3	93	70.2	1.0	7.0	N	0.00	29.980	69.6	63	30
8/28/01	5:00p	72.7	74.5	72.7	72.8	72.3	90	69.6	1.0	6.0	N	0.00	29.983	69.9	67	30
8/28/01	5:30p	72.3	74.6	72.3	72.8	72.3	93	70.2	2.0	7.0	N	0.00	29.994	68.9	62	30
8/28/01	6:00p	71.3	74.2	71.3	72.3	71.3	96	70.1	1.0	6.0	N	0.00	29.990	68.2	60	30
8/28/01	6:30p	71.1	74.5	71.1	71.3	70.9	99	70.8	2.0	7.0	N	0.00	30.018	67.2	60	30
8/28/01	7:00p	71.1	73.1	71.1	71.1	70.9	91	68.3	3.0	10.0	N	0.00	30.028	66.7	60	30
8/28/01	7:30p	70.4	73.6	70.4	71.1	70.4	98	69.8	2.0	5.0	N	0.00	30.035	66.9	58	30
8/28/01	8:00p	69.9	73.2	69.9	70.4	69.9	99	69.6	1.0	3.0	NNW	0.00	30.044	67.4	56	30
8/28/01	8:30p	69.8	72.9	69.8	70.1	69.8	98	69.2	1.0	5.0	N	0.00	30.053	66.7	59	30
8/28/01	9:00p	69.6	72.3	69.6	69.8	69.4	96	68.4	0.0	3.0	NNW	0.00	30.069	67.5	59	30
8/28/01	9:30p	69.6	72.9	69.6	69.8	69.6	100	69.6	2.0	6.0	N	0.00	30.079	66.7	55	30
8/28/01	10:00p	69.6	72.9	69.6	69.6	69.4	100	69.6	1.0	5.0	N	0.00	30.092	67.0	58	30
8/28/01	10:30p	69.6	72.7	69.6	69.6	69.6	99	69.3	1.0	5.0	N	0.00	30.093	67.5	59	30
8/28/01	11:00p	69.6	72.4	69.6	69.6	69.6	97	68.7	2.0	6.0	N	0.00	30.094	67.9	60	30
8/28/01	11:30p	68.9	70.7	68.9	69.4	68.9	89	65.5	1.0	5.0	N	0.00	30.100	68.2	60	30
8/28/01	12:00p	66.9	68.0	66.9	68.9	66.9	96	65.7	0.0	1.0	NNE	0.00	30.108	68.2	60	30

Air Monitoring Data Sheet

Revised September 1996

Project Name	Project Location	Sampling Date	8-28-01
Oswego Casting (Great Lakes Veneer)	Oswego, New York	Contract Number	D004283

Pump ID No	Sample Location	Employee	Start Time	End Time	Duration (min)	Flow Rate (l/min)	Air Volume (l)	Analysis Required
21593	UpWIND	DUSTRAX	8:30	2 30	360	2.0	720	N/A
575876	"	Total Dust ID #	8:30	2:30	360	2.0	720	TOTAL DUST
682512	"	PCB (Florisil) ID #	8:30	2:30	360	0.2	72.0	PCB
142117	Downwind	DUSTRAX	8:35	2:35	360	2.0	720	N/A
600763	"	Total Dust ID #	8:35	2:35	360	2.0	720	TOTAL DUST
600244	"	PCB ID #	8:35	2:35	360	0.2	72.0	PCB
21589	Work Area	DUSTRAX		No Sample				N/A
624467	Personal		No Sample					
			No Sample					

Ashley Coleman

Technicians Name	~~Bruce Floyd~~	Date/Time	8-28-01	Signature	Ashley Coleman
Comments	Raining, heavy thunderstorm				

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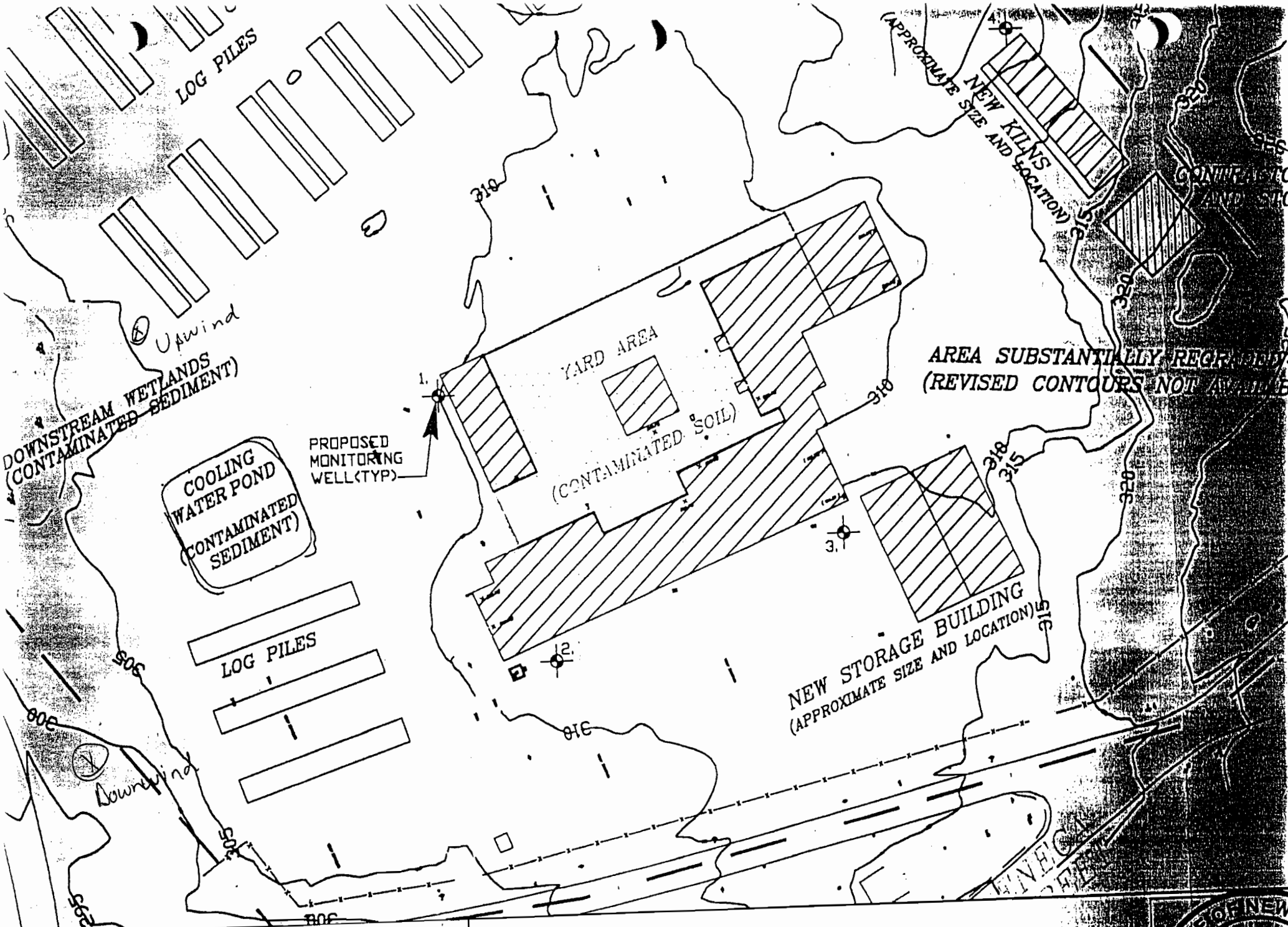


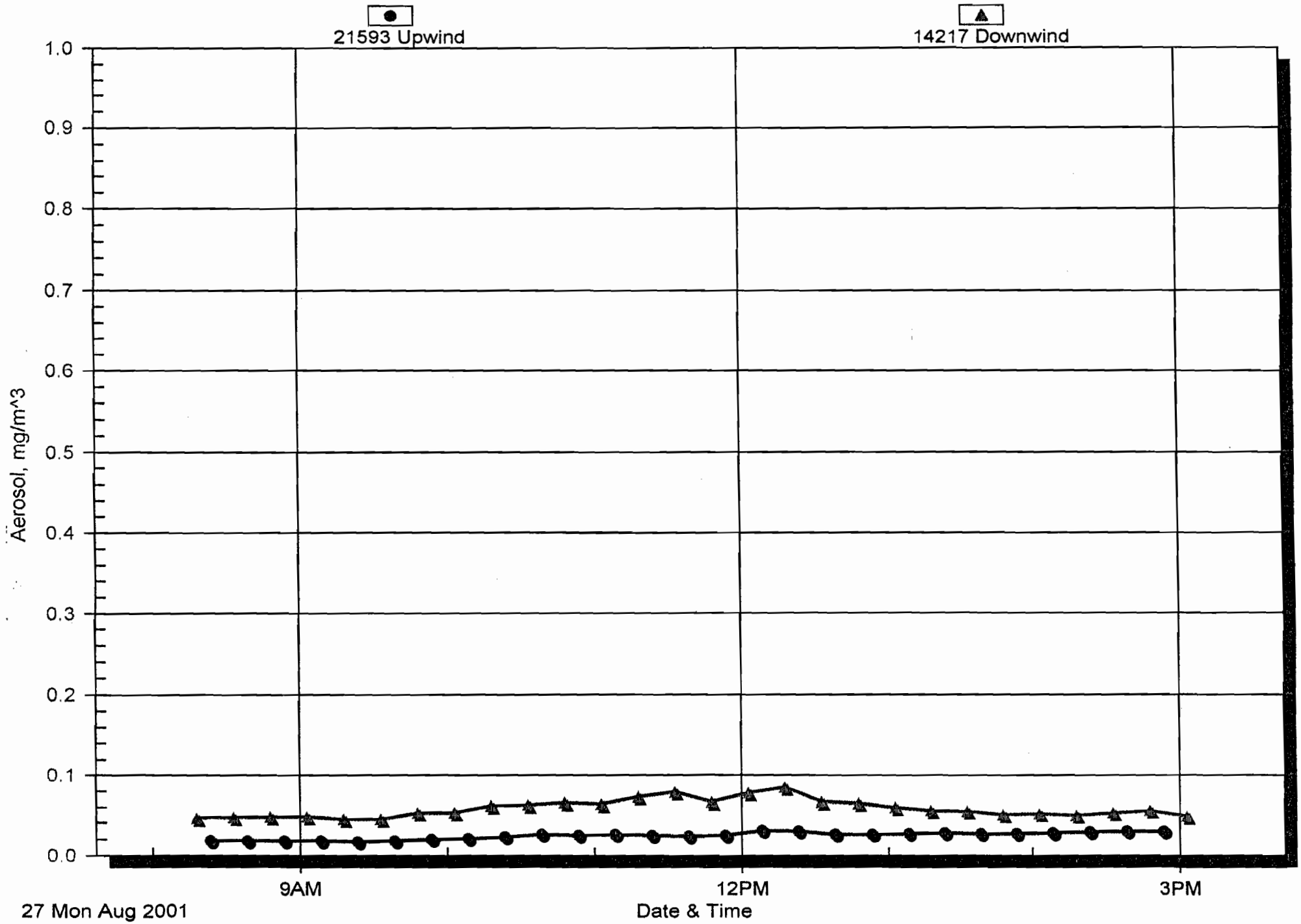
NOTES:

THE CASING FOR WELL SHALL BE PROTECTED FROM VEHICULAR TRAFFIC WITH 4" OR 6" STEEL CASING FILLED WITH CONCRETE.

27 August 2001

Great La[illegible]s Veneer

27 August,2001



Current Graph: OCGLV 27TH
Start time: 08:02:53 08/27/2001 Stop time: 15:02:53 08/27/2001

Legend: 21593 Upw. 14217 Downwind

Channel:	Aerosol	Aerosol
(Units)	mg/m^3	mg/m^3
Average:	0.024	0.058
Lowest point:	0.017	0.045
Time	09:23:27	09:17:53
Date	08/27/2001	08/27/2001
Highest point:	0.031	0.085
Time	12:08:27	12:17:53
Date	08/27/2001	08/27/2001
Log interval: hh:mm:ss	00:15:00	00:15:00

Oswego Castings/Gres es Veneer 8/27/01

Date	Time	Temp Out	Heat Index	Wind Chill	Hi Temp	Low Temp	Hum Out	Dew Pt.	Wind Speed	Hi	Dir	Rain	Bar	Temp In	Hum In	Arc Per
8/27/01	12:00a	70.9	74.5	70.9	71.1	70.9	100	70.9	2.0	7.0	SW	0.00	29.922	61.1	54	30
8/27/01	12:30a	71.3	74.9	71.3	71.3	70.9	100	71.3	2.0	10.0	SW	0.00	29.929	61.6	56	30
8/27/01	1:00a	71.5	75.1	71.5	71.8	71.5	100	71.5	2.0	10.0	WSW	0.00	29.928	61.8	58	30
8/27/01	1:30a	69.4	72.5	68.3	71.5	69.4	100	69.4	5.0	16.0	N	0.00	29.942	61.8	58	30
8/27/01	2:00a	68.9	71.3	68.9	69.4	68.9	97	68.0	4.0	13.0	N	0.00	29.946	61.4	58	30
8/27/01	2:30a	68.3	70.4	68.3	68.9	68.3	100	68.3	3.0	7.0	N	0.00	29.954	61.0	57	30
8/27/01	3:00a	68.4	70.5	67.2	68.6	68.3	98	67.8	5.0	12.0	N	0.00	29.959	60.7	56	30
8/27/01	3:30a	67.8	69.5	66.6	68.4	67.8	100	67.8	5.0	11.0	N	0.00	29.964	60.2	55	30
8/27/01	4:00a	67.6	69.3	67.6	67.8	67.6	100	67.6	3.0	10.0	N	0.00	29.967	61.1	58	30
8/27/01	4:30a	67.8	69.4	67.8	67.9	67.6	94	66.0	3.0	10.0	N	0.00	29.971	60.3	57	30
8/27/01	5:00a	67.6	69.2	67.6	67.8	67.6	97	66.7	3.0	8.0	N	0.00	29.976	60.3	55	30
8/27/01	5:30a	67.6	69.1	67.6	67.6	67.6	94	65.8	3.0	7.0	N	0.00	29.987	61.1	57	30
8/27/01	6:00a	67.4	68.7	67.4	67.6	67.4	94	65.6	2.0	6.0	NNW	0.00	29.997	60.2	56	30
8/27/01	6:30a	67.4	68.6	67.4	67.4	67.3	92	65.0	1.0	5.0	NNW	0.00	30.005	61.3	57	30
8/27/01	7:00a	67.4	68.5	67.4	67.4	67.3	90	64.4	1.0	3.0	NNW	0.00	30.015	60.7	58	30
8/27/01	7:30a	67.3	68.4	67.3	67.6	67.3	92	64.9	2.0	6.0	NNW	0.00	30.025	62.4	59	30
8/27/01	8:00a	68.4	70.2	68.4	68.4	67.1	87	64.4	2.0	6.0	NNW	0.00	30.032	63.6	60	30
8/27/01	8:30a	68.4	70.3	68.4	68.6	68.3	92	66.0	2.0	7.0	N	0.00	30.044	64.6	61	30
8/27/01	9:00a	68.1	69.9	68.1	68.4	68.1	92	65.7	2.0	10.0	N	0.00	30.047	64.8	57	30
8/27/01	9:30a	68.1	69.9	68.1	68.1	67.9	89	64.7	2.0	7.0	NNW	0.00	30.045	64.8	61	30
8/27/01	10:00a	68.6	70.5	68.6	68.8	68.1	91	65.9	2.0	7.0	N	0.00	30.049	64.0	57	30
8/27/01	10:30a	69.3	71.1	69.3	69.3	68.4	89	65.9	2.0	7.0	N	0.00	30.051	64.1	54	30
8/27/01	11:00a	69.3	71.1	69.3	69.4	69.3	89	65.9	2.0	8.0	N	0.00	30.057	65.4	54	30
8/27/01	11:30a	69.1	70.9	69.1	69.8	69.1	87	65.1	2.0	7.0	N	0.00	30.064	65.8	56	30
8/27/01	12:00p	69.8	71.6	69.8	69.8	68.9	83	64.4	2.0	5.0	N	0.00	30.066	65.9	55	30
8/27/01	12:30p	70.9	72.7	70.9	71.3	69.8	80	64.4	2.0	6.0	N	0.00	30.061	67.5	58	30
8/27/01	1:00p	72.0	73.8	72.0	72.0	70.8	83	66.6	1.0	6.0	N	0.00	30.055	66.9	52	30
8/27/01	1:30p	71.8	73.3	71.8	72.8	71.8	78	64.6	1.0	5.0	N	0.00	30.057	66.4	52	30
8/27/01	2:00p	73.3	75.1	73.3	73.3	71.8	80	66.8	2.0	6.0	N	0.00	30.051	67.0	52	30
8/27/01	2:30p	73.3	75.0	73.3	73.9	73.2	78	66.0	2.0	8.0	N	0.00	30.048	66.7	52	30
8/27/01	3:00p	74.0	75.8	74.0	74.7	73.3	78	66.7	2.0	8.0	N	0.00	30.039	66.1	51	30
8/27/01	3:30p	74.7	76.6	74.7	74.9	74.0	81	68.5	2.0	7.0	N	0.00	30.039	66.6	56	30
8/27/01	4:00p	73.9	75.8	73.9	74.7	73.7	82	68.1	2.0	7.0	N	0.00	30.031	66.7	51	30
8/27/01	4:30p	73.3	75.2	73.3	73.9	73.2	84	68.2	2.0	6.0	N	0.00	30.024	66.2	52	30
8/27/01	5:00p	73.2	75.1	73.2	73.5	73.2	85	68.4	2.0	5.0	N	0.00	30.019	65.6	55	30
8/27/01	5:30p	73.2	75.0	73.2	73.3	73.2	81	67.0	1.0	3.0	N	0.00	30.016	64.3	54	30
8/27/01	6:00p	73.3	75.1	73.3	73.3	73.2	79	66.4	0.0	2.0	N	0.00	30.005	63.2	53	30
8/27/01	6:30p	72.8	74.6	72.8	73.3	72.8	81	66.6	1.0	2.0	N	0.00	30.000	63.0	50	30
8/27/01	7:00p	72.5	74.3	72.5	72.8	72.5	81	66.3	0.0	1.0	N	0.00	29.999	62.9	50	30
8/27/01	7:30p	71.3	73.1	71.3	72.5	71.3	90	68.2	0.0	0.0	N	0.00	30.001	62.7	50	30
8/27/01	8:00p	67.6	69.2	67.6	71.3	67.6	97	66.7	0.0	1.0	N	0.00	30.003	62.5	48	30
8/27/01	8:30p	65.0	65.8	65.0	67.6	65.0	99	64.7	0.0	1.0	N	0.00	30.009	63.5	51	30
8/27/01	9:00p	64.0	64.4	64.0	65.0	64.0	96	62.8	0.0	1.0	SW	0.00	30.010	63.0	50	30
8/27/01	9:30p	64.0	64.1	64.0	64.0	63.9	93	61.9	0.0	0.0	N	0.00	30.012	62.2	49	30
8/27/01	10:00p	63.4	63.4	63.4	64.0	63.4	93	61.3	0.0	2.0	SSW	0.00	30.011	63.2	50	30
8/27/01	10:30p	64.3	64.3	64.3	64.3	63.4	91	61.6	0.0	3.0	SSW	0.00	30.012	63.6	49	30
8/27/01	11:00p	64.0	64.3	64.0	64.5	64.0	95	62.5	0.0	1.0	SSE	0.00	30.007	64.0	49	30
8/27/01	11:30p	63.7	63.9	63.7	64.0	63.5	95	62.2	0.0	2.0	SSW	0.00	30.007	64.1	49	30
8/27/01	12:00p	64.3	64.5	64.3	64.3	63.7	93	62.2	0.0	5.0	SSW	0.00	30.006	64.1	49	30

Air Monitoring Data Sheet

Revised September 1996

Project Name	Project Location	Sampling Date	8-27-01
Oswego Casting (Great Lakes Veneer)	Oswego, New York	Contract Number	D004283

Pump ID No	Sample Location	Employee	Start Time	End Time	Duration (min)	Flow Rate (l/min)	Air Volume (l)	Analysis Required
21593	Upwind	DUSTRAK	7:30	3:00	450	2.0	900	N/A
6757376	"	Total Dust ID #	7:30	3:00	↓	2.0	900	TOTAL DUST
624512	"	ACB (Florisil) ID #	7:30	3:00	↓	0.2	90	PCB
14217	Downwind	DUSTRAK	7:35	3:05	450	2.0	900	N/A
600763	"	Total Dust ID #	7:35	3:05	↓	2.0	900	TOTAL DUST
600244	"	PCB (Florisil) ID #	7:35	3:05	↓	0.2	90	PCB
21589	Work Area	DUSTRAK	No Sample					N/A
624767	Personal	No Sample						

Technicians Name	Ashley Coleman ~~Bruce Floyd~~	Date/Time	8-27-01	Signature	Ashley Coleman
Comments	Ground is saturated because it rained Sunday night.				

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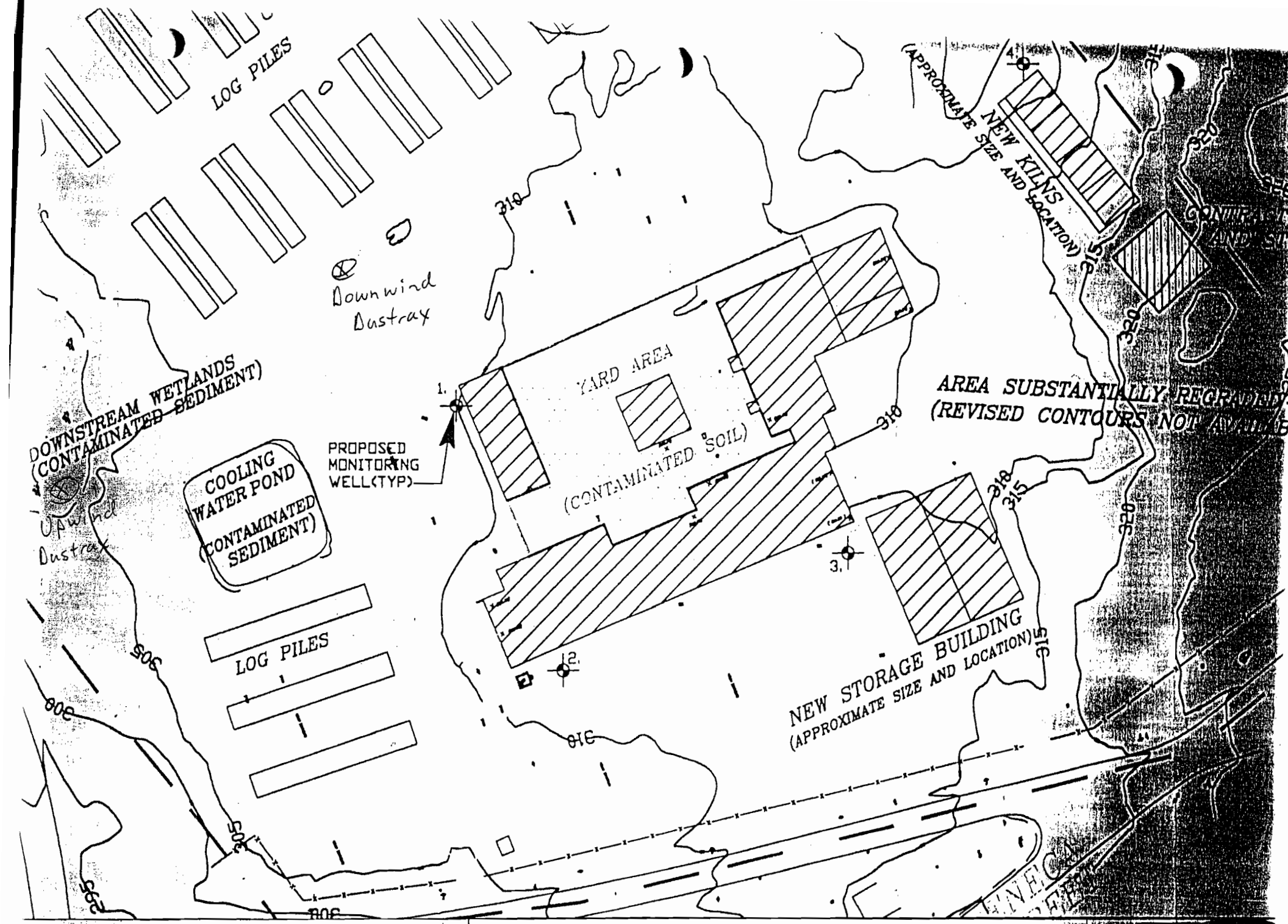


NOTES:

THE CASING FOR WELL 1 SHALL BE PROTECTED FROM VEHICULAR TRAFFIC WITH [illegible] SHALL BE 6" STEEL CASING FILLED WITH CONCRETE.

August 24, 2001

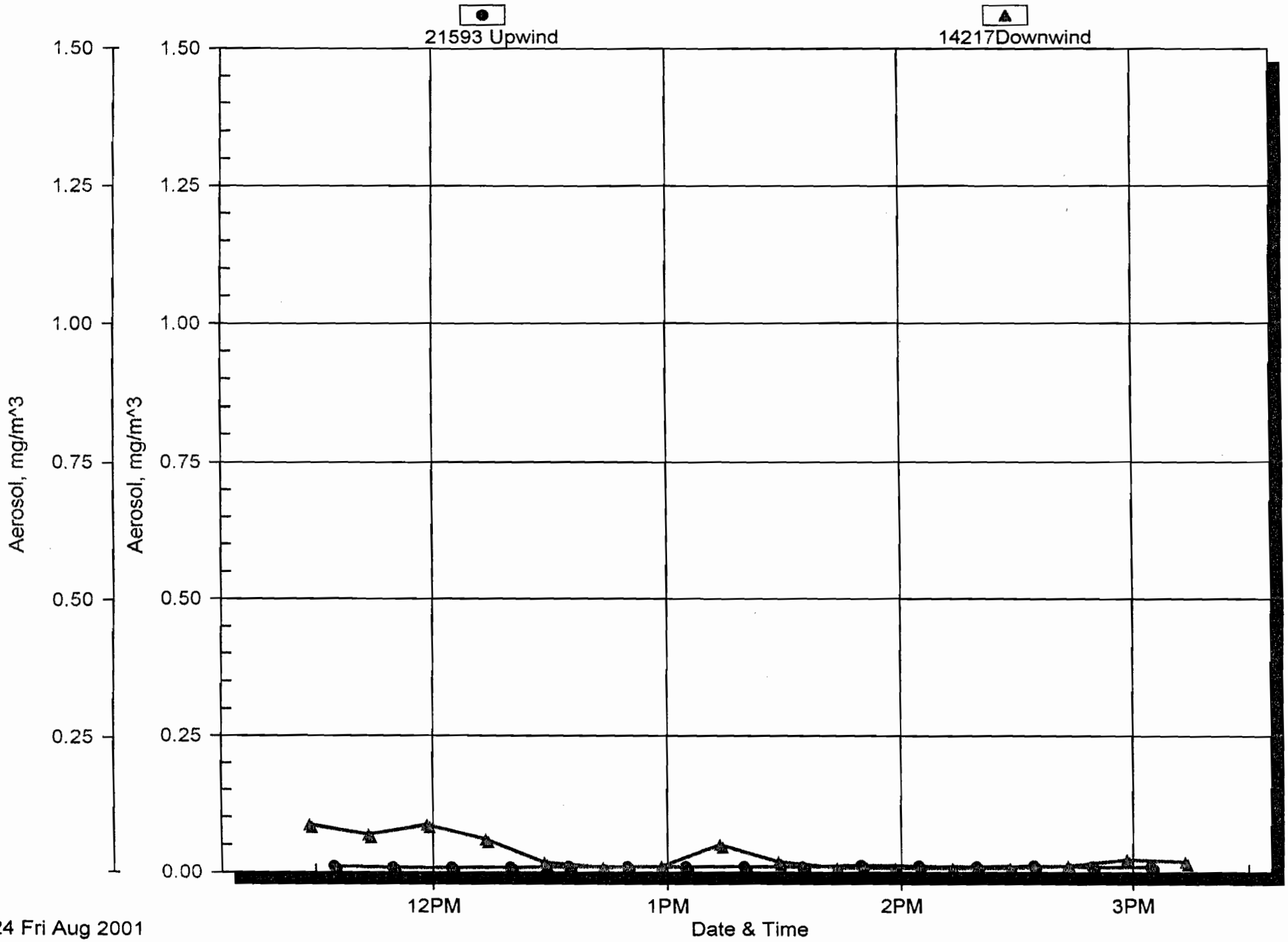
Current Graph: OSGLV
Start time: 11:13:26 08/24/2001 Stop time: 15:13:26 08/24/2001

Legend: 21593 Upw. 14217Downwind

Channel:	Aerosol	Aerosol
(Units)	mg/m^3	mg/m^3
Average:	0.010	0.035
Lowest point:	0.009	0.012
Time	11:49:38	13:58:26
Date	08/24/2001	08/24/2001
Highest point:	0.013	0.090
Time	13:49:38	11:28:26
Date	08/24/2001	08/24/2001
Log interval: hh:mm:ss	00:15:00	00:15:00

Great La. s Veneer

24 August,2001



24 Fri Aug 2001

Air Monitoring Data Sheet

Revised September 1996

Project Name	Project Location	Sampling Date	8-30-01
Oswego Casting (Great Lakes Veneer)	Oswego, New York	Contract Number	D004283

Pump ID / Filter No	Sample Location	Employee	Start Time	End Time	Duration (min)	Flow Rate (l/min)	Air Volume (l)	Analysis Required
21593	Upwind	DUSTRAX	7:40	17:15	515	2.0	—	N/A
675876	"	Total Dust ID # OCUW30-8D	7:40	↓	1	2.0	1030	TOTAL DUST
684512	"	PCB (Florisil) ID # OCUW30	7:40	↓	1	0.2	103.0	PCB
14217	Downwind	DUSTRAX	7:45	↓	510	2.0	~~1020~~ 1019	N/A
600763	"	Total Dust ID # OCDW30-8D	7:45	↓	1	2.0	1020	TOTAL DUST
600244	"	PCB (Florisil) ID # OCDW30	7:45	—	1	0.2	102.0	PCB
21589	Work Area	DUSTRAX	—	No	Sample	—	—	N/A
624467	Personal	—	—	No	Sample	—	—	—

Technicians Name	~~Bruce Floyd~~ Ashley Coleman	Date/Time	8-30-01	Signature	Ashley Coleman
Comments					

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Oswego Castings/Great[illegible]ss Veneer 8/30/01

Date	Time	Temp Out	Heat Index	Wind Chill	Hi Temp	Low Temp	Hum Out	Dew Pt.	Wind Speed	Hi	Dir	Rain	Bar	Temp In	Hum In	Arc Per
8/30/01	12:00a	56.3	56.3	56.3	56.3	56.0	93	54.3	0.0	2.0	S	0.00	30.227	62.2	49	30
8/30/01	12:30a	56.3	56.3	56.3	56.3	56.0	92	54.0	0.0	2.0	SSW	0.00	30.220	61.8	49	30
8/30/01	1:00a	56.3	56.3	56.3	56.6	56.3	92	54.0	0.0	3.0	S	0.00	30.222	61.4	49	30
8/30/01	1:30a	55.9	55.9	55.9	56.3	55.9	95	54.5	0.0	2.0	S	0.00	30.220	61.1	49	30
8/30/01	2:00a	55.6	55.6	55.6	55.9	55.6	96	54.5	0.0	3.0	S	0.00	30.220	60.8	48	30
8/30/01	2:30a	55.3	55.3	55.3	55.6	55.3	97	54.5	0.0	3.0	SSW	0.00	30.221	60.5	48	30
8/30/01	3:00a	55.0	55.0	55.0	55.3	55.0	96	53.9	0.0	2.0	SSW	0.00	30.219	60.0	48	30
8/30/01	3:30a	55.1	55.1	55.1	55.1	55.0	94	53.4	0.0	2.0	S	0.00	30.217	59.7	48	30
8/30/01	4:00a	54.2	54.2	54.2	55.1	54.2	95	52.8	0.0	2.0	S	0.00	30.216	59.4	48	30
8/30/01	4:30a	54.1	54.1	54.1	54.2	54.1	94	52.4	1.0	5.0	S	0.00	30.216	59.1	48	30
8/30/01	5:00a	53.6	53.6	53.6	54.1	53.6	95	52.2	0.0	3.0	SSW	0.00	30.230	58.8	48	30
8/30/01	5:30a	53.6	53.6	53.6	53.9	53.6	97	52.8	1.0	6.0	SSW	0.00	30.232	58.4	48	30
8/30/01	6:00a	53.2	53.2	53.2	53.6	53.2	100	53.2	1.0	7.0	SSW	0.00	30.235	58.1	48	30
8/30/01	6:30a	52.8	52.8	52.8	53.2	52.8	100	52.8	1.0	5.0	SSW	0.00	30.241	57.7	48	30
8/30/01	7:00a	53.3	53.3	53.3	53.3	52.6	100	53.3	1.0	5.0	SSW	0.00	30.241	58.1	54	30
8/30/01	7:30a	55.1	55.1	55.1	55.1	53.3	99	54.8	1.0	7.0	SSW	0.00	30.248	59.6	66	30
8/30/01	8:00a	57.8	57.5	57.8	57.8	55.1	97	57.0	1.0	7.0	SSW	0.00	30.244	61.6	66	30
8/30/01	8:30a	60.7	60.0	60.7	60.9	57.8	89	57.4	2.0	7.0	SSW	0.00	30.227	64.6	67	30
8/30/01	9:00a	63.1	62.5	63.1	63.1	60.9	86	58.8	2.0	11.0	SSW	0.00	30.204	67.2	64	30
8/30/01	9:30a	66.1	65.4	66.1	66.1	63.2	77	58.7	2.0	8.0	SSW	0.00	30.192	69.7	62	30
8/30/01	10:00a	68.4	69.5	68.4	68.4	66.1	76	60.5	2.0	11.0	SSW	0.00	30.185	70.6	58	30
8/30/01	10:30a	70.3	70.3	70.3	70.4	68.4	69	59.6	2.0	10.0	SSW	0.00	30.170	70.2	53	30
8/30/01	11:00a	72.8	73.2	72.8	72.8	70.3	63	59.5	2.0	12.0	SSW	0.00	30.172	70.4	55	30
8/30/01	11:30a	74.7	75.4	74.7	74.7	72.8	64	61.7	2.0	10.0	SSW	0.00	30.153	69.7	53	30
8/30/01	12:00p	75.6	75.8	75.6	75.8	74.7	61	61.2	3.0	12.0	SW	0.00	30.147	69.7	57	30
8/30/01	12:30p	76.7	76.9	76.7	76.7	75.6	61	62.2	3.0	10.0	SW	0.00	30.136	68.5	53	30
8/30/01	1:00p	78.1	78.9	78.1	78.3	76.7	57	61.6	3.0	10.0	SSW	0.00	30.128	69.4	54	30
8/30/01	1:30p	79.2	79.6	79.2	79.2	78.1	52	60.1	4.0	10.0	SSW	0.00	30.119	70.7	57	30
8/30/01	2:00p	81.4	81.7	81.4	81.4	79.2	44	57.4	3.0	12.0	SW	0.00	30.114	70.7	53	30
8/30/01	2:30p	81.8	82.4	81.8	82.0	81.1	45	58.4	3.0	10.0	SW	0.00	30.103	69.7	54	30
8/30/01	3:00p	82.2	82.8	82.2	82.4	81.4	44	58.1	2.0	10.0	WSW	0.00	30.089	68.2	53	30
8/30/01	3:30p	79.2	80.3	79.2	82.4	79.2	56	62.1	1.0	6.0	N	0.00	30.093	66.2	50	30
8/30/01	4:00p	79.6	79.8	79.6	79.9	78.5	51	59.9	1.0	6.0	N	0.00	30.074	67.0	54	30
8/30/01	4:30p	79.4	80.1	79.4	79.6	79.0	54	61.3	2.0	5.0	N	0.00	30.065	64.8	52	30
8/30/01	5:00p	78.8	78.8	78.8	79.8	78.8	47	56.9	1.0	5.0	N	0.00	30.056	65.1	50	30
8/30/01	5:30p	77.6	77.7	77.6	78.8	77.6	52	58.6	2.0	5.0	N	0.00	30.048	65.8	52	30
8/30/01	6:00p	77.0	77.0	77.0	77.6	77.0	60	62.0	1.0	5.0	N	0.00	30.046	63.8	55	30
8/30/01	6:30p	76.8	76.8	76.8	77.2	76.8	60	61.9	1.0	3.0	NNE	0.00	30.033	65.1	52	30
8/30/01	7:00p	75.6	77.2	75.6	76.8	75.6	69	64.7	0.0	1.0	S	0.00	30.016	64.5	51	30
8/30/01	7:30p	73.5	75.3	73.5	75.6	73.5	79	66.6	0.0	1.0	SSE	0.00	30.015	64.0	52	30
8/30/01	8:00p	70.3	72.1	70.3	73.5	70.3	90	67.2	0.0	2.0	S	0.00	30.010	63.6	51	30
8/30/01	8:30p	69.1	71.1	69.1	70.3	68.9	92	66.7	0.0	2.0	S	0.00	30.012	63.0	51	30
8/30/01	9:00p	70.3	72.1	70.3	70.3	69.1	89	66.9	1.0	5.0	S	0.00	30.019	62.4	50	30
8/30/01	9:30p	71.5	73.3	71.5	71.5	70.3	88	67.8	2.0	5.0	S	0.00	30.017	62.1	50	30
8/30/01	10:00p	71.6	73.4	71.6	71.8	71.5	89	68.2	2.0	8.0	SSW	0.00	30.015	63.6	51	30
8/30/01	10:30p	71.8	73.8	71.8	72.0	71.6	91	69.0	3.0	10.0	SSW	0.00	30.012	62.9	50	30
8/30/01	11:00p	71.5	73.3	71.5	71.8	71.5	89	68.1	3.0	8.0	SSW	0.00	30.004	62.2	50	30
8/30/01	11:30p	71.1	73.3	71.1	71.5	71.1	92	68.7	3.0	10.0	SSW	0.00	29.996	63.6	50	30
8/30/01	12:00p	71.3	73.3	71.3	71.3	71.1	91	68.5	4.0	11.0	SSW	0.00	29.986	63.2	50	30

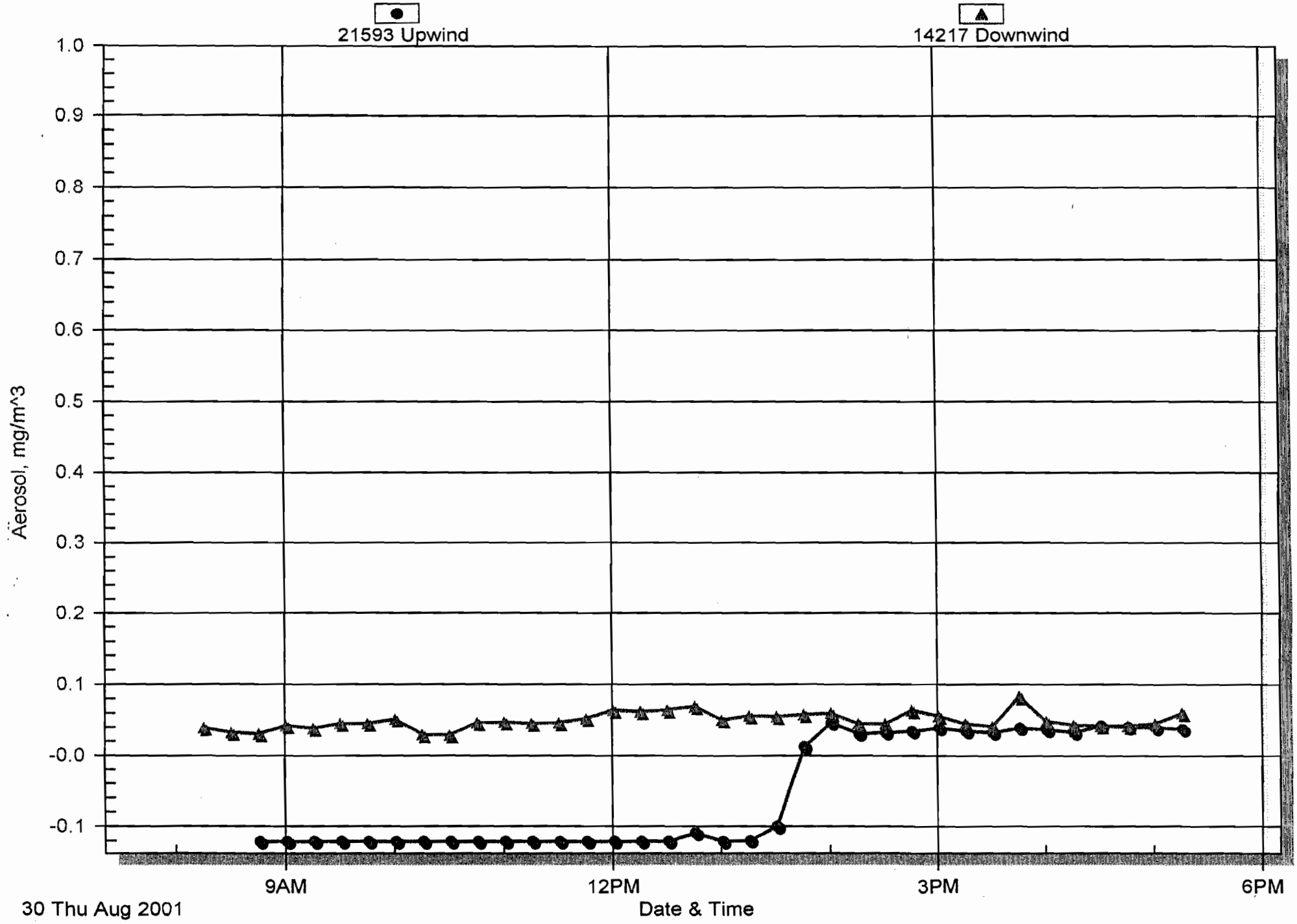
Current Graph: 30th OCGLV
Start time: 08:00:38 08/30/2001 Stop time: 17:15:59 08/30/2001

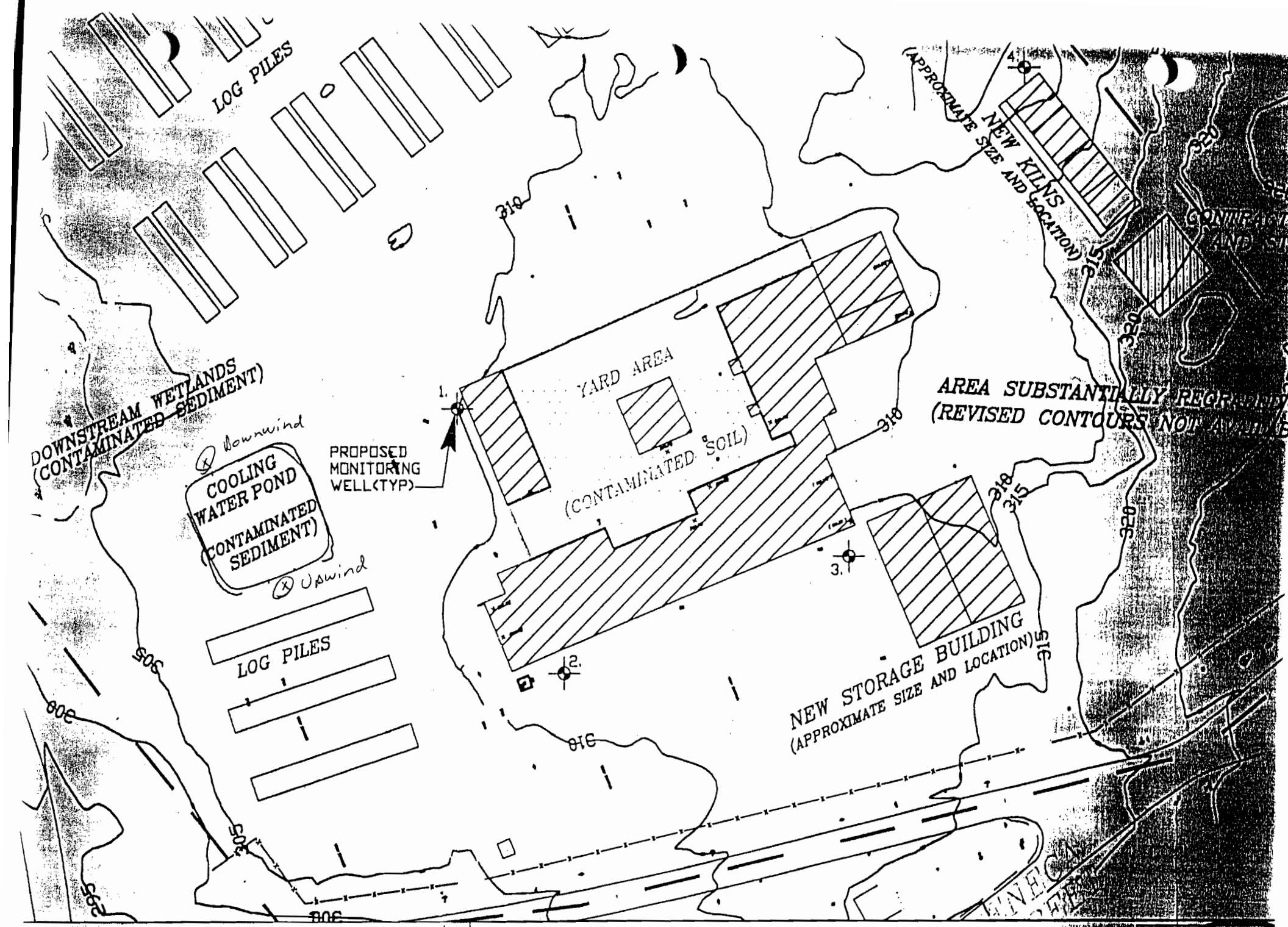
Legend: 21593 Upw. 14217 Downwind

Channel:	Aerosol	Aerosol
(Units)	mg/m^3	mg/m^3
Average:	-0.053	0.049
Lowest point:	-0.121	0.028
Time	08:45:59	10:30:38
Date	08/30/2001	08/30/2001
Highest point:	0.046	0.083
Time	14:00:59	15:45:38
Date	08/30/2001	08/30/2001
Log interval: hh:mm:ss	00:15:00	00:15:00

Great La[illegible]s Veneer

30 August, 2001





OTES:

THE CASING FOR WELL 1 SHALL BE PROTECTED FROM VEHICULAR TRAFFIC WITH ... BE 6" STEEL CASING FILLED WITH CONCRETE.

30 August 2001

Air Monitoring Data Sheet

Revised September 1996

Project Name	Project Location	Sampling Date	
Oswego Casting (Great Lakes Veneer)	Oswego, New York	Contract Number	D004283

Pump ID No.	Sample Location	Employee	Start Time	End Time	Duration (min)	Flow Rate (l/min)	Air Volume (l)	Analysis Required
21593	Upwind	DUSTRAX	12:30	4:00	210	2.0	420.0	N/A
575876	" "	Total Dust ID#	12:30	4:00	210	2.0	420.0	TOTAL DUST
624512	" "	PCB (Florisil) ID#	12:30	4:00	210	0.2	42.0	PCB
14217	Downwind	DUSTRAX	12:35	4:05	210	2.0	420.0	N/A
600763	" "	Total Dust ID#	12:35	4:05	210	2.0	420.0	TOTAL DUST
600241	" "	PCB (Florisil) ID#	12:35	4:05	210	0.2	420.0	PCB
21589	Work Area	DUSTRAX		No Sample				N/A
624467	Personal		No Sample					

Technicians Name	Ashley Coleman ~~Bruce Floyd~~	Date/Time	9-4-01	Signature	Ashley Coleman

Comments:

little dusty from machines being driven around

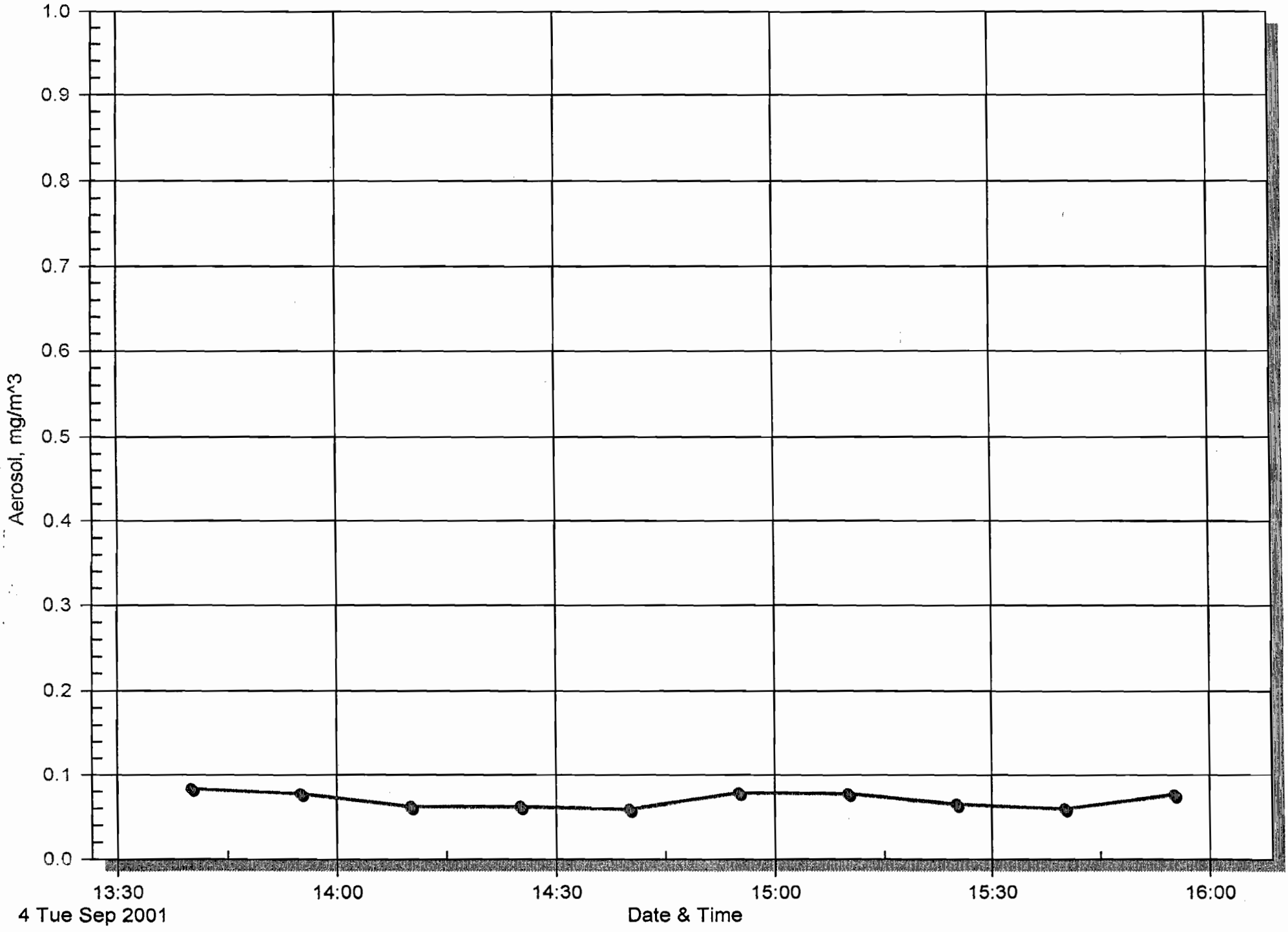
Date	Time	Temp Out	Heat Index	Wind Chill	Hi Temp	Low Temp	Hum Out	Dew Pt.	Wind Speed	Hi	Dir	Rain	Bar	Temp In	Hum In	Arc Per
9/04/01	12:00a	67.3	68.0	67.3	68.1	67.1	86	63.0	2.0	7.0	SSW	0.00	30.023	64.6	46	30
9/04/01	12:30a	67.1	67.7	67.1	67.3	66.9	88	63.4	2.0	6.0	SSW	0.00	30.021	65.1	45	30
9/04/01	1:00a	66.1	66.6	66.1	67.1	66.1	91	63.4	2.0	7.0	SSW	0.00	30.018	65.3	45	30
9/04/01	1:30a	65.6	66.0	65.6	66.1	65.5	92	63.2	2.0	8.0	SSW	0.00	30.009	65.4	45	30
9/04/01	2:00a	65.8	66.4	65.8	66.0	65.6	93	63.7	3.0	8.0	SSW	0.00	29.999	65.6	45	30
9/04/01	2:30a	65.6	66.0	65.6	66.0	65.6	91	62.9	3.0	8.0	SSW	0.00	29.992	65.8	45	30
9/04/01	3:00a	65.5	66.1	65.5	65.6	65.5	94	63.7	3.0	7.0	SSW	0.00	29.986	65.8	45	30
9/04/01	3:30a	65.6	66.0	65.6	65.6	65.5	92	63.2	2.0	8.0	SSW	0.00	29.971	65.9	46	30
9/04/01	4:00a	66.1	66.5	66.1	66.1	65.6	90	63.1	2.0	8.0	SSW	0.00	29.973	65.9	46	30
9/04/01	4:30a	66.4	67.0	66.4	66.6	66.1	92	64.0	2.0	11.0	SW	0.00	29.980	63.8	46	30
9/04/01	5:00a	65.8	66.5	65.8	66.4	65.8	95	64.3	1.0	5.0	SSW	0.00	29.979	64.5	46	30
9/04/01	5:30a	65.6	66.2	65.6	65.8	65.6	94	63.8	1.0	5.0	SSW	0.00	29.987	64.8	45	30
9/04/01	6:00a	65.8	66.5	65.8	65.8	65.6	94	64.0	1.0	7.0	SW	0.00	29.993	64.9	45	30
9/04/01	6:30a	66.6	67.3	66.6	66.6	65.8	92	64.2	2.0	6.0	SW	0.00	29.994	65.1	46	30
9/04/01	7:00a	67.1	67.8	67.1	67.1	66.6	90	64.1	2.0	6.0	SW	0.00	30.002	65.8	49	30
9/04/01	7:30a	67.8	69.4	67.8	67.8	67.1	91	65.1	2.0	7.0	SW	0.00	30.014	64.8	46	30
9/04/01	8:00a	69.1	72.0	69.1	69.1	67.8	100	69.1	1.0	6.0	SW	0.00	30.013	65.9	72	30
9/04/01	8:30a	70.3	73.2	70.3	70.3	69.1	96	69.1	1.0	7.0	N	0.00	30.023	68.9	70	30
9/04/01	9:00a	69.9	71.9	69.9	70.3	69.9	91	67.2	1.0	6.0	N	0.00	30.026	69.9	65	30
9/04/01	9:30a	69.4	71.5	69.4	69.9	69.4	92	67.0	1.0	5.0	N	0.00	30.033	70.9	72	30
9/04/01	10:00a	69.9	71.7	69.9	69.9	69.4	84	64.8	1.0	5.0	N	0.00	30.040	71.6	69	30
9/04/01	10:30a	72.1	73.9	72.1	72.1	69.8	80	65.6	1.0	7.0	NNW	0.00	30.043	73.1	67	30
9/04/01	11:00a	74.4	76.2	74.4	74.4	72.1	74	65.6	1.0	7.0	N	0.00	30.050	75.6	64	30
9/04/01	11:30a	74.7	76.3	74.7	74.7	74.0	69	63.9	2.0	7.0	N	0.00	30.059	75.7	62	30
9/04/01	12:00p	74.9	76.7	74.9	74.9	74.2	71	64.9	2.0	11.0	N	0.00	30.072	77.0	59	30
9/04/01	12:30p	73.3	74.9	73.3	74.9	73.3	73	64.1	3.0	10.0	N	0.00	30.078	78.0	57	30
9/04/01	1:00p	73.7	75.5	73.7	74.0	73.2	79	66.8	3.0	10.0	N	0.00	30.076	78.4	59	30
9/04/01	1:30p	73.0	74.8	73.0	74.2	73.0	79	66.1	3.0	10.0	N	0.00	30.080	76.6	50	30
9/04/01	2:00p	73.0	74.8	73.0	73.2	72.0	80	66.5	4.0	12.0	N	0.00	30.078	71.8	52	30
9/04/01	2:30p	73.2	74.9	72.3	73.3	72.1	77	65.6	5.0	13.0	N	0.00	30.083	69.4	55	30
9/04/01	3:00p	73.7	75.5	73.7	73.7	72.7	81	67.5	3.0	8.0	N	0.00	30.079	67.9	56	30
9/04/01	3:30p	73.2	75.0	73.2	73.7	72.7	83	67.7	4.0	12.0	N	0.00	30.081	67.5	70	30
9/04/01	4:00p	73.7	75.6	73.7	73.7	73.2	83	68.2	2.0	11.0	N	0.00	30.083	70.1	70	30
9/04/01	4:30p	72.5	74.2	72.5	73.7	72.5	79	65.6	3.0	10.0	N	0.00	30.084	70.7	68	30
9/04/01	5:00p	71.6	73.4	71.6	72.5	71.6	80	65.1	3.0	10.0	N	0.00	30.084	67.2	55	30
9/04/01	5:30p	69.4	71.2	67.3	71.6	69.4	80	63.0	6.0	14.0	N	0.00	30.103	64.5	61	30
9/04/01	6:00p	68.8	70.6	65.0	69.4	68.8	83	63.4	8.0	20.0	N	0.00	30.125	63.2	59	30
9/04/01	6:30p	68.1	69.9	65.0	68.8	68.1	82	62.4	7.0	18.0	N	0.00	30.138	62.7	59	30
9/04/01	7:00p	67.6	68.6	64.4	68.1	67.6	81	61.6	7.0	16.0	N	0.00	30.144	62.4	58	30
9/04/01	7:30p	66.3	65.8	62.1	67.6	66.3	79	59.6	8.0	17.0	N	0.00	30.155	61.6	58	30
9/04/01	8:00p	65.3	64.7	60.9	66.3	65.3	81	59.3	8.0	20.0	N	0.00	30.173	63.3	58	30
9/04/01	8:30p	64.8	63.8	60.3	65.3	64.8	77	57.4	8.0	19.0	N	0.00	30.192	62.7	60	30
9/04/01	9:00p	64.5	63.5	60.0	64.8	64.5	78	57.5	8.0	16.0	N	0.00	30.203	61.3	56	30
9/04/01	9:30p	63.7	62.7	60.0	64.5	63.7	79	57.1	7.0	20.0	N	0.00	30.216	62.7	59	30
9/04/01	10:00p	63.1	61.9	59.3	63.7	63.1	78	56.1	7.0	17.0	N	0.00	30.223	63.5	59	30
9/04/01	10:30p	62.6	61.1	57.7	63.1	62.6	76	54.9	8.0	18.0	N	0.00	30.226	61.8	58	30
9/04/01	11:00p	62.1	60.4	57.2	62.6	62.1	73	53.3	8.0	18.0	N	0.00	30.239	62.5	58	30
9/04/01	11:30p	62.0	60.2	58.1	62.1	62.0	73	53.2	7.0	17.0	N	0.00	30.245	63.0	58	30
9/04/01	12:00p	61.8	59.9	57.8	62.0	61.8	71	52.3	7.0	16.0	N	0.00	30.249	63.2	58	30

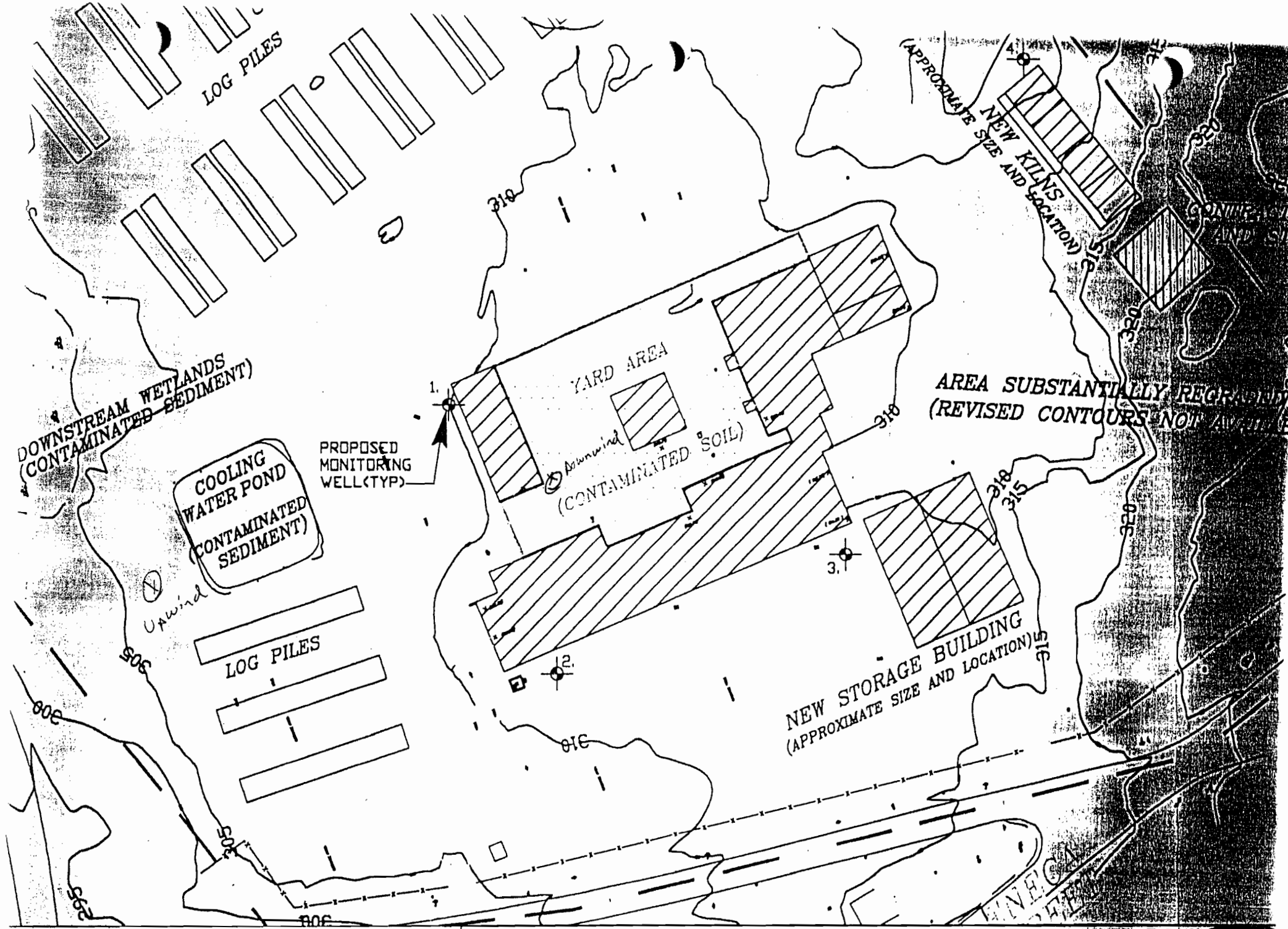
Current Graph: 4thOCGLV
Start time: 13:25:03 09/04/2001 Stop time: 15:55:03 09/04/2001

Legend:	Aerosol
Channel:	Aerosol
(Units)	mg/m^3
Average:	0.070
Lowest point:	0.059
Time	14:40:03
Date	09/04/2001
Highest point:	0.083
Time	13:40:03
Date	09/04/2001
Log interval: hh:mm:ss	00:15:00

Great La. s Veneer

4 September, 2001 Downwind





OTES:

THE CASING FOR WELL 1 SHALL BE PROTECTED FROM VEHICULAR TRAFFIC WITH
... SHALL BE 6" STEEL CASING FILLED WITH CONCRETE.

Sept. 4, 2001

Air Monitoring Data Sheet

Revised September 1996

Project Name	Project Location	Sampling Date	5 Sept. 2001
Oswego Castings (G.L.V.)	Oswego, New York	Contract Number	D00 4283

Pump ID No.	Sample Location	Employee	Start Time	End Time	Duration (min)	Flow Rate (l/min)	Air Volume (l)	Analysis Required
21593	Upwind	DUSTRAK	7:50	3:00	415	2.0	BLANK	—
600241	" "	SAMPLE ID # OCUW5-9D				2.0	830	TOTAL DUST
624512	" "	SAMPLE ID # OCUW5				.2	83.0	PCB
14217	Down wind	DUSTRAK			395	2.0	—	—
575876	" "	SAMPLE ID # OCDW5-9D				2.0	790	TOTAL DUST
600763	" "	SAMPLE ID # OCDW5				.2	79.0	PCB
		NOTHING FOLLOWS						

Technicians Name	Bruce Floyd	Date/Time	5 Sept, 01 14:30	Signature	Bruce W. Floyd

Comments

Abscope cows - Moved contaminated soil B section to C Stockpile, also clean (pushed) dirt to former cooling pool Setting forms.
Partly cloudy, cool outside 65°'s slightly breezy

Oswego Castings/Grea[illegible]ss Veneer 9/05/01

Date	Time	Temp Out	Heat Index	Wind Chill	Hi Temp	Low Temp	Hum Out	Dew Pt.	Wind Speed	Hi	Dir	Rain	Bar	Temp In	Hum In	Arc Per
9/05/01	12:00a	61.8	59.9	57.8	62.0	61.8	71	52.3	7.0	16.0	N	0.00	30.249	63.2	58	30
9/05/01	12:30a	61.6	59.8	58.8	61.8	61.6	73	52.9	6.0	13.0	N	0.00	30.260	63.2	58	30
9/05/01	1:00a	61.3	59.4	58.5	61.6	61.3	72	52.2	6.0	14.0	N	0.00	30.269	63.2	57	30
9/05/01	1:30a	60.9	58.8	58.0	61.3	60.9	70	51.0	6.0	13.0	N	0.00	30.273	63.0	57	30
9/05/01	2:00a	60.4	58.9	57.5	60.9	60.4	78	53.5	6.0	12.0	N	0.00	30.276	63.0	57	30
9/05/01	2:30a	59.8	58.2	58.2	60.4	59.8	77	52.6	5.0	12.0	N	0.00	30.276	62.9	57	30
9/05/01	3:00a	59.3	57.6	57.7	59.8	59.3	74	51.0	5.0	12.0	N	0.00	30.286	62.7	56	30
9/05/01	3:30a	58.9	57.4	57.3	59.3	58.9	77	51.7	5.0	12.0	N	0.00	30.286	62.4	56	30
9/05/01	4:00a	58.6	57.3	56.9	58.9	58.6	75	50.7	5.0	12.0	N	0.00	30.298	62.2	56	30
9/05/01	4:30a	58.1	57.2	56.4	58.6	58.1	75	50.2	5.0	13.0	N	0.00	30.307	61.9	56	30
9/05/01	5:00a	57.3	57.0	55.6	58.1	57.3	72	48.3	5.0	12.0	NNE	0.00	30.313	61.4	56	30
9/05/01	5:30a	57.0	57.0	55.3	57.3	57.0	74	48.8	5.0	13.0	N	0.00	30.321	61.1	55	30
9/05/01	6:00a	56.5	56.5	56.5	57.0	56.5	77	49.4	4.0	12.0	N	0.00	30.325	60.7	55	30
9/05/01	6:30a	56.0	56.0	56.0	56.5	56.0	77	48.9	4.0	10.0	N	0.00	30.336	60.3	55	30
9/05/01	7:00a	56.3	56.3	56.3	56.3	56.0	77	49.2	3.0	8.0	NE	0.00	30.346	60.5	57	30
9/05/01	7:30a	56.7	56.7	56.7	56.7	56.2	75	48.9	2.0	7.0	NE	0.00	30.359	61.3	56	30
9/05/01	8:00a	57.3	57.0	55.6	57.3	56.7	76	49.8	5.0	11.0	NNE	0.00	30.367	62.9	57	30
9/05/01	8:30a	58.4	57.3	58.4	58.4	57.3	78	51.6	4.0	11.0	NNE	0.00	30.375	65.8	56	30
9/05/01	9:00a	58.9	57.4	57.3	58.9	58.3	79	52.4	5.0	12.0	N	0.00	30.386	65.8	53	30
9/05/01	9:30a	58.9	57.4	55.8	59.2	58.6	78	52.1	6.0	11.0	N	0.00	30.395	65.8	51	30
9/05/01	10:00a	59.6	58.2	58.0	59.8	58.7	80	53.4	5.0	10.0	N	0.00	30.401	65.4	49	30
9/05/01	10:30a	60.7	59.0	60.7	60.9	59.6	75	52.7	4.0	11.0	N	0.00	30.404	65.9	48	30
9/05/01	11:00a	60.9	58.9	60.9	61.2	60.5	71	51.4	4.0	10.0	N	0.00	30.407	65.8	46	30
9/05/01	11:30a	61.6	59.8	61.6	61.6	60.9	73	52.9	4.0	10.0	N	0.00	30.408	65.9	46	30
9/05/01	12:00p	62.6	60.7	62.6	62.7	61.6	71	53.1	4.0	11.0	N	0.00	30.404	65.1	44	30
9/05/01	12:30p	63.2	60.8	63.2	63.7	62.4	62	50.0	4.0	10.0	N	0.00	30.405	66.6	45	30
9/05/01	1:00p	64.0	62.0	64.0	64.0	63.1	66	52.4	4.0	11.0	N	0.00	30.402	68.5	43	30
9/05/01	1:30p	64.7	62.3	64.7	64.7	63.4	60	50.5	4.0	8.0	N	0.00	30.395	67.9	42	30
9/05/01	2:00p	64.0	61.7	64.0	64.8	63.9	62	50.7	4.0	8.0	N	0.00	30.391	66.4	42	30
9/05/01	2:30p	65.0	62.3	65.0	65.2	64.0	56	48.9	3.0	8.0	N	0.00	30.387	65.8	43	30
9/05/01	3:00p	65.5	63.0	65.5	65.6	64.5	57	49.9	3.0	8.0	N	0.00	30.374	65.1	44	30
9/05/01	3:30p	64.3	62.0	64.3	65.5	64.0	62	51.0	3.0	8.0	N	0.00	30.368	64.3	44	30
9/05/01	4:00p	65.3	62.6	65.3	65.3	64.3	56	49.2	2.0	10.0	N	0.00	30.363	64.3	48	30
9/05/01	4:30p	65.6	62.9	65.6	66.0	65.2	55	49.0	2.0	7.0	N	0.00	30.363	64.6	45	30
9/05/01	5:00p	65.2	62.2	65.2	65.6	65.0	52	47.1	1.0	6.0	N	0.00	30.357	66.6	50	30
9/05/01	5:30p	65.2	62.4	65.2	65.3	65.0	54	48.1	1.0	7.0	N	0.00	30.355	68.9	49	30
9/05/01	6:00p	64.8	62.0	64.8	65.2	64.8	55	48.2	2.0	7.0	N	0.00	30.357	70.4	48	30
9/05/01	6:30p	64.0	61.4	64.0	64.8	64.0	59	49.4	1.0	5.0	N	0.00	30.354	70.9	46	30
9/05/01	7:00p	63.1	60.9	63.1	64.0	63.1	65	51.1	0.0	3.0	N	0.00	30.350	70.9	45	30
9/05/01	7:30p	62.0	60.0	62.0	63.1	62.0	70	52.1	0.0	2.0	N	0.00	30.349	70.6	45	30
9/05/01	8:00p	59.8	58.2	59.8	62.0	59.8	78	52.9	0.0	2.0	N	0.00	30.358	69.9	45	30
9/05/01	8:30p	56.3	56.3	56.3	59.8	56.3	89	53.1	0.0	2.0	S	0.00	30.365	69.0	45	30
9/05/01	9:00p	53.9	53.9	53.9	56.3	53.9	94	52.2	0.0	2.0	S	0.00	30.373	68.2	45	30
9/05/01	9:30p	52.5	52.5	52.5	53.9	52.5	98	52.0	1.0	3.0	S	0.00	30.376	67.2	46	30
9/05/01	10:00p	51.7	51.7	51.7	52.5	51.7	98	51.2	0.0	2.0	S	0.00	30.379	66.2	46	30
9/05/01	10:30p	51.7	51.7	51.7	51.9	51.7	98	51.2	0.0	2.0	S	0.00	30.385	65.3	46	30
9/05/01	11:00p	51.9	51.9	51.9	51.9	51.4	98	51.4	0.0	2.0	S	0.00	30.392	64.3	47	30
9/05/01	11:30p	52.0	52.0	52.0	52.2	51.7	98	51.5	0.0	2.0	S	0.00	30.392	63.5	47	30
9/05/01	12:00p	50.8	50.8	50.8	52.0	50.7	100	50.8	0.0	2.0	S	0.00	30.394	62.5	48	30

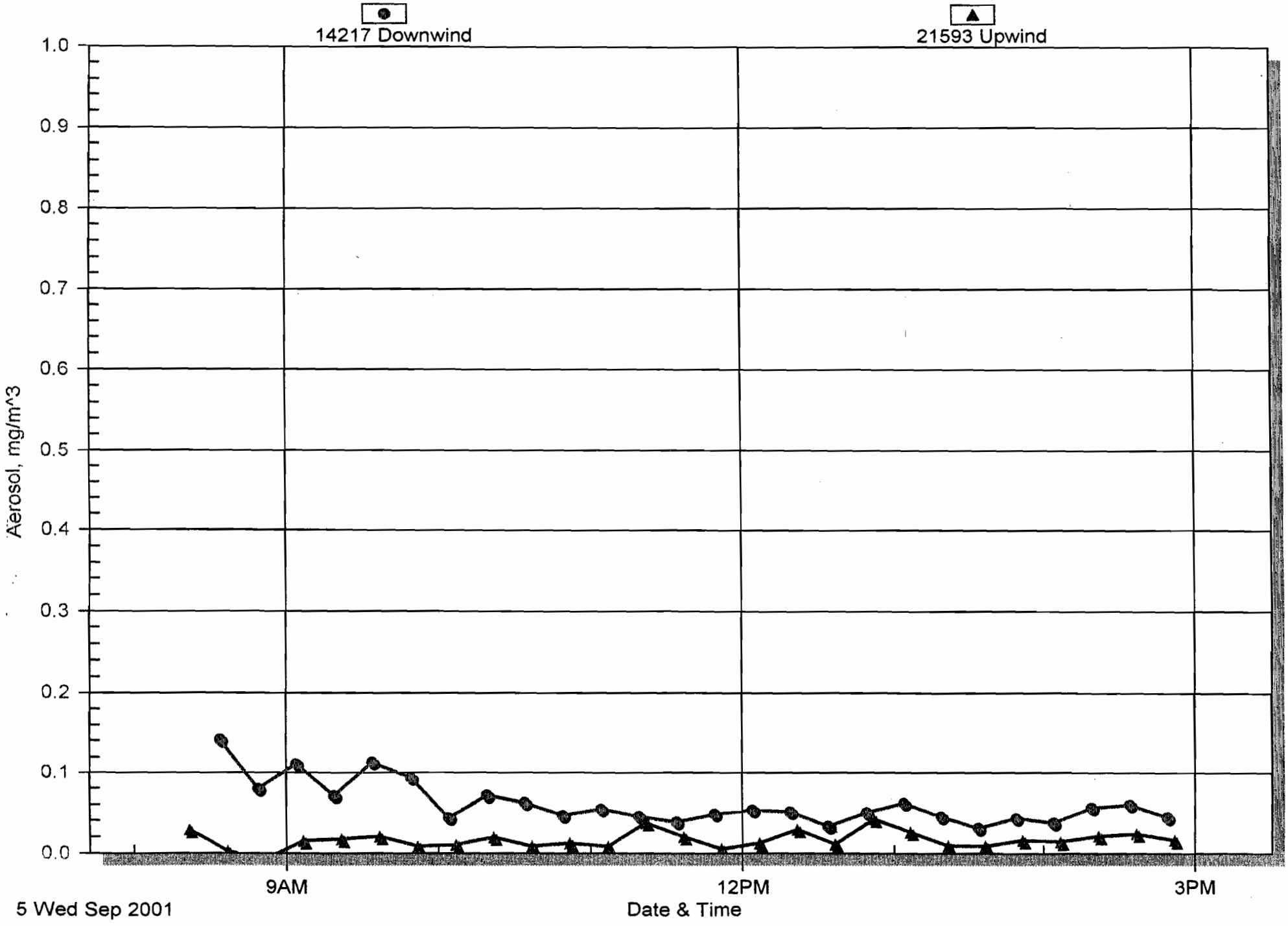
Current Graph: 5 Sept,01 OCGLV
Start time: 08:06:47 09/05/2001 Stop time: 14:51:47 09/05/2001

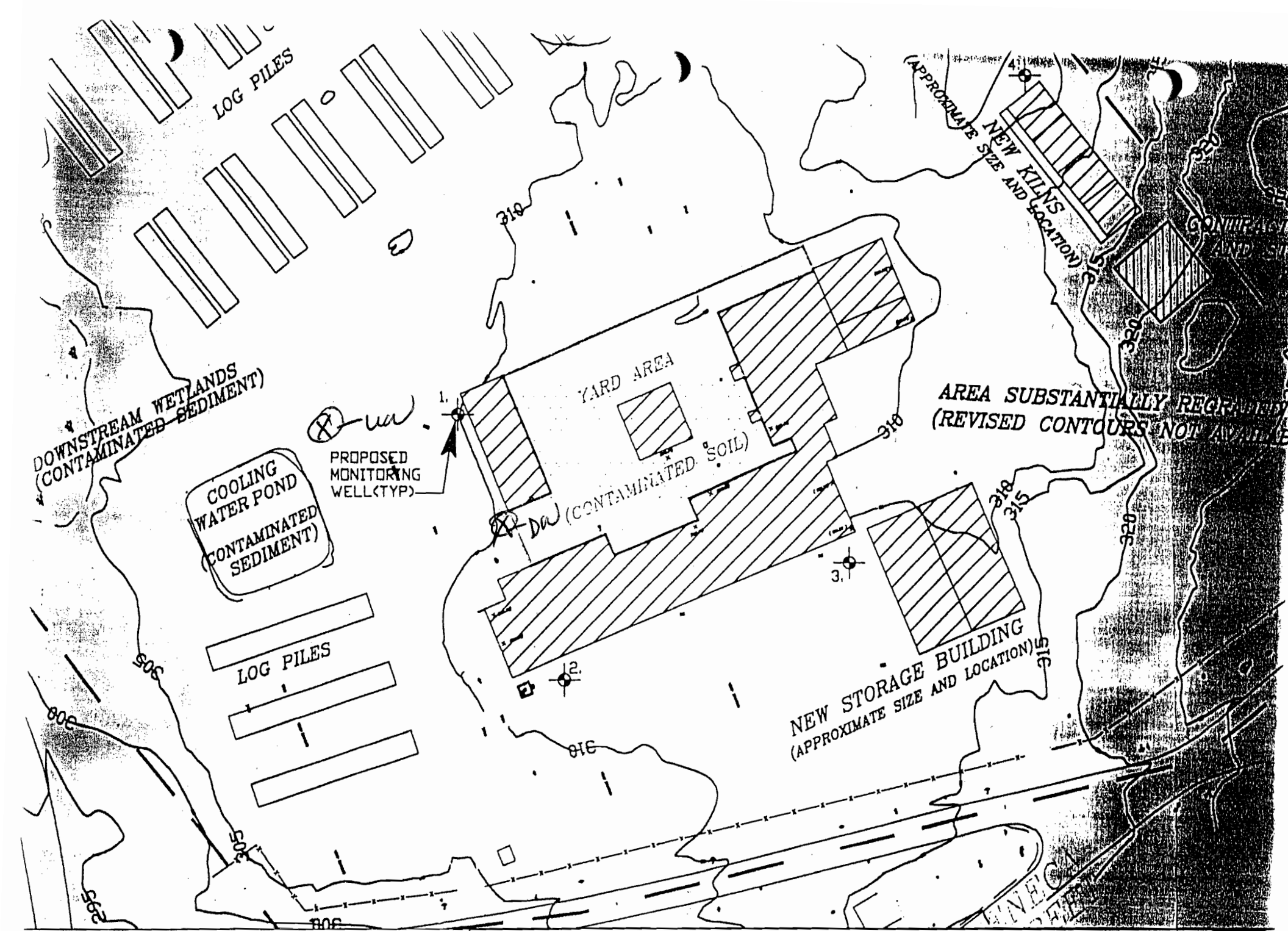
Legend: 14217 Dowi 21593 Upwind

Channel:	Aerosol	Aerosol
(Units)	mg/m^3	mg/m^3
Average:	0.061	0.016
Lowest point:	0.031	-0.007
Time	13:34:00	08:51:47
Date	09/05/2001	09/05/2001
Highest point:	0.141	0.042
Time	08:34:00	12:51:47
Date	09/05/2001	09/05/2001
Log interval: hh:mm:ss	00:15:00	00:15:00

Great La.]s Veneer

5 September,2001





NOTES:

THE CASING FOR WELL 1 SHALL BE PROTECTED FROM VEHICULAR TRAFFIC WITH [illegible] STEEL CASING FILLED WITH CONCRETE.

5 September, 2001

STATE OF NEW

Air Monitoring Data Sheet

Revised September 1996

Project Name	Project Location	Sampling Date	6 Sept, 2001
Oswego Castings (G.L.V.)	Oswego NY	Contract Number	D004283

Pump ID No.	Sample Location	Employee	Start Time	End Time	Duration (min)	Flow Rate (l/min)	Air Volume (l)	Analysis Required
21593	DUSTRAK Upwind	DUSTRAK	8:45	2:00	313	2.0	—	—
600211	Upwind	Sample ID* OCUW6-90				2.0	626	TOTAL DUST
614512	Upwind	sample ID* OCUW6				.2	62.6	PCB
14217	DUSTRAK DownWind	DUSTRAK, ~~OCDW6-90~~ DUST			324	2.0	—	—
575874	Down Wind	Sample ID* OCDW6-90				2.0	648	TOTAL DUST
600763	Down Wind	Sample ID* OCDW6				.2	64.8	PCB
21584	DUSTRAK Work Area	DUSTRAK				2.0	—	—
	NOTHING FOLLOWS							

Technicians Name	Bruce Hoyt	Date/Time	6Sept,01	Signature	Bruce D. Hoyt

Comments

Absecope Working in Area B Along G.L.V. Building. Today's Samples turned in to be analyzed. G.L.V. Heavy equipment working in Same area as absecope. W/ heavy equip that is kicking up dust that is very noticeable.
Clear Skys (Morning) Cool Mid 50's / Slightly Breezy / Afternoon 70's (low) Slightly Breezy

Oswego Castings/Gres Veneer 9/06/01

Date	Time	Temp Out	Heat Index	Wind Chill	Hi Temp	Low Temp	Hum Out	Dew Pt.	Wind Speed	Hi	Dir	Rain	Bar	Temp In	Hum In	Arc Per
9/06/01	12:00a	50.8	50.8	50.8	52.0	50.7	100	50.8	0.0	2.0	S	0.00	30.394	62.5	48	30
9/06/01	12:30a	50.5	50.5	50.5	50.8	50.4	100	50.5	0.0	1.0	S	0.00	30.393	61.9	48	30
9/06/01	1:00a	51.1	51.1	51.1	51.1	50.5	99	50.8	0.0	2.0	S	0.00	30.399	61.1	48	30
9/06/01	1:30a	50.5	50.5	50.5	51.1	50.5	100	50.5	0.0	2.0	SSE	0.00	30.397	60.5	49	30
9/06/01	2:00a	50.2	50.2	50.2	50.5	50.2	100	50.2	0.0	3.0	S	0.00	30.401	59.7	49	30
9/06/01	2:30a	50.1	50.1	50.1	50.4	50.1	98	49.6	0.0	2.0	S	0.00	30.396	59.1	50	30
9/06/01	3:00a	51.1	51.1	51.1	51.1	50.1	96	50.0	1.0	5.0	S	0.00	30.395	58.5	50	30
9/06/01	3:30a	51.1	51.1	51.1	51.3	51.1	98	50.6	1.0	3.0	S	0.00	30.396	58.1	50	30
9/06/01	4:00a	51.0	51.0	51.0	51.1	51.0	98	50.5	1.0	3.0	S	0.00	30.405	57.6	52	30
9/06/01	4:30a	51.0	51.0	51.0	51.0	50.8	95	49.6	1.0	5.0	SSW	0.00	30.406	57.0	53	30
9/06/01	5:00a	51.0	51.0	51.0	51.1	51.0	96	49.9	1.0	6.0	SSW	0.00	30.406	56.5	54	30
9/06/01	5:30a	50.8	50.8	50.8	51.0	50.7	97	50.0	1.0	5.0	SSW	0.00	30.407	56.3	54	30
9/06/01	6:00a	50.5	50.5	50.5	50.8	50.5	100	50.5	0.0	3.0	SSW	0.00	30.408	56.0	55	30
9/06/01	6:30a	50.2	50.2	50.2	50.5	50.2	100	50.2	0.0	3.0	SSE	0.00	30.413	55.5	55	30
9/06/01	7:00a	50.7	50.7	50.7	50.7	50.2	100	50.7	0.0	3.0	SSW	0.00	30.420	55.4	56	30
9/06/01	7:30a	51.9	51.9	51.9	51.9	50.7	100	51.9	1.0	6.0	SSW	0.00	30.420	55.8	58	30
9/06/01	8:00a	53.9	53.9	53.9	53.9	51.9	98	53.3	1.0	5.0	SSW	0.00	30.422	57.1	59	30
9/06/01	8:30a	57.5	57.1	57.5	57.5	53.9	88	54.0	2.0	6.0	SSW	0.00	30.425	59.6	62	30
9/06/01	9:00a	60.1	58.8	60.1	60.1	57.5	81	54.2	2.0	7.0	SSW	0.00	30.419	62.1	62	30
9/06/01	9:30a	63.1	61.9	63.1	63.1	60.1	78	56.1	2.0	6.0	SSW	0.00	30.414	64.5	61	30
9/06/01	10:00a	65.0	63.5	65.0	65.0	63.1	70	55.0	2.0	6.0	SSW	0.00	30.416	68.0	58	30
9/06/01	10:30a	67.3	66.2	67.3	67.4	65.0	64	54.7	2.0	6.0	SSW	0.00	30.413	70.9	53	30
9/06/01	11:00a	69.3	69.3	69.3	69.4	67.1	63	56.2	2.0	6.0	SSW	0.00	30.404	73.1	51	30
9/06/01	11:30a	70.9	70.9	70.9	71.1	69.4	61	56.8	1.0	6.0	S	0.00	30.393	74.5	50	30
9/06/01	12:00p	72.5	72.3	72.5	72.5	70.6	58	56.9	2.0	7.0	SW	0.00	30.391	75.9	48	30
9/06/01	12:30p	74.6	74.6	74.6	74.9	72.5	53	56.3	1.0	6.0	N	0.00	30.382	77.5	48	30
9/06/01	1:00p	72.5	72.3	72.5	74.6	72.5	58	56.9	2.0	7.0	N	0.00	30.276	78.8	49	30
9/06/01	1:30p	71.8	71.9	71.8	72.5	71.6	63	58.5	2.0	8.0	N	0.00	30.273	79.3	48	30
9/06/01	2:00p	72.3	72.5	72.3	72.3	71.5	63	59.0	3.0	7.0	N	0.00	30.263	80.1	47	30
9/06/01	2:30p	72.8	72.7	72.8	73.3	72.0	58	57.2	2.0	6.0	N	0.00	30.247	81.2	45	30
9/06/01	3:00p	72.3	72.3	72.3	73.0	72.3	60	57.6	2.0	7.0	N	0.00	30.242	83.7	43	30
9/06/01	3:30p	72.5	72.6	72.5	72.5	72.1	61	58.3	2.0	7.0	N	0.00	30.245	93.3	31	30
9/06/01	4:00p	71.6	71.6	71.6	72.7	71.6	61	57.4	2.0	7.0	N	0.00	30.233	97.2	19	30
9/06/01	4:30p	70.9	70.9	70.9	71.8	70.9	64	58.1	3.0	8.0	N	0.00	30.227	97.0	17	30
9/06/01	5:00p	71.1	71.1	71.1	71.3	70.8	66	59.2	3.0	7.0	N	0.00	30.210	90.3	19	30
9/06/01	5:30p	70.8	70.8	70.8	71.1	70.8	64	58.0	2.0	6.0	N	0.00	30.206	89.6	20	30
9/06/01	6:00p	70.1	70.1	70.1	70.8	70.1	68	59.0	3.0	6.0	N	0.00	30.195	85.3	23	30
9/06/01	6:30p	70.3	70.8	70.3	70.4	70.1	73	61.2	2.0	5.0	N	0.00	30.183	80.6	30	30
9/06/01	7:00p	69.4	69.9	69.4	70.3	69.4	73	60.4	1.0	5.0	NNE	0.00	30.179	76.3	34	30
9/06/01	7:30p	66.3	66.3	66.3	69.4	66.3	85	61.7	0.0	2.0	ENE	0.00	30.174	72.6	37	30
9/06/01	8:00p	63.4	63.3	63.4	66.3	63.4	91	60.7	0.0	2.0	S	0.00	30.169	70.4	39	30
9/06/01	8:30p	62.1	62.0	62.1	63.4	62.1	94	60.4	0.0	2.0	S	0.00	30.169	69.0	39	30
9/06/01	9:00p	61.5	61.3	61.5	62.1	61.5	94	59.8	1.0	5.0	S	0.00	30.176	68.9	43	30
9/06/01	9:30p	61.2	61.0	61.2	61.5	61.2	94	59.5	1.0	3.0	S	0.00	30.171	68.7	46	30
9/06/01	10:00p	62.0	61.9	62.0	62.0	61.2	94	60.3	1.0	5.0	S	0.00	30.163	68.4	49	30
9/06/01	10:30p	62.1	62.1	62.1	62.1	61.8	95	60.7	1.0	5.0	S	0.00	30.156	68.2	51	30
9/06/01	11:00p	62.6	62.6	62.6	62.6	62.1	94	60.8	2.0	5.0	S	0.00	30.146	67.9	52	30
9/06/01	11:30p	62.3	61.9	62.3	62.6	62.1	90	59.3	2.0	6.0	S	0.00	30.133	67.5	53	30
9/06/01	12:00p	61.6	61.2	61.6	62.3	61.6	91	58.9	1.0	5.0	SSE	0.00	30.132	67.2	53	30

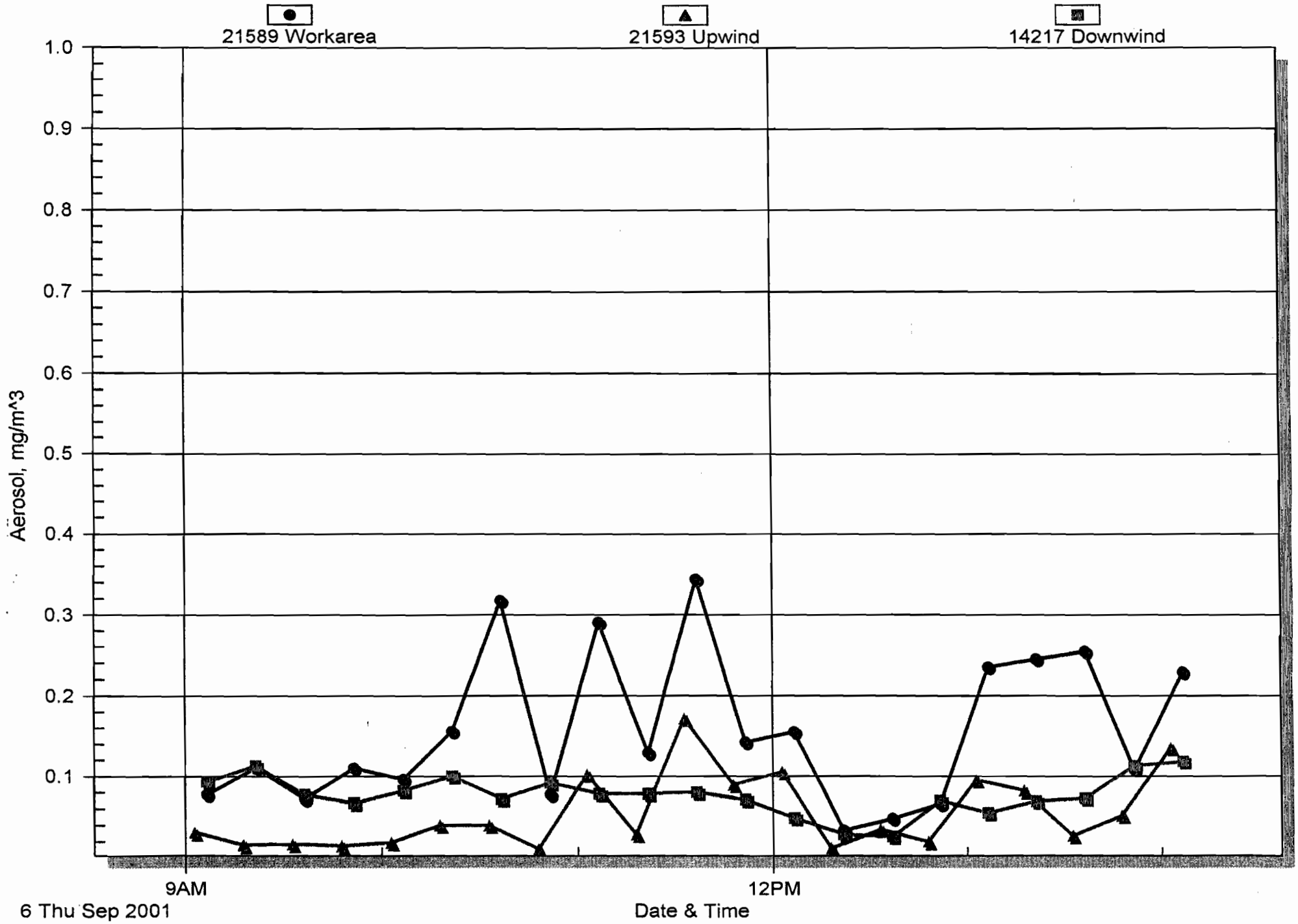
Current Graph: 6 sept.01 OCGLV
Start time: 08:47:52 09/06/2001 Stop time: 14:06:40 09/06/2001

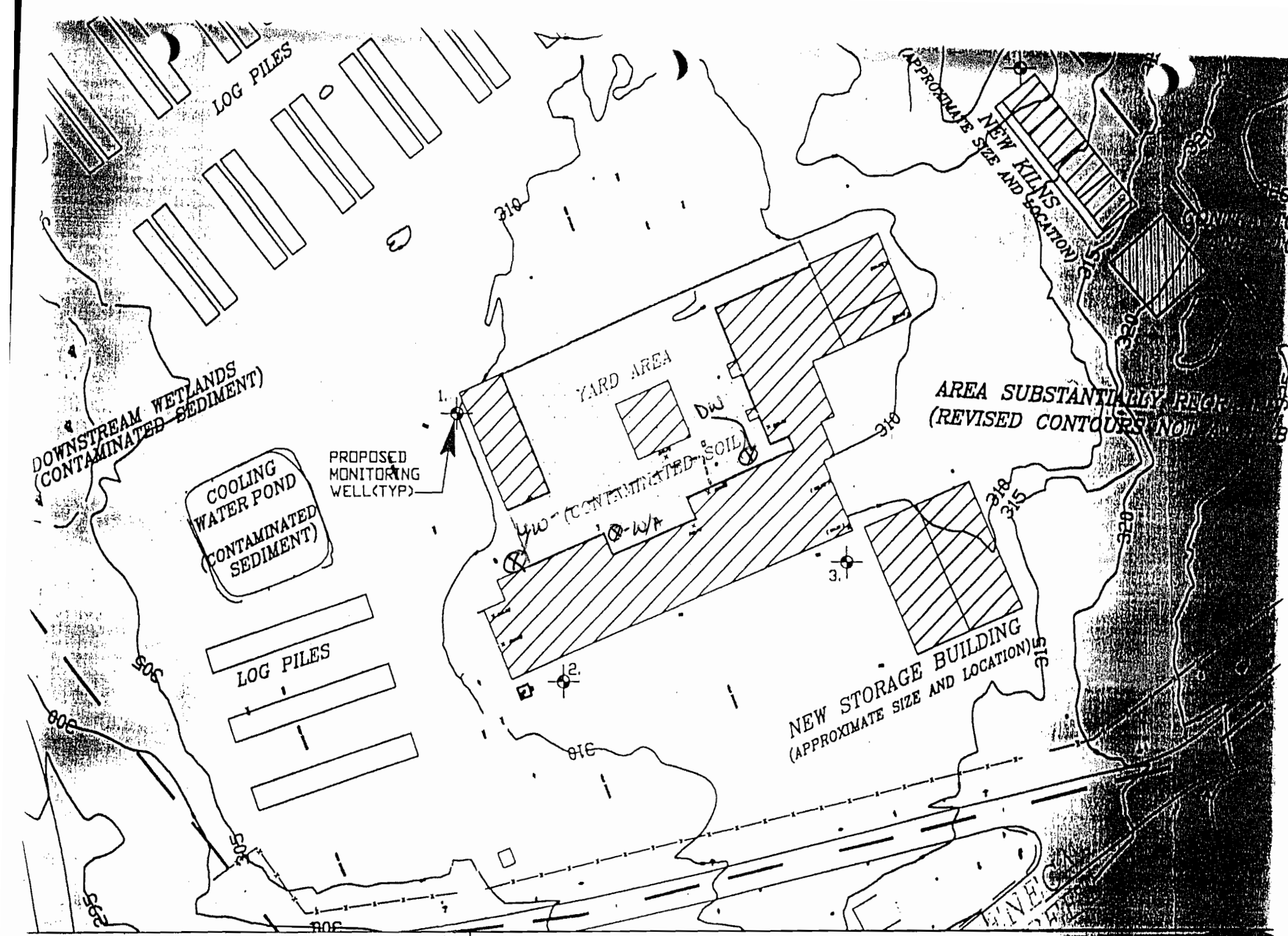
Legend: 21589 Worl 21593 Upw. 14217 Downwind

Channel:	Aerosol	Aerosol	Aerosol
(Units)	mg/m^3	mg/m^3	mg/m^3
Average:	0.157	0.054	0.076
Lowest point:	0.034	0.011	0.026
Time	12:21:40	10:47:52	12:36:39
Date	09/06/2001	09/06/2001	09/06/2001
Highest point:	0.344	0.172	0.118
Time	11:36:40	11:32:52	14:06:39
Date	09/06/2001	09/06/2001	09/06/2001
Log interval: hh:mm:ss	00:15:00	00:15:00	00:15:00

Great Lake Veneer

6 September, 2001





NOTES:

THE PIPING FOR WELL 1 SHALL BE PROTECTED FROM VEHICULAR TRAFFIC WITH [illegible] FILLED WITH CONCRETE.

6 Sept 2001

Galson Laboratories

6601 Kirkville Road
E. Syracuse, NY 13057-0369
Phone: (315) 432-5227
Fax: (315) 437-0571
www.galsonlabs.com

LABORATORY ANALYSIS REPORT

Client : O'Rourke Incorporated
Site : Oswego Castings/Gr. Lakes Ven.
Project No. : D004283

Date Sampled : 30-AUG-01 - 06-SEP-01 Account No.: 12312
Date Received : 06-SEP-01 Login No. : L74458
Date Analyzed : 10-SEP-01

Total Dust

	Sample ID	Lab ID	Air Vol m3	Total mg	Conc mg/m3
	OCUW30-8D	L74458-1	1.030	0.062	0.060
*	OCDW30-8D	L74458-2	1.020	0.153	0.15
	OCUW6-9D	L74458-3	0.626	0.261	0.42
	OCDW6-9D	L74458-4	0.648	0.208	0.32

COMMENTS: PNOR = Particulates Not Otherwise Regulated.
* Visible particulates on the support pad. Results may be biased low.

Level of quantitation: 0.05 mg
Analytical Method : NIOSH 0500; GRAV
OSHA PEL (TWA) : PNOR 15 mg/m3
Collection Media : PVC PW

Submitted by: tk
Approved by : Oommen Kappil
Date : 12-SEP-01
QC by:
NYS DOH # : 11626

< -Less Than
> -Greater Than
NA -Not Applicable
mg -Milligrams
ug -Micrograms
ND -Not Detected
m3 -Cubic Meters
l -Liters
ppm -Parts per Million
kg -Kilograms
NS -Not Specified

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Client : O'Rourke Incorporated
Site : Oswego Castings/Gr. Lakes Ven.
Project No. : D004283

Date Sampled : 30-AUG-01 - 06-SEP-01 Account No.: 12312
Date Received : 06-SEP-01 Login No. : L74458
Date Analyzed : 10-SEP-01

Polychlorinated Biphenyls

	Sample ID	Lab ID	Air Vol liter	Front ug	Back ug	Total ug	Conc mg/m3
#	OCUW30	L74458-5	103.0	0.11	<0.05	0.11	0.001
#	OCDW30	L74458-6	102.0	0.18	<0.05	0.18	0.002
	OCUW6	L74458-7	62.6	<0.05	<0.05	<0.05	<0.0008
	OCDW6	L74458-8	64.8	<0.05	<0.05	<0.05	<0.0008

COMMENTS: Total ug corrected for a desorption efficiency of 100%.
Altered Aroclor 1242

Level of quantitation: 0.05 ug
Analytical Method : NIOSH 5503
OSHA PEL (TWA) : 1 mg/m3
Collection Media : Florisil

Submitted by: cmh
Approved by : dkf
Date : 12-SEP-01
QC by:
NYS DOH # : 11626

< -Less Than
> -Greater Than
--- -Not Applicable
mg -Milligrams
ug -Micrograms
ND -Not Detected
m3 -Cubic Meters
l -Liters
ppm -Parts per Million
kg -Kilograms
NS -Not Specified

Galson Laboratories

6601 Kirkville Road
P.O. Box 369
E. Syracuse, NY 13057
Tel: (315) 437-7252 888-577-Labs (5227)
Fax: (315) 437-0571

Request For Industrial Hygiene Analysis

Company Name: O'Rourke Inc.
Site Name: Oswego Castings (Great Lakes Veneer)
Sampled By: Bruce Floyd
Project #: D004283

end Report to: O'Rourke Inc.
P.O. Box 341
Oswego NY 13827

Invoice to: O'Rourke Inc.
P.O. Box 341
Oswego NY 13827

☐ Purchase order number _____
(or)
☐ Credit Card (type) _____ Card # _____ Exp Date _____
☐ Verbal Authorization _____

☒ Standard Turn-Around Time OR ☐ Rush: Date and Time Requested: ___/___/___ am pm
☐ Phone Results to: _____ Phone # ( ) - - ext.
☒ Fax Results to: Bruce Floyd Fax # 315-342-2062
☐ Email Results to: _____

Sample Identification	Date Sampled	Sample Medium Catalog # / Lot #	Air Sample Volume (liters)*	Analysis Requested	Method Reference
OCUW30-8D	30 Aug 01	37mm 5u	1030	TOTAL DUST	N0500
OCUW30	30 Aug 01	florisil tube	103.0	PCB	N5503
OCDW30-8D	30 Aug 01	37mm 5u	1020	TOTAL DUST	N0500
OCDW30	30 Aug 01	florisil tube	102.0	PCB	N5503
OCUW6-9D	6 Sept. 01	37MM 5u	626	TOTAL DUST	N0500
OCUW6	6 Sept 01	florisil tube	62.4	PCB	N5503
OCDW6-9D	6 Sept 01	37mm 5u	648	TOTAL DUST	N0500
OCDW6	6 Sept 01	florisil tube	64.8	PCB	N5503

*For passive monitors please list time exposed in minutes.

Comments (Please list any known interferences present in sampling area): Do not add lab blank.

Chain of Custody	Print Name	Signature	Date/Time
Relinquished by:	Bruce Floyd	Bruce Floyd	6 Sept 01 3:35
Received by LAB.	Nancy Ackerman	Nancy Ackerman	9/6/01 1349

Samples received after 3pm will be considered as next day's business.

LAB ORIGINAL

Air Monitoring Data Sheet

Revised September 1996

Project Name	Project Location	Sampling Date	7 September, 2001
Oswego Castings (G.L.V.)	Oswego NY	Contract Number	D004283

Pump ID No.	Sample Location	Employee	Start Time	End Time	Duration (min)	Flow Rate (l/min)	Air Volume (l)	Analysis Required
21593	~~DUSTRAK~~ Upwind	~~DUSTRAK~~	8:30	12:55	—	2.0	—	—
600211	Upwind	Sample ID# OUW7-9D	〃	〃	269	2.0	~~538~~ 53.8	TOTAL DUST
624512	Upwind	〃 〃 # OUW7	〃	〃	269	.2	~~538~~ 53.8	PCB
14217	Down Wind	~~DUSTRAK~~	8:25	1:00	—	2.0	—	~~TOTAL DUST~~ Bulk
575826	Down Wind	Sample ID# ODW7-9D	〃	〃	270	2.0	540	~~TOTAL DUST~~
600763	Down Wind	〃 〃 # ODW7	〃	〃	270	.2	54.0	PCB
21589	Work Area	~~DUSTRAK~~	8:35	1:05	—	2.0	—	—

Technicians Name	Bruce Floyd	Date/Time	7Sept 01	Signature	Bruce W. Floyd
Comments					

Abscope working in area B along G.L.V. Building dragging & removing dirt, G.L.V. Heavy Equip also working in that area kicking up more dust than the work being done by Abscope.

Windy clear Blue Sky's mid 60's (morning)

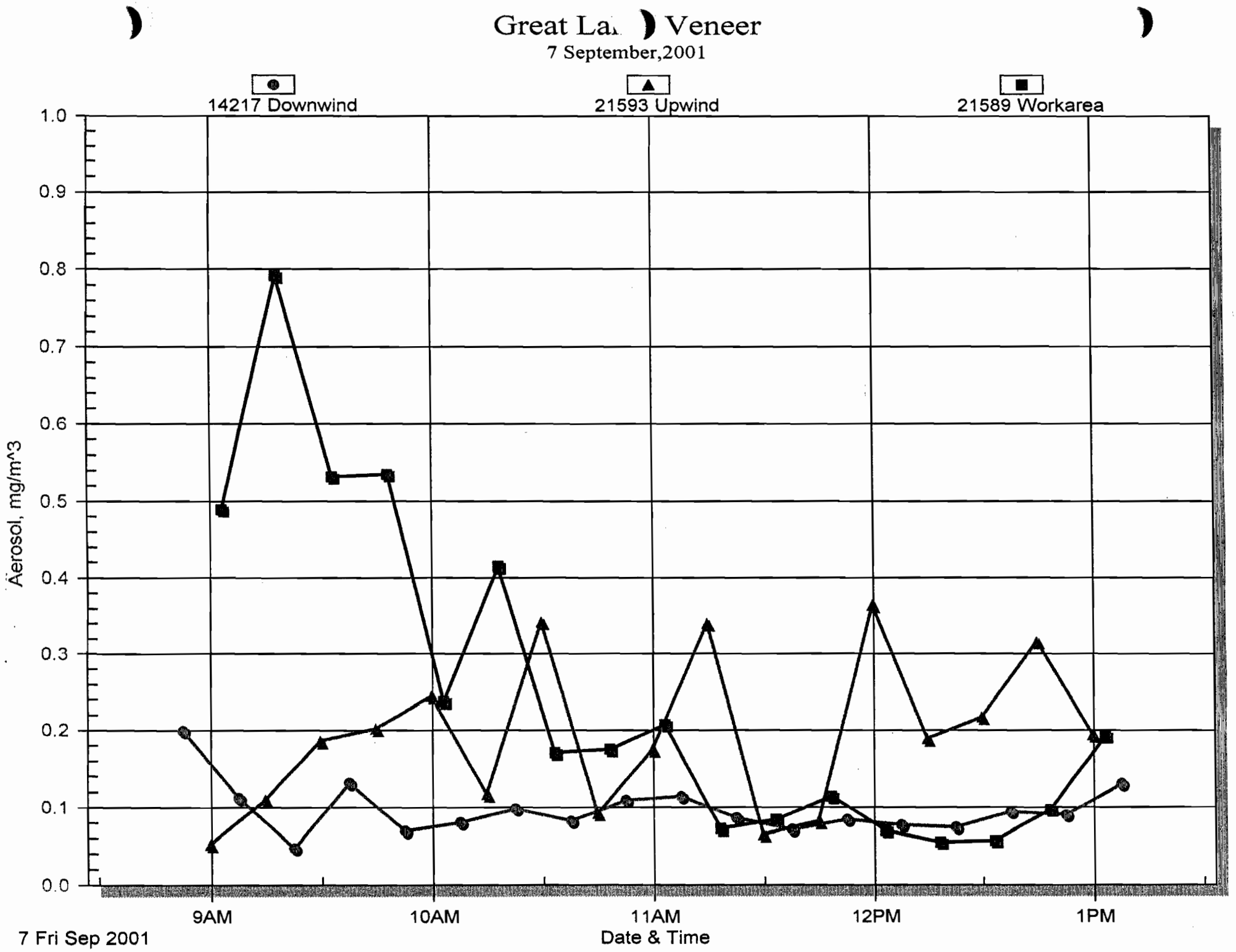
Oswego Castings/Grea[illegible]es Veneer 9/07/01

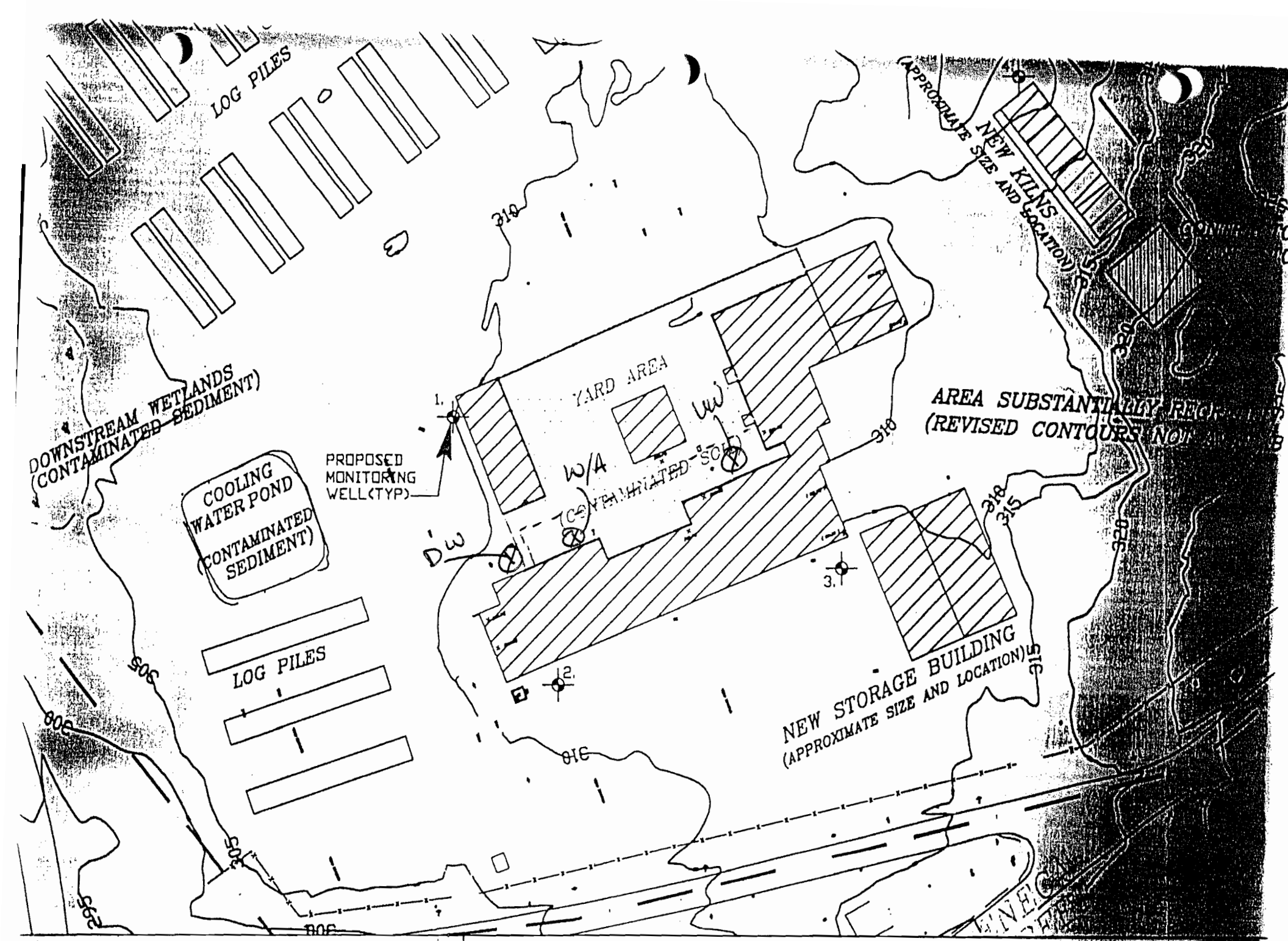
Date	Time	Temp Out	Heat Index	Wind Chill	Hi Temp	Low Temp	Hum Out	Dew Pt.	Wind Speed	Hi	Dir	Rain	Bar	Temp In	Hum In	Arc Per
9/07/01	12:00a	61.6	61.2	61.6	62.3	61.6	91	58.9	1.0	5.0	SSE	0.00	30.132	67.2	53	30
9/07/01	12:30a	61.8	61.6	61.8	61.8	61.5	93	59.8	2.0	6.0	S	0.00	30.126	66.9	55	30
9/07/01	1:00a	61.5	61.5	61.5	61.8	61.5	96	60.3	2.0	6.0	S	0.00	30.125	66.6	56	30
9/07/01	1:30a	61.3	60.9	61.3	61.5	61.2	92	59.0	2.0	6.0	S	0.00	30.117	66.2	57	30
9/07/01	2:00a	61.0	60.3	61.0	61.3	60.9	88	57.4	3.0	7.0	S	0.00	30.109	65.9	57	30
9/07/01	2:30a	60.9	60.0	60.9	61.2	60.9	86	56.7	2.0	6.0	S	0.00	30.105	65.6	57	30
9/07/01	3:00a	61.6	60.7	61.6	61.8	60.9	84	56.7	3.0	16.0	S	0.00	30.101	65.3	57	30
9/07/01	3:30a	61.8	61.0	61.8	61.8	61.5	85	57.2	3.0	10.0	SSW	0.00	30.100	65.1	56	30
9/07/01	4:00a	62.4	61.2	62.4	62.4	61.8	79	55.8	3.0	8.0	SSW	0.00	30.102	64.9	56	30
9/07/01	4:30a	61.3	60.2	61.3	62.4	61.3	82	55.8	4.0	11.0	SSW	0.00	30.105	64.8	57	30
9/07/01	5:00a	60.7	59.9	60.7	61.3	60.7	88	57.1	2.0	6.0	SSW	0.00	30.101	64.5	57	30
9/07/01	5:30a	59.5	59.1	59.5	60.7	59.5	95	58.1	2.0	6.0	S	0.00	30.106	64.1	58	30
9/07/01	6:00a	58.7	58.4	58.7	59.5	58.7	97	57.9	2.0	6.0	S	0.00	30.107	63.8	59	30
9/07/01	6:30a	58.9	58.6	58.9	59.0	58.7	97	58.1	3.0	8.0	S	0.00	30.102	63.5	60	30
9/07/01	7:00a	58.7	58.4	58.7	58.9	58.6	98	58.1	3.0	10.0	S	0.00	30.100	63.3	61	30
9/07/01	7:30a	59.6	59.0	59.6	59.6	58.7	92	57.3	3.0	8.0	S	0.00	30.103	64.0	64	30
9/07/01	8:00a	61.2	60.7	61.2	61.2	59.6	91	58.6	3.0	8.0	S	0.00	30.101	64.6	69	30
9/07/01	8:30a	64.0	63.5	64.0	64.0	61.2	85	59.4	3.0	10.0	S	0.00	30.097	66.4	68	30
9/07/01	9:00a	66.4	66.1	66.4	66.4	64.0	81	60.4	4.0	12.0	S	0.00	30.096	68.5	65	30
9/07/01	9:30a	69.1	69.3	69.1	69.1	66.6	71	59.3	4.0	11.0	SSW	0.00	30.093	71.1	60	30
9/07/01	10:00a	71.3	71.4	70.3	71.3	69.1	65	58.9	5.0	12.0	SSW	0.00	30.084	73.0	55	30
9/07/01	10:30a	72.8	73.0	71.9	73.0	71.5	62	59.0	5.0	14.0	SSW	0.00	30.075	73.8	54	30
9/07/01	11:00a	74.7	74.7	74.7	74.7	72.7	60	59.9	4.0	11.0	SSW	0.00	30.068	74.7	54	30
9/07/01	11:30a	76.8	76.8	76.8	76.8	74.7	59	61.4	3.0	11.0	SSW	0.00	30.067	75.2	54	30
9/07/01	12:00p	78.3	79.0	78.3	78.3	76.8	56	61.3	4.0	11.0	SSW	0.00	30.066	76.4	53	30
9/07/01	12:30p	80.1	80.5	80.1	80.1	78.3	52	60.9	4.0	10.0	SSW	0.00	30.061	77.0	53	30
9/07/01	1:00p	81.6	82.6	81.6	81.6	79.9	50	61.2	4.0	12.0	SSW	0.00	30.060	78.2	53	30
9/07/01	1:30p	82.6	84.1	82.6	82.6	81.1	49	61.5	3.0	10.0	SW	0.00	30.054	79.2	53	30

Current Graph: 7 Sept.01ocglv
Start time: 08:37:27 09/07/2001 Stop time: 13:07:27 09/07/2001

Legend: 14217 Dowi 21593 Upw 21589 Workarea

Channel:	Aerosol	Aerosol	Aerosol
(Units)	mg/m^3	mg/m^3	mg/m^3
Average:	0.097	0.193	0.253
Lowest point:	0.047	0.052	0.055
Time	09:22:27	08:59:39	12:18:07
Date	09/07/2001	09/07/2001	09/07/2001
Highest point:	0.199	0.364	0.792
Time	08:52:27	11:59:39	09:18:07
Date	09/07/2001	09/07/2001	09/07/2001
Log interval: hh:mm:ss	00:15:00	00:15:00	00:15:00


Great La Veneer
7 September,2001
14217 Downwind
21593 Upwind
21589 Workarea
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
Aerosol, mg/m^3
9AM
10AM
11AM
12PM
1PM
7 Fri Sep 2001
Date & Time



NOTES:

PROTECTED FROM VEHICULAR TRAFFIC WITH

7 September 2001

Air Monitoring Data Sheet

Revised September 1996

Project Name	Project Location	Sampling Date	11 September, 2001
Oswego Castings (Great Lake Iron)	Oswego New York	Contract Number	D004283

Pump ID No.	Sample Location	Employee	Start Time	End Time	Duration (min)	Flow Rate (l/min)	Air Volume (l)	Analysis Required
21593	Upwind	Dustrax	1:30	3:20	1:22	2.0	—	—
600221	" "	Sample ID #				2.0	244	TOTAL DUST
624512	" "	Sample ID #				.2	24.4	PCB
14217	Down Wind	Dustrax			1:10	2.0	—	—
575876	" "	Sample ID #				2.0	220	TOTAL DUST
600763	" "	Sample ID #				.2	22.0	PCB
21584	Work Area	Dustrax				2.0	—	—
		NOTHING FOLLOWS						

Technicians Name	Bruce Floyd	Date/Time	11/9/01 2:00pm	Signature	Bruce W. Floyd

Comments

* Weather - Beautiful day, clear sky's. On hold w/ Oswego for Sewage will be digging area next to Delaker and filling up w/ Semi contaminated soil. Everybody sit sitting over New York and Pentagon happenings.

Oswego Castings/Great s Veneer 9/10/01

Date	Time	Temp Out	Heat Index	Wind Chill	Hi Temp	Low Temp	Hum Out	Dew Pt.	Wind Speed	Hi	Dir	Rain	Bar	Temp In	Hum In	Arc Per
9/10/01	12:00a	72.3	73.4	72.3	73.2	72.3	74	63.5	4.0	11.0	S	0.00	30.043	70.7	40	30
9/10/01	12:30a	71.3	72.4	71.3	72.3	71.3	76	63.3	3.0	8.0	S	0.00	30.038	71.1	41	30
9/10/01	1:00a	71.3	72.3	71.3	71.5	71.3	75	63.0	3.0	11.0	S	0.00	30.032	71.1	41	30
9/10/01	1:30a	70.9	72.0	70.9	71.3	70.8	76	63.0	3.0	12.0	S	0.00	30.028	71.2	41	30
9/10/01	2:00a	70.9	72.3	70.9	71.1	70.9	78	63.7	3.0	10.0	S	0.00	30.032	71.2	41	30
9/10/01	2:30a	70.6	72.4	70.6	71.1	70.6	81	64.5	3.0	12.0	S	0.00	30.029	71.1	41	30
9/10/01	3:00a	71.3	73.1	71.3	71.3	70.6	81	65.2	4.0	12.0	S	0.00	30.013	70.1	41	30
9/10/01	3:30a	71.3	73.1	70.3	71.5	71.3	82	65.5	5.0	12.0	SSW	0.00	30.011	70.2	41	30
9/10/01	4:00a	71.1	72.9	71.1	71.3	70.9	85	66.4	4.0	14.0	SSW	0.00	30.010	70.4	41	30
9/10/01	4:30a	70.6	72.4	70.6	71.1	70.6	87	66.5	4.0	12.0	S	0.00	30.006	70.4	42	30
9/10/01	5:00a	70.9	72.7	70.9	70.9	70.6	87	66.8	4.0	11.0	S	0.00	30.003	70.6	42	30
9/10/01	5:30a	70.9	72.7	70.9	70.9	70.8	87	66.8	4.0	11.0	S	0.00	29.997	70.6	42	30
9/10/01	6:00a	70.9	72.7	69.9	71.3	70.9	86	66.5	5.0	12.0	S	0.00	29.993	70.6	42	30
9/10/01	6:30a	70.8	72.6	69.8	70.9	70.8	87	66.7	5.0	12.0	S	0.00	29.990	70.7	43	30
9/10/01	7:00a	70.8	72.6	70.8	70.9	70.8	89	67.4	4.0	13.0	S	0.00	30.001	70.9	42	30
9/10/01	7:30a	71.5	73.3	71.5	71.5	70.8	87	67.4	4.0	11.0	SSW	0.00	30.007	71.6	50	30
9/10/01	8:00a	72.3	74.1	72.3	72.3	71.5	86	67.9	4.0	13.0	SW	0.00	30.009	71.4	53	30
9/10/01	8:30a	73.3	75.2	73.3	73.3	72.3	88	69.5	3.0	11.0	SW	0.00	30.022	71.4	52	30
9/10/01	9:00a	73.0	74.8	73.0	73.5	73.0	90	69.9	3.0	10.0	WSW	0.00	30.047	71.4	52	30
9/10/01	9:30a	70.9	72.7	70.9	73.0	70.9	82	65.1	2.0	10.0	E	0.00	30.066	71.8	52	30
9/10/01	10:00a	67.9	69.6	67.9	70.9	67.8	89	64.5	4.0	17.0	WNW	0.00	30.081	71.1	54	30
9/10/01	10:30a	66.4	67.5	62.2	68.4	66.4	97	65.5	8.0	19.0	WNW	0.00	30.096	70.6	53	30
9/10/01	11:00a	65.3	66.3	65.3	66.4	65.2	100	65.3	2.0	10.0	W	0.06	30.087	71.1	57	30
9/10/01	11:30a	65.5	66.6	65.5	65.5	65.2	100	65.5	0.0	3.0	WSW	0.00	30.086	70.7	54	30
9/10/01	12:00p	66.1	67.3	66.1	66.1	65.5	100	66.1	1.0	3.0	SW	0.00	30.100	71.4	57	30
9/10/01	12:30p	67.4	69.0	67.4	67.4	66.1	100	67.4	1.0	7.0	SSW	0.00	30.102	71.4	55	30
9/10/01	1:00p	68.9	71.5	68.9	68.9	67.4	99	68.6	2.0	7.0	SW	0.00	30.103	73.0	55	30
9/10/01	1:30p	70.3	73.2	70.3	70.3	68.9	96	69.1	2.0	8.0	WSW	0.00	30.106	73.3	55	30
9/10/01	2:00p	69.8	71.6	66.9	70.3	69.4	87	65.8	7.0	17.0	WNW	0.00	30.118	73.5	53	30
9/10/01	2:30p	69.6	71.4	67.5	69.9	69.6	82	63.9	6.0	17.0	WNW	0.00	30.120	73.5	50	30
9/10/01	3:00p	70.4	71.3	66.2	70.4	69.6	75	62.1	9.0	20.0	WNW	0.00	30.122	74.9	47	30
9/10/01	3:30p	71.6	71.8	68.3	71.6	70.4	70	61.3	8.0	19.0	WNW	0.00	30.122	78.6	40	30
9/10/01	4:00p	71.1	71.8	68.4	72.3	70.9	74	62.4	7.0	16.0	WNW	0.00	30.120	87.7	31	30
9/10/01	4:30p	72.1	72.9	70.3	72.3	71.1	72	62.6	6.0	14.0	WNW	0.00	30.117	87.5	32	30

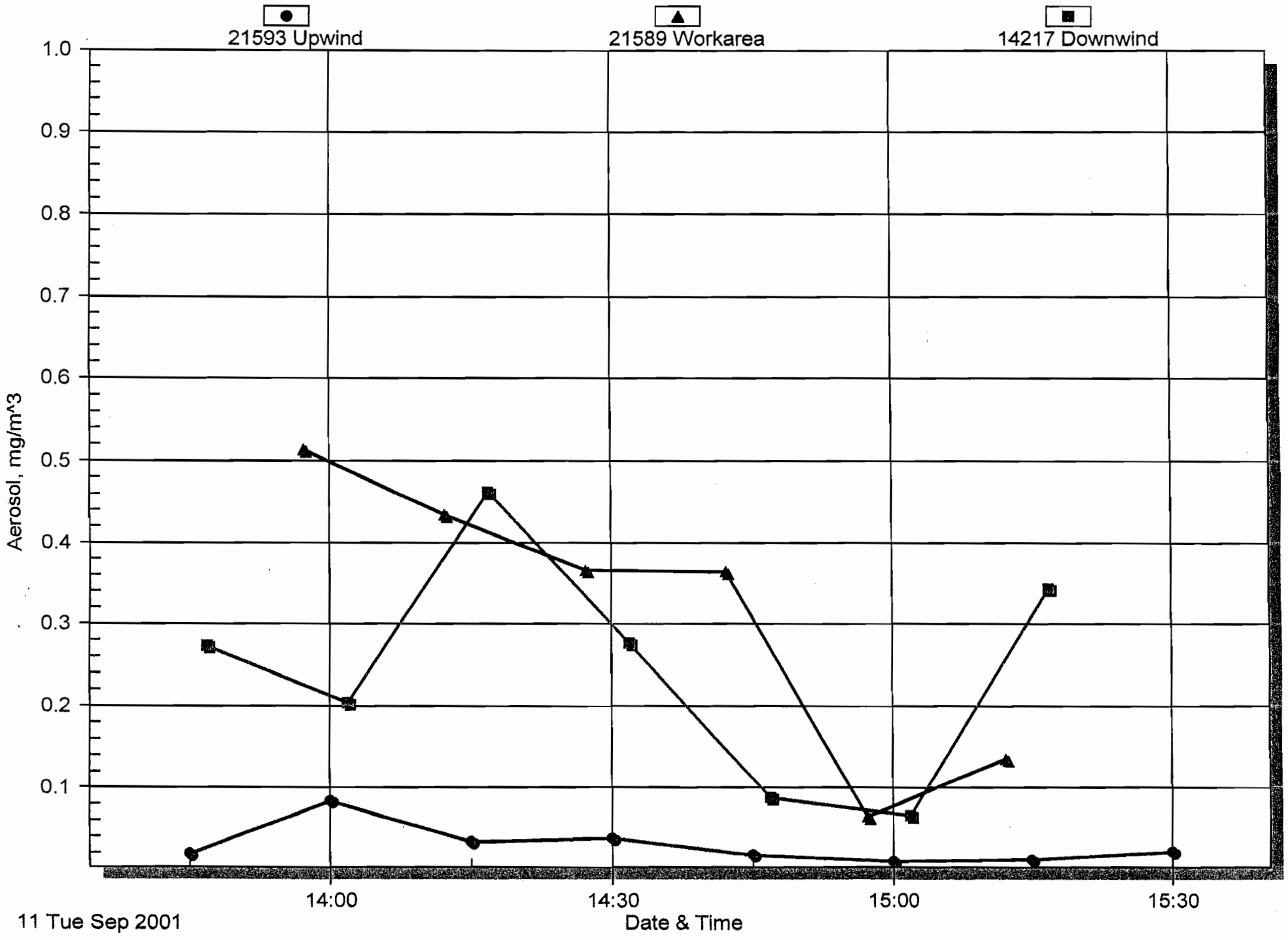
Current Graph: 11 Sept,01 ocglv
Start time: 13:29:59 09/11/2001 Stop time: 15:29:59 09/11/2001

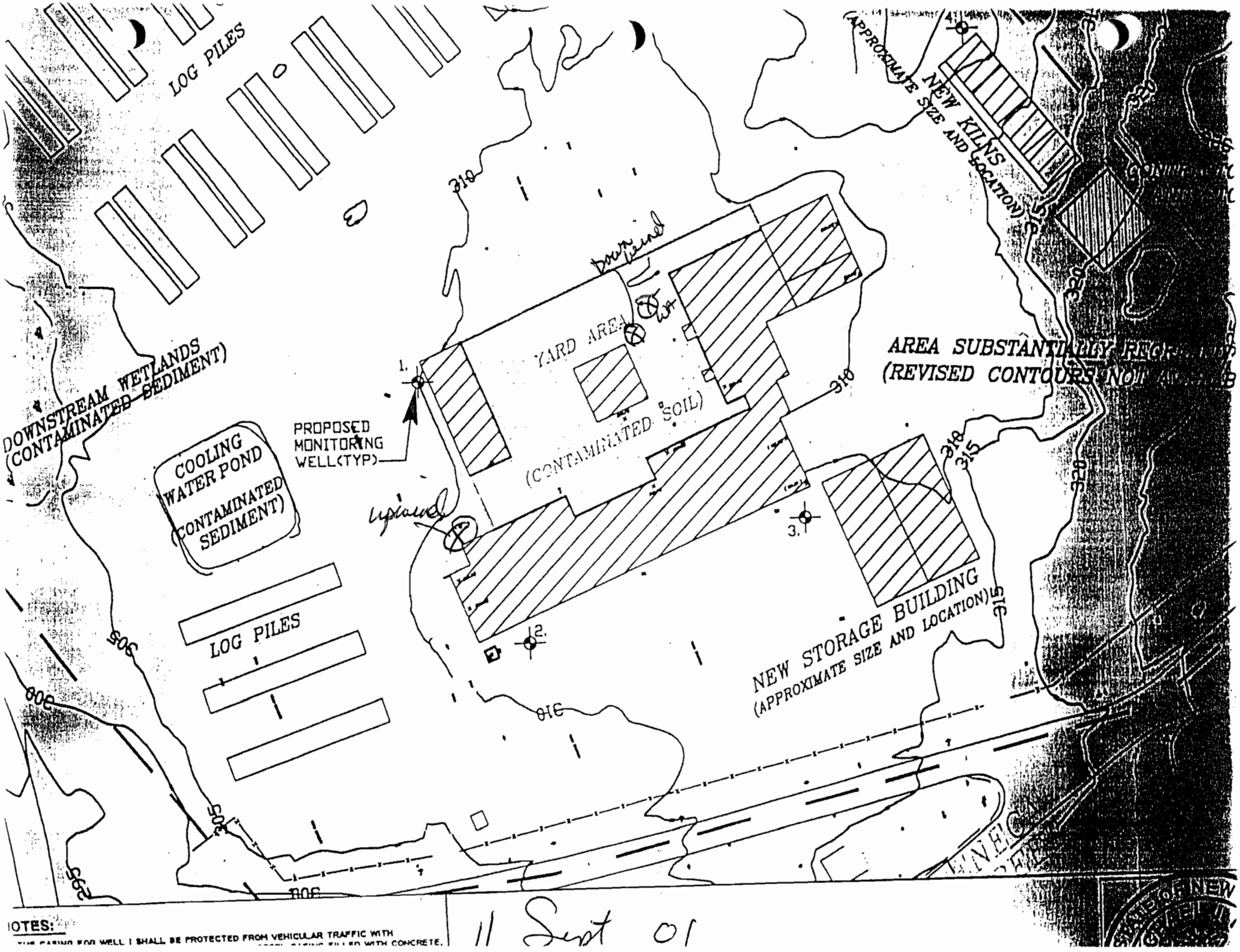
Legend: 21593 Upw 21589 Wor 14217 Downwind

Channel: (Units)	Aerosol mg/m^3	Aerosol mg/m^3	Aerosol mg/m^3
Average:	0.030	0.313	0.245
Lowest point:	0.010	0.065	0.066
Time	14:59:59	14:57:13	15:01:55
Date	09/11/2001	09/11/2001	09/11/2001
Highest point:	0.084	0.514	0.462
Time	13:59:59	13:57:13	14:16:55
Date	09/11/2001	09/11/2001	09/11/2001
Log interval: hh:mm:ss	00:15:00	00:15:00	00:15:00

Great Lake Veneer

11 September, 2001

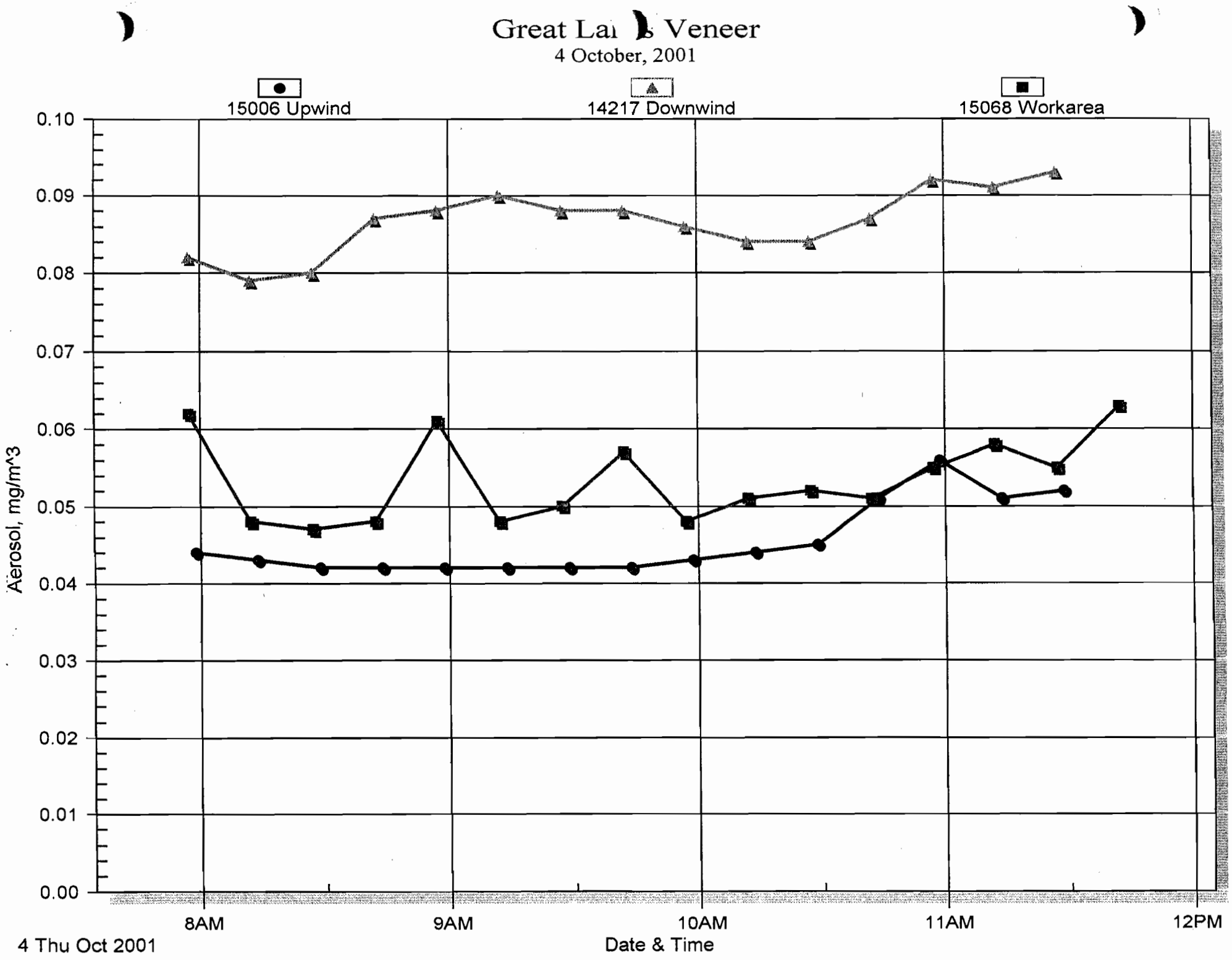



LOG PILES
(APPROXIMATE SIZE AND LOCATION)
NEW KILNS
YARD AREA
(CONTAMINATED SOIL)
AREA SUBSTANTIALLY REC
(REVISED CONTOURS NOT
DOWNSTREAM WETLANDS
(CONTAMINATED SEDIMENT)
PROPOSED
MONITORING
WELL(TYP)
COOLING
WATER POND
(CONTAMINATED
SEDIMENT)
LOG PILES
NEW STORAGE BUILDING
(APPROXIMATE SIZE AND LOCATION)
1.
2.
3.
310
315
320
305
308
316
NOTES:
11 Sept 01

Current Graph: 4 Oct, 01 OSGLV
Start time: 07:42:03 10/04/2001 Stop time: 11:42:08 10/04/2001

Legend: 15006 Upw 14217 Dowi 15068 Workarea

Channel:	Aerosol	Aerosol	Aerosol
(Units)	mg/m^3	mg/m^3	mg/m^3
Average:	0.045	0.087	0.053
Lowest point:	0.042	0.079	0.047
Time	08:28:47	08:12:03	08:27:08
Date	10/04/2001	10/04/2001	10/04/2001
Highest point:	0.056	0.093	0.063
Time	10:58:47	11:27:03	11:42:08
Date	10/04/2001	10/04/2001	10/04/2001
Log interval: hh:mm:ss	00:15:00	00:15:00	00:15:00


Great Lai s Veneer
4 October, 2001
15006 Upwind
14217 Downwind
15068 Workarea
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
Aerosol, mg/m^3
8AM
9AM
10AM
11AM
12PM
4 Thu Oct 2001
Date & Time

Client:	**Sampling Data Sheet / Chain of Custody**	O'Rourke Incorporated 23 Lake Street PO Box 341 Owego, New York 13827 Phone: 607-687-1234 Fax: 607-687-7445
Abscape		

Project Name: Great Lakes Veneer	Project Supervisor:	Sampling Date: October 8, 2001
Project Number:	Fax Results to #	Due Date:
Project Location: Oswego, NY	Submit all Final Reports and Invoices to O'Rourke Inc.	Client #

	Field Sample #	Lab ID #	Start Time	End Time	Total Time (min)	Flow Rate (l/min)	Total Volume	Sample Description or Employee Name/ Social Security #	Number of Containers	Analysis Requested 1	2	3	4	5	6
Total Dust	Upwind		7:30	2:30	~~432~~	2.0	840	Upwind	1						
PCB	Upwind		7:30	2:30	420	0.5	210	Upwind	1						
Total D.	Downwind		7:32	2:32	420	2.0	840	Downwind	1						
PCB	Downwind		7:32	2:32	420	0.5	210	Downwind	1						

	Analysis Requested	Method
1		
2		
3		
4		
5		
6		

Field Notes:

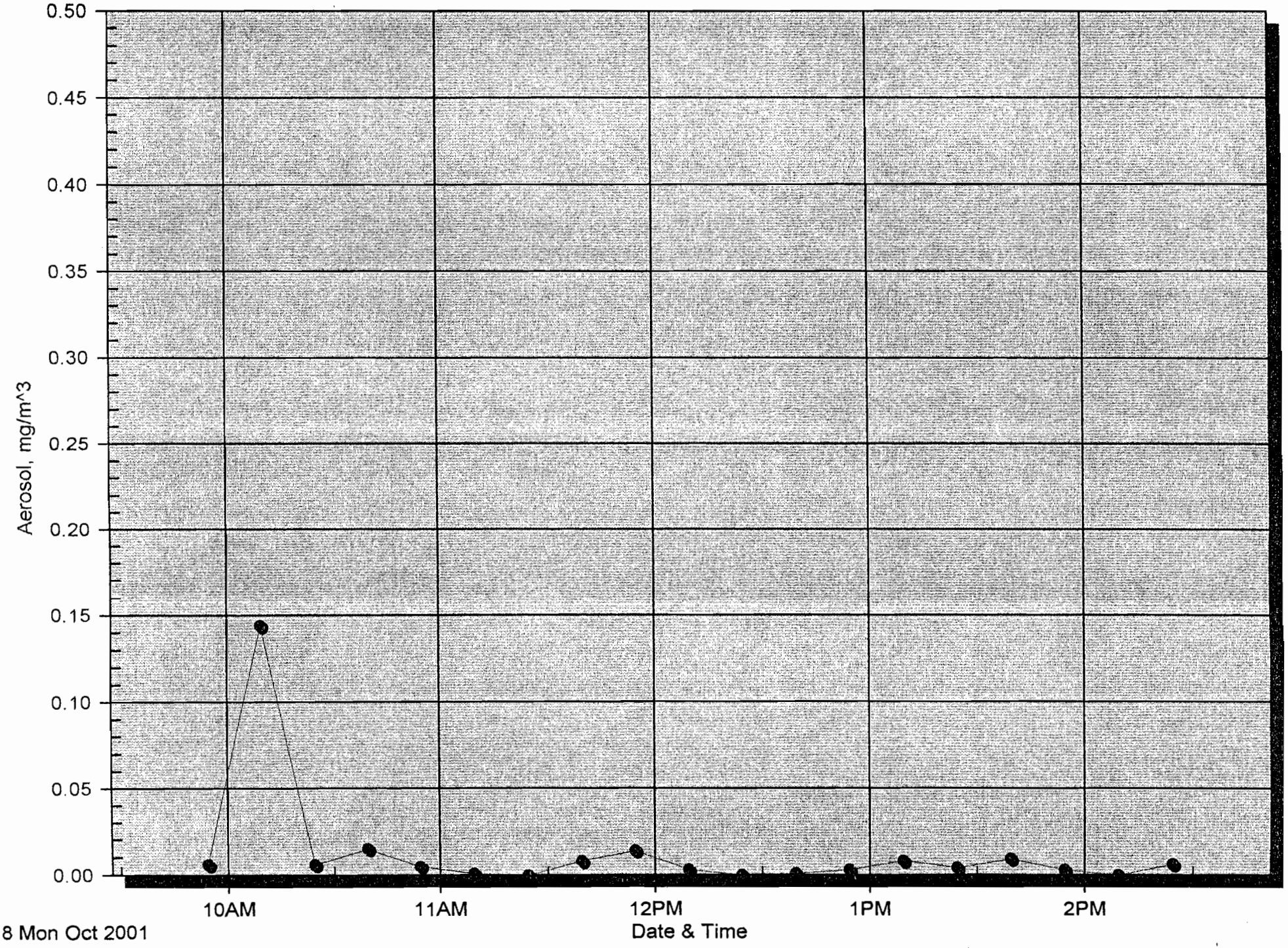
Technicians Name: Ashley Coleman

Relinquished By: Date/Time

Received By: Date/Time

Great Lak(. Veneer

8 October, 2001 Work area



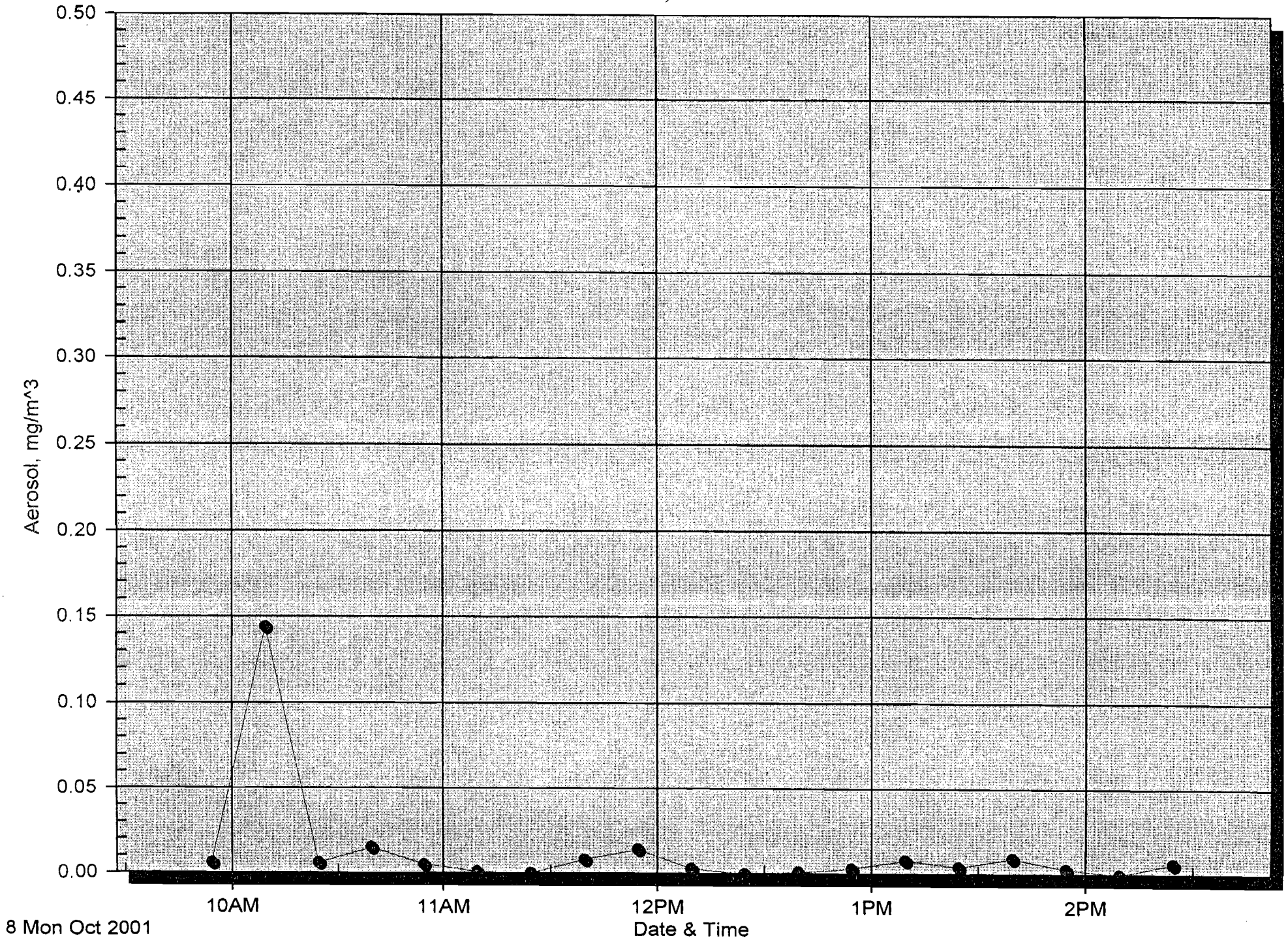
8 Mon Oct 2001

Down wind

Great Lak[illegible] Veneer

8 October, 2001

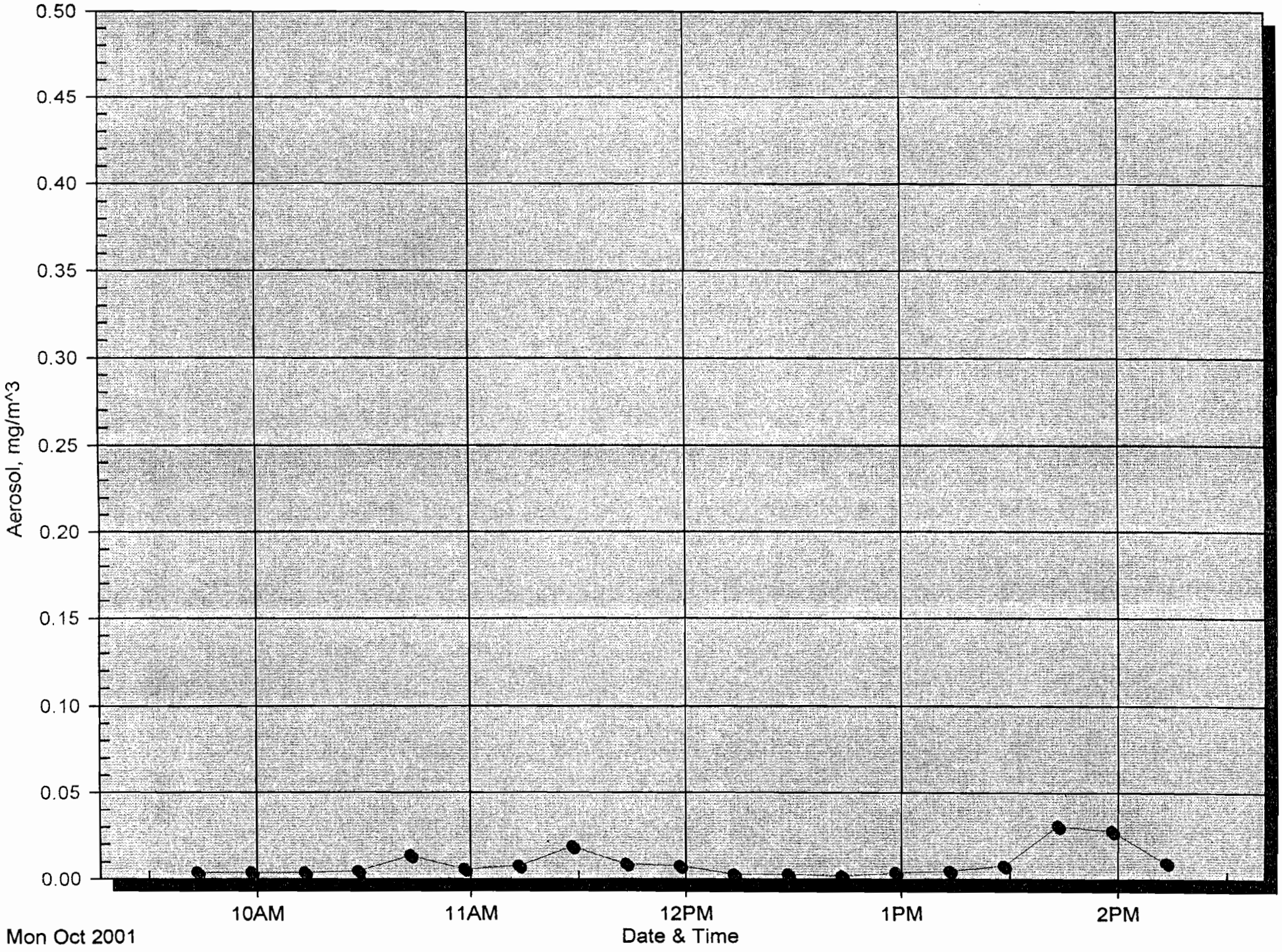
Serial # 14217



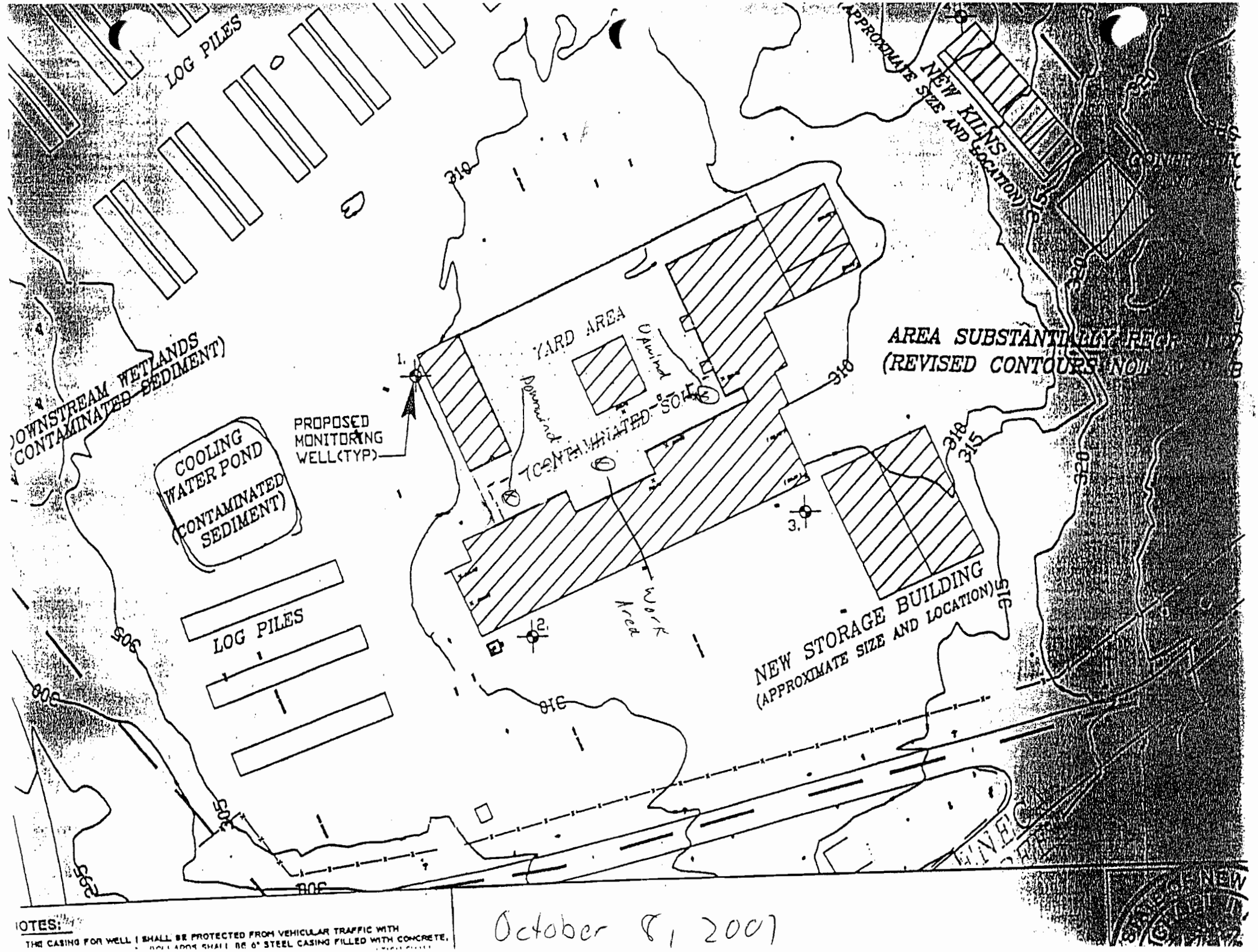
8 Mon Oct 2001

Great La[illegible] Veneer

8 October, 2001 Upwind



8 Mon Oct 2001



October 8, 2001

Client:	**Sampling Data Sheet / Chain of Custody**	O'Rourke Incorporated 23 Lake Street PO Box 341 Owego, New York 13827 Phone: 607-687-1234 Fax: 607-687-7445
ADSCOPE		

Project Name: Oswego Castings G.L.U.	Project Supervisor:	Sampling Date: 10/9/01
Project Number:	Fax Results to #	Due Date:
Project Location: Oswego, NY	Submit all Final Reports and Invoices to O'Rourke Inc.	Client #

	Field Sample #	Lab ID #	Start Time	End Time	Total Time (min)	Flow Rate (l/min)	Total Volume	Sample Description or Employee Name/ Social Security #	Number of Containers	Analysis Requested 1	2	3	4	5	6
Total Dust	Upwind		9:01	3:14	373	2.0	746	Upwind	1						
PCB	Upwind		9:01	3:14	373	0.5	186.5	Upwind	1						
Total Dust	Downwind		9:03	3:16	373	2.0	746	Downwind	1						
PCB	Downwind		9:03	3:16	373	0.5	186.5	Downwind	1						

	Analysis Requested	Method
1		
2		
3		
4		
5		
6		

Field Notes:

Technicians Name: Ashley Coleman

Relinquished By: Date/Time

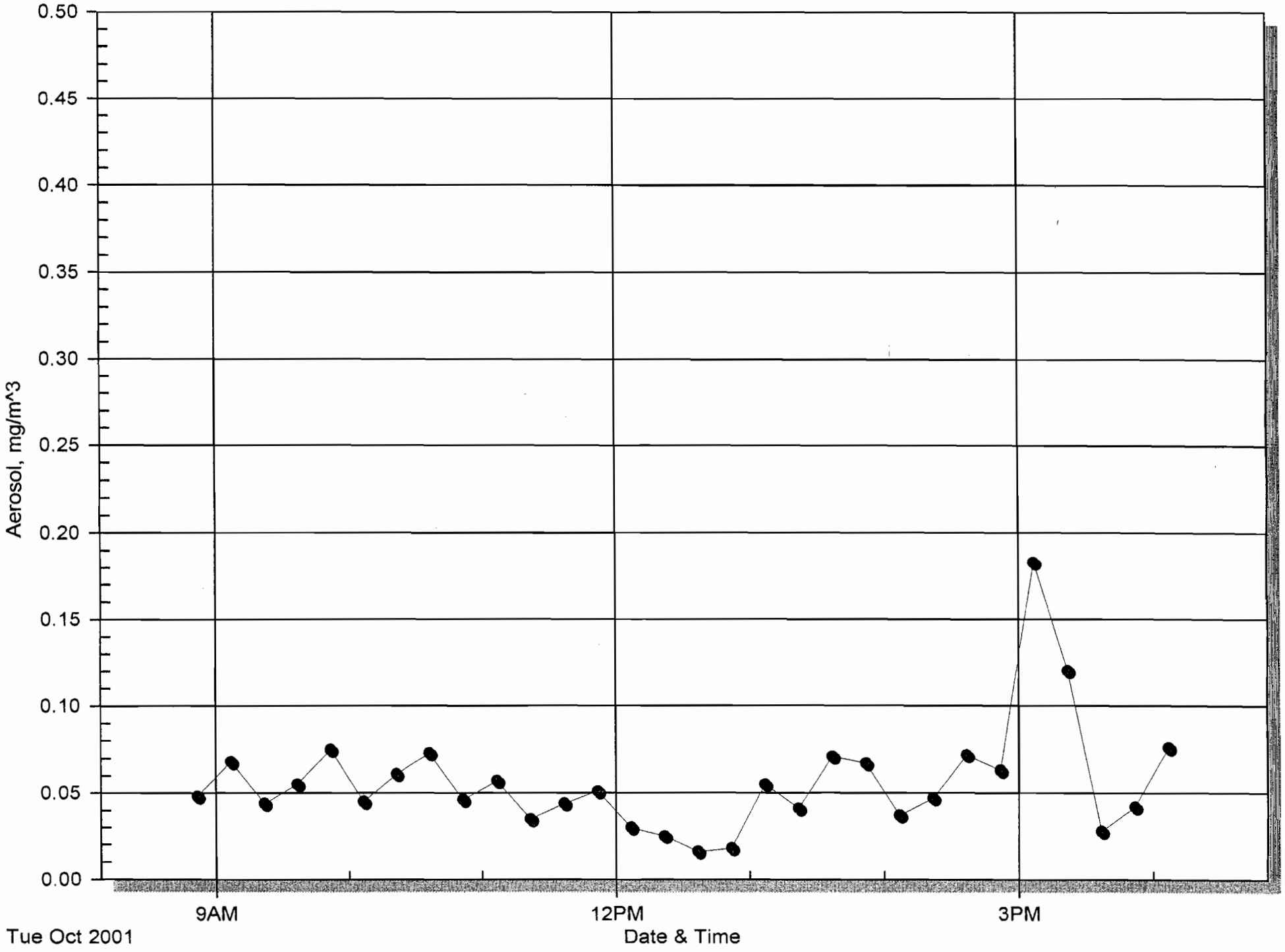
Received By: Date/Time

Down wind
~~Work Area~~

Great Lak[illegible] Veneer

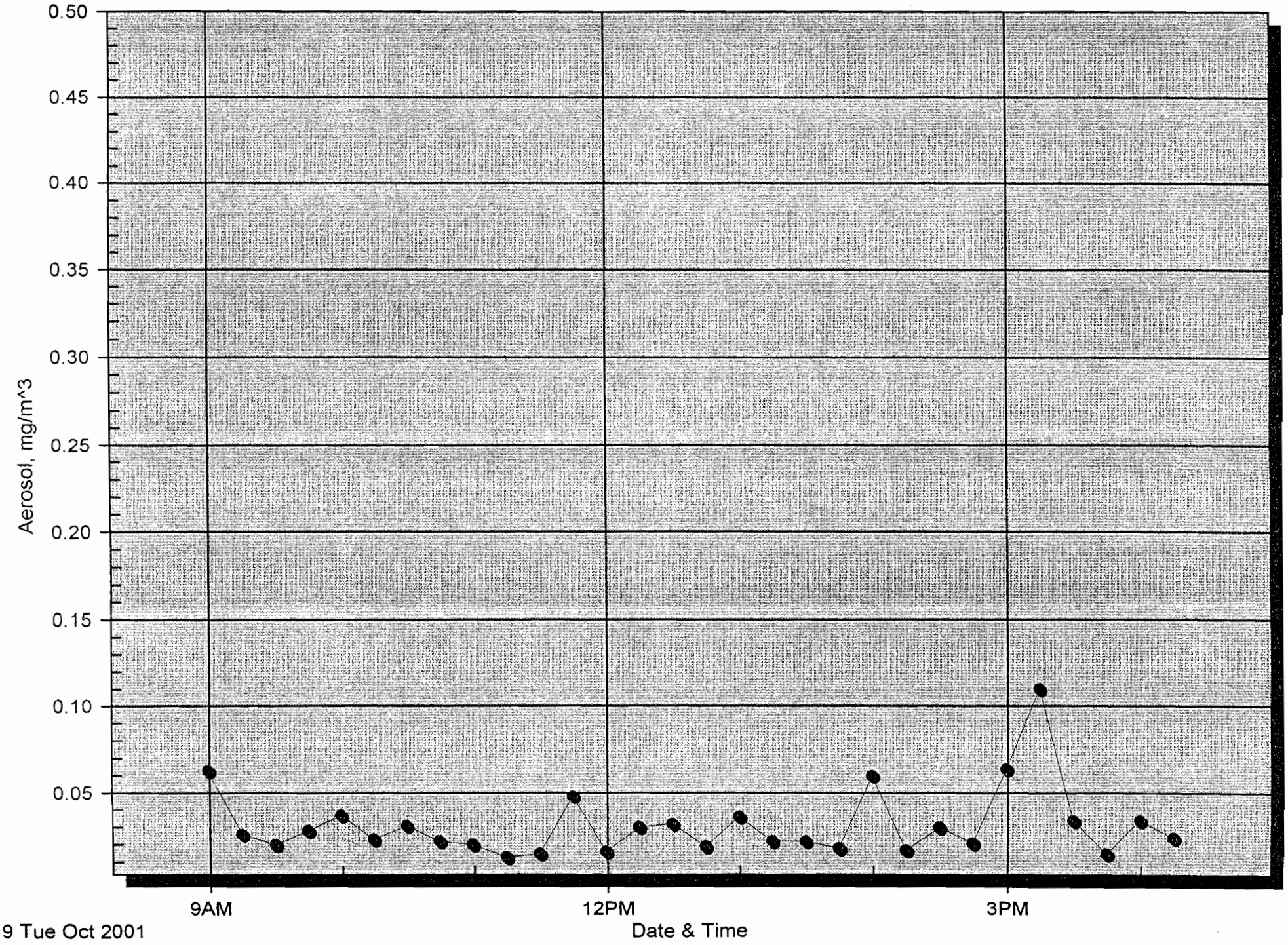
9 October, 2001

Serial #14217



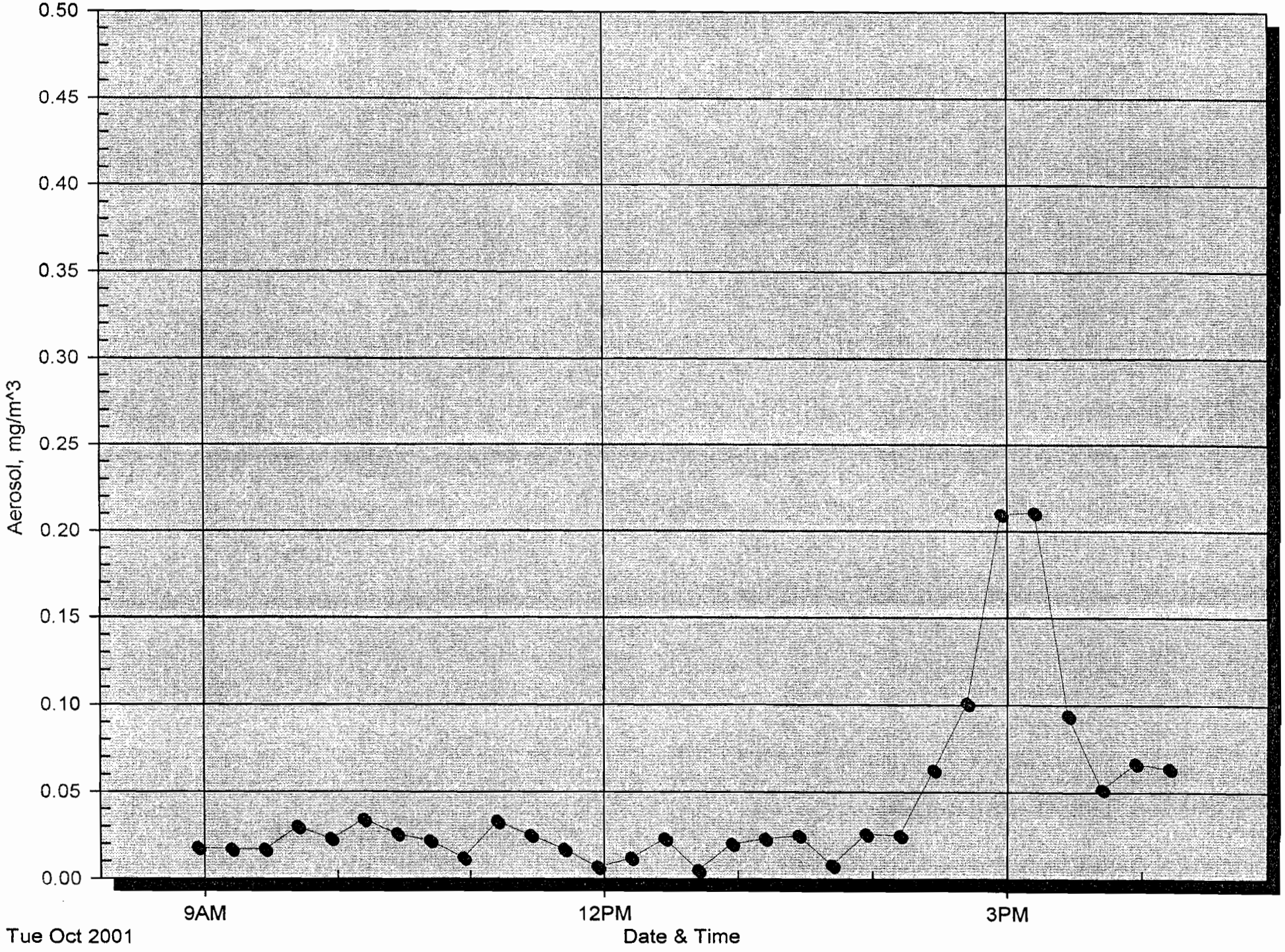
Great Lak(Veneer

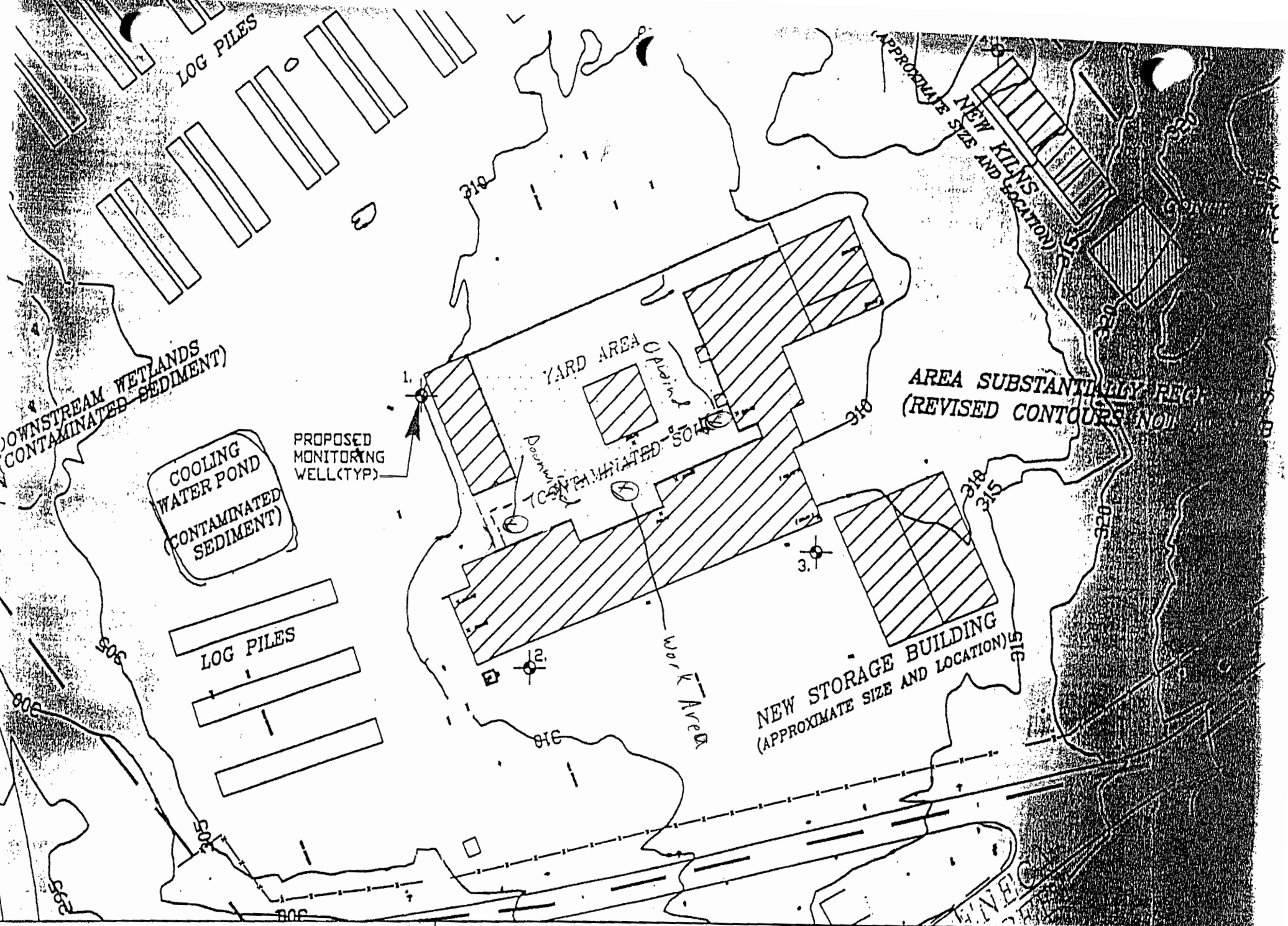
9 October, 2001 Upwind



Great Lak(. Veneer

9 October, 2001 Work Area





October 9, 2001

Client:	**Sampling Data Sheet / Chain of Custody**	O'Rourke Incorporated 23 Lake Street PO Box 341 Owego, New York 13827 Phone: 607-687-1234 Fax: 607-687-7445
[redacted] Abscope		

Project Name: Great Lakes Veneer	Project Supervisor:	Sampling Date: 10/12/01
Project Number:	Fax Results to #	Due Date:
Project Location: Oswego, NY	Submit all Final Reports and Invoices to O'Rourke Inc.	Client #

	Field Sample #	Lab ID #	Start Time	End Time	Total Time (min)	Flow Rate (l/min)	Total Volume	Sample Description or Employee Name/ Social Security #	Number of Containers	Analysis Requested 1	2	3	4	5	6
Total Dust	Upwind		12:30	2:00	90	2.0	180	Upwind	1						
PCB	Upwind		12:30	2:00	90	0.5	45.0	Upwind	1						
Total D.	Downwind		12:35	2:05	90	2.0	180	Downwind	1						
ACB	Downwind		12:35	2:05	90	0.5	45.0	Downwind	1						

	Analysis Requested	Method
1		
2		
3		
4		
5		
6		

Field Notes:

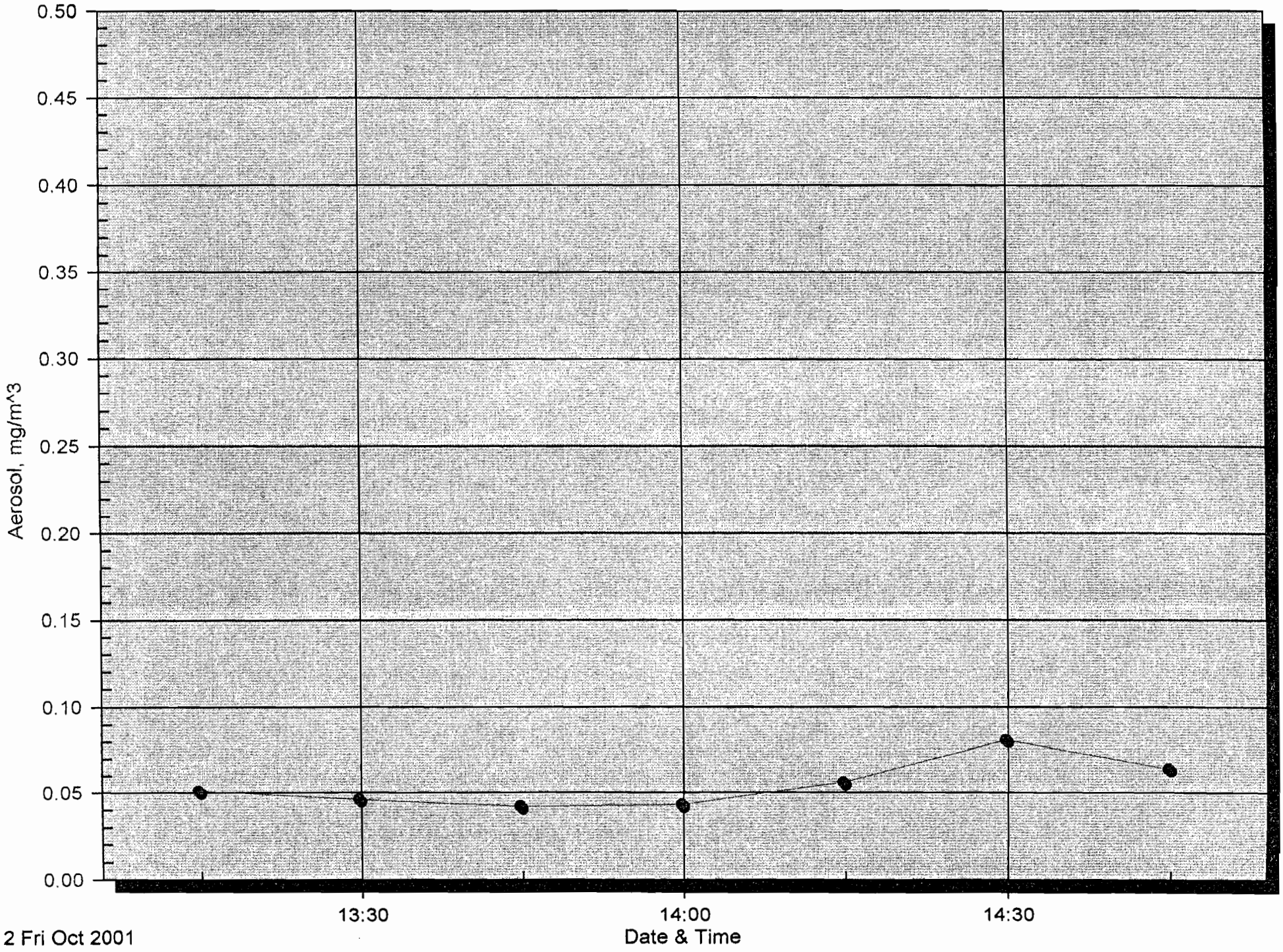
Technicians Name: Ashley Coleman

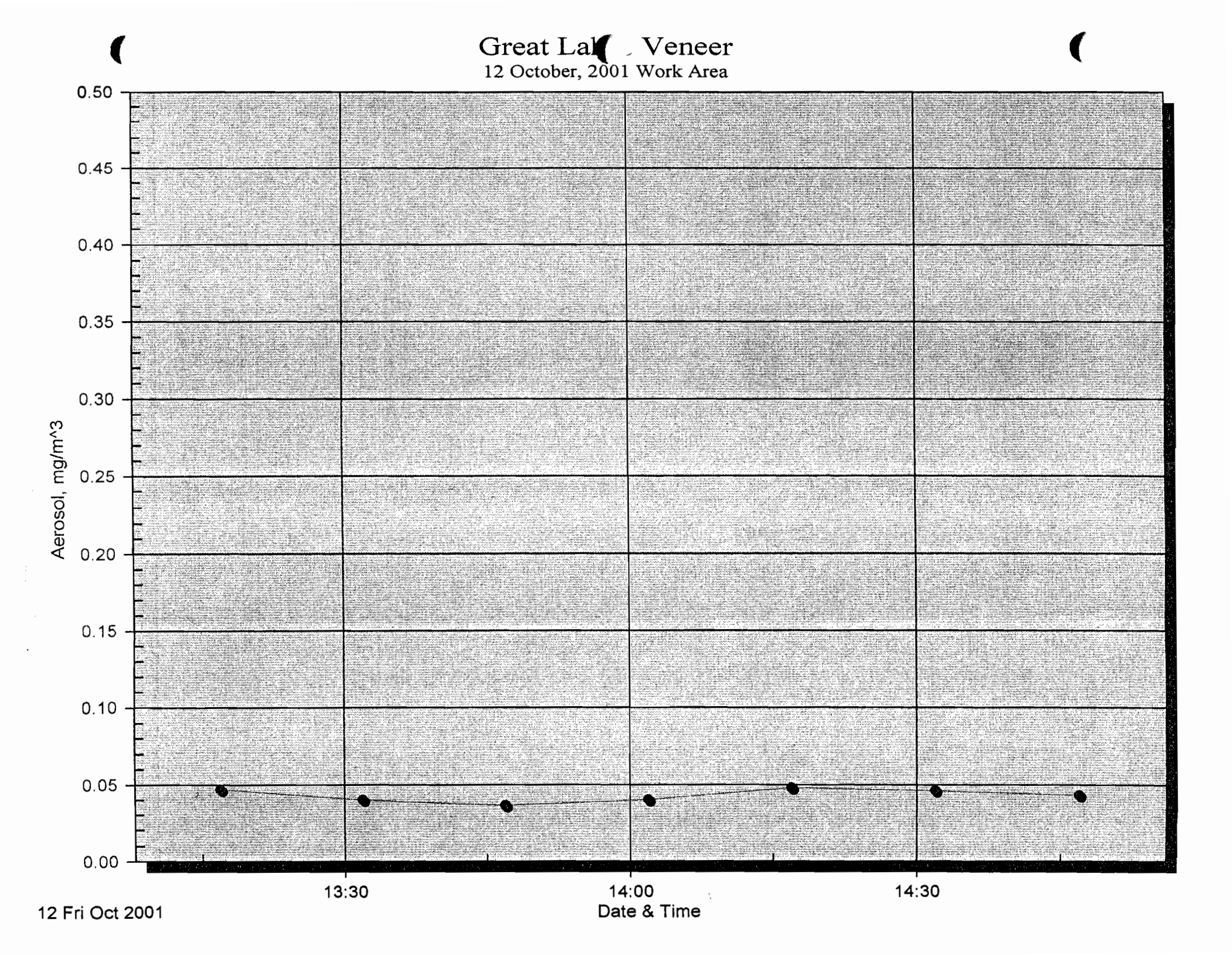
Relinquished By: Date/Time

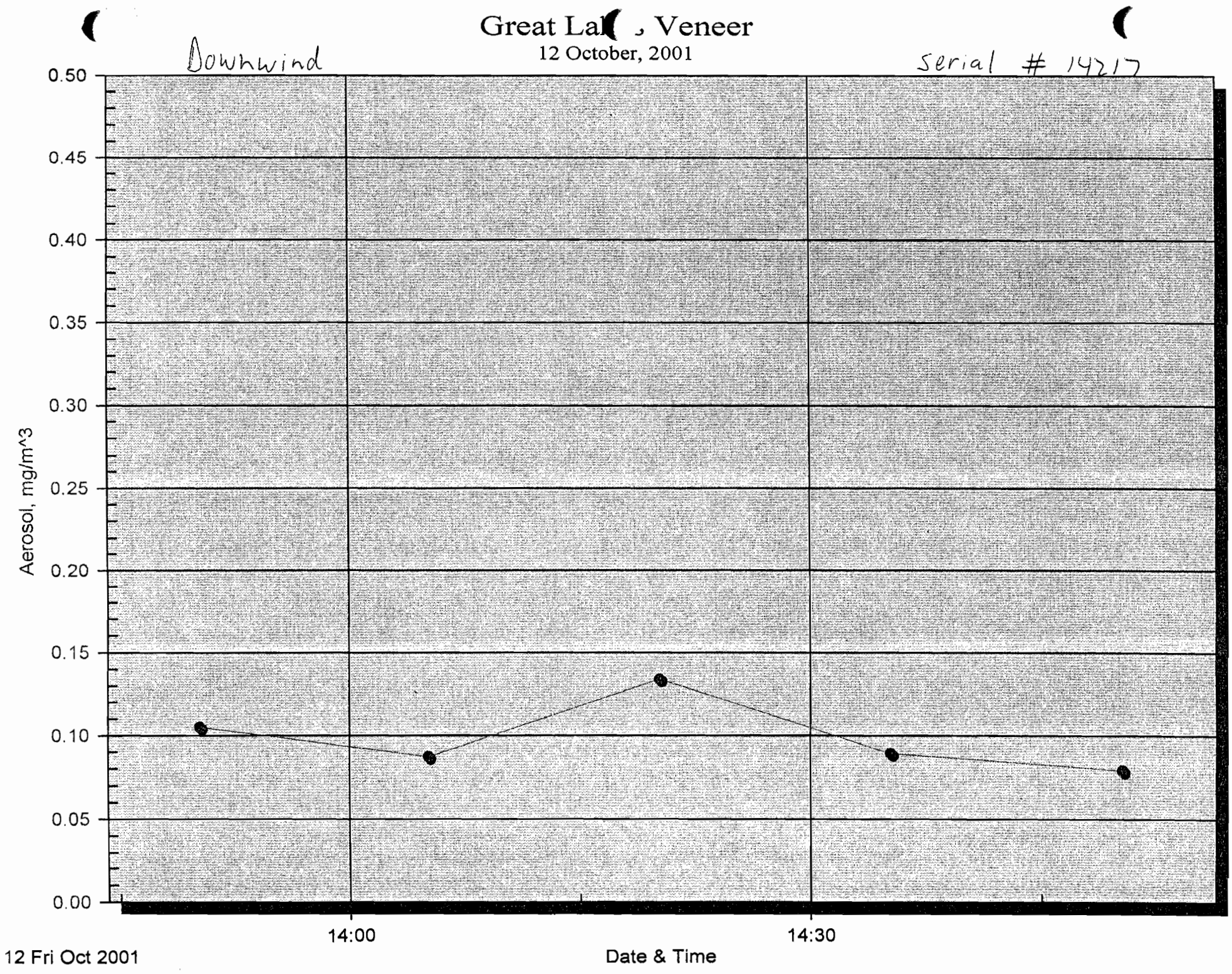
Received By: Date/Time

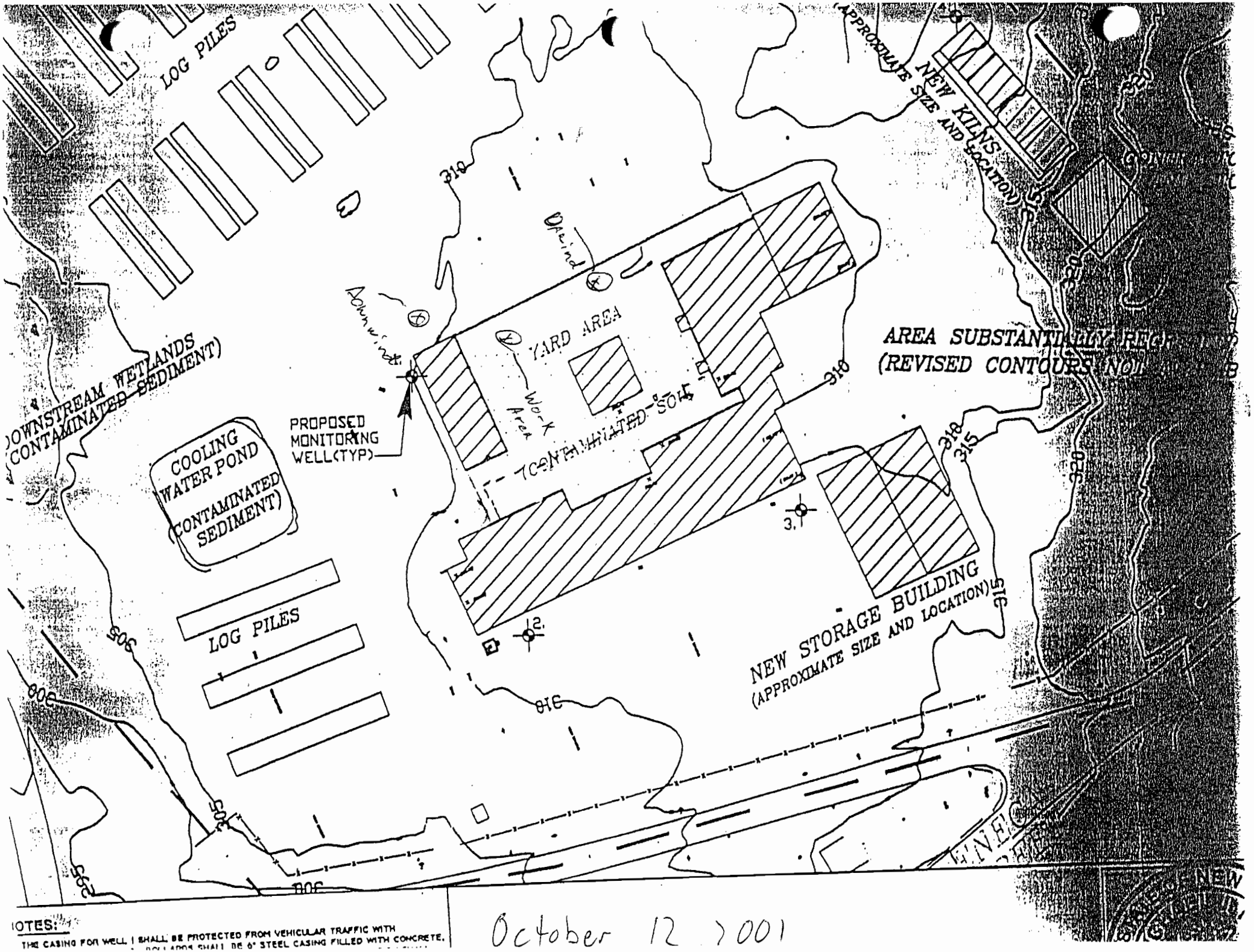
Great La[illegible] Veneer

12 October, 2001 Upwind




Great Lak Veneer
12 October, 2001 Work Area
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
Aerosol, mg/m^3
13:30
14:00
14:30
12 Fri Oct 2001
Date & Time


Great Lak[illegible] Veneer
12 October, 2001
Downwind
serial # 14217
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
Aerosol, mg/m^3
14:00
14:30
12 Fri Oct 2001
Date & Time


LOG PILES
APPROXIMATE SIZE AND LOCATION)
NEW KILNS
Upwind
Downwind
YARD AREA
Work Area
CONTAMINATED SOIL
AREA SUBSTANTIALLY REG
(REVISED CONTOURS NO
DOWNSTREAM WETLANDS
(CONTAMINATED SEDIMENT)
PROPOSED MONITORING WELL(TYP)
COOLING WATER POND
(CONTAMINATED SEDIMENT)
LOG PILES
NEW STORAGE BUILDING
(APPROXIMATE SIZE AND LOCATION)
310
315
316
318
320
306
308
312
314
NOTES:
THE CASING FOR WELL 1 SHALL BE PROTECTED FROM VEHICULAR TRAFFIC WITH
October 12 2001

Client: [redacted]	**Sampling Data Sheet / Chain of Custody**	O'Rourke Incorporated 23 Lake Street PO Box 341 Owego, New York 13827 Phone: 607-687-1234 Fax: 607-687-7445
Abscope		

Project Name: Oswego Castings	Project Supervisor:	Sampling Date: 10/15/01
Project Number:	Fax Results to #	Due Date:
Project Location: Oswego, NY	Submit all Final Reports and Invoices to O'Rourke Inc.	Client #

	Field Sample #	Lab ID #	Start Time	End Time	Total Time (min)	Flow Rate (l/min)	Total Volume	Sample Description or Employee Name/ Social Security #	Number of Containers	Analysis Requested 1	2	3	4	5	6
Total Dust	Upwind		9:00	3:45	405	2.0	810	Upwind	1						
PCB	Upwind		9:00	3:45	405	0.5	202	Upwind	1						
Total Dust	Downwind		9:05	3:50	405	2.0	810	Downwind	1						
PCB	Downwind		9:05	3:50	405	0.5	202	Downwind	1						

	Analysis Requested	Method
1		
2		
3		
4		
5		
6		

Field Notes:

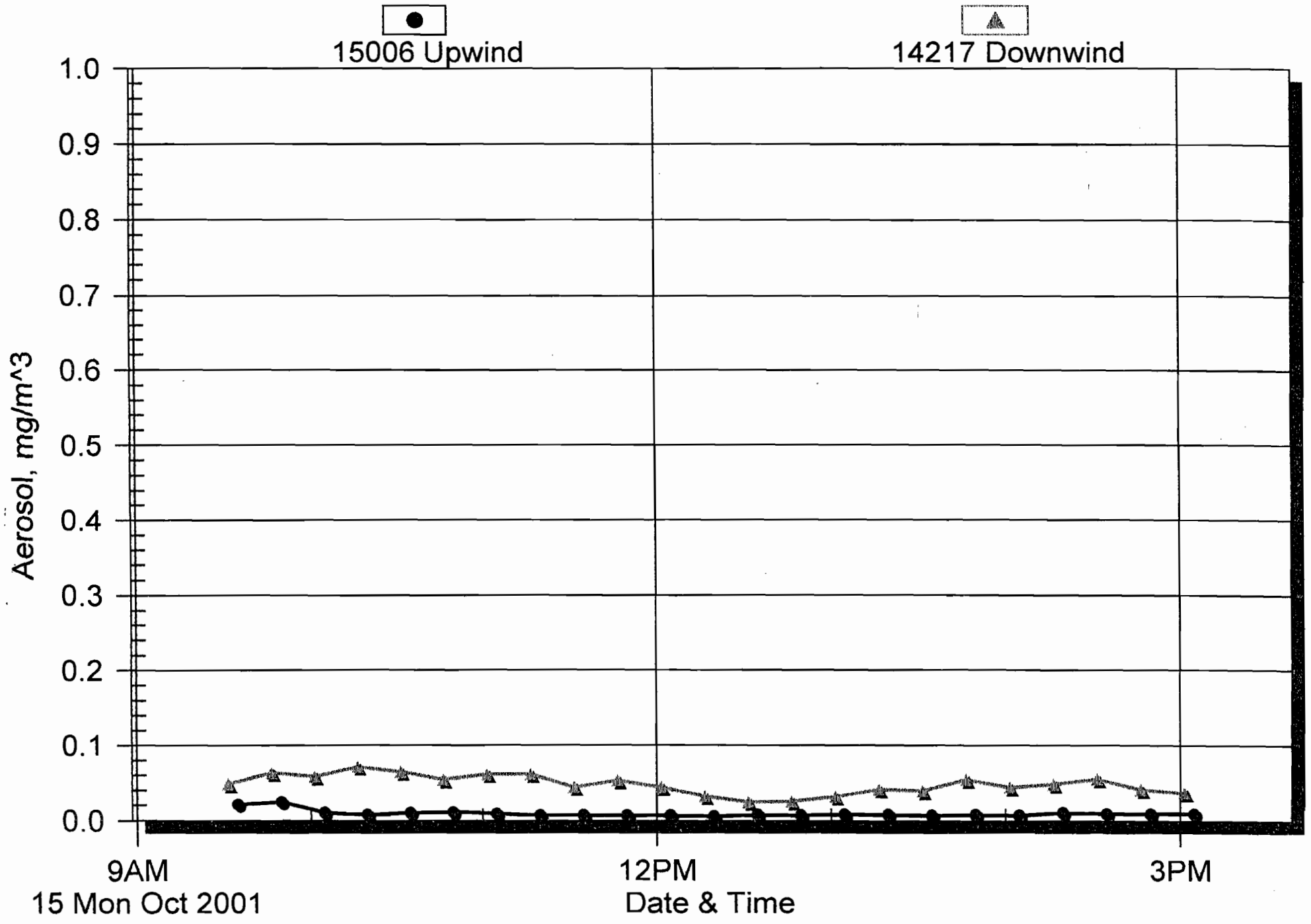
Technicians Name: Ashley Coleman

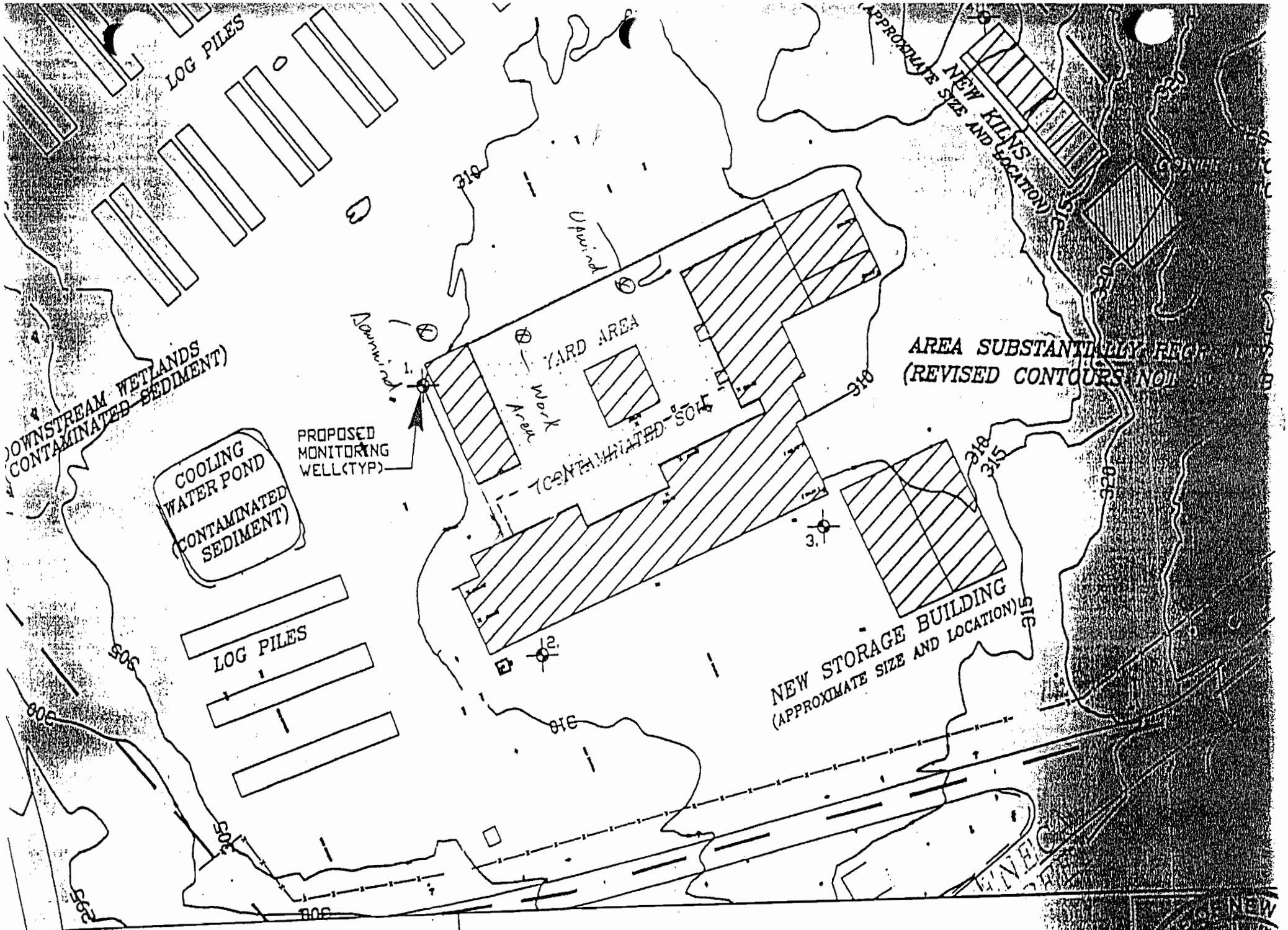
Relinquished By: Date/Time

Received By: Date/Time

Great Lakes Veneer

15 October,2001





NOTES:

THE CASING FOR WELL 1 SHALL BE PROTECTED FROM VEHICULAR TRAFFIC WITH

October 15, 2001

APPENDIX C

FLI
FRIEND LABORATORY · N · C

ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date:13-AUG-2001

Lab Sample ID: L74178-1

Abscope Environmental, Inc.
Rob Gray

PO Box 487 1 Commercial Drive
Canastota, NY 13032

Sample Source: OSWEGO CASTINGS
Origin: DP-1
Description: GRAB
Sampled On: 08-AUG-01 00:00 by CLIENT
Date Received: 09-AUG-01 09:57
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Total Solids	83.7	%		09-AUG-01 00:00	CLP 3.0	01-072-10
EPA 8082						
PCB 1016	U	ug/kg	120	13-AUG-01 10:57	EPA 8082	01-124-78
PCB 1221	U	ug/kg	240	13-AUG-01 10:57	EPA 8082	01-124-78
PCB 1232	U	ug/kg	120	13-AUG-01 10:57	EPA 8082	01-124-78
PCB 1242	U	ug/kg	120	13-AUG-01 10:57	EPA 8082	01-124-78
PCB 1248	2300	ug/kg	120	13-AUG-01 10:57	EPA 8082	01-124-78
PCB 1254	U	ug/kg	120	13-AUG-01 10:57	EPA 8082	01-124-78
PCB 1260	U	ug/kg	120	13-AUG-01 10:57	EPA 8082	01-124-78
Extraction Information:				09-AUG-01 00:00	EPA 3550	01-114-42
Surrogate Recovery:						
Tetrachloro-m-xylene	62	%				01-124-78
Decachlorobiphenyl	87	%				01-124-78

Results calculated on a dry weight basis.

QC NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: Lab Director

ND or U	= None Detected	< = less than	ug/L	= micrograms per liter (equivalent to parts per billion)	
mg/L	= milligrams per liter (equivalent to parts per million)		mg/kg	= milligrams per kilogram (equivalent to parts per mill	
B	= analyte was detected in the method or trip blank		J	= result estimated below the quantitation limit	

The information in this report is accurate to the best of our knowledge and ability. In no event shall our liability exceed the cost of these servi
Your samples will be discarded after 14 days unless we are advised otherwise.

FLI
FRIEND LABORATORY · N · C

ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date:13-AUG-2001

Lab Sample ID: L74178-4

Abscope Environmental, Inc.
Rob Gray

PO Box 487 1 Commercial Drive
Canastota, NY 13032

Sample Source: OSWEGO CASTINGS
Origin: DP-2
Description: GRAB
Sampled On: 08-AUG-01 00:00 by CLIENT
Date Received: 09-AUG-01 09:57
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Total Solids	76.1	%		09-AUG-01 00:00	CLP 3.0	01-072-1(
EPA 8082						
PCB 1016	U	ug/kg	130	13-AUG-01 12:30	EPA 8082	01-124-7
PCB 1221	U	ug/kg	260	13-AUG-01 12:30	EPA 8082	01-124-7
PCB 1232	U	ug/kg	130	13-AUG-01 12:30	EPA 8082	01-124-7
PCB 1242	U	ug/kg	130	13-AUG-01 12:30	EPA 8082	01-124-7
PCB 1248	2300	ug/kg	130	13-AUG-01 12:30	EPA 8082	01-124-7
PCB 1254	U	ug/kg	130	13-AUG-01 12:30	EPA 8082	01-124-7
PCB 1260	U	ug/kg	130	13-AUG-01 12:30	EPA 8082	01-124-7
Extraction Information:				09-AUG-01 00:00	EPA 3550	01-114-4
Surrogate Recovery:						
Tetrachloro-m-xylene	69	%				01-124-7
Decachlorobiphenyl	86	%				01-124-7

Results calculated on a dry weight basis.

QC NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: Lab Director

ND or U	= None Detected	< = less than	ug/L	= micrograms per liter (equivalent to parts per billion
mg/L	= milligrams per liter (equivalent to parts per million)		mg/kg	= milligrams per kilogram (equivalent to parts per mi
B	= analyte was detected in the method or trip blank		J	= result estimated below the quantitation limit

The information in this report is accurate to the best of our knowledge and ability. In no event shall our liability exceed the cost of these ser
Your samples will be discarded after 14 days unless we are advised otherwise.

FLI
FRIEND LABORATORY
· N · C

ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date:13-AUG-2001

Lab Sample ID: L74178-5

Abscope Environmental, Inc.
Rob Gray

PO Box 487 1 Commercial Drive
Canastota, NY 13032

Sample Source: OSWEGO CASTINGS
Origin: DP-3
Description: GRAB
Sampled On: 08-AUG-01 00:00 by CLIENT
Date Received: 09-AUG-01 09:57
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Total Solids	64.8	%		09-AUG-01 00:00	CLP 3.0	01-072-100
EPA 8082						
PCB 1016	U	ug/kg	150	13-AUG-01 13:01	EPA 8082	01-124-782
PCB 1221	U	ug/kg	310	13-AUG-01 13:01	EPA 8082	01-124-782
PCB 1232	U	ug/kg	150	13-AUG-01 13:01	EPA 8082	01-124-782
PCB 1242	U	ug/kg	150	13-AUG-01 13:01	EPA 8082	01-124-782
PCB 1248	2100	ug/kg	150	13-AUG-01 13:01	EPA 8082	01-124-782
PCB 1254	U	ug/kg	150	13-AUG-01 13:01	EPA 8082	01-124-782
PCB 1260	U	ug/kg	150	13-AUG-01 13:01	EPA 8082	01-124-782
Extraction Information:				09-AUG-01 00:00	EPA 3550	01-114-42
Surrogate Recovery:						
Tetrachloro-m-xylene	65	%				01-124-782
Decachlorobiphenyl	88	%				01-124-782

Results calculated on a dry weight basis.

QC NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: Lab Director

ND or U	= None Detected	< = less than	ug/L = micrograms per liter (equivalent to parts per billion)
mg/L	= milligrams per liter (equivalent to parts per million)		mg/kg = milligrams per kilogram (equivalent to parts per milli
B	= analyte was detected in the method or trip blank		J = result estimated below the quantitation limit

The information in this report is accurate to the best of our knowledge and ability. In no event shall our liability exceed the cost of these servic
Your samples will be discarded after 14 days unless we are advised otherwise.

FLI
FRIEND LABORATORY · N · C

ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date:13-AUG-2001

Lab Sample ID: L74178-6

Abscope Environmental, Inc.
Rob Gray

PO Box 487 1 Commercial Drive
Canastota, NY 13032

Sample Source: OSWEGO CASTINGS
Origin: DP-4
Description: GRAB
Sampled On: 08-AUG-01 00:00 by CLIENT
Date Received: 09-AUG-01 09:57
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Total Solids	74.3	%		09-AUG-01 00:00	CLP 3.0	01-072-100
EPA 8082						
PCB 1016	U	ug/kg	130	13-AUG-01 13:33	EPA 8082	01-124-783
PCB 1221	U	ug/kg	270	13-AUG-01 13:33	EPA 8082	01-124-783
PCB 1232	U	ug/kg	130	13-AUG-01 13:33	EPA 8082	01-124-783
PCB 1242	U	ug/kg	130	13-AUG-01 13:33	EPA 8082	01-124-783
PCB 1248	970	ug/kg	130	13-AUG-01 13:33	EPA 8082	01-124-783
PCB 1254	U	ug/kg	130	13-AUG-01 13:33	EPA 8082	01-124-783
PCB 1260	U	ug/kg	130	13-AUG-01 13:33	EPA 8082	01-124-783
Extraction Information:				09-AUG-01 00:00	EPA 3550	01-114-42
Surrogate Recovery:						
Tetrachloro-m-xylene	22	%				01-124-783
Decachlorobiphenyl	36	%				01-124-783

Results calculated on a dry weight basis.

QC NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: _____
Lab Director

ND or U	= None Detected	< = less than	ug/L = micrograms per liter (equivalent to parts per billion)
mg/L	= milligrams per liter (equivalent to parts per million)		mg/kg = milligrams per kilogram (equivalent to parts per millic
B	= analyte was detected in the method or trip blank		J = result estimated below the quantitation limit

The information in this report is accurate to the best of our knowledge and ability. In no event shall our liability exceed the cost of these servic
Your samples will be discarded after 14 days unless we are advised otherwise.

FLI
FRIEND LABORATORY I · N · C

ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date:13-AUG-2001

Lab Sample ID: L74178-7

Abscope Environmental, Inc.
Rob Gray

PO Box 487 1 Commercial Drive
Canastota, NY 13032

Sample Source: OSWEGO CASTINGS
Origin: DP-5
Description: GRAB
Sampled On: 08-AUG-01 00:00 by CLIENT
Date Received: 09-AUG-01 09:57
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Total Solids	80.8	%		09-AUG-01 00:00	CLP 3.0	01-072-1(
EPA 8082						
PCB 1016	U	ug/kg	120	13-AUG-01 14:04	EPA 8082	01-124-7(
PCB 1221	U	ug/kg	250	13-AUG-01 14:04	EPA 8082	01-124-7(
PCB 1232	U	ug/kg	120	13-AUG-01 14:04	EPA 8082	01-124-7(
PCB 1242	U	ug/kg	120	13-AUG-01 14:04	EPA 8082	01-124-7(
PCB 1248	2300	ug/kg	120	13-AUG-01 14:04	EPA 8082	01-124-7(
PCB 1254	U	ug/kg	120	13-AUG-01 14:04	EPA 8082	01-124-7(
PCB 1260	U	ug/kg	120	13-AUG-01 14:04	EPA 8082	01-124-7(
Extraction Information:				09-AUG-01 00:00	EPA 3550	01-114-4(
Surrogate Recovery:						
Tetrachloro-m-xylene	73	%				01-124-7(
Decachlorobiphenyl	108	%				01-124-7(

Results calculated on a dry weight basis.

QC NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: Lab Director

KEY:
ND or U = None Detected
< = less than
ug/L = micrograms per liter (equivalent to parts per billion)
mg/L = milligrams per liter (equivalent to parts per million)
mg/kg = milligrams per kilogram (equivalent to parts per mil
B = analyte was detected in the method or trip blank
J = result estimated below the quantitation limit

The information in this report is accurate to the best of our knowledge and ability. In no event shall our liability exceed the cost of these serv
Your samples will be discarded after 14 days unless we are advised otherwise.

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FRIEND LABORATORY · N · C

ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date:13-AUG-2001

Lab Sample ID: L74178-8

Abscope Environmental, Inc.
Rob Gray

PO Box 487 1 Commercial Drive
Canastota, NY 13032

Sample Source: OSWEGO CASTINGS
Origin: DP-6
Description: GRAB
Sampled On: 08-AUG-01 00:00 by CLIENT
Date Received: 09-AUG-01 09:57
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Total Solids	64.9	%		09-AUG-01 00:00	CLP 3.0	01-072-100
EPA 8082						
PCB 1016	U	ug/kg	150	13-AUG-01 14:35	EPA 8082	01-124-783
PCB 1221	U	ug/kg	310	13-AUG-01 14:35	EPA 8082	01-124-783
PCB 1232	U	ug/kg	150	13-AUG-01 14:35	EPA 8082	01-124-783
PCB 1242	U	ug/kg	150	13-AUG-01 14:35	EPA 8082	01-124-783
PCB 1248	1100	ug/kg	150	13-AUG-01 14:35	EPA 8082	01-124-783
PCB 1254	U	ug/kg	150	13-AUG-01 14:35	EPA 8082	01-124-783
PCB 1260	U	ug/kg	150	13-AUG-01 14:35	EPA 8082	01-124-783
Extraction Information:				09-AUG-01 00:00	EPA 3550	01-114-42
Surrogate Recovery:						
Tetrachloro-m-xylene	76	%				01-124-783
Decachlorobiphenyl	103	%				01-124-783

Results calculated on a dry weight basis.

QC NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: John A Kent
Lab Director

ND or U	= None Detected	< = less than	ug/L = micrograms per liter (equivalent to parts per billion)
mg/L	= milligrams per liter (equivalent to parts per million)		mg/kg = milligrams per kilogram (equivalent to parts per milli
B	= analyte was detected in the method or trip blank		J = result estimated below the quantitation limit

The information in this report is accurate to the best of our knowledge and ability. In no event shall our liability exceed the cost of these servic
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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date:20-AUG-2001

Lab Sample ID: L74457-18

Abscope Environmental, Inc.
Rob Gray

PO Box 487 1 Commercial Drive
Canastota, NY 13032

Sample Source: OSWEGO CASTINGS
Origin: DP-7
Description: COMPOSITE
Sampled On: 10-AUG-01 00:00 by CLIENT
Date Received: 14-AUG-01 11:54
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Total Solids	69.1	%		14-AUG-01 00:00	CLP 3.0	01-136-2
EPA 8082						
PCB 1016	U	ug/kg	140	16-AUG-01 04:25	EPA 8082	01-124-78S
PCB 1221	U	ug/kg	290	16-AUG-01 04:25	EPA 8082	01-124-78S
PCB 1232	U	ug/kg	140	16-AUG-01 04:25	EPA 8082	01-124-78S
PCB 1242	U	ug/kg	140	16-AUG-01 04:25	EPA 8082	01-124-78S
PCB 1248	190	ug/kg	140	16-AUG-01 04:25	EPA 8082	01-124-78S
PCB 1254	U	ug/kg	140	16-AUG-01 04:25	EPA 8082	01-124-78S
PCB 1260	U	ug/kg	140	16-AUG-01 04:25	EPA 8082	01-124-78S
Extraction Information:				15-AUG-01 00:00	EPA 3550	01-114-50
Surrogate Recovery:						
Tetrachloro-m-xylene	68	%				01-124-78S
Decachlorobiphenyl	85	%				01-124-78S

Results calculated on a dry weight basis.

Approved by: *Lab Director*

ND or U	= None Detected	< = less than	ug/L = micrograms per liter (equivalent to parts per billion)
mg/L	= milligrams per liter (equivalent to parts per million)		mg/kg = milligrams per kilogram (equivalent to parts per mill
B	= analyte was detected in the method or trip blank		J = result estimated below the quantitation limit

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date:20-AUG-2001

Lab Sample ID: L74457-1

Abscope Environmental, Inc.
Rob Gray

PO Box 487 1 Commercial Drive
Canastota, NY 13032

Sample Source: OSWEGO CASTINGS
Origin: DP-8
Description: COMPOSITE
Sampled On: 10-AUG-01 00:00 by CLIENT
Date Received: 14-AUG-01 11:54
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Total Solids	38.2	%		14-AUG-01 00:00	CLP 3.0	01-136-2
EPA 8082						
PCB 1016	U	ug/kg	260	14-AUG-01 18:46	EPA 8082	01-124-784
PCB 1221	U	ug/kg	520	14-AUG-01 18:46	EPA 8082	01-124-784
PCB 1232	U	ug/kg	260	14-AUG-01 18:46	EPA 8082	01-124-784
PCB 1242	U	ug/kg	260	14-AUG-01 18:46	EPA 8082	01-124-784
PCB 1248	1100	ug/kg	260	14-AUG-01 18:46	EPA 8082	01-124-784
PCB 1254	U	ug/kg	260	14-AUG-01 18:46	EPA 8082	01-124-784
PCB 1260	U	ug/kg	260	14-AUG-01 18:46	EPA 8082	01-124-784
Extraction Information:				14-AUG-01 00:00	EPA 3550	01-114-47
Surrogate Recovery:						
Tetrachloro-m-xylene	84	%				01-124-784
Decachlorobiphenyl	99	%				01-124-784

Results calculated on a dry weight basis.

NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: *John A Kent*
Lab Director

ND or U	= None Detected	< = less than	ug/L = micrograms per liter (equivalent to parts per billion)
mg/L	= milligrams per liter (equivalent to parts per million)		mg/kg = milligrams per kilogram (equivalent to parts per millic
B	= analyte was detected in the method or trip blank		J = result estimated below the quantitation limit

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date:20-AUG-2001

Lab Sample ID: L74457-2

Abscope Environmental, Inc.
Rob Gray

PO Box 487 1 Commercial Drive
Canastota, NY 13032

Sample Source: OSWEGO CASTINGS
Origin: DP-9
Description: COMPOSITE
Sampled On: 10-AUG-01 00:00 by CLIENT
Date Received: 14-AUG-01 11:54
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Total Solids	43.7	%		14-AUG-01 00:00	CLP 3.0	01-136-2
EPA 8082						
PCB 1016	U	ug/kg	230	14-AUG-01 19:18	EPA 8082	01-124-7848
PCB 1221	U	ug/kg	450	14-AUG-01 19:18	EPA 8082	01-124-7848
PCB 1232	U	ug/kg	230	14-AUG-01 19:18	EPA 8082	01-124-7848
PCB 1242	U	ug/kg	230	14-AUG-01 19:18	EPA 8082	01-124-7848
PCB 1248	2400	ug/kg	230	14-AUG-01 19:18	EPA 8082	01-124-7848
PCB 1254	U	ug/kg	230	14-AUG-01 19:18	EPA 8082	01-124-7848
PCB 1260	U	ug/kg	230	14-AUG-01 19:18	EPA 8082	01-124-7848
Extraction Information:				14-AUG-01 00:00	EPA 3550	01-114-47
Surrogate Recovery:						
Tetrachloro-m-xylene	84	%				01-124-7848
Decachlorobiphenyl	101	%				01-124-7848

Results calculated on a dry weight basis.

QC NY 10252 NJ 73168 PA 68180 EPA NY 00033 Page 1 of 1

Approved by: *John A Kent*
Lab Director

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ND or U	= None Detected	< = less than	ug/L = micrograms per liter (equivalent to parts per billion)
mg/L	= milligrams per liter (equivalent to parts per million)		mg/kg = milligrams per kilogram (equivalent to parts per millic
B	= analyte was detected in the method or trip blank		J = result estimated below the quantitation limit

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date:20-AUG-2001

Lab Sample ID: L74457-3

Abscope Environmental, Inc.
Rob Gray

PO Box 487 1 Commercial Drive
Canastota, NY 13032

Sample Source: OSWEGO CASTINGS
Origin: DP-10
Description: COMPOSITE
Sampled On: 10-AUG-01 00:00 by CLIENT
Date Received: 14-AUG-01 11:54
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Total Solids	42.9	%		14-AUG-01 00:00	CLP 3.0	01-136-2
EPA 8082						
PCB 1016	U	ug/kg	230	14-AUG-01 19:49	EPA 8082	01-124-784
PCB 1221	U	ug/kg	460	14-AUG-01 19:49	EPA 8082	01-124-784
PCB 1232	U	ug/kg	230	14-AUG-01 19:49	EPA 8082	01-124-784
PCB 1242	U	ug/kg	230	14-AUG-01 19:49	EPA 8082	01-124-784
PCB 1248	6200	ug/kg	230	14-AUG-01 19:49	EPA 8082	01-124-784
PCB 1254	U	ug/kg	230	14-AUG-01 19:49	EPA 8082	01-124-784
PCB 1260	U	ug/kg	230	14-AUG-01 19:49	EPA 8082	01-124-784
Extraction Information:				14-AUG-01 00:00	EPA 3550	01-114-47
Surrogate Recovery:						
Tetrachloro-m-xylene	74	%				01-124-784
Decachlorobiphenyl	94	%				01-124-784

Results calculated on a dry weight basis.

NY 10252 NJ 73168 PA 68180 EPA NY00033

Approved by: *John A Kent*
Lab Director

ND or U	= None Detected	< = less than	ug/L = micrograms per liter (equivalent to parts per billion)
mg/L	= milligrams per liter (equivalent to parts per million)		mg/kg = milligrams per kilogram (equivalent to parts per millic
B	= analyte was detected in the method or trip blank		J = result estimated below the quantitation limit

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date:20-AUG-2001

Lab Sample ID: L74457-4

Abscope Environmental, Inc.
Rob Gray

PO Box 487 1 Commercial Drive
Canastota, NY 13032

Sample Source: OSWEGO CASTINGS
Origin: DP-11
Description: COMPOSITE
Sampled On: 10-AUG-01 00:00 by CLIENT
Date Received: 14-AUG-01 11:54
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Total Solids	42	%		14-AUG-01 00:00	CLP 3.0	01-136-2
EPA 8082						
PCB 1016	U	ug/kg	240	14-AUG-01 20:20	EPA 8082	01-124-7850
PCB 1221	U	ug/kg	470	14-AUG-01 20:20	EPA 8082	01-124-7850
PCB 1232	U	ug/kg	240	14-AUG-01 20:20	EPA 8082	01-124-7850
PCB 1242	U	ug/kg	240	14-AUG-01 20:20	EPA 8082	01-124-7850
PCB 1248	2100	ug/kg	240	14-AUG-01 20:20	EPA 8082	01-124-7850
PCB 1254	U	ug/kg	240	14-AUG-01 20:20	EPA 8082	01-124-7850
PCB 1260	U	ug/kg	240	14-AUG-01 20:20	EPA 8082	01-124-7850
Extraction Information:				14-AUG-01 00:00	EPA 3550	01-114-47
Surrogate Recovery:						
Tetrachloro-m-xylene	83	%				01-124-7850
Decachlorobiphenyl	110	%				01-124-7850

Results calculated on a dry weight basis.

NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: John A Kent
Lab Director

ND or U	= None Detected	< = less than	ug/L = micrograms per liter (equivalent to parts per billion)
mg/L	= milligrams per liter (equivalent to parts per million)		mg/kg = milligrams per kilogram (equivalent to parts per millic
B	= analyte was detected in the method or trip blank		J = result estimated below the quantitation limit

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 20-AUG-2001

Lab Sample ID: L74457-6

Abscope Environmental, Inc.
Rob Gray

PO Box 487 1 Commercial Drive
Canastota, NY 13032

Sample Source: OSWEGO CASTINGS
Origin: DP-12
Description: COMPOSITE
Sampled On: 10-AUG-01 00:00 by CLIENT
Date Received: 14-AUG-01 11:54
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Total Solids	44.5	%		14-AUG-01 00:00	CLP 3.0	01-136-2
EPA 8082						
PCB 1016	U	ug/kg	220	14-AUG-01 21:23	EPA 8082	01-124-7852
PCB 1221	U	ug/kg	450	14-AUG-01 21:23	EPA 8082	01-124-7852
PCB 1232	U	ug/kg	220	14-AUG-01 21:23	EPA 8082	01-124-7852
PCB 1242	U	ug/kg	220	14-AUG-01 21:23	EPA 8082	01-124-7852
PCB 1248	1100	ug/kg	220	14-AUG-01 21:23	EPA 8082	01-124-7852
PCB 1254	U	ug/kg	220	14-AUG-01 21:23	EPA 8082	01-124-7852
PCB 1260	U	ug/kg	220	14-AUG-01 21:23	EPA 8082	01-124-7852
Extraction Information:				14-AUG-01 00:00	EPA 3550	01-114-47
Surrogate Recovery:						
Tetrachloro-m-xylene	82	%				01-124-7852
Decachlorobiphenyl	109	%				01-124-7852

Results calculated on a dry weight basis.

QC NY 10252 NJ 73168 PA 68180 EPA NY 00033 Page 1 of 1

Approved by: _____ Lab Director

ND or U	= None Detected	< = less than	ug/L = micrograms per liter (equivalent to parts per billion)
mg/L	= milligrams per liter (equivalent to parts per million)		mg/kg = milligrams per kilogram (equivalent to parts per millior
B	= analyte was detected in the method or trip blank		J = result estimated below the quantitation limit

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date:20-AUG-2001

Lab Sample ID: L74457-8

Abscope Environmental, Inc.
Rob Gray

PO Box 487 1 Commercial Drive
Canastota, NY 13032

Sample Source: OSWEGO CASTINGS
Origin: DP-13
Description: COMPOSITE
Sampled On: 10-AUG-01 00:00 by CLIENT
Date Received: 14-AUG-01 11:54
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Total Solids	37.6	%		14-AUG-01 00:00	CLP 3.0	01-136-2
EPA 8082						
PCB 1016	U	ug/kg	260	14-AUG-01 22:25	EPA 8082	01-124-7854
PCB 1221	U	ug/kg	530	14-AUG-01 22:25	EPA 8082	01-124-7854
PCB 1232	U	ug/kg	260	14-AUG-01 22:25	EPA 8082	01-124-7854
PCB 1242	U	ug/kg	260	14-AUG-01 22:25	EPA 8082	01-124-7854
PCB 1248	3000	ug/kg	260	14-AUG-01 22:25	EPA 8082	01-124-7854
PCB 1254	U	ug/kg	260	14-AUG-01 22:25	EPA 8082	01-124-7854
PCB 1260	U	ug/kg	260	14-AUG-01 22:25	EPA 8082	01-124-7854
Extraction Information:				14-AUG-01 00:00	EPA 3550	01-114-47
Surrogate Recovery:						
Tetrachloro-m-xylene	88	%				01-124-7854
Decachlorobiphenyl	104	%				01-124-7854

Results calculated on a dry weight basis.

Approved by: John A Kent
Lab Director

ND or U	= None Detected	< = less than	ug/L = micrograms per liter (equivalent to parts per billion)
mg/L	= milligrams per liter (equivalent to parts per million)		mg/kg = milligrams per kilogram (equivalent to parts per millior
B	= analyte was detected in the method or trip blank		J = result estimated below the quantitation limit

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our samples will be discarded after 14 days unless we are advised otherwise.

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date:20-AUG-2001

Lab Sample ID: L74457-9

Abscope Environmental, Inc.
Rob Gray

PO Box 487 1 Commercial Drive
Canastota, NY 13032

Sample Source: OSWEGO CASTINGS
Origin: DP-14
Description: COMPOSITE
Sampled On: 10-AUG-01 00:00 by CLIENT
Date Received: 14-AUG-01 11:54
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Total Solids	34.2	%		14-AUG-01 00:00	CLP 3.0	01-136-2
EPA 8082						
PCB 1016	U	ug/kg	290	15-AUG-01 23:45	EPA 8082	01-124-7888
PCB 1221	U	ug/kg	580	15-AUG-01 23:45	EPA 8082	01-124-7888
PCB 1232	U	ug/kg	290	15-AUG-01 23:45	EPA 8082	01-124-7888
PCB 1242	U	ug/kg	290	15-AUG-01 23:45	EPA 8082	01-124-7888
PCB 1248	8100	ug/kg	290	15-AUG-01 23:45	EPA 8082	01-124-7888
PCB 1254	U	ug/kg	290	15-AUG-01 23:45	EPA 8082	01-124-7888
PCB 1260	U	ug/kg	290	15-AUG-01 23:45	EPA 8082	01-124-7888
Extraction Information:				15-AUG-01 00:00	EPA 3550	01-114-50
Surrogate Recovery:						
Tetrachloro-m-xylene	82	%				01-124-7888
Decachlorobiphenyl	120	%				01-124-7888

Results calculated on a dry weight basis.

NY 10252 NJ 73168 PA 68180 EPA NY00033

Approved by: *John M Kent*
Lab Director

ND or U	= None Detected	< = less than	ug/L	= micrograms per liter (equivalent to parts per billion)	
mg/L	= milligrams per liter (equivalent to parts per million)		mg/kg	= milligrams per kilogram (equivalent to parts per millic	
B	= analyte was detected in the method or trip blank		J	= result estimated below the quantitation limit	

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Our samples will be discarded after 14 days unless we are advised otherwise.

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date:20-AUG-2001

Lab Sample ID: L74457-10

Abscope Environmental, Inc.
Rob Gray

PO Box 487 1 Commercial Drive
Canastota, NY 13032

Sample Source: OSWEGO CASTINGS
Origin: DP-15
Description: COMPOSITE
Sampled On: 10-AUG-01 00:00 by CLIENT
Date Received: 14-AUG-01 11:54
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Total Solids	44	%		14-AUG-01 00:00	CLP 3.0	01-136-2
EPA 8082						
PCB 1016	U	ug/kg	230	16-AUG-01 00:16	EPA 8082	01-124-7889
PCB 1221	U	ug/kg	450	16-AUG-01 00:16	EPA 8082	01-124-7889
PCB 1232	U	ug/kg	230	16-AUG-01 00:16	EPA 8082	01-124-7889
PCB 1242	U	ug/kg	230	16-AUG-01 00:16	EPA 8082	01-124-7889
PCB 1248	3100	ug/kg	230	16-AUG-01 00:16	EPA 8082	01-124-7889
PCB 1254	U	ug/kg	230	16-AUG-01 00:16	EPA 8082	01-124-7889
PCB 1260	U	ug/kg	230	16-AUG-01 00:16	EPA 8082	01-124-7889
Extraction Information:				15-AUG-01 00:00	EPA 3550	01-114-50
Surrogate Recovery:						
Tetrachloro-m-xylene	84	%				01-124-7889
Decachlorobiphenyl	114	%				01-124-7889

Results calculated on a dry weight basis.

Approved by: *John A Kent*
Lab Director

ND or U	= None Detected	< = less than	ug/L = micrograms per liter (equivalent to parts per billion)
mg/L	= milligrams per liter (equivalent to parts per million)		mg/kg = milligrams per kilogram (equivalent to parts per millior
B	= analyte was detected in the method or trip blank		J = result estimated below the quantitation limit

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date:20-AUG-2001

Lab Sample ID: L74457-11

Abscope Environmental, Inc.
Rob Gray

PO Box 487 1 Commercial Drive
Canastota, NY 13032

Sample Source: OSWEGO CASTINGS
Origin: DP-16
Description: COMPOSITE
Sampled On: 10-AUG-01 00:00 by CLIENT
Date Received: 14-AUG-01 11:54
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Total Solids	37.5	%		14-AUG-01 00:00	CLP 3.0	01-136-2
EPA 8082						
PCB 1016	U	ug/kg	260	16-AUG-01 00:47	EPA 8082	01-124-7890
PCB 1221	U	ug/kg	530	16-AUG-01 00:47	EPA 8082	01-124-7890
PCB 1232	U	ug/kg	260	16-AUG-01 00:47	EPA 8082	01-124-7890
PCB 1242	U	ug/kg	260	16-AUG-01 00:47	EPA 8082	01-124-7890
PCB 1248	8200	ug/kg	260	16-AUG-01 00:47	EPA 8082	01-124-7890
PCB 1254	U	ug/kg	260	16-AUG-01 00:47	EPA 8082	01-124-7890
PCB 1260	U	ug/kg	260	16-AUG-01 00:47	EPA 8082	01-124-7890
Extraction Information:				15-AUG-01 00:00	EPA 3550	01-114-50
Surrogate Recovery:						
Tetrachloro-m-xylene	95	%				01-124-7890
Decachlorobiphenyl	125	%				01-124-7890

Results calculated on a dry weight basis.

NY 10252 NJ 73168 PA 68180 EPA NY00033

Approved by: John A Kent
Lab Director

ND or U	= None Detected	< = less than	ug/L = micrograms per liter (equivalent to parts per billion)
mg/L	= milligrams per liter (equivalent to parts per million)		mg/kg = milligrams per kilogram (equivalent to parts per millic
B	= analyte was detected in the method or trip blank		J = result estimated below the quantitation limit

he information in this report is accurate to the best of our knowledge and ability. In no event shall our liability exceed the cost of these servic
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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date:20-AUG-2001

Lab Sample ID: L74457-12

Abscope Environmental, Inc.
Rob Gray

PO Box 487 1 Commercial Drive
Canastota, NY 13032

Sample Source: OSWEGO CASTINGS
Origin: DP-17
Description: COMPOSITE
Sampled On: 10-AUG-01 00:00 by CLIENT
Date Received: 14-AUG-01 11:54
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Total Solids	45.5	%		14-AUG-01 00:00	CLP 3.0	01-136-2
EPA 8082						
PCB 1016	U	ug/kg	220	16-AUG-01 01:18	EPA 8082	01-124-789
PCB 1221	U	ug/kg	440	16-AUG-01 01:18	EPA 8082	01-124-789
PCB 1232	U	ug/kg	220	16-AUG-01 01:18	EPA 8082	01-124-789
PCB 1242	U	ug/kg	220	16-AUG-01 01:18	EPA 8082	01-124-789
PCB 1248	2200	ug/kg	220	16-AUG-01 01:18	EPA 8082	01-124-789
PCB 1254	U	ug/kg	220	16-AUG-01 01:18	EPA 8082	01-124-789
PCB 1260	U	ug/kg	220	16-AUG-01 01:18	EPA 8082	01-124-789
Extraction Information:				15-AUG-01 00:00	EPA 3550	01-114-50
Surrogate Recovery:						
Tetrachloro-m-xylene	82	%				01-124-789
Decachlorobiphenyl	109	%				01-124-789

Results calculated on a dry weight basis.

NY 10252 NJ 73168 PA 68180 EPA NY00033

Approved by: _____ Lab Director

ND or U	= None Detected	< = less than	ug/L = micrograms per liter (equivalent to parts per billion)
mg/L	= milligrams per liter (equivalent to parts per million)		mg/kg = milligrams per kilogram (equivalent to parts per millic
B	= analyte was detected in the method or trip blank		J = result estimated below the quantitation limit

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FRIEND LABORATORY I · N · C

ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date:20-AUG-2001

Lab Sample ID: L74457-13

Abscope Environmental, Inc.
Rob Gray

PO Box 487 1 Commercial Drive
Canastota, NY 13032

Sample Source: OSWEGO CASTINGS
Origin: DP-18
Description: COMPOSITE
Sampled On: 10-AUG-01 00:00 by CLIENT
Date Received: 14-AUG-01 11:54
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Total Solids	42.6	%		14-AUG-01 00:00	CLP 3.0	01-136-2
EPA 8082						
PCB 1016	U	ug/kg	230	16-AUG-01 01:49	EPA 8082	01-124-78S
PCB 1221	U	ug/kg	470	16-AUG-01 01:49	EPA 8082	01-124-78S
PCB 1232	U	ug/kg	230	16-AUG-01 01:49	EPA 8082	01-124-78S
PCB 1242	U	ug/kg	230	16-AUG-01 01:49	EPA 8082	01-124-78S
PCB 1248	1700	ug/kg	230	16-AUG-01 01:49	EPA 8082	01-124-78S
PCB 1254	U	ug/kg	230	16-AUG-01 01:49	EPA 8082	01-124-78S
PCB 1260	U	ug/kg	230	16-AUG-01 01:49	EPA 8082	01-124-78S
Extraction Information:				15-AUG-01 00:00	EPA 3550	01-114-50
Surrogate Recovery:						
Tetrachloro-m-xylene	80	%				01-124-78S
Decachlorobiphenyl	112	%				01-124-78S

Results calculated on a dry weight basis.

QC NY 10252 NJ 73168 PA 68180 EPA NY00033

Approved by: *John A Kent*
Lab Director

ND or U	= None Detected	< = less than	ug/L = micrograms per liter (equivalent to parts per billion)
mg/L	= milligrams per liter (equivalent to parts per million)		mg/kg = milligrams per kilogram (equivalent to parts per milli
B	= analyte was detected in the method or trip blank		J = result estimated below the quantitation limit

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date:20-AUG-2001

Lab Sample ID: L74457-14

Abscope Environmental, Inc.
Rob Gray

PO Box 487 1 Commercial Drive
Canastota, NY 13032

Sample Source: OSWEGO CASTINGS
Origin: DP-19
Description: COMPOSITE
Sampled On: 10-AUG-01 00:00 by CLIENT
Date Received: 14-AUG-01 11:54
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Total Solids	40.4	%		14-AUG-01 00:00	CLP 3.0	01-136-2
EPA 8082						
PCB 1016	U	ug/kg	250	16-AUG-01 02:20	EPA 8082	01-124-7893
PCB 1221	U	ug/kg	490	16-AUG-01 02:20	EPA 8082	01-124-7893
PCB 1232	U	ug/kg	250	16-AUG-01 02:20	EPA 8082	01-124-7893
PCB 1242	U	ug/kg	250	16-AUG-01 02:20	EPA 8082	01-124-7893
PCB 1248	4200	ug/kg	250	16-AUG-01 02:20	EPA 8082	01-124-7893
PCB 1254	U	ug/kg	250	16-AUG-01 02:20	EPA 8082	01-124-7893
PCB 1260	U	ug/kg	250	16-AUG-01 02:20	EPA 8082	01-124-7893
Extraction Information:				15-AUG-01 00:00	EPA 3550	01-114-50
Surrogate Recovery:						
Tetrachloro-m-xylene	89	%				01-124-7893
Decachlorobiphenyl	119	%				01-124-7893

Results calculated on a dry weight basis.

NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: _____ Lab Director

ND or U	= None Detected	< = less than	ug/L = micrograms per liter (equivalent to parts per billion)
mg/L	= milligrams per liter (equivalent to parts per million)		mg/kg = milligrams per kilogram (equivalent to parts per millic
B	= analyte was detected in the method or trip blank		J = result estimated below the quantitation limit

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date:20-AUG-2001

Lab Sample ID: L74457-15

Abscope Environmental, Inc.
Rob Gray

PO Box 487 1 Commercial Drive
Canastota, NY 13032

Sample Source: OSWEGO CASTINGS
Origin: DP-20
Description: COMPOSITE
Sampled On: 10-AUG-01 00:00 by CLIENT
Date Received: 14-AUG-01 11:54
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Total Solids	43.9	%		14-AUG-01 00:00	CLP 3.0	01-136-2
EPA 8082						
PCB 1016	U	ug/kg	230	16-AUG-01 02:52	EPA 8082	01-124-7894
PCB 1221	U	ug/kg	450	16-AUG-01 02:52	EPA 8082	01-124-7894
PCB 1232	U	ug/kg	230	16-AUG-01 02:52	EPA 8082	01-124-7894
PCB 1242	U	ug/kg	230	16-AUG-01 02:52	EPA 8082	01-124-7894
PCB 1248	6900	ug/kg	230	16-AUG-01 02:52	EPA 8082	01-124-7894
PCB 1254	U	ug/kg	230	16-AUG-01 02:52	EPA 8082	01-124-7894
PCB 1260	U	ug/kg	230	16-AUG-01 02:52	EPA 8082	01-124-7894
Extraction Information:				15-AUG-01 00:00	EPA 3550	01-114-50
Surrogate Recovery:						
Tetrachloro-m-xylene	82	%				01-124-7894
Decachlorobiphenyl	109	%				01-124-7894

Results calculated on a dry weight basis.

Approved by: John A Kent
Lab Director

ND or U	= None Detected	< = less than	ug/L = micrograms per liter (equivalent to parts per billion)
mg/L	= milligrams per liter (equivalent to parts per million)		mg/kg = milligrams per kilogram (equivalent to parts per million)
B	= analyte was detected in the method or trip blank		J = result estimated below the quantitation limit

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date:20-AUG-2001

Lab Sample ID: L74457-16

Abscope Environmental, Inc.
Rob Gray

PO Box 487 1 Commercial Drive
Canastota, NY 13032

Sample Source: OSWEGO CASTINGS
Origin: DP-21
Description: COMPOSITE
Sampled On: 10-AUG-01 00:00 by CLIENT
Date Received: 14-AUG-01 11:54
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Total Solids	35.7	%		14-AUG-01 00:00	CLP 3.0	01-136-2
EPA 8082						
PCB 1016	U	ug/kg	280	16-AUG-01 03:23	EPA 8082	01-124-7895
PCB 1221	U	ug/kg	560	16-AUG-01 03:23	EPA 8082	01-124-7895
PCB 1232	U	ug/kg	280	16-AUG-01 03:23	EPA 8082	01-124-7895
PCB 1242	U	ug/kg	280	16-AUG-01 03:23	EPA 8082	01-124-7895
PCB 1248	1400	ug/kg	280	16-AUG-01 03:23	EPA 8082	01-124-7895
PCB 1254	U	ug/kg	280	16-AUG-01 03:23	EPA 8082	01-124-7895
PCB 1260	U	ug/kg	280	16-AUG-01 03:23	EPA 8082	01-124-7895
Extraction Information:				15-AUG-01 00:00	EPA 3550	01-114-50
Surrogate Recovery:						
Tetrachloro-m-xylene	89	%				01-124-7895
Decachlorobiphenyl	115	%				01-124-7895

Results calculated on a dry weight basis.

Approved by: *John A. Kent*
Lab Director

ND or U	= None Detected	< = less than	ug/L = micrograms per liter (equivalent to parts per billion)
mg/L	= milligrams per liter (equivalent to parts per million)		mg/kg = milligrams per kilogram (equivalent to parts per million)
B	= analyte was detected in the method or trip blank		J = result estimated below the quantitation limit

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date:20-AUG-2001

Lab Sample ID: L74457-17

Abscope Environmental, Inc.
Rob Gray

PO Box 487 1 Commercial Drive
Canastota, NY 13032

Sample Source: OSWEGO CASTINGS
Origin: DP-22
Description: COMPOSITE
Sampled On: 10-AUG-01 00:00 by CLIENT
Date Received: 14-AUG-01 11:54
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Total Solids	29.9	%		14-AUG-01 00:00	CLP 3.0	01-136-2
EPA 8082						
PCB 1016	U	ug/kg	330	16-AUG-01 03:54	EPA 8082	01-124-7896
PCB 1221	U	ug/kg	670	16-AUG-01 03:54	EPA 8082	01-124-7896
PCB 1232	U	ug/kg	330	16-AUG-01 03:54	EPA 8082	01-124-7896
PCB 1242	U	ug/kg	330	16-AUG-01 03:54	EPA 8082	01-124-7896
PCB 1248	9300	ug/kg	330	16-AUG-01 03:54	EPA 8082	01-124-7896
PCB 1254	U	ug/kg	330	16-AUG-01 03:54	EPA 8082	01-124-7896
PCB 1260	U	ug/kg	330	16-AUG-01 03:54	EPA 8082	01-124-7896
Extraction Information:				15-AUG-01 00:00	EPA 3550	01-114-50
Surrogate Recovery:						
Tetrachloro-m-xylene	85	%				01-124-7896
Decachlorobiphenyl	107	%				01-124-7896

Results calculated on a dry weight basis.

NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: _____ Lab Director

ND or U	= None Detected	< = less than	ug/L	= micrograms per liter (equivalent to parts per billion)	
mg/L	= milligrams per liter (equivalent to parts per million)		mg/kg	= milligrams per kilogram (equivalent to parts per millic	
B	= analyte was detected in the method or trip blank		J	= result estimated below the quantitation limit	

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date:20-AUG-2001

Lab Sample ID: L74457-19

Abscope Environmental, Inc.
Rob Gray

PO Box 487 1 Commercial Drive
Canastota, NY 13032

Sample Source: OSWEGO CASTINGS
Origin: DP-23
Description: COMPOSITE
Sampled On: 14-AUG-01 00:00 by CLIENT
Date Received: 15-AUG-01 09:50
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Total Solids	66.5	%		15-AUG-01 00:00	CLP 3.0	01-136-4
EPA 8082						
PCB 1016	U	ug/kg	150	17-AUG-01 10:01	EPA 8082	01-124-7936
PCB 1221	U	ug/kg	300	17-AUG-01 10:01	EPA 8082	01-124-7936
PCB 1232	U	ug/kg	150	17-AUG-01 10:01	EPA 8082	01-124-7936
PCB 1242	U	ug/kg	150	17-AUG-01 10:01	EPA 8082	01-124-7936
PCB 1248	1000	ug/kg	150	17-AUG-01 10:01	EPA 8082	01-124-7936
PCB 1254	U	ug/kg	150	17-AUG-01 10:01	EPA 8082	01-124-7936
PCB 1260	U	ug/kg	150	17-AUG-01 10:01	EPA 8082	01-124-7936
Extraction Information:				15-AUG-01 00:00	EPA 3550	01-114-51
Surrogate Recovery:						
Tetrachloro-m-xylene	79	%				01-124-7936
Decachlorobiphenyl	106	%				01-124-7936

Results calculated on a dry weight basis.

NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: _____ Lab Director

ND or U	= None Detected	ug/L	= micrograms per liter (equivalent to parts per billion)
mg/L	= milligrams per liter (equivalent to parts per million)	mg/kg	= milligrams per kilogram (equivalent to parts per million)
B	= analyte was detected in the method or trip blank	J	= result estimated below the quantitation limit

< = less than

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date:20-AUG-2001

Lab Sample ID: L74457-22

Abscope Environmental, Inc.
Rob Gray

PO Box 487 1 Commercial Drive
Canastota, NY 13032

Sample Source: OSWEGO CASTINGS
Origin: DP-24
Description: COMPOSITE
Sampled On: 14-AUG-01 00:00 by CLIENT
Date Received: 15-AUG-01 09:50
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Total Solids	69.1	%		15-AUG-01 00:00	CLP 3.0	01-136-4
EPA 8082						
PCB 1016	U	ug/kg	140	16-AUG-01 18:25	EPA 8082	01-124-7906
PCB 1221	U	ug/kg	290	16-AUG-01 18:25	EPA 8082	01-124-7906
PCB 1232	U	ug/kg	140	16-AUG-01 18:25	EPA 8082	01-124-7906
PCB 1242	U	ug/kg	140	16-AUG-01 18:25	EPA 8082	01-124-7906
PCB 1248	150	ug/kg	140	16-AUG-01 18:25	EPA 8082	01-124-7906
PCB 1254	U	ug/kg	140	16-AUG-01 18:25	EPA 8082	01-124-7906
PCB 1260	U	ug/kg	140	16-AUG-01 18:25	EPA 8082	01-124-7906
Extraction Information:				15-AUG-01 00:00	EPA 3550	01-114-51
Surrogate Recovery:						
Tetrachloro-m-xylene	89	%				01-124-7906
Decachlorobiphenyl	127	%				01-124-7906

Results calculated on a dry weight basis.

Approved by: *John A Kent*
Lab Director

ND or U	= None Detected	< = less than	ug/L = micrograms per liter (equivalent to parts per billion)
mg/L	= milligrams per liter (equivalent to parts per million)		mg/kg = milligrams per kilogram (equivalent to parts per millio
B	= analyte was detected in the method or trip blank		J = result estimated below the quantitation limit

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date:20-AUG-2001

Lab Sample ID: L74457-23

Abscope Environmental, Inc.
Rob Gray

PO Box 487 1 Commercial Drive
Canastota, NY 13032

Sample Source: OSWEGO CASTINGS
Origin: DP-25
Description: COMPOSITE
Sampled On: 14-AUG-01 00:00 by CLIENT
Date Received: 15-AUG-01 09:50
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Total Solids	59	%		15-AUG-01 00:00	CLP 3.0	01-136-4
EPA 8082						
PCB 1016	U	ug/kg	170	16-AUG-01 18:56	EPA 8082	01-124-7907
PCB 1221	U	ug/kg	340	16-AUG-01 18:56	EPA 8082	01-124-7907
PCB 1232	U	ug/kg	170	16-AUG-01 18:56	EPA 8082	01-124-7907
PCB 1242	U	ug/kg	170	16-AUG-01 18:56	EPA 8082	01-124-7907
PCB 1248	660	ug/kg	170	16-AUG-01 18:56	EPA 8082	01-124-7907
PCB 1254	U	ug/kg	170	16-AUG-01 18:56	EPA 8082	01-124-7907
PCB 1260	U	ug/kg	170	16-AUG-01 18:56	EPA 8082	01-124-7907
Extraction Information:				15-AUG-01 00:00	EPA 3550	01-114-51
Surrogate Recovery:						
Tetrachloro-m-xylene	92	%				01-124-7907
Decachlorobiphenyl	135	%				01-124-7907

Results calculated on a dry weight basis.

NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: John A Kent
Lab Director

ND or U	= None Detected	< = less than	ug/L	= micrograms per liter (equivalent to parts per billion)	
mg/L	= milligrams per liter (equivalent to parts per million)		mg/kg	= milligrams per kilogram (equivalent to parts per millio	
B	= analyte was detected in the method or trip blank		J	= result estimated below the quantitation limit	

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ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date:20-AUG-2001

Lab Sample ID: L74457-25

Abscope Environmental, Inc.
Rob Gray

PO Box 487 1 Commercial Drive
Canastota, NY 13032

Sample Source: OSWEGO CASTINGS
Origin: DP-26
Description: COMPOSITE
Sampled On: 14-AUG-01 00:00 by CLIENT
Date Received: 15-AUG-01 09:50
P.O. No: N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Total Solids	49.1	%		15-AUG-01 00:00	CLP 3.0	01-136-4
EPA 8082						
PCB 1016	U	ug/kg	200	16-AUG-01 19:58	EPA 8082	01-124-7909
PCB 1221	U	ug/kg	400	16-AUG-01 19:58	EPA 8082	01-124-7909
PCB 1232	U	ug/kg	200	16-AUG-01 19:58	EPA 8082	01-124-7909
PCB 1242	U	ug/kg	200	16-AUG-01 19:58	EPA 8082	01-124-7909
PCB 1248	800	ug/kg	200	16-AUG-01 19:58	EPA 8082	01-124-7909
PCB 1254	U	ug/kg	200	16-AUG-01 19:58	EPA 8082	01-124-7909
PCB 1260	U	ug/kg	200	16-AUG-01 19:58	EPA 8082	01-124-7909
Extraction Information:				15-AUG-01 00:00	EPA 3550	01-114-51
Surrogate Recovery:						
Tetrachloro-m-xylene	94	%				01-124-7909
Decachlorobiphenyl	118	%				01-124-7909

Results calculated on a dry weight basis.

QC NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: *John A Kent*
Lab Director

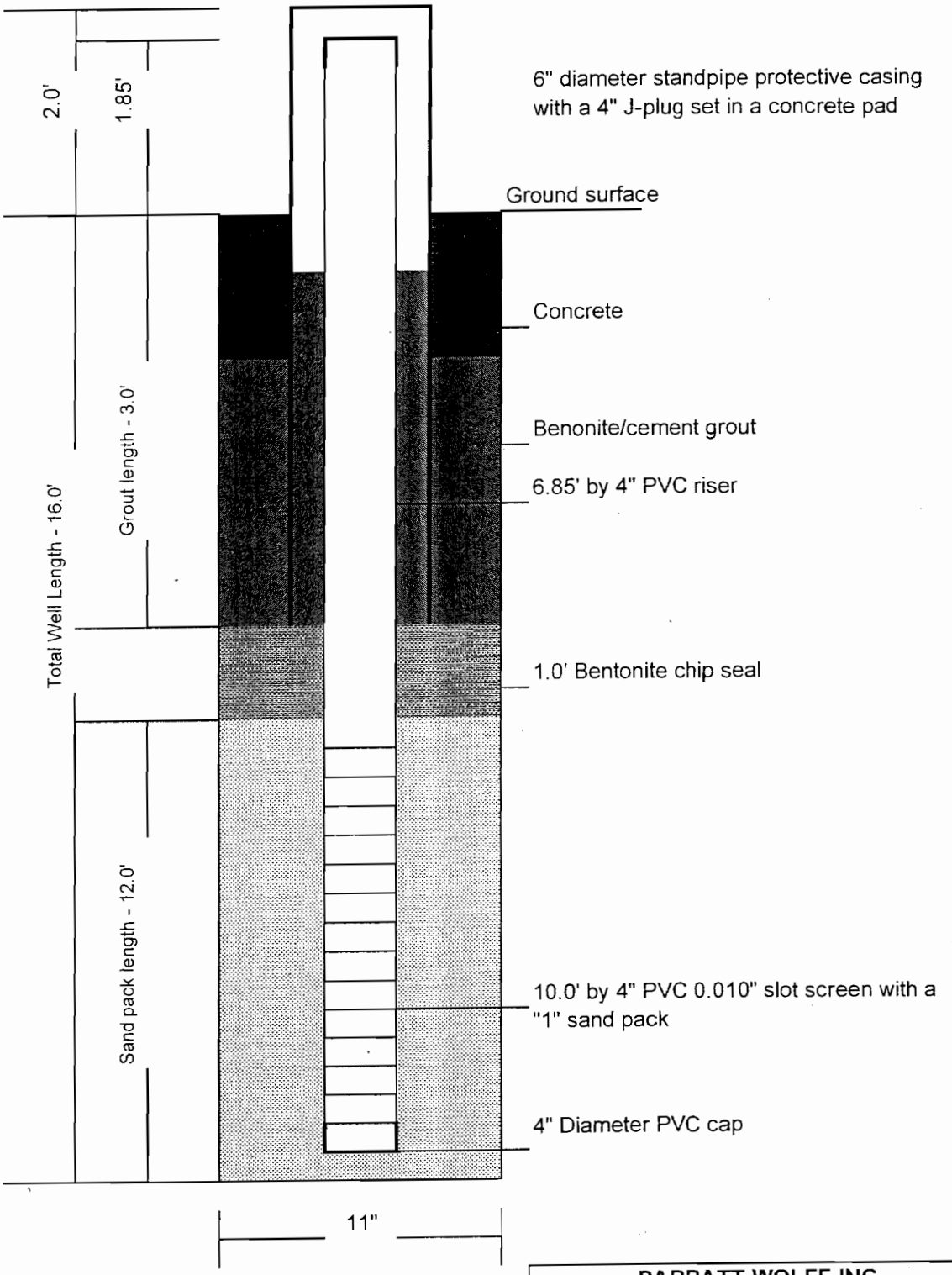
ND or U	= None Detected	< = less than	ug/L = micrograms per liter (equivalent to parts per billion)
mg/L	= milligrams per liter (equivalent to parts per million)		mg/kg = milligrams per kilogram (equivalent to parts per millic
B	= analyte was detected in the method or trip blank		J = result estimated below the quantitation limit

The information in this report is accurate to the best of our knowledge and ability. In no event shall our liability exceed the cost of these servic
Your samples will be discarded after 14 days unless we are advised otherwise.

APPENDIX D

Waste Type	Quantity	Disposal Facility
PCB Hazardous Soil	327.37 tons	CWM Model City
Fuel Contaminated Soils	18.49 tons	CWM Model City
Nonhazardous Soils	103.17 tons	High Acres Landfill
Nonhaz solids, C&D, HDPE, poly	19 tons	High Acres Landfill
Nonhazardous sludge	0.2 tons	CWM Model City
Decontamination Water	450 gallons	Industrial Oil Tank Services

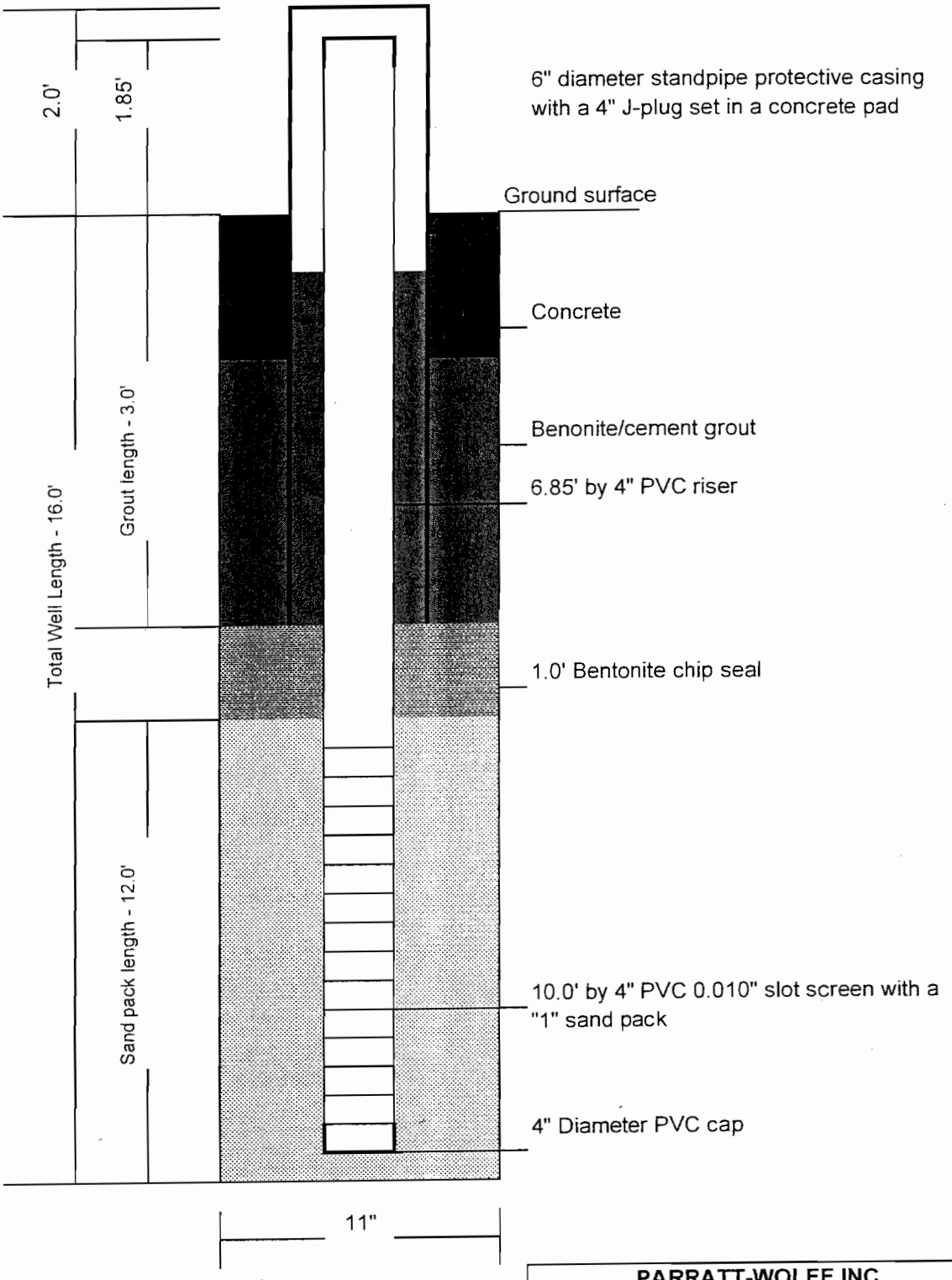
APPENDIX E



PARRATT-WOLFF INC.

MONITORING WELL MW-1
OSWEGO CASTINGS
OSWEGO, NEW YORK

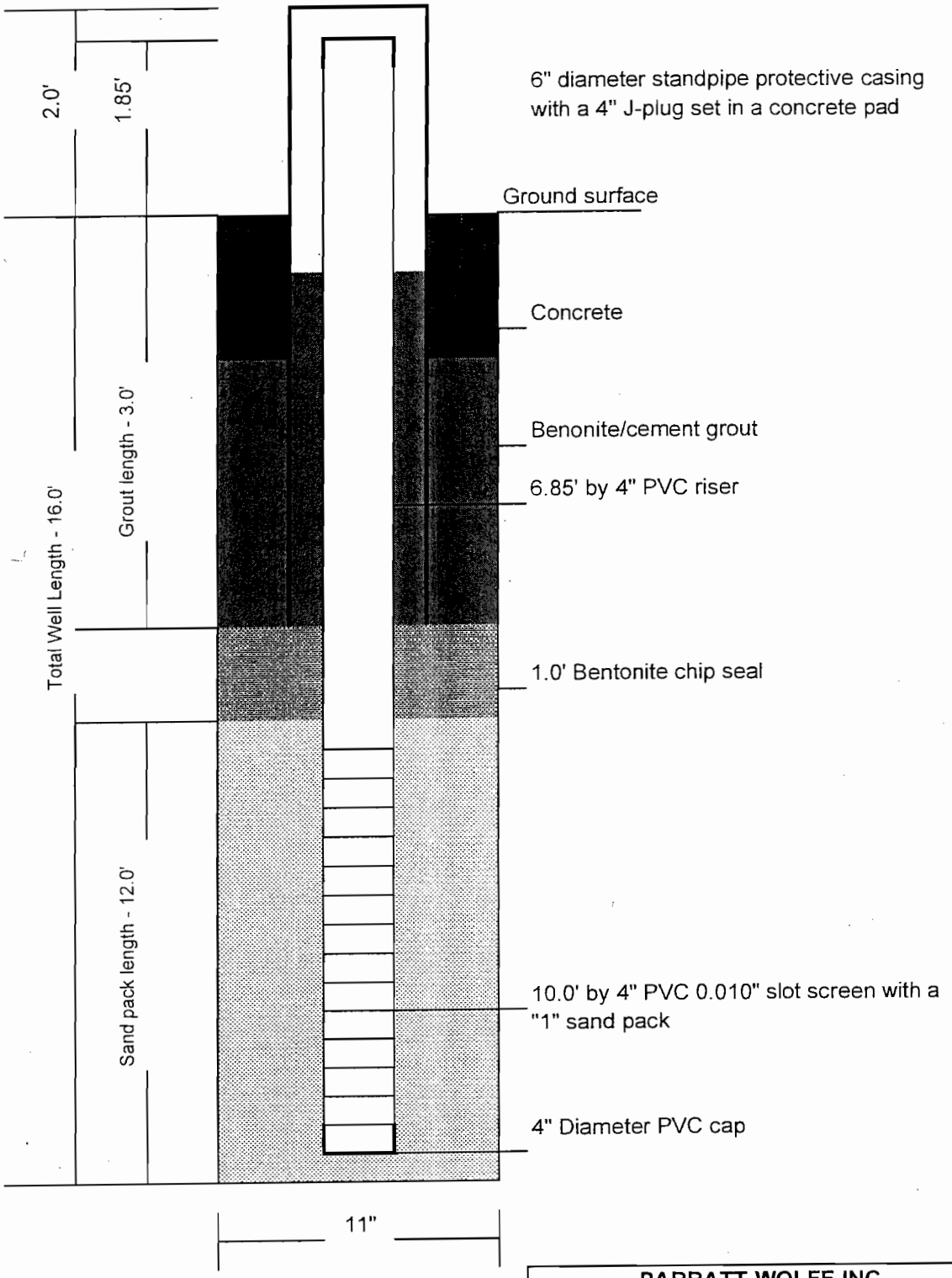
NOT TO SCALE AUGUST 2001



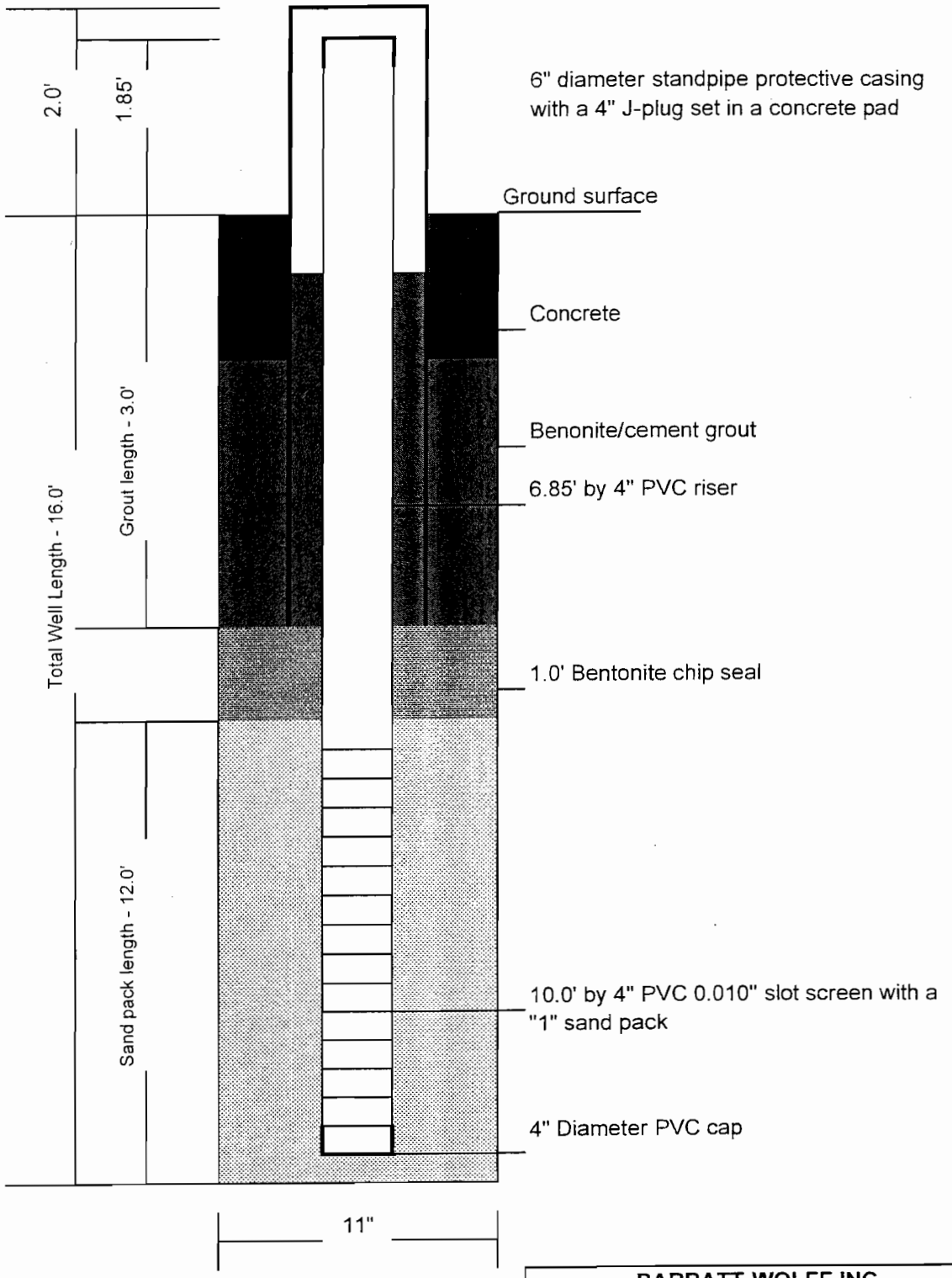
PARRATT-WOLFF INC.

MONITORING WELL MW-4
OSWEGO CASTINGS
OSWEGO, NEW YORK

NOT TO SCALE AUGUST 2001



PARRATT-WOLFF INC.	
MONITORING WELL MW-2 OSWEGO CASTINGS OSWEGO, NEW YORK	
NOT TO SCALE	AUGUST 2001



PARRATT-WOLFF INC.

MONITORING WELL MW-3
OSWEGO CASTINGS
OSWEGO, NEW YORK

NOT TO SCALE AUGUST 2001

APPENDIX F

VAN DER HORST

IN-PLACE DENSITY TEST RESULTS

PROJECT: OSWEGO CASTINGS PROJECT NO: SYR-01-011

CLIENT: ABSCOPE ENVIRONMENTAL DATE: 10/19/01 Pg. 1 of 1

CONTRACTOR: ABSCOPE ENVIRONMENTAL REPORT NO: FR-6

TEST NO.	LOCATION AREA "C"	DEPTH OR ELEV.	DRY DENSITY [PCF]	MOIST. CONTENT [%]	COMP. [%]	SAMPLE NO.
1	25'EAST OF EXISTING BUILDING, SOUTH WEST CORNER	SUBGRADE	130.0	10.1	97.7	01-004
2	45'EAST OF EXISTING BUILDING, MIDDLE	SUBGRADE	126.7	10.0	99.8	01-004
3	30'EAST OF EXISTING BUILDING, NORTH WEST CORNER	SUBGRADE	124.1	10.0	97.7	01-004
4	90'EAST OF EXISTING BUILDING, NORTH EAST CORNER	SUBGRADE	124.7	11.7	98.2	01-004
5	100'EAST OF EXISTING BUILDING, SOUTH EAST CORNER	SUBGRADE	123.3	11.2	97.1	01-004

SAMPLE NO.	MAXIMUM D.D. (PCF)	OPT. % MOISTURE	SAMPLE DESCRIPTION
01-004	127.0	12.0	BROWN SAND AND GRAVEL

REMARKS: A REPRESENTATIVE WITH ABSCOPE ENVIRONMENTAL WAS NOTIFIED OF ALL TEST RESULTS.

PREPARED BY: RON WERNER

REVIEWED BY: _____

VAN DER HORST

IN-PLACE DENSITY TEST RESULTS (3)

PROJECT: OSWEGO CASTINGS PROJECT NO: SYR-01-011

CLIENT: ABSCOPE ENVIRONMENTAL DATE: 10/10/01 Pg. 1 of 1

CONTRACTOR: ABSCOPE ENVIRONMENTAL REPORT NO: FR-5

TEST NO.	LOCATION	DEPTH OR ELEV.	DRY DENSITY [PCF]	MOIST. CONTENT [%]	COMP. [%]	SAMPLE NO.
1	39'EAST, 51'NORTH OF SOUTHEAST CORNER	-4"	124.0	7.4	97.6	01-004
2	33'EAST, 87'NORTH OF SOUTHEAST CORNER	-4"	124.6	6.9	98.1	01-004
3	27'EAST, 138'NORTH OF SOUTHEAST CORNER	-4"	126.3	6.3	99.5	01-004
4	36'EAST, 177'NORTH OF SOUTHEAST CORNER	-4"	129.4	8.0	100+	01-004

SAMPLE NO.	MAXIMUM D.D. (PCF)	OPT. % MOISTURE	SAMPLE DESCRIPTION
01-004	127.0	12.0	BROWN SAND AND GRAVEL

REMARKS: ROB GRAY WITH ABSCOPE ENVIRONMENTAL WAS NOTIFIED OF ALL TEST RESULTS.

PREPARED BY: SCOTT MCAVOY

REVIEWED BY: _____

New York State Department of Environmental Conservation

☒ Approved ☐ Approved As Noted ☐ Resubmit With Revisions ☐ Disapproved

COMMISSIONER OF ENVIRONMENTAL CONSERVATION

_____

Designated Representative

Date 10/17/01

VAN DER HORST

IN-PLACE DENSITY TEST RESULTS

PROJECT: OSWEGO CASTINGS PROJECT NO: SYR-01-011

CLIENT: ABSCOPE ENVIRONMENTAL DATE: 09/12/01 Pg. 1 of 1

CONTRACTOR: ABSCOPE ENVIRONMENTAL REPORT NO: FR-4

TEST NO.	LOCATION	DEPTH OR ELEV.	DRY DENSITY [PCF]	MOIST. CONTENT [%]	COMP. [%]	SAMPLE NO.
1	55'EAST AND 8'NORTH OF EXISTING BUILDING	FSG	125.7	5.9	99.0	01-004
2	110'EAST AND 25'NORTH OF EXISTING BUILDING	FSG	128.8	5.8	100+	01-004
3	165'EAST AND 8'NORTH OF EXISTING BUILDING	FSG	127.3	5.4	100.0	01-004
4	AREA C-15'NORTH AND 10'WEST OF EXISTING NEW PAD SOUTH CORNER	FSG	125.9	5.2	99.1	01-004
5	30'SOUTH AND 7'WEST OF EXISTING NEW PAD NORTH CORNER	FSG	124.7	6.3	98.2	01-004

SAMPLE NO.	MAXIMUM D.D. (PCF)	OPT. % MOISTURE	SAMPLE DESCRIPTION
01-004	127.0	12.0	BROWN SAND AND GRAVEL

REMARKS: ROB GRAY WITH ABSCOPE ENVIRONMENTAL WAS NOTIFIED OF ALL TEST RESULTS.

FSG=FINISHED SUB GRADE

PREPARED BY: RON WERNER

REVIEWED BY: _____

VAN DER HORST

IN-PLACE DENSITY TEST RESULTS

PROJECT: OSWEGO CASTINGS PROJECT NO: SYR-01-011

CLIENT: ABSCOPE ENVIRONMENTAL DATE: 08/09/01 Pg. 1 of 1

CONTRACTOR: ABSCOPE ENVIRONMENTAL REPORT NO: FR-3

TEST NO.	LOCATION	DEPTH OR ELEV.	DRY DENSITY [PCF]	MOIST. CONTENT [%]	COMP. [%]	SAMPLE NO.
1	SOUTHWEST CORNER- AREA A	-8"	127.7	8.6	100+	01-004
2	NORTHWEST CORNER- AREA A	-8"	129.6	7.5	100+	01-004
3	NORTHEAST CORNER- AREA A	-8"	127.4	7.5	100+	01-004
4	SOUTHEAST CORNER- AREA A	-8"	127.0	8.2	100.0	01-004
5	FAR NORTH EAST AREA- AREA A (SAWDUST AREA)	-8"	123.9	8.6	97.5	01-004

SAMPLE NO.	MAXIMUM D.D. (PCF)	OPT. % MOISTURE	SAMPLE DESCRIPTION
01-004	127.0	12.0	BROWN SAND AND GRAVEL

REMARKS: BOB SEITZ WITH ABSCOPE ENVIRONMENTAL WAS NOTIFIED OF ALL TEST RESULTS.

PREPARED BY: RICHARD PORTER

REVIEWED BY: _____

VAN DER HORST

CONCRETE INSPECTION REPORT

PROJECT: OSWEGO CASTINGS
CLIENT: ABSCOPE ENVIRONMENTAL
PROJECT NO.: SYR-01-011
REPORT NO.: C-1 Pg. 2 of 4
LOCATION: OSWEGO, NEW YORK
CONTRACTOR: MURPHY BROTHERS CONSTRUCTION
DATE: 09/06/01
WEATHER: MID 60'S TO 70'S
PLACEMENT LOCATION: SLAB FLOOR FOR BACK DOCK EXPANSION
CONCRETE SUPPLIER: NORTHERN CONCRETE
DESIGN STRENGTH: 4,000 P.S.I.

LABORATORY TEST RESULTS
COMPRESSION TEST OF STANDARD CONCRETE CYLINDERS 6" X 12"

CYLINDER I.D. SYR-01-011	TEST AT DAYS	DATE RECEIVED	DATE TESTED	TOTAL LOAD (LBS)	COMPRESSIVE STRENGTH (psi)	UNIT WEIGHT AT 28 DAYS (pcf)
1-1	7	09/08/01	09/13/01	125,870	4,450	
1-2	28	09/08/01	10/04/01	153,890	5,440	143.3
1-3	28	09/08/01	10/04/01	157,400	5,570	143.8

DELIVERY TICKET DATA

MIX NO.: 4316 CEMENT CONTENT: 625 LBS/YD WATER CONTENT: 299 LBS/YD
W/C RATIO: .46 COARSE AGGREGATE: 1744 LBS/YD FINE AGGREGATE: 1369 LBS/YD
ADMIXTURES: MBVR= 4.7oz/yd POLY-997= 48.9oz/yd FIBERMESH

LABORATORY TEST RESULTS
COMPRESSION TEST OF STANDARD CONCRETE CYLINDERS 6" X 12"

CYLINDER I.D. SYR-01-011	TEST AT DAYS	DATE RECEIVED	DATE TESTED	TOTAL LOAD (LBS)	COMPRESSIVE STRENGTH (psi)	UNIT WEIGHT AT 28 DAYS (pcf)
2-1	7	09/08/01	09/13/01	81,440	2,860	
2-2	28	09/08/01	10/04/01	128,630	4,550	138.7
2-3	28	09/08/01	10/04/01	125,000	4,420	139.3

DELIVERY TICKET DATA

MIX NO.: 4316 CEMENT CONTENT: 611 LBS/YD WATER CONTENT: 274 LBS/YD
W/C RATIO: .45 COARSE AGGREGATE: 1749 LBS/YD FINE AGGREGATE: 1354 LBS/YD
ADMIXTURES: MBVR= 6.1oz/yd POLY-997= 48.9oz/yd FIBERMESH

PREPARED BY: SCOTT MCAVOY

VAN DER HORST

CONCRETE INSPECTION REPORT

PROJECT: OSWEGO CASTINGS
CLIENT: ABSCOPE ENVIRONMENTAL
PROJECT NO.: SYR-01-011
REPORT NO.: C-1 Pg. 3 of 4
LOCATION: OSWEGO, NEW YORK
CONTRACTOR: MURPHY BROTHERS CONSTRUCTION
DATE: 09/06/01
WEATHER: MID 60'S TO 70'S
PLACEMENT LOCATION: SLAB FLOOR FOR BACK DOCK EXPANSION
CONCRETE SUPPLIER: NORTHERN CONCRETE
DESIGN STRENGTH: 4,000 P.S.I.

LABORATORY TEST RESULTS
COMPRESSION TEST OF STANDARD CONCRETE CYLINDERS 6" X 12"

CYLINDER I.D. SYR-01-011	TEST AT DAYS	DATE RECEIVED	DATE TESTED	TOTAL LOAD (LBS)	COMPRESSIVE STRENGTH (psi)	UNIT WEIGHT AT 28 DAYS (pcf)
3-1	7	09/08/01	09/13/01	87,580	3,100	
3-2	28	09/08/01	10/04/01	126,500	4,470	139.3
3-3	28	09/08/01	10/04/01	128,020	4,530	139.0

DELIVERY TICKET DATA

MIX NO.: 4316 CEMENT CONTENT: 609 LBS/YD WATER CONTENT: 307 LBS/YD
W/C RATIO: .50 COARSE AGGREGATE: 1744 LBS/YD FINE AGGREGATE: 1360 LBS/YD
ADMIXTURES: MBVR= 4.7oz/yd POLY-997= 48.9oz/yd FIBERMESH

LABORATORY TEST RESULTS
COMPRESSION TEST OF STANDARD CONCRETE CYLINDERS 6" X 12"

CYLINDER I.D. SYR-01-011	TEST AT DAYS	DATE RECEIVED	DATE TESTED	TOTAL LOAD (LBS)	COMPRESSIVE STRENGTH (psi)	UNIT WEIGHT AT 28 DAYS (pcf)
4-1	7	09/08/01	09/13/01	99,080	3,500	
4-2	28	09/08/01	10/04/01	120,390	4,260	136.5
4-3	28	09/08/01	10/04/01	120,420	4,260	136.5

DELIVERY TICKET DATA

MIX NO.: 4316 CEMENT CONTENT: 609 LBS/YD WATER CONTENT: 306 LBS/YD
W/C RATIO: .51 COARSE AGGREGATE: 1746 LBS/YD FINE AGGREGATE: 1358 LBS/YD
ADMIXTURES: MBVR= 4.7oz/yd POLY-997= 48.9oz/yd FIBERMESH

PREPARED BY: SCOTT MCAVOY

VAN DER HORST

CONCRETE INSPECTION REPORT

PROJECT: OSWEGO CASTINGS
CLIENT: ABSCOPE ENVIRONMENTAL
PROJECT NO.: SYR-01-011
REPORT NO.: C-1 Pg. 4 of 4
LOCATION: OSWEGO, NEW YORK
CONTRACTOR: MURPHY BROTHERS CONSTRUCTION
DATE: 09/06/01
WEATHER: MID 60'S TO 70'S
PLACEMENT LOCATION: SLAB FLOOR FOR BACK DOCK EXPANSION
CONCRETE SUPPLIER: NORTHERN CONCRETE
DESIGN STRENGTH: 4,000 P.S.I.

LABORATORY TEST RESULTS
COMPRESSION TEST OF STANDARD CONCRETE CYLINDERS 6" X 12"

CYLINDER I.D. SYR-01-011	TEST AT DAYS	DATE RECEIVED	DATE TESTED	TOTAL LOAD (LBS)	COMPRESSIVE STRENGTH (psi)	UNIT WEIGHT AT 28 DAYS (pcf)
5-1	7	09/08/01	09/13/01	105,890	3,750	
5-2	28	09/08/01	10/04/01	135,190	4,780	140.3
5-3	28	09/08/01	10/04/01	133,490	4,720	140.0

DELIVERY TICKET DATA

MIX NO.: 4316 CEMENT CONTENT: 610 LBS/YD WATER CONTENT: 298 LBS/YD
W/C RATIO: .49 COARSE AGGREGATE: 1744 LBS/YD FINE AGGREGATE: 1388 LBS/YD
ADMIXTURES: MBVR= 4.7oz/yd POLY-997= 49.9oz/yd FIBERMESH

LABORATORY TEST RESULTS
COMPRESSION TEST OF STANDARD CONCRETE CYLINDERS 6" X 12"

CYLINDER I.D.	TEST AT DAYS	DATE RECEIVED	DATE TESTED	TOTAL LOAD (LBS)	COMPRESSIVE STRENGTH (psi)	UNIT WEIGHT AT 28 DAYS (pcf)

DELIVERY TICKET DATA

MIX NO.: _____ CEMENT CONTENT: _____ LBS/YD WATER CONTENT: _____ LBS/YD
W/C RATIO: _____ COARSE AGGREGATE: _____ LBS/YD FINE AGGREGATE: _____ LBS/YD
ADMIXTURES: _____

PREPARED BY: SCOTT MCAVOY

VAN DER HORST

CONCRETE INSPECTION REPORT

PROJECT: OSWEGO CASTINGS
PROJECT NO.: SYR-01-011
LOCATION: OSWEGO, NEW YORK
DATE: 09/14/01
PLACEMENT LOCATION: FOUNDATION FLOOR
CONCRETE SUPPLIER: NORTHERN READY MIX

CLIENT: ABSCOPE ENVIRONMENTAL
REPORT NO.: C-2 Pg. 3 of 5
CONTRACTOR: MURPHY BROTHERS CONSTRUCTIO
WEATHER: SUNNY, 75°F
DESIGN STRENGTH: 4,000 P.S.I.

LABORATORY TEST RESULTS
COMPRESSION TEST OF STANDARD CONCRETE CYLINDERS 6" X 12"

CYLINDER I.D. SYR-01-011	TEST AT DAYS	DATE RECEIVED	DATE TESTED	TOTAL LOAD (LBS)	COMPRESSIVE STRENGTH (psi)	UNIT WEIGHT AT 28 DAYS (pcf)
6-1	7	09/17/01	09/21/01	116,940	4,140	
6-2	28	09/17/01	10/12/01	121,640	4,300	
6-3	28	09/17/01	10/12/01	120,580	4,270	

DELIVERY TICKET DATA

MIX NO.: 4316 CEMENT CONTENT: 609 LBS/YD WATER CONTENT: 300 LBS/YD
W/C RATIO: .49 COARSE AGGREGATE: 1742 LBS/YD FINE AGGREGATE: 1290 LBS/YD
ADMIXTURES: MBVR= 4.8oz/yd POLY-997= 48.9oz/yd

LABORATORY TEST RESULTS
COMPRESSION TEST OF STANDARD CONCRETE CYLINDERS 6" X 12"

CYLINDER I.D. SYR-01-011	TEST AT DAYS	DATE RECEIVED	DATE TESTED	TOTAL LOAD (LBS)	COMPRESSIVE STRENGTH (psi)	UNIT WEIGHT AT 28 DAYS (pcf)
7-1	7	09/17/01	09/21/01	109,310	3,870	
7-2	28	09/17/01	10/12/01	115,780	4,100	
7-3	28	09/17/01	10/12/01	118,260	4,180	

DELIVERY TICKET DATA

MIX NO.: 4316 CEMENT CONTENT: 610 LBS/YD WATER CONTENT: 299 LBS/YD
W/C RATIO: .49 COARSE AGGREGATE: 1746 LBS/YD FINE AGGREGATE: 1284 LBS/YD
ADMIXTURES: MBVR= 4.8oz/yd POLY-997= 48.9oz/yd

PREPARED BY: BRIAN MCKINLEY

REVIEWED BY: _____

DEC.12.2001 4:23PM ABSCOPE NO.305 P.3

VAN DER HORST

CONCRETE INSPECTION REPORT

PROJECT: OSWEGO CASTINGS
PROJECT NO.: SYR-01-011
LOCATION: OSWEGO, NEW YORK
DATE: 09/14/01
PLACEMENT LOCATION: FOUNDATION FLOOR
CONCRETE SUPPLIER: NORTHERN READY MIX

CLIENT: ABSCOPE ENVIRONMENTAL
REPORT NO.: C-2 Pg. 4 of 5
CONTRACTOR: MURPHY BROTHERS CONSTRUCTIO
WEATHER: SUNNY, 75°F
DESIGN STRENGTH: 4,000 P.S.I.

LABORATORY TEST RESULTS
COMPRESSION TEST OF STANDARD CONCRETE CYLINDERS 6" X 12"

CYLINDER I.D. SYR-01-011	TEST AT DAYS	DATE RECEIVED	DATE TESTED	TOTAL LOAD (LBS)	COMPRESSIVE STRENGTH (psi)	UNIT WEIGHT AT 28 DAYS (pcf)
8-1	7	09/17/01	09/21/01	116,040	4,100	
8-2	28	09/17/01	10/12/01	145,910	5,160	
8-3	28	09/17/01	10/12/01	139,370	4,930	

DELIVERY TICKET DATA

MIX NO.: 4316 CEMENT CONTENT: 610 LBS/YD WATER CONTENT: 299 LBS/YD
W/C RATIO: .49 COARSE AGGREGATE: 1748 LBS/YD FINE AGGREGATE: 1260 LBS/YD
ADMIXTURES: MBVR= 4.7oz/yd POLY-997= 48.9oz/yd

LABORATORY TEST RESULTS
COMPRESSION TEST OF STANDARD CONCRETE CYLINDERS 6" X 12"

CYLINDER I.D. SYR-01-011	TEST AT DAYS	DATE RECEIVED	DATE TESTED	TOTAL LOAD (LBS)	COMPRESSIVE STRENGTH (psi)	UNIT WEIGHT AT 28 DAYS (pcf)
9-1	7	09/17/01	09/21/01	96,310	3,410	
9-2	28	09/17/01	10/12/01	125,360	4,430	
9-3	28	09/17/01	10/12/01	133,870	4,740	

DELIVERY TICKET DATA

MIX NO.: 4316 CEMENT CONTENT: 552 LBS/YD WATER CONTENT: 237 LBS/YD
W/C RATIO: .43 COARSE AGGREGATE: 1748 LBS/YD FINE AGGREGATE: 1282 LBS/YD
ADMIXTURES: MBVR= 4.4oz/yd POLY-997= 44.0oz/yd

PREPARED BY: BRIAN MCKINLEY

REVIEWED BY: _____

DEC.12.2001 4:23PM ABSCOPE NO.305 P.4

VAN DER HORST

CONCRETE INSPECTION REPORT

PROJECT: OSWEGO CASTINGS
PROJECT NO.: SYR-01-011
LOCATION: OSWEGO, NEW YORK
DATE: 09/14/01
PLACEMENT LOCATION: FOUNDATION FLOOR
CONCRETE SUPPLIER: NORTHERN READY MIX

CLIENT: ABSCOPE ENVIRONMENTAL
REPORT NO.: C-2 Pg. 5 of 5
CONTRACTOR: MURPHY BROTHERS CONSTRUCTIC
WEATHER: SUNNY, 75°F
DESIGN STRENGTH: 4,000 P.S.I.

LABORATORY TEST RESULTS
COMPRESSION TEST OF STANDARD CONCRETE CYLINDERS 6" X 12"

CYLINDER I.D. SYR-01-011	TEST AT DAYS	DATE RECEIVED	DATE TESTED	TOTAL LOAD (LBS)	COMPRESSIVE STRENGTH (psi)	UNIT WEIGHT AT 28 DAYS (pcf)
10-1	7	09/17/01	09/21/01	114,280	4,040	
10-2	28	09/17/01	10/12/01	137,770	4,870	
10-3	28	09/17/01	10/12/01	131,120	4,640	

DELIVERY TICKET DATA

MIX NO.: 4316 CEMENT CONTENT: 609 LBS/YD WATER CONTENT: 298 LBS/YD
W/C RATIO: .49 COARSE AGGREGATE: 1750 LBS/YD FINE AGGREGATE: 1274 LBS/YD
ADMIXTURES: MBVR= 4.7oz/yd POLY-997= 48.8oz/yd

LABORATORY TEST RESULTS
COMPRESSION TEST OF STANDARD CONCRETE CYLINDERS 6" X 12"

CYLINDER I.D.	TEST AT DAYS	DATE RECEIVED	DATE TESTED	TOTAL LOAD (LBS)	COMPRESSIVE STRENGTH (psi)	UNIT WEIGHT AT 28 DAYS (pcf)

DELIVERY TICKET DATA

MIX NO.: _____ CEMENT CONTENT: _____ LBS/YD WATER CONTENT: _____ LBS/YD
W/C RATIO: _____ COARSE AGGREGATE: _____ LBS/YD FINE AGGREGATE: _____ LBS/YD
ADMIXTURES: _____

PREPARED BY: BRIAN MCKINLEY

REVIEWED BY: _____

DEC.12.2001 4:23PM ABSCOPE NO.305 P.5

VAN DER HORST

CONCRETE INSPECTION REPORT

PROJECT: OSWEGO CASTINGS
CLIENT: ABSCOPE ENVIRONMENTAL
PROJECT NO.: SYR-01-011
REPORT NO.: C-3
LOCATION: OSWEGO, NEW YORK
CONTRACTOR: ABSCOPE ENVIRONMENTAL
DATE: 10/15/01
WEATHER: ----
PLACEMENT LOCATION: ----
CONCRETE SUPPLIER: NORTHERN READY MIX
DESIGN STRENGTH: 4,000 P.S.I.

FIELD TEST RESULTS

Load No.	Ticket No.	Truck No.	Cubic Yards	Batched	Discharge Start	Empty Time	Water in Field (gal.)	Slump (in.)	Air (%)	Concrete Temp. oF	Specimen Set No. Location and Remarks
1	-	-	-	-	-	-	-	5.25	7.2	68	SYR-01-011-11

CUBIC YARDS PLACED: REJECTED:
REMARKS: CLIENT-MADE
ALL FIELD TESTING PERFORMED BY NORTHERN READY MIX.

LABORATORY TEST RESULTS
COMPRESSION TEST OF STANDARD CONCRETE CYLINDERS 6" X 12"

CYLINDER I.D. SYR-01-011	TEST AT DAYS	DATE RECEIVED	DATE TESTED	TOTAL LOAD (LBS)	COMPRESSIVE STRENGTH (psi)	UNIT WT. AT 28 DAYS (pcf)
11-1	8	10/19/01	10/23/01	106,620	3,770	
11-2	28	10/19/01	11/12/01	143,710	5,080	139.0
11-3	28	10/19/01	11/12/01	142,380	5,040	138.5
11-4	HOLD	10/19/01				
11-5	HOLD	10/19/01				
11-6	HOLD	10/19/01				

DELIVERY TICKET DATA

MIX NO.: CEMENT CONTENT: LBS/YD WATER CONTENT: LBS/YD
W/C RATIO: COARSE AGGREGATE: LBS/YD FINE AGGREGATE: LBS/YD
ADMIXTURES:

CLIENT-MADE

PREPARED BY: NIEL ZUERN

REVIEWED BY:

VAN DER HORST

GEOTECHNICAL ENGINEERING, P.C.
CONSTRUCTION MONITORING
MATERIALS TESTING
EXPLORATORY DRILLING

LETTER OF TRANSMITTAL

DATE: 11/23/01 JOB NO. SYR-01-011

ATTENTION: ROB GRAY

REGARDING: OSWEGO CASTINGS
OSWEGO, NEW YORK

To: ABSCOPE ENVIRONMENTAL
P.O. BOX 487
CANASTOTA, NEW YORK 13032

WE ARE SENDING YOU X Attached ____ Under separate cover the following items:

COPIES	DATE	NO.	DESCRIPTION
2	10/23/01	C-4	CONCRETE INSPECTION REPORT (28-DAY BREAKS)

REMARKS

COPIES TO: (1)NORTHERN READY MIX- CONCRETE ONLY

SIGNED: CHRISTINE WEISS

535 Summit Point Drive
Henrietta, NY 14467
716/359-2730
Fax 716/359-9668

39 Water Street
Box 236
Cuba, NY 14727
716/968-9686
Fax 716/968-9688

8424 Brewerton Rd.
P.O. Box 1373
Cicero, NY 13039
315/698-7359
Fax 315/698-1921

VAN DER HORST

CONCRETE INSPECTION REPORT

PROJECT: OSWEGO CASTINGS
CLIENT: ABSCOPE ENVIRONMENTAL
PROJECT NO.: SYR-01-011
REPORT NO.: C-4 Pg. 3 of 5
LOCATION: OSWEGO, NEW YORK
CONTRACTOR: MURPHY BROTHERS CONSTRUCTIO
DATE: 10/23/01
WEATHER: MID 40'S- 50'S
PLACEMENT LOCATION: SLAB ON GRADE AREA C
CONCRETE SUPPLIER: NORTHERN READY MIX
DESIGN STRENGTH: 4,000 P.S.I.

LABORATORY TEST RESULTS
COMPRESSION TEST OF STANDARD CONCRETE CYLINDERS 6" X 12"

CYLINDER I.D. SYR-01-011	TEST AT DAYS	DATE RECEIVED	DATE TESTED	TOTAL LOAD (LBS)	COMPRESSIVE STRENGTH (psi)	UNIT WEIGHT AT 28 DAYS (pcf)
12-1	7	10/24/01	10/30/01	118,820	4,200	
12-2	28	10/24/01	11/20/01	160,840	5,690	142.8
12-3	28	10/24/01	11/20/01	154,740	5,470	143.3

DELIVERY TICKET DATA

MIX NO.: 4316 CEMENT CONTENT: 609 LBS/YD WATER CONTENT: 282 LBS/YD
W/C RATIO: .46 COARSE AGGREGATE: 1751 LBS/YD FINE AGGREGATE: 1283 LBS/YD
MIXTURES: MBVR= 2.3oz/yd POLY-997= 24.5oz/yd & FIBERMESH

LABORATORY TEST RESULTS
COMPRESSION TEST OF STANDARD CONCRETE CYLINDERS 6" X 12"

CYLINDER I.D. SYR-01-011	TEST AT DAYS	DATE RECEIVED	DATE TESTED	TOTAL LOAD (LBS)	COMPRESSIVE STRENGTH (psi)	UNIT WEIGHT AT 28 DAYS (pcf)
13-1	7	10/24/01	10/30/01	116,870	4,130	
13-2	28	10/24/01	11/20/01	154,340	5,460	149.7
13-3	28	10/24/01	11/20/01	181,710	6,430	150.2

DELIVERY TICKET DATA

MIX NO.: 4124P-20 CEMENT CONTENT: 611 LBS/YD WATER CONTENT: 282 LBS/YD
W/C RATIO: .46 COARSE AGGREGATE: 1746 LBS/YD FINE AGGREGATE: 1277 LBS/YD
ADMIXTURES: MBVR= 2.0oz/yd POZZ-20= 36.5oz/yd & FIBERMESH

PREPARED BY: SCOTT MCAVOY

REVIEWED BY:

VANDERHORST

CONCRETE INSPECTION REPORT

PROJECT: OSWEGO CASTINGS
CLIENT: ABSCOPE ENVIRONMENTAL
PROJECT NO.: SYR-01-011
REPORT NO.: C-4 Pg. 4 of 5
LOCATION: OSWEGO, NEW YORK
CONTRACTOR: MURPHY BROTHERS CONSTRUCTIO
DATE: 10/23/01
WEATHER: MID 40'S- 50'S
PLACEMENT LOCATION: SLAB ON GRADE AREA C
CONCRETE SUPPLIER: NORTHERN READY MIX
DESIGN STRENGTH: 4,000 P.S.I.

LABORATORY TEST RESULTS
COMPRESSION TEST OF STANDARD CONCRETE CYLINDERS 6" X 12"

CYLINDER I.D. SYR-01-011	TEST AT DAYS	DATE RECEIVED	DATE TESTED	TOTAL LOAD (LBS)	COMPRESSIVE STRENGTH (psi)	UNIT WEIGHT AT 28 DAYS (pcf)
14-1	7	10/24/01	10/30/01	91,360	3,230	
14-2	28	10/24/01	11/20/01	130,150	4,600	145.9
14-3	28	10/24/01	11/20/01	117,920	4,170	145.6

DELIVERY TICKET DATA

MIX NO.: 4124P-20 CEMENT CONTENT: 611 LBS/YD WATER CONTENT: 294 LBS/YD
W/C RATIO: .48 COARSE AGGREGATE: 1751 LBS/YD FINE AGGREGATE: 1334 LBS/YD
ADMIXTURES: MBVR= 2.0oz/yd POZZ-20= 36.5oz/yd & FIBERMESH

LABORATORY TEST RESULTS
COMPRESSION TEST OF STANDARD CONCRETE CYLINDERS 6" X 12"

CYLINDER I.D. SYR-01-011	TEST AT DAYS	DATE RECEIVED	DATE TESTED	TOTAL LOAD (LBS)	COMPRESSIVE STRENGTH (psi)	UNIT WEIGHT AT 28 DAYS (pcf)
15-1	7	10/24/01	10/30/01	112,670	3,990	
15-2	28	10/24/01	11/20/01	147,190	5,210	147.4
15-3	28	10/24/01	11/20/01	155,660	5,510	147.4

DELIVERY TICKET DATA

MIX NO.: - CEMENT CONTENT: 614 LBS/YD WATER CONTENT: 299 LBS/YD
W/C RATIO: - COARSE AGGREGATE: 1760 LBS/YD FINE AGGREGATE: 1288 LBS/YD
ADMIXTURES: MBVR= 4.0oz/yd POZZ-20= 73.3oz/yd

PREPARED BY: SCOTT MCAVOY

REVIEWED BY:

VAN DER HORST

CONCRETE INSPECTION REPORT

PROJECT: OSWEGO CASTINGS
PROJECT NO.: SYR-01-011
LOCATION: OSWEGO, NEW YORK
DATE: 10/23/01
PLACEMENT LOCATION: SLAB ON GRADE AREA C
CONCRETE SUPPLIER: NORTHERN READY MIX

CLIENT: ABSCOPE ENVIRONMENTAL
REPORT NO.: C-4 Pg. 5 of 5
CONTRACTOR: MURPHY BROTHERS CONSTRUCTIO
WEATHER: SUNNY, 75°F
DESIGN STRENGTH: 4,000 P.S.I.

LABORATORY TEST RESULTS
COMPRESSION TEST OF STANDARD CONCRETE CYLINDERS 6" X 12"

CYLINDER I.D. SYR-01-011	TEST AT DAYS	DATE RECEIVED	DATE TESTED	TOTAL LOAD (LBS)	COMPRESSIVE STRENGTH (psi)	UNIT WEIGHT AT 28 DAYS (pcf)
16-1	7	10/24/01	10/30/01	115,440	4,080	
16-2	28	10/24/01	11/20/01	156,290	5,530	146.9
16-3	28	10/24/01	11/20/01	156,780	5,550	147.2

DELIVERY TICKET DATA

MIX NO.: 4124-L CEMENT CONTENT: 612 LBS/YD WATER CONTENT: 298 LBS/YD
W/C RATIO: .49 COARSE AGGREGATE: 1750 LBS/YD FINE AGGREGATE: 1288 LBS/YD
ADMIXTURES: MBVR= 4.0oz/yd POZZ-20= 73.3oz/yd

LABORATORY TEST RESULTS
COMPRESSION TEST OF STANDARD CONCRETE CYLINDERS 6" X 12"

CYLINDER I.D.	TEST AT DAYS	DATE RECEIVED	DATE TESTED	TOTAL LOAD (LBS)	COMPRESSIVE STRENGTH (psi)	UNIT WEIGHT AT 28 DAYS (pcf)

DELIVERY TICKET DATA

MIX NO.: _____ CEMENT CONTENT: _____ LBS/YD WATER CONTENT: _____ LBS/YD
W/C RATIO: _____ COARSE AGGREGATE: _____ LBS/YD FINE AGGREGATE: _____ LBS/YD
ADMIXTURES: _____

PREPARED BY: SCOTT MCAVOY

REVIEWED BY: _____

Remediation of the Oswego Castings Site
NYSDEC Site Number: 7-38-033
State Contract Number: D004283
Change Order Number: 1 (Final)

Change Order Amount: **$88,285.37** Date of Issue: November 14, 2001

Contractor: Abscope Environmental, Inc.
P.O. Box 487
1 Commercial Drive
Canastota, NY 13032

Engineer: NYS Department of Environmental Conservation
625 Broadway
Albany, New York 12233-7013

Change Order Items: This Change Order comprises twenty (20) items as discussed below.

I. CHANGE ORDER ITEMS

1. Adjustment of Quantities for Payment Item 4A.

DESCRIPTION OF CHANGE:

Increase in estimated quantity for Payment Item 4A - Waterline.

DRAWING REFERENCE: Not Applicable.

SPECIFICATION REFERENCE: Section VIII; 11.2, Unit Price Work.

CONTRACT PAY ITEM No.: Payment Item 4A.

REASON FOR CHANGE:

This change order item is necessary for:

Increase in estimated quantity of Waterline, in accordance with Section XII - Measurement and Payment, based on the actual surveyed length of pipe installed.

COST:

22 linear feet @ $75.00 per LF.

Subtotal 1 $1,650.00

2. Adjustment of Quantities for Payment Item 4B.

DESCRIPTION OF CHANGE:

Decrease in the estimated quantity for Payment Item 4B - Sanitary Sewer.

DRAWING REFERENCE: Not Applicable.

SPECIFICATION REFERENCE: Section VIII; 11.2, Unit Price Work.

CONTRACT PAY ITEM No.: Payment Item 4B.

REASON FOR CHANGE:

This change order item is necessary for:

Decrease in estimated quantity of Sanitary Sewer, in accordance with Section XII - Measurement and Payment, based on actual surveyed length of pipe installed .

COST:

7 linear feet @ $65.00 per day

Subtotal 2 ($455.00)

3. Proposed change order to address leaking roof.

DESCRIPTION OF CHANGE:

A roofing subcontractor had to investigate the actual cross section and condition of the existing roof to determine the feasability of installing three roof drains in the middle of the roof system to convey rain water promptly to the drain system and reduce leaks into the log storage area.

DRAWING REFERENCE: Not Applicable.

SPECIFICATION REFERENCE: Section VIII, 10, Change of Contract Price or Time.

CONTRACT PAY ITEM No.: Not Applicable.

REASON FOR CHANGE:

This change order item is necessary for:

Great Lakes Veneer, the current site occupant, has asserted that the work performed during a previous IRM damaged a portion of the roof which now leaks worse than it did prior to the work. There is no warranty from the contractor who performed the IRM addressing contaminated roof ballast, since it was an environmental removal

versus a roof installation project. In the interests of resolving its dispute with Great Lakes Veneer, the Department agreed to make a reasonable effort (i.e., hire a qualified roofing contractor) to repair a portion of the roof. The change order includes costs to reimburse the roofing subcontractor for his efforts to investigate reducing uncontrolled leaking into the log storage area. The roofer concluded that repairs were not feasible due to the advanced age and poor condition of the roof.

COST:

Time and material costs.	$480.00	
OH&P (5%)	$24.00	
	Subtotal 3	**$504.00**

4. Increase in the estimated quantity for Payment Item 4C.

DESCRIPTION OF CHANGE:

Increase in the estimated quantity for Payment Item 4C - Storm sewer piping.

DRAWING REFERENCE: Not Applicable.

SPECIFICATION REFERENCE: Section VIII; 11.2, Unit Price Work.

CONTRACT PAY ITEM No.: Payment Item 4A.

REASON FOR CHANGE:

This change order item is necessary for:

The specifications required the existing roof drain discharge be extended over to the cooling water pond overflow pipe, which was not feasible due to the different elevations. Therefore, the existing discharge was extended across the former cooling water pond to daylight in the new pond allowing for gravity flow. The line was routed along the undisturbed bank of the pond to minimize settling adjacent to the pipe (considering much of the backfill placed in the pond was poorly compacted due to high moisture content during draw down of the pond). The actual length of installed pipe was determined by a licensed surveyor.

COST:

65 linear feet @ $65.00 per linear foot

Subtotal 4 **$4,225.00**

5. Time and materials to pressure test installed piping and disinfect water line.

DESCRIPTION OF CHANGE:

Actual cost to pressure test installed piping and disinfect water line.

DRAWING REFERENCE: Not Applicable.

SPECIFICATION REFERENCE: Section VIII, 10, Change of Contract Price or Time .

CONTRACT PAY ITEM No.: Not applicable.

REASON FOR CHANGE:

This change order item is necessary for:

The specifications for pressure testing installed piping and disinfection of the water line were inadvertently left out of the contract documents. Installed piping must be pressure tested to confirm it does not leak. Water lines used for potable water must be disinfected according to health department standards.

COST:

Time and material cost.

Subtotal 5 $2,250.09

6. Time and material costs to procure laptop computer.

DESCRIPTION OF CHANGE:

Department issued proposed change order to Abscope to procure a Dell laptop computer to replace the one being used by the Department's construction inspector at the site. The existing computer's hard drive failed and it was not feasible to repair since it was obsolete. The new computer was procured at a cost below the state contract rate.

DRAWING REFERENCE: Not Applicable

SPECIFICATION REFERENCE: Section VIII, 10, Change of Contract Price or Time

CONTRACT PAY ITEM: Not Applicable

REASON FOR CHANGE:

This change order item is necessary for:

Replace the laptop computer used by the Department's construction inspector.

COST:

Dell Inspiron lap top computer = $1807.00
Shipping & Handling = $6.00
Rebate = ($150.00)

Materials Fee per Article 10 General Conditions (10%) = $166.30

Subtotal 6 **$1,829.30**

7. Increase in the estimated quantity for Payment Item 8.

DESCRIPTION OF CHANGE:

Reimburse contractor for four additional verification samples collected and analyzed.

DRAWING REFERENCE: Not Applicable

SPECIFICATION REFERENCE: Section VIII; 11.2, Unit Price Work.

CONTRACT PAY ITEM: 8 - Verification Sampling

REASON FOR CHANGE:

This change order item is necessary for:

Four additional samples were collected due to initial samples failing to achieve cleanup goals. The additional sampling was performed to confirm the extent of the removal. The remaining extra samples were collected to characterize soils for off-site disposal.

COST:

7 samples @ $250.00 per sample

Subtotal 7 **$1,750.00**

8. Increase in the estimated quantity for Payment Item 5B.

DESCRIPTION OF CHANGE:

Additional cubic yards of sediment removed.

DRAWING REFERENCE: Not Applicable

SPECIFICATION REFERENCE: Section VIII; 11.2, Unit Price Work.

CONTRACT PAY ITEM: 5B - Wetland Excavation

REASON FOR CHANGE:

This change order item is necessary for:

Additional contaminated sediments were removed based on verification sampling. The quantity of the materials removed were confirmed by licensed surveyor.

COST:

117.72 cubic yards @ $15.00 per cubic yard

Subtotal 8 **$1,765.80**

9. Decrease in the estimated quantity for Payment Item 5C.

DESCRIPTION OF CHANGE:

Reduction in the actual cubic yards of soil excavated while building the new pond.

DRAWING REFERENCE: Not Applicable

SPECIFICATION REFERENCE: Section VIII; 11.2, Unit Price Work.

CONTRACT PAY ITEM: 5C - New Pond

REASON FOR CHANGE:

This change order item is necessary for:

Reduce the estimated quantity to the actual quantity measured in the field. The increased excavation of contaminated wetland sediments under item 5B reduced the excavation required to construct the new pond. Actual quantities were determined by a licensed surveyor.

COST:

72.72 cubic yards @ $15.00 per cubic yard

Subtotal 9 **($1,090.80)**

10. Time and material costs to address fuel contaminated soils.

DESCRIPTION OF CHANGE:

Contractor had to excavate and remove fuel contaminated soils in an excavation area within the yard area.

DRAWING REFERENCE: Not Applicable

SPECIFICATION REFERENCE: Section VIII, 10, Change of Contract Price or Time

CONTRACT PAY ITEM: Not Applicable

REASON FOR CHANGE:

This change order item is necessary for:

The contamination, apparently from a formerly abandoned fuel line dating back to the responsible party's use of the site, was unforeseen and could not be placed on-site in the cooling water pond. Instead the contaminated materials were removed and disposed off-site.

COST:

Time and material costs attached:

Subtotal 10 **$6,432.62**

11. Time and material costs to re-grade sub-base and modify existing doorways.

DESCRIPTION OF CHANGE:

The Contractor had to re-grade a portion of the sub-base, provide temporary doors and modify existing doors to match the new slab elevations.

DRAWING REFERENCE: Not Applicable

SPECIFICATION REFERENCE: Section VIII, 10, Change of Contract Price or Time

CONTRACT PAY ITEM: Not Applicable

REASON FOR CHANGE:

This change order item is necessary for:

The original design did not account for the elevation of plant entrance ways. The finished slab would render the existing doors inoperable.

COST:

Time and material costs attached:

Subtotal 11 **$5,883.68**

12. Increase in the estimated quantity for Payment Item 5A.

DESCRIPTION OF CHANGE:

Additional cubic yards of yard excavation.

DRAWING REFERENCE: Not Applicable

SPECIFICATION REFERENCE: Section VIII; 11.2, Unit Price Work.

CONTRACT PAY ITEM: 5A - Yard Excavation

REASON FOR CHANGE:

This change order item is necessary for:

Actual cubic yards of excavated materials from the yard area based on licensed surveying.

COST:

263.44 cubic yards @ $15.00 per cubic yard

Subtotal 12 **$3,951.60**

13. Increase in the estimated quantity for Payment Item 7B.

DESCRIPTION OF CHANGE:

Additional cubic yards of landfill excavation.

DRAWING REFERENCE: Not Applicable

SPECIFICATION REFERENCE: Section VIII; 11.2, Unit Price Work.

CONTRACT PAY ITEM: 7B - Landfill Excavation

REASON FOR CHANGE:

This change order item is necessary for:

Actual cubic yards of excavated materials from the yard area based on licensed surveying.

COST:

615.4 cubic yards @ $15.00 per cubic yard

Subtotal 13 **$9,231.00**

14. Increase in the estimated quantity for Payment Item 7C.

DESCRIPTION OF CHANGE:

Additional square feet of geotextile.

DRAWING REFERENCE: Not Applicable

SPECIFICATION REFERENCE: Section VIII; 11.2, Unit Price Work.

CONTRACT PAY ITEM: 7C - Geotextile

REASON FOR CHANGE:

This change order item is necessary for:

Actual square footage of geotextile installed per licensed survey.

COST:

890 square feet @ $0.20 per square foot.

Subtotal 14 **$178.00**

15. Material costs to place additional stone over the former landfill.

DESCRIPTION OF CHANGE:

Additional stone was required in the area of the former landfill to maintain the thickness required by the Record of Decision.

DRAWING REFERENCE: Not Applicable

SPECIFICATION REFERENCE: Section VIII, 10, Change of Contract Price or Time

CONTRACT PAY ITEM: Not Applicable

REASON FOR CHANGE:

This change order item is necessary for:

The contract required the contractor to temporarily remove and replace existing stone over the former landfill in order to re-grade the area to provide adequate drainage off the concrete cap. While proceeding with the work, the Department determined there were insufficient materials existing to fully restore the area in accordance with the Record of Decision.

COST:

Material costs attached:	$3,510.84
10% OH & P	$351.08

Subtotal 15 **$3,861.92**

16. Time and materials to complete site restoration.

DESCRIPTION OF CHANGE:

Actual cost to complete site restoration.

DRAWING REFERENCE: Not Applicable.

SPECIFICATION REFERENCE: Section VIII, 10, Change of Contract Price or Time .

CONTRACT PAY ITEM No.: Not applicable.

REASON FOR CHANGE:

This change order item is necessary for:

The specifications for site restoration were inadvertently left out of the contract documents.

COST:

Time and material cost.

Subtotal 16 **$1,076.82**

17. Time and materials to remove excess materials which would not fit within the cooling water pond or under the concrete slab.

DESCRIPTION OF CHANGE:

Actual cost to dispose excess materials off-site.

DRAWING REFERENCE: Not Applicable.

SPECIFICATION REFERENCE: Section VIII, 10, Change of Contract Price or Time .

CONTRACT PAY ITEM No.: Not applicable.

REASON FOR CHANGE:

This change order item is necessary for:

There were the following reasons for these excess soils:

Excavation for the debarker footings and a deeper excavation to allow for a thickened portion of the slab to support a feed to the debarker resulted in the removal of additional hazardous soils. This could not be foreseen, since the configuration of the support structure for the debarker was not provided to the Department until after construction had started.

The design elevations of the concrete slab did not take into account the existing doorways to the plant facility and were keyed to the inside floor elevation. Unfortunately, this required regrading of the completed subgrade, along with modifications to the existing doors. The installed slab would have prevented the original doors from opening. This is clearly a design omission which resulted in the removal of additional hazardous materials.

It appears that the ability to "lose" hazardous soils underneath the concrete slab through regrading was over estimated, since the majority of the excavated areas are filled by the concrete, stone sub-base and the slope of the finished pad. In other words, the depth of the excavations vs. final grades diminish as one moves out to the edges of the slab and, therefore, the volume of the fill required was much less than anticipated. The contract did state that excess materials requiring off-site disposal would be handled via change order on a time and materials basis.

Sequencing of the work reduced our options in consolidating contaminated soils on-site, since portions of the yard area became covered with concrete and the former cooling water pond was filled and covered. Note also that soils with PCBs above 50 ppm could not be placed in the cooling water pond.

The non-hazardous materials were a result of soils in one area identified in the contract as "known clean" visually matched soils previously known to be contaminated. The soils were segregated, sampled and determined to be non-hazardous, but above levels which would allow us to leave them on-site.

COST:

Time and material cost.

Subtotal 17 $51,886.72

18. Adjustment of Quantities for Payment Item 2.

DESCRIPTION OF CHANGE:

Decrease in estimated quantity for Payment Item 2 - Site services.

DRAWING REFERENCE: Not Applicable.

SPECIFICATION REFERENCE: Section VIII; 11.2, Unit Price Work.

CONTRACT PAY ITEM No.: Payment Item 2.

REASON FOR CHANGE:

This change order item is necessary for:

Decrease in estimated quantity of site services, in accordance with Section XII -

Measurement and Payment, based on the actual number of days used.

COST:

18 days @ $50.00 per day.

Subtotal 18 ($900.00)

19. Adjustment of Quantities for Payment Item 3.

DESCRIPTION OF CHANGE:

Decrease in estimated quantity for Payment Item 3 - Health & Safety.

DRAWING REFERENCE: Not Applicable.

SPECIFICATION REFERENCE: Section VIII; 11.2, Unit Price Work.

CONTRACT PAY ITEM No.: Payment Item 3.

REASON FOR CHANGE:

This change order item is necessary for:

Decrease in estimated quantity of health & safety, in accordance with Section XII - Measurement and Payment, based on the actual number of days used.

COST:

64 days @ $100.00 per LF.

Subtotal 19 ($6,400.00)

20. Adjustment of Quantities for Payment Item 6.

DESCRIPTION OF CHANGE:

Increase in estimated quantity for Payment Item 6 - Concrete Slab.

DRAWING REFERENCE: Not Applicable.

SPECIFICATION REFERENCE: Section VIII; 11.2, Unit Price Work.

CONTRACT PAY ITEM No.: Payment Item 6.

REASON FOR CHANGE:

This change order item is necessary for:

Increase in estimated quantity of concrete slab, in accordance with Section XII - Measurement and Payment, based on the actual number of surveyed square feet.

COST:

96.98 days @ $6.75 per SF.

Subtotal 20 **$654.62**

II. CHANGE ORDER NUMBER 1 SUMMARY

1.	Pay Item 4A.	$1,650.00
2.	Pay Item 4B.	($455.00)
3.	Roof Investigation.	$504.00
4.	Pay Item 4C.	$4,225.00
5.	Pressure Test/Disinfect.	$2,250.09
6.	Computer	$1,829.30
7.	Pay Item 8	$1,750.00
8.	Pay Item 5B	$1,765.80
9.	Pay Item 5C	($1,090.80)
10.	Fuel Contaminated Soils	$6,432.62
11.	Door Modifications and Regrading Work	$5,883.68
12.	Pay Item 5A	$3,951.60
13.	Pay Item 7B	$9,231.00
14.	Pay Item 7C	$178.00
15.	Additional Stone	$3,861.92
16.	Restoration	$1,076.82
17.	Excess Materials	$51,886.72
18.	Pay Item 2	($900.00)
19.	Pay Item 3	($6,400.00)
20.	Pay Item 6	$654.62

TOTAL **$88,285.37**

III. CHANGE IN CONTRACT PRICE

Original Contract Price:	$419,675.00
Contract Price after previous approved Change Orders:	$419,675.00
Net Increase Due to this Change Order:	$88,285.37
Final Contract Price including this Change Order:	**$507,960.37**

IV. CHANGE IN CONTRACT TIME:

Notice to Proceed: July 16 , 2001

	SUBSTANTIAL COMPLETION		FINAL COMPLETION	
	Calendar Days	Date	Calendar Days	Date
Original Contract Time	135	November 28, 2001	195	January 27, 2002

Contract Time after previous Change Orders	0	November 28, 2001	0	January 27, 2002
Net Increase due to this Change Order	0	November 28, 2001	0	January 27, 2002
Final Contract Time including this Change Order	**135**	**November 28, 2001**	**195**	**January 27, 2002**

It is understood and agreed that, unless expressly so stated above, the work herein authorized will not extend the time for completion of the Contract.

It is understood and agreed that this change order represents full and complete compensation for all work described herein.

This work is to be performed in accordance with the terms of the Contract and original plans and specifications, except as herein modified. It is also understood and agreed that this change order shall be deemed executory only to the extent of moneys available and no liability shall be incurred by the State beyond the moneys available for the purpose.

CONTRACT NUMBER D004283

IN WITNESS WHEREOF, representatives of the Department and Contractor have executed this contract on the day and year written beneath their respective signatures. The signatory for the Department provides the following Agency Certification: "In addition to the acceptance of this contract, I also certify that original copies of this signature page will be attached to all other exact copies of this contract."

Recommended:
By: _____
Title: DIR DEC
Date: 12/17/01

FOR DEPARTMENT
By: Dora M Pinckbeck
Title: Assoc Budget Analyst
Date: 12/31/01

FOR ENGINEER
By: _____
Title: Project Manager
Date: 12/7/01

FOR CONTRACTOR
By: _____
Title: PRESIDENT
Date: 12/6/01

Approved as to Form:
By _____
Attorney General
MAR 14 2002
Date: _____

Approved:
By: _____
State Comptroller
APPROVED
DEPT OF AUDIT & CONTROL
MAR 21 2002
FOR THE STATE COMPTROLLER
Date: _____

STATE OF New York)
) SS:
COUNTY OF Madison)

On the 6th day of December, 2001, before me personally came Jack Romagnoli to me known, who being duly sworn, did depose and say that (s)he resides in Manlius, New York; that (s)he is President of Clean Emissions, the corporation described in and which executed the above instrument; that (s)he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by authority of the Board of Directors of said corporation and that (s)he signed his/her name thereto by the same authority.

Gail M. Edwards
Notary Public

GAIL M. EDWARDS
Notary Public, State of New York
Reg. No. 01ED5086510
Qualified in Oneida County
Commission Expires Oct 14, 2005

STATE OF)
) SS:
COUNTY OF)

On the ___ day of _____, 19 , before me personally came _____, to me known, who being duly sworn, did depose and say that (s)he resides in _____, New York; that (s)he is _____ of _____, the corporation described in and which executed the above instrument; that (s)he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by authority of the Board of Directors of said corporation and that (s)he signed his/her name thereto by the same authority.

_____
Notary Public

STATE OF)
) SS:

C NTY OF)

On the __ day of _____, before me personally came _____ to me known and, who being duly sworn, stated that he is a member or employee of _____, the firm described in and which executed the foregoing instrument, and (s)he acknowledged to me that he subscribed his name thereto on behalf of said firm.

_____
Notary Public

STATE OF)
) SS:
COUNTY OF)

On the ___ day of _____, 19 , before me personally came _____ _____, to me known and, who being duly sworn, stated that (s)he is a member or employee of _____, the firm described in and which executed the foregoing instrument, and (s)he acknowledged to me that (s)he subscribed his/her name thereto on behalf of said firm.

_____
Notary Public

STATE OF)
) SS:
COUNTY OF)

On the ___ day of _____, 19 , before me personally came _____ _____, to me known and, known to me to be the individual described in, and who executed the foregoing instrument, and (s)he duly acknowledged to me that (s)he executed the same.

_____
Notary Public

STATE OF)
) SS:
COUNTY OF)

On the 7 day of December 2001, before me personally came Michael J. Cleden, to me known and, known to me to be the individual described in, and who executed the foregoing instrument, and (s)he duly acknowledged to me that (s)he executed the same.

_____
Notary Public

David J. Chiusano
Notary Public, State of New York
No. 01CH5032146
Qualified in Schenectady County
Commission Expires August 22, 2002

MURK 13d (9/81)

NEW YORK STATE DEPARTMENT CONSERVATION
TIME AND MATERIALS

Contract No.	Fed. Proj. No.		Contractor ABSCOPE ENVIRONMENTAL, INC					Item No.
D004283		C.O. # 6	ROOF REPAIR					C.O # 6
Period	Regular (Direct) Wages	Premium Wages	Gross Wages	$ per Wk Limitation	$ per Wk Limitation	Wages Over $	Wages Over $	Fringe Benefits
Totals								

insurance policy.

LABOR	AMOUNT
Regular Wages	
Fringe Benefits	
Other Benefits	
TAXES AND INSURANCE	
F.I.C.A 7.65% x [Gross Wages less Wages Over $]	
N.Y.S. and Fed. Unempl. 7.90% x [Gross Wages less Wages Over $]	
Workers' Compensation 22.00% x [$ per Week Limitation] or [Gross Wages] *See Note Above	
P.L. and P.D. Insurance 14.14% x [$ per week Limitation] or [Gross Wages] *See Note Above	
SUBTOTAL	
Profits & Overhead on Labor-15% *	
Premium Wages	
TOTAL LABOR	

MATERIAL	
Date	Material Cost
SUBTOTAL	
P. & O. 10% *	
Total Materials	

EQUIPMENT	
Indent. No.	Cost
total equip	
Subtotal	
10%	
Total Equipment	
services	
ROOFING SUB	480.00
Subtotal	480.00
5%	24.00
Total Services	504.00

TOTAL FORCE ACCOUNT	
Labor	
Materials	
Services	504.00
Equipment	
TOTAL	504.00

CERTIFICATION: - I certify, to the best of my knowledge and belief, that the equipment used on this work was of the proper size, that material taken from stock as designated above is charged at fair market value, and that account herein shown ate statement of materials and equipment used.

Signed _____ For Contractor _____ For NYSDEC

Date 11/4/01 11/9/01

(5)

(3)

CAMPANY ROOFING CO. INC.

PO BOX 207
106 W. ELM ST.
ONEIDA, NY 13421

Phone 315-363-9086
Fax 315-363-5525

INVOICE

Oct. 23, 2001

Abscope
Canastota, NY 13032

Attn: Rob

RE: Old Oswego Castings

1. Cut hole in roof system.
2. Repair hole in roof system.

LABOR:
2 men, 4 1/2 hrs. each @ 50.00 per man hr. = $ 450.00

MATERIAL:
1/3 roll modified bitumen
1 pail plastic cement 30.00

TOTAL: $ 480.00

MURK 13d (9/81)

NEW YORK STATE DEPARTMENT CONSERVATION
TIME AND MATERIALS

OK $ 11/2/01

Contract No.	Fed. Proj. No.		Contractor ABSCOPE ENVIRONMENTAL, INC					Item No.
D004283		C.O. #2	WATER LINE TESTING					C.O #2
Period	Regular (Direct) Wages	Premium Wages	Gross Wages	$ per Wk Limitation	$ per Wk Limitation	Wages Over $	Wages Over $	Fringe Benefits
	400.41		400.41					160.23
Totals	400.41		400.41					160.23

insurance policy.

LABOR	AMOUNT
Regular Wages	400.41
Fringe Benefits	160.23
Other Benefits	
TAXES AND INSURANCE	
F.I.C.A 7.65% x [Gross Wages less Wages Over $]	42.89
N.Y.S. and Fed. Unempl. 7.90% x [Gross Wages less Wages Over $]	44.29
Workers' Compensation 22.00% x [$ per Week Limitation] or [Gross Wages] *See Note Above	123.34
P.L. and P.D. Insurance 14.14% x [$ per week Limitation] or [Gross Wages] *See Note Above	78.49
SUBTOTAL	849.63
Profits & Overhead on Labor-15% *	127.45
Premium Wages	
TOTAL LABOR	977.08

MATERIAL	
Date	Material Cost
08/06/01	40.97
SUBTOTAL	40.97
P. & O. 10% *	4.10
Total Materials	45.07

EQUIPMENT	
Indent. No.	Cost
total equip	229.48
Subtotal	229.48
10%	22.95
Total Equipment	252.43
services	
Line Testing	806.00
Line Testing	103.06
Water Test	20.00
Subtotal	929.06
5%	46.45
Total Services	975.51

TOTAL FORCE ACCOUNT	
Labor	977.08
Materials	45.07
Services	975.51
Equipment	252.43
TOTAL	2,250.09

CERTIFICATION: - I certify, to the best of my knowledge and belief, that the equipment used on this work was of the proper [illegible]aterial taken from stock as designated above is [illegible]air market value, and that account herein shown [illegible]ate statement of materials and equipment used.

Signed _____ For Contractor

Date _____

_____ For NYSDEC

11/9/01

(5)

MURK 13d (9/81)

(5)

NEW YORK STATE DEPARTMENT CONSERVATION
TIME AND MATERIALS

Contract No.	Fed. Proj. No.		Contractor ABSCOPE ENVIRONMENTAL, INC					Item No.
D004283		C.O. #2	WATER LINE TESTING					C.O #2
Period	Regular (Direct) Wages	Premium Wages	Gross Wages	$ per Wk Limitation	$ per Wk Limitation	Wages Over $	Wages Over $	Fringe Benefits
	400.41		400.41					160.23
Totals	400.41		400.41					160.23

insurance policy.

LABOR	AMOUNT
Regular Wages	400.41
Fringe Benefits	160.23
Other Benefits	
TAXES AND INSURANCE	
F.I.C.A 7.65% x [Gross Wages less Wages Over $]	42.89
N.Y.S. and Fed. Unempl. 7.90% x [Gross Wages less Wages Over $]	44.29
Workers' Compensation 22.00% x [$ per Week Limitation] or [Gross Wages] *See Note Above	123.34
P.L. and P.D. Insurance 14.14% x [$ per week Limitation] or [Gross Wages] *See Note Above	78.49
SUBTOTAL	849.63
Profits & Overhead on Labor-15% *	127.45
Premium Wages	
TOTAL LABOR	977.08

MATERIAL	
Date	Material Cost
08/06/01	40.97
SUBTOTAL	40.97
P. & O. 10% *	4.10
Total Materials	45.07

EQUIPMENT	
Indent. No.	Cost
total equip	229.48
Subtotal	229.48
10%	22.95
Total Equipment	252.43
services	
LIne Testing	806.00
Line Testing	201.50
Water Test	20.00
Subtotal	1,027.50
5%	51.38
Total Services	1,078.88

TOTAL FORCE ACCOUNT	
Labor	977.08
Materials	45.07
Services	1,078.88
Equipment	252.43
TOTAL	2,353.45

CERTIFICATION: - I certify, to the best of my knowledge and belief, that the equipment used on this work was of the proper material taken from stock as designated above is fair market value, and that account herein shown is an accurate statement of materials and equipment used.

Signed _____ For Contractor

Date 9/20/01

For NYSDEC 9/27/01

RECEIVED
OCT 1 2001

MURK 17 (9/81)

NYSDEC OSWEGO CASTINGS
C.0. #2 WATEF LINE TESTING

SHEET 1 OF 3

Period Covered From 08/06/01 TO 09/19/01

Contract No.	Fed. Proj. No.	Contractor	Item No.
DO04283		Abscope Environmental Inc.	C.O. #2

						A	B	C	D	E	F	G	H
			Blue Book Ref.			Hours Of	Hourly	Maximum		Ownership	Operating	Total	Total
Equip. Type	Mfg'r.	Model No.	Sec. No.	Page No.	Code	Actual Use	Rate (Note 1)	Ownership Cost (Note 2)	Computation A x B	Cost (Note 3)	Cost/ Hour	Operating Cost AxF	Reimbursement E + G
tractor loader bkhoe; ex 4'; 4wd	Deere	310 D	9	17	4/97	4.00	26.00	170.00	104.00	104.00	10.65	42.60	146.60
550 gallon poly tank						4.00	5.00	38.39	20.00	20.00	0.90	3.60	20.00
sump pump						4.00	5.65	38.39	22.60	22.60	0.90	3.60	26.20
generator, 5000w	Honda	5000	11	7		4.00	2.27	11.35	9.08	9.08	1.90	7.60	16.68
270 gallon poly tank						4.00	5.00		20.00				20.00

MURK 12c (3/79) NYSDEC

FORCE ACCOUNT SUMMARY OF LABOR

Sheet 2 of 3

Period Covered From 08/06/01 to 09/19/01

Contract No.	Proj. No.	Contractor	Item No.
D004283		Abscope Environmental Inc.	C.O. #2

NAME	Hourly Rate		Hours for Period		Regular			$ per Wk	$ per	Wages Over	Wages Over	Hourly	
	Basic (Regular)	Premium Additive	TOTAL	O.T. (Premium)	(Direct) Wages	Premium Wages	Gross Wages	Limitation per man	Week Limitation	$	$	Fringe Rate	Fringe Benefits
Rick DenHaese op	23.65	11.83	4.00		94.60		94.60					13.05	52.20
Ranny McCormick la	21.09	10.55	8.50		179.27		179.27					7.45	63.33
Jay Jenner	21.09	10.55	6.00		126.54		126.54					7.45	44.70
Total for Period					400.41		400.41						160.23

. INC.

21838

DAY & DATE Tues. 8/7/01

CONTACT PERSON

PHONE #

Rob get with J. May on this one?

PO #

T & M [X]

CONTRACT [ ]

DEPART FROM SHOP

ARRIVE BACK AT SHOP

OR ARRIVE AT NEXT JOB

CLIENT

JOB LOCATION Oswego Castings

BILLING ADDRESS

ATTN:

LABOR:

NAME	TITLE	ST	OT	DT
JAY JENNER	Labor	1		

EQUIPMENT:

QTY.	NAME	FLEET #	# OF HRS.	IF DAILY RA
	Sm. hand tools			
	Threaded Rod			
	bolts, nuts, washers.			

NOTES:

MATERIAL:

QTY.	DESCRIPTION

QTY.	DESCRIPTION

JOB DESCRIPTION:

WATER LINE TESTING - INSTALLED ALL THREAD REINFORCEMENT from 90° to 90° SLIP JOINT - (MACHANICAL JOINT) to withstand testing procedures 150 PSI or plus

(above floor to below floor)

JOB COMPLETED [✓] YES [ ] NO

SIGNATURE: Rick DenHaese (witnessed)

Customer: _____ (Company Name)

By: _____ Signature

_____ Print Name

WHITE COPY: FILE YELLOW COPY: CUSTOMER

ANY SHORTAGE OR DAMAGE CLAIM MUST BE REPORTED TO US WITHIN 5 DAYS OF SHIPMENT.

MARTISCO CORP.

Water & Sewer Material Distributor

SHIP TO:
107 Terminal Road East
Liverpool, N.Y. 13088

MAIL TO:
P.O. Box 2067
Syracuse, N.Y. 13220

Phone (315) 471-3181 • Fax (315) 471-4341 (24 Hour)
FEDERAL I.D. NO. 150597661

INVOICE

ACCOUNTS WITH OUTSTANDING BALANCES OVER 60 DAYS, WILL BE ASSESSED A 2% SERVICE CHARGE ON THE LAST FRIDAY OF SECOND MONTH PURCHASED.

CUSTOMER ORDER NO.	JOB NO.	DATE SHIPPED	BRANCH	OUR ORDER	INVOICE DATE	INVOICE NO.	PAGE
		8/06/01	1	126591	8/15/01	155730	1

CUSTOMER NO.	SLMN	SHIPPED VIA	TERMS	I.D.
16-01	13	PICK UP	2% 10TH PROX	kim

ABSCOPE ENVIRONMENTAL INC
PO BOX 487 (Y)
CANASTOTA, NY 13032-0000

SHIPPED TO

PICKED UP BY HAROLD

21838

PRODUCT NO.	DESCRIPTION	INV. QTY.	UNIT	PRICE	UNIT	EXTENSION
	JOB: OSWEGO CASTING SITE WORK					
34-05404	3/4X10' "COR-TEN" THREADED ROD PER ASTM A242	2	EA	12.479		24.96
35-06800	3/4 COR-TEN HEAVY HEX NUT A-242	8	EA	.619		4.95
34-07105	3/4 134 ROUND STEEL WASHER BLACK	8	EA	.240		1.92
34-08932	3/4X4 #5 COR-TEN EYE BOLT	4	EA	2.285		9.14

DISCOUNT AMOUNT	IF PAID BY
.82	9/10/01

LINE TOTAL	OTHER CHARGE	DELIVERY CHARGE	TAXABLE AMT.	SALES TAX
40.97	.00	.00	.00	.00

INVOICE AMOUNT
40.97

ESE GOODS WERE PRODUCED IN COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS OF SECTIONS 6, 7, AND 12 OF THE FAIR LABOR STANDARDS T AS AMENDED AND OF REGULATION AND ORDERS OF THE UNITED STATES DEPARTMENT OF LABOR ISSUED UNDER SECTION 14 THEREOF.

VISA MasterCard

/-4 You may now e-mail us at martisco@dreamscape.com

ORIGINAL

ABSCOPE ENVIRONMENTAL INC.

PO Box 487 Canastota, NY 13022
PH. 315-697-8437
FAX 315-697-9391

JOB # 21838

DAY & DATE MON 8/6/01

CONTACT PERSON _____

PHONE # _____

PO # _____

T & M [X]

CONTRACT [ ]

DEPART FROM SHOP _____

ARRIVE BACK AT SHOP _____

OR ARRIVE AT NEXT JOB _____

CLIENT _____

BILLING ADDRESS _____

JOB LOCATION OSWEGO Castings

ATTN: _____

LABOR:

NAME	TITLE	ST	OT	DT
JAY JENNER	Labor	5		

EQUIPMENT:

QTY.	NAME	FLEET #	# OF HRS.	✓IF DAILY RATE

NOTES:

Labored on water line testing - chased parts for testing to Martisco Corp. Tapped end cap for test.

MATERIAL:

QTY.	DESCRIPTION

QTY.	DESCRIPTION

JOB DESCRIPTION: set up water line for testing

JOB COMPLETED [ ] YES [ ] NO

SIGNATURE: _____

Customer: New York State Dept. Environ Con. (Company Name)

By: John A Macy (Signature)

John A Macy (Print Name)

WHITE COPY: FILE YELLOW COPY: CUSTOMER

ROSCOPE ENVIRONMENTAL INC.

PO Box 487 Canastota, NY 13022
PH. 315-697-8437
FAX 315-697-9391

...2038

DAY & DATE Fri 8/17/01

CONTACT PERSON

PHONE #

T+M

PO #

T & M ☐

CONTRACT ☐

DEPART FROM SHOP

ARRIVE BACK AT SHOP

OR ARRIVE AT NEXT JOB

CLIENT

BILLING ADDRESS

ATTN:

JOB LOCATION Oswego Castings

LABOR:

NAME	TITLE	ST	OT	DT
Rick DeWitt Haese	Sup. / Labor	8		
Rawny McCormick	Labor	8		
SEE NOTES				

EQUIPMENT:

QTY.	NAME	FLEET #	# OF HRS.	✓IF DAILY RA
1	JD410 Excavator	NO		
1	JD310 Backhoe			
1	JD550 Dozer	NO		
1	office trailer	NO		
1	storage trailer	NO		
✓ 1	2½" sump pump			
✓ 1	550 gal Poly tank			
✓ 1	210 " "	"		
✓ 1	generator			
1	TAMPER	NO		
1	bobcat	NO		
	TRAILER			

NOTES:

D.E.C. on site

J+A contractors TESTERS of SEWER & WATER LINE on site

7:30A - 3:00P

(4 hrs)

Rick & Rawny aided in testing PROCEDURES that is T+M. Hours to be REVIEWED with J. May (D.E.C.)

MATERIAL:

QTY.	DESCRIPTION

QTY.	DESCRIPTION

JOB DESCRIPTION: staged gravel NEAR building with 310 backhoe to back WATER LINE. moved MANHOLE & lid to INSTALLATION area. AIDED IN testing procedures. SEWER LINE tested OK. WATER LINE had MINOR LEAK AT MECHANICAL JOINT IN building - REPAIRED. Pumped ground water from Hyd. END of LINE. WATER LINE test IN PROGRESS throughout WEEKEND

JOB COMPLETED ☐ YES ☐ NO

SIGNATURE:

Customer: (Company Name)

By: Signature

Print Name

WHITE COPY: FILE YELLOW COPY: CUSTOMER

ABSCOPE ENVIRONMENTAL INC.

PO Box 487 Canastota, NY 13022
PH. 315-697-8437
FAX 315-697-9391

JOB # 21838

DAY & DATE Mon 9/17/01

CONTACT PERSON

PHONE #

PO #

T & M ☒

CONTRACT ☐

DEPART FROM SHOP

ARRIVE BACK AT SHOP

OR ARRIVE AT NEXT JOB

TTM 1to Unit

CLIENT

BILLING ADDRESS

JOB LOCATION Oswego Castings

ATTN:

LABOR:

NAME	TITLE	ST	OT	DT
Randy McCormick	LABOR	4½		

EQUIPMENT:

QTY.	NAME	FLEET #	# OF HRS.	✓IF DAILY RATE
1	Pick up			

NOTES:

used pickup to get Equip:
~~Dish~~ Discharge hose
Valve wrench
Deliver sample to Water Dept.

MATERIAL:

QTY.	DESCRIPTION

QTY.	DESCRIPTION

JOB DESCRIPTION:

Flush water line ½hr take sample to Oswego Water Dept.

JOB COMPLETED ☐ YES ☐ NO

SIGNATURE:

Customer: NYSDEC (Company Name)

By: John A Mc (Signature)

John A Mc (Print Name)

WHITE COPY: FILE YELLOW COPY: CUSTOMER

FIELD CHANGE ORDER

J & A Mechanical Contractor Inc.

P.O. Box 1037
Oswego, N.Y. 13126

Phone (315) 343-9315
Fax (315) 343-3954

DATE WRITTEN: 8/17/01
F.C.O. NO.:
JOB NO.: 01-159
INVOICE NO. № 03187
SEND INVOICE TO ☐ JOB SITE ☐ CUSTOMER
INVOICE DATE:

JOB NAME AND ADDRESS: Absope

CUSTOMER NAME AND ADDRESS: Absope Enviromental Inc

@ Great Lakes Veneer Site

JOB TYPE ☐ PLUMBING ☐ HEATING ☐ VENTILATING ☐ _____

PURCHASE ORDER NO.:
ACCOUNT NO.:

QUAN.	PART NO.	MATERIAL DESCRIPTION	COST EA.	AMOUNT	SELL EA.	AMOUNT

MATERIALS

TOTAL COST: TOTAL MATERIALS:

NAME	DATE	REG. TIME	OV. TIME	TRVL. TIME	MILES	EXPENSES
R. Pritchard	8/17/01	8				
J. Pagano	8/17/01	8				

LABOR

FOREMAN	8 Hrs. @	51.53	412	24
JOURNEYMAN	8 Hrs. @	49.22	393	76
TRAVEL	Mis. @			
MISC. EXPENSE				

☐ WORK COMPLETE ☐ WORK INCOMPLETE

INSTRUCTIONS: ONSITE to Test 6" SAN LINE, oFlush + Fill + Test 6" WATER LINE. TESTED 6" SAN LINE, 10' Head 4 hours. TESTED 6" WATER LINE From Hydrant to tie IN Valve t 150 psi TEST Failed on WATER LINE.

REMARKS: Left at 3:30 w/ 150# ON, will leave on over weekend.
SANITARY LINE test passed, DRAINED LINE

MISC

TOTAL MATERIAL LABOR AND EXPENSE	806 00
QUOTED PRICE	
NOT TO EXCEED PRICE	
TAX %	
OVERHEAD & PROFIT	
TOTAL INVOICE AMOUNT ➤	806 00

J & A FOREMAN SIGNATURE: R. Pritchard
CUSTOMER SIGNATURE & TITLE:
DATE RECD.

FIELD CHANGE ORDER

J & A Mechanical Contractor Inc.

Box 1037
Oswego, N.Y. 13126

Phone (315) 343-9315
Fax (315) 343-3954

DATE WRITTEN: 8/23/01
F.C.O. NO.:
JOB NO.: 01-159
INVOICE NO. Nº 03190
SEND INVOICE TO ☐ JOB SITE ☐ CUSTOMER
INVOICE DATE:

JOB NAME AND ADDRESS: Abscope

CUSTOMER NAME AND ADDRESS: Absope Enviromental Inc

Great Lakes Veneer Site

JOB TYPE ☐ PLUMBING ☐ HEATING ☐ VENTILATING ☐ _____

PURCHASE ORDER NO.:
ACCOUNT NO.:

QUAN.	PART NO.	MATERIAL DESCRIPTION	COST EA.	AMOUNT	SELL EA.	AMOUNT
		WATER Sample Test				

MATERIALS

NAME	DATE	REG. TIME	OV. TIME	TRVL. TIME	MILES	EXPENSES
R. Pritchard	8/23/01	8				
S. Pagano	8/23/01	8				

LABOR

TOTAL COST			TOTAL MATERIALS	
FOREMAN	8 Hrs. @	51.53		412 24
JOURNEYMAN	8 Hrs. @	49.22		393 76
TRAVEL	Mls. @			9 15/64
MISC. EXPENSE	2 hrs 19.4			Perry Trans
TOTAL MATERIAL LABOR AND EXPENSE				806 00

☐ WORK COMPLETE ☐ WORK INCOMPLETE

INSTRUCTIONS: Inspected test at 7⁰⁰ AM, Found pressure dropped overnite 12 psi. Pumped up to 150#. TEST PASSED AT 150# 2 HOURS. Upoon your request we reinstalled Flg 90° Elbow INSIDE bldg, Removed Cap + INSTALLED HYDRANT. Flushed System of DISINFECTION CHEMICAL. READY FOR WATER SAMPLE

MISC

QUOTED PRICE	2@ 51.53
NOT TO EXCEED PRICE	0
TAX %	
OVERHEAD & PROFIT	
TOTAL INVOICE AMOUNT ➤	806 00

J & A FOREMAN SIGNATURE: Randy Pritchard
CUSTOMER SIGNATURE & TITLE:
DATE RECD.:

ABSCOPE ENVIRONMENTAL, INC.
P.O. BOX 487
1 COMMERCIAL DR.
CANASTOTA, NY 13032-0487
(315) 697-8437
FED. ID # 16-1352765

EXPLANATION	AMOUNT	

5496

50-7087-2213

PAY AMOUNT OF _____ DOLLARS

CHECK AMOUNT

DATE	TO THE ORDER OF	DESCRIPTION	CHECK NUMBER	
9-13-01	City of Oswego	water sample	5496	$ 20.00

111011

Security Features Included Details on Back

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MP

⑈005496⑈ ⑆221370878⑆ 510 014523 5⑈

MURK 13d (9/8

NEW YORK STATE DEPARTMENT CONSERVATION
TIME AND MATERIALS

Contract No.	Fed. Proj. No.		Contractor ABSCOPE ENVIRONMENTAL, INC					Item No.
D004283		C.O. # 7	DELL COMPUTER					C.O # 7
Period	Regular (Direct) Wages	Premium Wages	Gross Wages	$ per Wk Limitation	$ per Wk Limitation	Wages Over $	Wages Over $	Fringe Benefits
Totals								

insurance policy.

LABOR	AMOUNT
Regular Wages	
Fringe Benefits	
Other Benefits	
TAXES AND INSURANCE	
F.I.C.A 7.65% x [Gross Wages less Wages Over $]	
N.Y.S. and Fed. Unempl. 7.90% x [Gross Wages less Wages Over $]	
Workers' Compensation 22.00% x [$ per Week Limitation] or [Gross Wages] *See Note Above	
P.L. and P.D. Insurance 14.14% x [$ per week Limitation] or [Gross Wages] *See Note Above	
SUBTOTAL	
Profits & Overhead on Labor-15% *	
Premium Wages	
TOTAL LABOR	

MATERIAL	
Date	Material Cost
10/02/01	1,829.30
SUBTOTAL	1,829.30
P. & O. 10% *	182.93
Total Materials	2,012.23

EQUIPMENT	
Indent. No.	Cost
total equip	
Subtotal	
10%	
Total Equipment	
services	
Subtotal	
5%	
Total Services	

TOTAL FORCE ACCOUNT	
Labor	
Materials	2,012.23
Services	
Equipment	
TOTAL	2,012.23

CERTIFICATION: - I certify, to the best of my knowledge and belief, that the equipment used on this work was of the proper size, that material taken from stock as designated above is at fair market value, and that account herein shown is an accurate statement of materials and equipment used.

Signed _____ For Contractor

Date 11/4/01

For NYSDEC 11/9/01

Ok
JAO

$150
rebate

(9)

(6)

FAX

Mr. Robert Gray
Operations Manager
Abscope Environmental, Inc.
P.O. Box 487
1 Commercial Drive
Canastota, NY 13032

Dear Mr. Gray:

Re: Site No. 7-38-033, Contract #D004283
Oswego Castings site
Oswego County

This letter is a proposed change order to your construction contract for the purposes of obtaining an Inspiron 8100 Notebook Computer for the Department's use during construction inspection at the site. This is a tax exempt purchase in accordance with the terms of your contract. The computer is to become the property of the Department at the end of the project.

The computer is to be configured as specified in the enclosure and should be ordered from Dell today. The selected computer should be procured with an ethernet/modem card, floppy disk drive and a carrying case. In accordance with your contract, Abscope will be reimbursed for the cost of the computer plus 10% for overhead and profit.

If you have any questions, please call me at (518) 457-7878.

Sincerely,

9/17/01

Michael J. Cruden, P.E.
Project Manager
Western Field Services Section
Bureau of Construction Services

Enclosure

bcc w\enc: G. Harrris
M. Cruden
J. May
Dayfile

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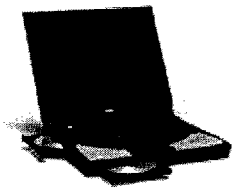

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FREE Printer, Scanner or PDA!
Shipping extra. Limited-time Offer!
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intel inside pentium III
click here
Learn more about processor performance

Your Price	Purchase Plan
$1,807.00* Tax and shipping will be provided in the cart.	As low as **$54*/mo.** 45 pmts No payments for 90 days (Click for Info. | Click or scroll for details)[18]

Update Price | Add to Cart

Standard view | Extended view | Printable Summary **E-VALUE CODE:** 6V777 - 8ONEp1

Select options, update price and add to your shopping cart below.

Dell Inspiron 8100 Notebooks

Special! Intel®PIII 866 MHz-M 15in SXGA+ for a 14in SXGA+ Display

Choose Your Free or Discounted Special Offer

Select your free printer, scanner or PDA or SAVE up to $100 on great upgrade, Click here for offer details.

FREE! Epson Stylus C40UX InkJet (USB cable not included)

Memory

128MB,SDRAM,133M,2DIMM

Primary Hard Drive

20GB Ultra ATA Hard Drive

Modular Zip Drive

None.

Additional Hard Drive

None.

Video Card

16MB DDR 4X AGP NVIDIA GeForce2 Go™Vid

Additional Battery

None.

Floppy Drive

Modular Floppy Drive

Recommended Media Bundle

- Beginners Bundle: Lexmark Z53 Printer, UMAX 3400 Scanner, and USB Cable [$199]
- Belkin 350 VA UPS [$79]
- Hip Zip Digital Audio [$150]
- Targus Defcon Security [$39]
- Notebook Kit [$80]
- HP OfficeJet G5 [$399]
- Advanced Bundle: HP932 Printer, HP2200 Scanner, and Media Kit [$233]
- HP PhotoSmart C315 [$279]
- IMATION 25 Pack [$14]

Service and Support Options

Upgrade Dell's Award-Winning service and support! Technical Support is available 24 hours a day, 7 days a week, and you can choose fron services, including 3 Years Next Business Day At Home/Onsite service (after telephone troubleshooting.)

1 Yr Ltd. Warranty-1 Yr Mail-in Service + 1 Yr Phone Support

Fixed CD/DVD Drives

24X Max Variable CD-ROM Drive

2nd CD/DVD Drive

None.

Modem

10/100 + 56K Capable V.90 NIC/Modem, Internal Mini-PCI

Network Adapter

None.

Operating System Software

Dell PCs use genuine Microsoft® Windows®
www.microsoft.com/piracy/howtotell
If you are interested in purchasing an upgrade to Microsoft® Windows® XP for your new computer, ($20 after point of sale), please select th XP upgrade coupon offer below. The upgrade requires a purchase of 128mb RAM of memory or greater.

Microsoft® Windows® 2000 Professional with WinXP Pro Upgrade Coupon Offer

Bundled Software

Microsoft® Works Suite 2001 with Money 2001 Standard

Internet Access Options

6 Month Dellnet® by MSN Internet Access [add $0]

Digital Music

None.

Personal Finance

Click here for warranty information.

☐ Quicken Power Pack 2001 [$99]

Carrying Cases

Nylon Carrying Case

Recommended Value Bundles (shipping separately)

☐ Travel Bundle includes: Deluxe Nylon case, Kensington SonicLock Motion-Detecting Notebook Alarm [$80]

☐ Super Gaming Pack: Logitech Wingman Gamepad, KOSS R/80 [$72]

Port Replicators

None.

External Mouse

None.

External Monitor

None.

External Speakers

None.

Wireless Base Station (Shipping Separately)

☐ Truemobile 1150 Wireless Base Station [$299]

Digital Imaging Software

Image Expert® 2000, Dell Edition ($0)

Digital Imaging Accessories

Digital Imaging Solution Bundle includes HP PhotoSmart C215 camera, USB card reader, camera case and $25 in free prints from Shutterfl
Imaging Solution Bundle requires selection of the Image Expert®2000, Premium Dell Edition software.

None.

Power Protection

Protect your PC during power outages or surges with American Power Conversion Products.
Click here for warranty information.

- [ ] APC SurgeArrest Per7 [$18]
- [ ] APC SURGESTATION PRO8T2 [$39]
- [ ] Belkin 350 VA UPS Backup [$79]

Anti-Theft Notebook Devices

- [ ] Targus Defcon Security Device [$39]

Pre-Installed Printer Drivers/Cable

Please review the following selection:
Available with the purchase of a system and HP printer.
Pre-installed printer drivers are available on Microsoft® Windows® Millennium and Microsoft® Windows® 98 Second Edition Operating Sys

- [ ] 10' IEEE Parallel Printer Cable [$25]
- [x] 10 ft. USB Cable [$25]

Color Choice

- [ ] Four QuickSnap™ Color Palm Rest [$19]

Premium Color Choices

- [ ] Black Leather Palm Rest Inserts [$20]
- [ ] Block Art Palm Rest Inserts [$20]
- [ ] Blue Herringbone Palm Rest Inserts [$20]
- [ ] Iridescent Bronze Palm Rest Inserts [$39]
- [ ] Burl Wood Palm Rest Inserts [$20]
- [ ] Champagne Palm Rest Inserts [$20]
- [ ] Denim Palm Rest Inserts [$20]
- [ ] Fishskin Palm Rest Inserts [$20]
- [ ] Grey Hatchworks Palm Rest Inserts [$20]
- [ ] Iridescent Jade Palm Rest Inserts [$39]
- [ ] Pink Granite Palm Rest Inserts [$20]
- [ ] Snakeskin Palm Rest Inserts [$20]
- [ ] Spring Palette Palm Rest Inserts [$20]

Scanners

Dell delivers best-selling scanners to meet your needs and your budget.
Click here for warranty information.

- [ ] HP ScanJet 4300Cse $99 after $50 rebate (Easy 4 button scanning) [$129]

Digital Still Cameras

Click here for warranty information.

- [ ] Sony Mavica MVC-FD87 [$499]
- [ ] Polaroid PDC 2300Z [$349]

- [ ] HP PhotoSmart C315 ($50 HP rebate) [$279]
- [ ] HP PhotoSmart C215 $149 after $50 rebate [$149]

Storage Devices and Media

- [ ] ZIP250,2PK,MEDIA [$29]
- [ ] ZIP250,4PK,MEDIA [$49]

Digital Video Cameras and Accessories

- [ ] ZR25MC Canon Digital Video [$699]
- [ ] Intel Pocket PC Camera-Midnight Grey [$99]
- [ ] Intel Pro PC Camera Midnight Grey $89 after $30 rebate [$70]
- [ ] Kensington Dig. Photo Album ($50 Rebate!) [$179]
- [ ] Dazzle Digital Video Creator [$180]

Movie Studio Accessories

None.

Anti-virus

Norton Antivirus® 2001, 90 day trial version

Printers

Dell has the perfect printer to meet your needs from leading vendors like HP, Epson and Canon... Click here for warranty information.

- [ ] HP G55 Print,Copy & Scan! $349 after $50 rebate! [$399]
- [ ] HP 990 $249 after $50 rebate [$299]
- [ ] HP OfficeJet K60 $249 after $50 rebate [$299]
- [ ] HP Deskjet 960 CSE [$199]
- [ ] HP PhotoSmart 1000 Printer [$199]
- [ ] Canon BJC-85 [$299]
- [ ] $25 Instant Rebate Canon BJC-85 [$274]
- [ ] Epson Stylus Color 980 [$199]
- [ ] HP Laser Jet 1200se [$399]
- [ ] Canon S600 Color Bubblejet Printer [$149]
- [ ] Lexmark Z53 Printer, UMAX 3400 Scanner & USB Cable [$199]
- [ ] Stylus Color 880 InkJet Printer [$129]
- [ ] Lexmark Z53 [$130]
- [ ] 10 ft. Parallel Cable [$16]
- [ ] Belkin 10 ft. USB Cable [$25]

EducateU.com Online Training Curriculum

- [ ] Microsoft Works 2000 Beginning Curriculum - 5 courses [$30]
- [ ] Microsoft Works 2000 Complete Curriculum - 12 Courses [$60]
- [ ] Home & Personal Finance w/Quicken Curriculum - 5 Courses [$30]
- [ ] Home & Personal Finance w/MS Money Curriculum - 5 Courses [$30]

- [ ] MS Project Curriculum - 3 Courses [$53]
- [ ] Web Skills with IE 5.0 Curriculum - 7 Courses [$30]
- [ ] MS Windows NT4.0 Complete Curriculum. [$1589]
- [ ] MS Backoffice Server Complete Curriculum. [$178]
- [ ] MS Access Complete Curriculum. [$34]
- [ ] Microsoft PowerPoint 2000 Complete Curriculum. [$25]

▷ Limited Warranty
Review the details of our limited warranties.

Your Price		Purchase Plan
$1,807.00*	Tax and shipping will be provided in the cart.	As low as **$54*/mo.** 45 pmts No payments for 90 days (Click for Info. | Click or scroll for details)[18]

▷ Update Price Add to Cart

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Inspiron 8100

Mobile Desktop
15" Ultra XGA TFT and 15" and 14" Super XGA+ TFT Displays available
Intel® Pentium® III- M processors

To configure your system:

1. Select from the options listed to configure YOUR Dell system.
2. Click "Update Price" button at the bottom of the page to make the pricing reflect any changes you have made.
3. Click "Add to Orderform" button at the bottom of the page to add your system to your Order Form.

View Options: View Drop-down List | View all System Options | View Config

Price*:$2,032.06

1 selections may require changes to other configuration choices. Check below.

Dell Inspiron 8100 Notebooks

Intel® Pentium® III Processor 866MHz-M 15in SuperXGA+TFT Display

Internet Access Service

America Online offers tools and services to help your small business succeed. Sign up for a six month trial membership and visit AOL Keyword: Netbusiness.

None

Color Choice

Four QuickSnap™ Color Palm Rest [$18.62]

Memory

128MB,SDRAM,133M,2DIMM

Primary Hard Drive

20GB Ultra ATA Hard Drive

Modular Zip Drive or Additional Hard Drive

None

Additional Hard Drive

None

Floppy Drive

Modular Floppy Drive

Fixed CD/DVD Drives

24X Max Variable CD-ROM Drive

2nd CD/DVD Drive

None

Video Card

16MB DDR 4X AGP NVIDIA GeForce2 Go™Vid

Service and Support Options

Upgrade Dell's Award-Winning service and support! Technical Support is available 24 hours a day, 7 days a week, and you can choose from a variety of services, including 3 Years Next Business Day At Home/Onsite service (after telephone troubleshooting.)

3 Year Ltd, Warranty, 3 Year Onsite Service + Lifetime Phone Support

Modem

10/100 + 56K Capable V.90 NIC/Modem, Internal Mini-PCI

Optional Support Services

None

Additional Battery

No Secondary Battery Option

Operating System Software

Dell PCs use genuine Microsoft® Windows®
www.microsoft.com/piracy/howtotell

If you are interested in purchasing an upgrade to Microsoft® Windows® XP for your new computer, ($20 after point of sale), please select the Windows® XP upgrade coupon offer below. The upgrade requires a purchase of 128mb RAM of memory or greater.

Microsoft® Windows® 2000 Professional with WinXP Pro Upgrade Coupon Offer

Bundle

Microsoft® Office XP Small Business

Anti-virus

Norton Antivirus® 2001, Introductory Offer

Printers

- [ ] Canon BJC-55 Portable Color BubbleJet Printer [$336.95]
- [ ] HP Deskjet 932C Color Inkjet Printer(cable not included) [$129.00]
- [ ] Canon BJC-85: $249 after $50 Rebate [$299.00]
- [ ] HP G55 Print,Copy & Scan! $449 after $50 rebate! [$398.99]
- [ ] HP OfficeJet K60 $249 after $50 rebate [$299.00]
- [ ] HP 952C $99 after $50 rebate (check below for pre-installed drivers) [$149.00]
- [ ] Epson Stylus Color 980 $199 with $50 reb [$180.10]
- [ ] HP 932 C $99 after $50 rebate (check below for pre-installed drivers) [$129.00]
- [ ] Stylus Color 880 InkJet Printer [$116.74]
- [ ] Stylus Color 777 InkJet Printer [$71.45]
- [ ] 10 ft. Parallel Cable [$14.99]
- [ ] Belkin 10 ft. USB Cable [$25.00]
- [ ] HP 990 $249 after $50 rebate [$299.00]

Network Adapter

None

Wireless Base Station (Shipping Separately)

- [ ] Truemobile 1150 Wireless Base Station [$270.60]

Wireless Networking Startup Bundle

Price*:$2,032.06

Update Price | Save E-quote | Add to Orderform

1-800-981-DELL Current Orderform | Retrieve E-Quote

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DELL

This is your ACKNOWLEDGMENT

FID Number: 74-2616805
Sales Rep: JUSTIN JACKSON
For Sales: (800)426-5150
Sales Fax: (800)727-8320
Customer Service: (877)773-3355
Technical Support: (800)624-9896
Dell Online: http://www.dell.com

Customer Number: 002684477
Purchase Order:
Order Number: 660563206
Order Date: 09/28/01

04 01 V 01 01 N

Invoice Number: 660563206

Invoice Date: 10/02/01
Payment Terms: VISA
Shipped Via: UNAUTHORIZED
Waybill Number: V5416E4203338922

SOLD TO:

#BWNHKPV
#0026 8447 79# 66.1.14691 1 AB 0.280 90115S11.OCE 1 of 2
ROB GRAY
ABSCOPE
PO BOX 487
CANASTOTA NY 13032-0487

4

SHIP TO:
ROB GRAY
ABSCOPE
1 COMMERCIAL DR
CANASTOTA NY 13032

Order	Shipped	Item Number	Description	Unit	Unit Price	Amount
1	1	220-2485	Inspiron 8100, Pentium III 866 MHz, 15 in Super XGA+	ZZ	1,782.00	1,782.00
1	1	311-1317	128MB,SDRAM,133M (2 DIMMS), Inspiron 8100,Factory Install	ZZ	0.00	0.00
1	1	320-0911	16MB DDR 4X AGP NVIDIA GeForce 2 Go Video, Inspiron	ZZ	0.00	0.00
1	1	340-3074	20GB,Hard Drive,Inspiron 8100	ZZ	0.00	0.00
1	1	340-6353	Floppy Drive Inspiron	ZZ	0.00	0.00
1	1	313-7222	Dell Application Back-up CD, Factory Install	ZZ	0.00	0.00
1	1	412-2901	Dell Solution Center,VS 1.3, Inspiron,WW	ZZ	0.00	0.00
1	1	420-0268	Windows 2000 SP1 English	ZZ	0.00	0.00
1	1	412-1029	Windows XP Pro Upgrade Coupon. To redeem please visit http://dellproxpupg. productorder.com	ZZ	0.00	0.00
1	1	313-9795	MINIPCI 56K+10/100,Inspiron 4000/8000	ZZ	0.00	0.00
1	1	313-8110	24X CD Internal Drive	ZZ	0.00	0.00
1	1	412-4630	Norton Antivirus 2001,OEM, English	ZZ	0.00	0.00
1	1	310-3079	Classic Nylon Carrying Case for Inspiron Systems	ZZ	0.00	0.00
1	1	412-0265	6 month Dellnet by MSN Internet Access Service	ZZ	0.00	0.00
1	1	412-2108	Image Expert 2000 Dell Edition	ZZ	0.00	0.00
1	1	412-3637	Microsoft Works Suite 2001 Plus Money 2001	ZZ	0.00	0.00
1	1	902-0120	*Type 7 Mail-in Service, Lifeti me 24x7 Phone Support, Initial Year	ZZ	0.00	0.00
1	1	7001-140	USB Cable	ZZ	25.00	25.00
		System Service Tags	HJM5X01			

THIS IS NOT AN INVOICE

1807
+6
$1813.00
-150 Rebate
$1663 x1.09 = $1829.30

Ship. &/or Handling	$	0.00
Subtotal	$	1,807.00
Taxable: $ 0.00	Tax: $	0.00
Total	$	1,807.00
VISA	$	1,807.00
	$	
	$	
Balance	$	0.00

Service contract may be subject to sales tax.
Any [illegible]e or other service covers Dell system hardware only.
LEA[illegible]EP ORIGINAL BOX FOR ALL RETURNS. THIS PURCHASE AMOUNT WILL BE SHOWN
N YOUR VISA CARD STATEMENT FOR PAYMENT.

PLEASE SEE IMPORTANT TERMS & CONDITIONS OF SALE THAT APPLY TO THIS TRANSACTION AT
http://www.dell.com/us/en/gen/misc/policy_008_policy.htm
OR AS FOUND IN THE PRINTED DOCUMENT PROVIDED IN YOUR SYSTEM BOX.

p. JUSTIN JACKSON
For Sales: (800)426-5150
Sales Fax: (800)727-8320
Customer Service: (877)773-3355
Technical Support: (800)624-9896
Dell Online: http://www.dell.com

Customer Number: 002684477
Purchase Order:
Order Number: 660563230
Order Date: 09/28/01

04 01 V 01 01 N

Invoice Number: 660563230

Invoice Date: 10/02/01
Payment Terms: VISA
Shipped Via: LTL 5 DAY OR LESS
Waybill Number: 1836920309889213

SOLD TO:

#BWNHKPV
#0026 8447 79# 66.1.14691 1 AB 0.280 90115S11.OCE 2 of 2

ROB GRAY
ABSCOPE
PO BOX 487
CANASTOTA NY 13032

SHIP TO:

ROB GRAY
ABSCOPE
1 COMMERCIAL DR
CANASTOTA NY 13032

Order	Shipped	Item Number	Description	Unit	Unit Price	Amount
1	1	285933	Epson Stylus C40UX Inkjet Prin ter USB SN#DKNE017241	ZZ	0.00	0.0

THIS IS NOT AN INVOICE

Ship. &/or Handling	$	6.00
Subtotal	$	6.00
Taxable: $ 0.00	Tax: $	0.00
Total	$	6.00
VISA	$	6.00
	$	
	$	
Balance	$	0.00

PLEASE KEEP ORIGINAL BOX FOR ALL RETURNS. THIS PURCHASE AMOUNT WILL BE SHOWN ON YC ISA CARD STATEMENT FOR PAYMENT.

PLEASE SEE IMPORTANT TERMS & CONDITIONS OF SALE THAT APPLY TO THIS TRANSACTION AT
http://www.dell.com/us/en/gen/misc/policy_008_policy.htm
OR AS FOUND IN THE PRINTED DOCUMENT PROVIDED IN YOUR SYSTEM BOX.

MURK 13d (9/81)

(10)

NEW YORK STATE DEPARTMENT CONSERVATION
TIME AND MATERIALS

Contract No.	Fed. Proj. No.		Contractor ABSCOPE ENVIRONMENTAL, INC					Item No.
D004283		C.O. #1	PETROLEUM CONTAMINATED SOIL REMOVAL					C.O. #1
Period	Regular (Direct) Wages	Premium Wages	Gross Wages	$ per Wk Limitation	$ per Wk Limitation	Wages Over $	Wages Over $	Fringe Benefits
	1,011.10		1,011.10					409.90
Totals	1,011.10		1,011.10					409.90

insurance policy.

LABOR	AMOUNT
Regular Wages	1,011.10
Fringe Benefits	409.90
Other Benefits	
TAXES AND INSURANCE	
F.I.C.A 7.65% x [Gross Wages less Wages Over $]	108.71
N.Y.S. and Fed. Unempl. 7.90% x [Gross Wages less Wages Over $]	112.26
Workers' Compensation 22.00% x [$ per Week Limitation] or [Gross Wages] *See Note Above	312.62
P.L. and P.D. Insurance 14.14% x [$ per week limitation] or [Gross Wages] *See Note Above	198.94
SUBTOTAL	2,153.53
Profits & Overhead on Labor-15% *	323.03
Premium Wages	
TOTAL LABOR	2,476.55

MATERIAL	
Date	Material Cost
Oil pads	11.84
White Tyvek	4.32
Nitril Gloves	7.74
Glove Liners	15.00
Degreaser	32.95
6 Mill Poly	61.90
Drums	145.50
Bank Run	35.00
SUBTOTAL	314.25
P. & O. 10% *	31.43
Total Materials	345.68

EQUIPMENT	
Indent. No.	Cost
total equip	957.89
Subtotal	957.89
10%	95.79
Total Equipment	1,053.68
services	
SOIL T&D	~~2,598.42~~ 241
Subtotal	~~2,598.42~~ 2434
5%	~~129.92~~ 121.7
Total Services	~~2,728.34~~ 2,556.71

TOTAL FORCE ACCOUNT	
Labor	2,476.55
Materials	345.68
Services 2,556.71	~~2,728.34~~
Equipment	1,053.68
TOTAL	~~6,604.25~~ 6,432.62

CERTIFICATION: - I certify, to the best of my knowledge and belief, that the equipment used on this work was of the proper [illegible] material taken from stock as designated above is [illegible] fair market value, and that account herein shown [illegible] ate statement of materials and equipment used.

RECEIVED
OCT 1 2001
[illegible] CONSTRUCTION RESOURCES

Signed [signature] For Contractor

Date 9/26/01

[signature] For NYSDEC

9/27/01

MURK 12c (3/79) NYSDEC

FORCE ACCOUNT SUMMARY OF LABOR

Sheet 2 of 3

Period Covered From 07/25/01 to 08/31/01

Contract No.	Proj. No.	Contractor	Item No.
D004283		Abscope Environmental Inc.	C.O. #1

NAME	Hourly Rate		Hours for Period		Regular (Direct) Wages	Premium Wages	Gross Wages	$ per Wk Limitation per man	$ per Week Limitation	Wages Over $	Wages Over $	Hourly Fringe Rate	Fringe Benefits
	Basic (Regular)	Premium Additive	TOTAL	O.T. (Premium)									
Rick DenHaese op	23.65	11.83	12.00		283.80		283.80					13.05	156.60
Ranny McCormick la	21.09	10.55	15.00		316.35		316.35					7.45	111.75
Jay Jenner la	21.09	10.55	15.00		316.35		316.35					7.45	111.75
Bob Sietz op	23.65	11.83	4.00		94.60		94.60					7.45	29.80
Total for Period					1,011.10		1,011.10						409.90

MURK 17 (9/81)

NYSDEC OSWEGO CASTINGS
C.O. #1 CONTATED SOIL REMOVAL

SHEET 1 OF 3

Period Covered From 07/01/00 TO 09/01/00

Contract No.	Fed. Proj. No.	Contractor	Item No.
DO04283		Abscope Environmental Inc.	C.O. #1

			Blue Book Ref.			A	B	C	D	E	F	G	H
Equip. Type	Mfg'r.	Model No.	Sec. No.	Page No.	Code	Hours Of Actual Use	Hourly Rate (Note 1)	Maximum Ownership Cost (Note 2)	Computation A x B	Ownership Cost (Note 3)	Operating Cost/ Hour	Total Operating Cost AxF	Total Reimbursement E + G
tractor loader bkhoe; ex 4'; 4wd	Deere	310 D	9	17	4/97	15.00	21.25	685.00	318.75	318.75	10.65	159.75	478.50
cutoff saw	Steel				2/00	5.00	3.26	18.46	16.30	16.30	0.85	4.25	20.55
air compressor, 185cfm	IR	185	3	1	4/00	6.00	7.80	53.48	46.80	46.80	6.30	37.80	84.60
Komatsu 300 (rental)	Komatsu	300				1.00	98.00	429.53	98.00	98.00	21.45	21.45	119.45
550 gallon poly tank						11.00	5.00	152.42	55.00	55.00	0.90	9.90	55.00
sump pump						12.00	6.00	152.42	72.00	72.00	0.90	10.80	82.80
2" Pump (rental)						15.00	5.00		75.00				75.00
Drum vac						4.00	10.00	38.39	40.00	38.39	0.90	3.60	41.99
TOTAL FOR PERIOD													957.89

Note 1 - If A is less than 8 hours, use the hourly rate.
If A is between 8 and 40 hours, use the daily rate divided by 8.
If A is between 40 and 176 hours, use the weekly rate divided by 40.
If A is over 176 hour, use the monthly rate divided by 40.

Note 2 - If A is less than 8 hours, use the daily rate.
If A is between 8 and 40 hours, use the weekly rate.
If A is between 40 and 176 hours, use the monthly rate.
If A is over 176 hours, use the monthly rate or the purchase cost of equipment.

ile 3 - The lesser of Column C or Column D.

JOB # 21838

DAY & DATE WED 7/25/01

CONTACT PERSON

PHONE #

FAX 315-697-9391

T+M

T & M [X]

CONTRACT [ ]

DEPART FROM SHOP

ARRIVE BACK AT SHOP

OR ARRIVE AT NEXT JOB

CLIENT

JOB LOCATION Oswego Castings

BILLING ADDRESS

ATTN:

LABOR:

NAME	TITLE	ST	OT	DT
Rick DeWitt-Reese	Sup / operator	5		
Ranny McCormick	Labor	5		
Jay Jenner	Labor	5		

EQUIPMENT:

QTY.	NAME	FLEET #	# OF HRS.	IF DAILY RATE
5 ✓ 1	JD 310D Backhoe		✓	
11 ✓ 1	2" Pump /w Discharge (Rent)			
5 ✓ 1	SAWSALL		✓	
11 ✓ 1	550 gal Poly TANK			
15 ✓ 1	sump pump misc hand tools			
5 ✓	AIR Monitor			

NOTES:

Rick operated 310D JD Backhoe
Ranny + Jay Labored
WATER LINE INSTALLATION

MATERIAL:

QTY.	DESCRIPTION
✓ 20	oil absorb PADS
✓ 3	white TYVER
✓ 3	PR. NITRIL gloves
✓ 3	PR. white LINERS
1	boot wash w/ Brush
✓ 1	gal. DEGREASER
✓ 1	Roll 6 mil clear Poly

QTY.	DESCRIPTION
32	@ .37 11.84
6	@ .72 4.32
6	@ 1.29 7.74
6	@ 2.50 15
1	@ 32.55 32.55
2	@ 30.95 61.90

JOB DESCRIPTION: 10:30 AM - FUEL OIL LINE IN WATER TRENCH - CONTAMINATED SOIL staged on Poly - REMOVE piping of oil LINE - PLUG END with CONCRETE

JOB COMPLETED [ ] YES [ ] NO

SIGNATURE:

Customer: NYSDEC (Company Name)

By: John A May (Signature)

John A May (Print Name)

WHITE COPY: FILE YELLOW COPY: CUSTOMER

ABSCOPE ENVIRONMENTAL INC.

PO Box 487 Canastota, NY 13022
PH. 315-697-8437
FAX 315-697-9391

JOB # 21838

DAY & DATE Thurs 7/26/01

CONTACT PERSON

PHONE #

T+M

PO #

T & M [X]

CONTRACT [ ]

DEPART FROM SHOP

ARRIVE BACK AT SHOP

OR ARRIVE AT NEXT JOB

CLIENT

BILLING ADDRESS

ATTN:

JOB LOCATION Oswego Castings

LABOR:

NAME	TITLE	ST	OT	DT	
Rick DenHartog	sup./operator	6			6
Ranny McCormick	Labor	6			
Jay Jenner	Labor	6			

EQUIPMENT:

QTY.	NAME	FLEET #	# OF HRS.	IF DAILY RATE
1	JD 310 Backhoe		6	✓
✓ 1	2" Pump/w Discharge		6	
✓ 1	550 gal. Poly Tank		6	
✓ 1	Sump Pump		6	
	misc. hand tools		6	
6 ✓	Air Monitor		6	
✓ 1	Compressor/w Jack Hammer		6	✓

NOTES:

Rick operated JD 310 Backhoe
Ranny + Jay Labored

D.E.C. on site

Air monitor on site

Water Line Installation

MATERIAL:

QTY.	DESCRIPTION
✓ 12	oil Absorb pads
✓ 3	white Tyvek
✓ 3	pr Nitril gloves
✓ 3	pr white cotton Liners

QTY.	DESCRIPTION

JOB DESCRIPTION: Continued excavation in contaminated zone of oil pipe staged on poly - removed contaminated block + foundation staged on poly. Jack hammered footing of (North End) building considered contaminated - staged on poly.

JOB COMPLETED [ ] YES [ ] NO

SIGNATURE:

Customer: NYSDEC (Company Name)

By: Signature

Print Name

WHITE COPY: FILE YELLOW COPY: CUSTOMER

ABSCOPE ENVIRONMENTAL INC.

PO Box 487 Canastota, NY 13022
PH. 315-697-8437
FAX 315-697-9391

JOB # 21838
DAY & DATE Thurs. 8/9/01
CONTACT PERSON
PHONE #

PO #
T & M ☒
CONTRACT ☐
DEPART FROM SHOP
ARRIVE BACK AT SHOP
OR ARRIVE AT NEXT JOB

CLIENT
BILLING ADDRESS
ATTN:

JOB LOCATION Oswego Castings

LABOR:

NAME	TITLE	ST	OT	DT
Bob Sietz	oper/~~Labor~~	4		
Rawny McCormick	Labor	4		
SEE Notes				

EQUIPMENT:

QTY.	NAME	FLEET #	# OF HRS.	✓IF DAILY RATE
✓ 1	JD 310 Backhoe		4	✓
✓ 1	Drum VAC		1	
✓ 1	Sump pump		1	

NOTES:

Bob – 4hrs – 310D Backhoe
Rawny – 4hrs – Labor

MATERIAL:

QTY.	DESCRIPTION
✓ 1	Roll Clear 20 x 100 Poly
✓ 3	Drums
✓ 5	yds bank run gravel

QTY.	DESCRIPTION
3 @	48.50 145.5¢
@	7 35

JOB DESCRIPTION: Relocate contaminated soil – staged on poly in area "C" with backhoe (front bucket) pumped contaminated water from 550 gal poly tank to 55 gal. drums – with sump pump. water & soil are from excavation of water line in building – when #6 oil pipe line was discovered. Water line excav. Backfilled with bank run gravel hauled in by Northern Aggregate. 54

JOB COMPLETED ☐ YES ☐ NO

Customer: NYSDEC (Company Name)

By: John A Mac (Signature)

John A Mac (Print Name)

SIGNATURE:

WHITE COPY: FILE YELLOW COPY: CUSTOMER

ABSCOPE ENVIRONMENTAL INC.

PO Box 487 Canastota, NY 13022
PH. 315-697-8437
FAX 315-697-9391

JOB # 21838

DAY & DATE 8/21/01

CONTACT PERSON

PHONE #

T+M

PO #

T & M ☐

CONTRACT ☐

DEPART FROM SHOP

ARRIVE BACK AT SHOP

OR ARRIVE AT NEXT JOB

CLIENT NYSDEC OSWEGO

JOB LOCATION OSWEGO CASTINGS

BILLING ADDRESS

ATTN:

LABOR:

NAME	TITLE	ST	OT	DT
~~Scott Parisi~~	~~Op~~			
Brian Demarse	Operator	1		

EQUIPMENT:

QTY.	NAME	FLEET #	# OF HRS.	IF DAILY RATE
~~0~~				
1	KOMATSU 300			

NOTES:

MANIFEST # 2163597

MATERIAL:

QTY.	DESCRIPTION

QTY.	DESCRIPTION

JOB DESCRIPTION:

LOADED Soil INTO DUMP TRUCK FOR HAUL TO LANDFILL.

JOB COMPLETED ☐ YES ☐ NO

SIGNATURE:

Customer:
(Company Name)

By:
Signature

Print Name

WHITE COPY: FILE YELLOW COPY: CUSTOMER

RENTAL ~~CONTRACT~~ / INVOICE

[redacted]

(315) 343-7366 Fax: (315) 343-6548

Page# 1
08/04/2001
09:48:47
FINAL

[redacted]

BUSINESS HOURS
MONDAY - SATURDAY
7:00a - 5:00p
CLOSED SUNDAY

21838

[redacted]

Phone#: (315) 697-8437

21838

RACT #	INVOICE #	DATE	ACCT. #	SALESMAN	P.O. #	SIGNED BY	TAG #	IDENTIFICATION #	TERMS
16	0005916-00	07/25/2001	6978437	Administr					NET 30 DAYS

ITEM NO.	DESCRIPTION	OUT DATE	OUT TIME	OUT METER	DUE/RETURN DATE	DUE/RETURN TIME	DUE/RETURN METER	QTY	UNIT PRICE	EXTENDED PRICE
05001	GAS REFUELING DEPOSIT RETURN FULL							1	3.00	3.00
P07-001	PUMP 2" GAS W/ 20' SUC & 50' DISCH	07/25/01	13:41		08/01/01	13:41		1	120.00	120.00
907-001	PUMP 2" GAS W/ 20' SUC & 50' DISCH	07/25/01	13:41		08/01/01	09:47		-1		-5 *

DAILY = 40
Wkly = 140
#5

PAID AUG 30 2001

DOR# 180091
0005916-00
$ 120.00
7-25-01
5000.2/21838/710

ENTERED AUG 9 2001

Method: Billing Ref:

Sale Amount
Discount
Delivery Charge
Misc Charges
Damage Waiver
Use & Sales Tax
Current Total
Previous Total
Contract Total
=> BALANCE DUE

NOTICE!
WE HAVE JUST INSTALLED A NEW COMPUTER SYSTEM. IF YOU FIND ANY PROBLEM WITH THE INVOICES OR STATEMENTS.... PLEASE CALL OUR ACCOUNTING OFFICE IMMEDIATELY

ITEMS RECEIVED SUBJECT TO CONDITIONS ON REVERSE SIDE.

There are no warranties or merchantability or fitness either expressed or implied which extend beyond the description on the face hereof.

Lessee Signature. _____

"YOU PAY FOR TIME OUT NOT TIME USED"

CWM Chemical Services, LLC
A WASTE MANAGEMENT COMPANY
P.O. Box 200
1550 Balmer Rd.
Model City, NY 14107
(716) 754-8231
(716) 754-0211

INVOICE

THIS IS AN INVOICE FOR CURRENT CHARGES. PLEASE PAY AMOUNT INDICATED BELOW.

TERMS

DUE UPON RECEIPT
OR PER CONTRACT TERMS

ALL PAST DUE AMOUNTS WILL BEAR INTEREST AT ONE AND ONE HALF PERCENT PER MONTH OR THE MAXIMUM RATE ALLOWED BY LAW, WHICHEVER IS LESS.

ADSCOPE ENVIRONMENTAL INC
ATTN: ACCOUNTS PAYABLE
1 COMMERCIAL DR
PO BOX 487
CANASTOTA NY 13032-0487

21838

Invoice Date: 08/31/2001
Customer #: 378-1141104
Invoice #: 2045-9913320
Page #: 1

Manifest#	Profile	Description	Gener/Quantity	P.O.#/Unit	Biller	Rate	Total
NYG2463597	CT5622	PCB CONTAMINATED SOI	006874 NEW YORK DEPT E		PBYERS	Svc Date	08/31/2001
	LANDFILL PCB BULK	DISPOSAL	18.49	TON		90.00000	1,664.10
	TRANSPORTATION	TRANSPORTATION	18.49	TON		30.50000	563.95
	MINIMUM TRANSPORTATI	TRANSPORTATION	3.51	MINIMUM TRANSPORTATI		30.50000	107.06
	SALES TAX		1,664.10			7.00000 %	~~116.49~~
	TOWN HOST TAX		1,664.10			6.00000 %	~~99.85~~
	SALES TAX		563.95			7.00000 %	~~39.48~~
	SALES TAX		107.06			7.00000 %	~~7.49~~

8154829101 610481-1;

Subtotal 2,598.42

No State sales tax

116.49
39.48
7.49

deduct $ 163.46

2598.42
163.46
$2434.96

mje

REMIT TO ADDRESS: PO BOX 840606, DALLAS, TEXAS 75284

PLEASE PAY THIS AMOUNT: $2,598.42

ORIGINAL INVOICE

WM 105 CWI

CWM Chemical Services, LLC
A WASTE MANAGEMENT COMPANY
P.O. Box 200
1550 Balmer Rd.
Model City, NY 14107
(716) 754-8231
(716) 754-0211

INVOICE

THIS IS AN INVOICE FOR CURRENT CHARGES.
PLEASE PAY AMOUNT INDICATED BELOW.

TERMS

DUE UPON RECEIPT
OR PER CONTRACT TERMS

ALL PAST DUE AMOUNTS WILL BEAR INTEREST AT ONE AND ONE HALF PERCENT PER MONTH OR THE MAXIMUM RATE ALLOWED BY LAW, WHICHEVER IS LESS.

ADSCOPE ENVIRONMENTAL INC
ATTN: ACCOUNTS PAYABLE
1 COMMERCIAL DR
PO BOX 487
CANASTOTA NY 13032-0487

21838

Invoice Date: 08/31/2001
Customer #: 378-1147104
Invoice #: 2645-99133326
Page #: 1

Manifest#	Profile Description	Gener/Quantity	P.O.#/Unit	Biller	Rate	Total
NYD2463597	CT5622 PCB CONTAMINATED SOI	004674 NEW YORK DEPT E		PAYERS	Svc Date	08/31/2001
	LANDFILL PCB BULK	DISPOSAL 18.49	TON		90.00000	1,664.10
	TRANSPORTATION	TRANSPORTATION 18.49	TON		30.50000	563.95
	MINIMUM TRANSPORTATI	TRANSPORTATION 3.51	MINIMUM TRANSPORTATI		30.50000	107.06
	SALES TAX	1,664.10			7.00000 %	116.49
	TOWN HOST TAX	1,664.10			6.00500 %	99.85
	SALES TAX	563.95			7.00000 %	39.48
	SALES TAX	107.06			7.00000 %	7.49

0154029101 410481-1;

Subtotal 2,598.42

REMIT TO ADDRESS
PO BOX 840886
DALLAS
TEXAS 75284

PLEASE PAY THIS AMOUNT $2,598.42

REMITTANCE COPY

WM 105 CWA

Transporter Log

CWM Chemical Services, Inc.
Model City, NY

84956

50 Cubic Yards

69660 LB G 2
12:36
09/31/01

81548291 — Receipt #
531138 NY — Trailer License Plate # and State
610481 — Service Req. #
CT 5622 — Profile #
7A-39C — Permit #
Area Etc Inc — Transporter Name
0386 9086 — Tractor/Trailer/Roll-off #
87
Brian Preske — Driver's Name
NY DEC — Generator

13:40 32680 LB G 2
08/31/01 36980P
16774K

Scheduled Arrival: _____ (Date) 21838 (Time)

Actual Arrival: _____ (Date) 1231 (Time In) _____ (Time Out)

Arrived during Blackout? Y / N Notified DEC? Y / N

Receiving: KO (Initials) _____ (Comments)

☐ Leaker ☐ Permit Violation ☐ Placarding/Veh. I.D. Violation

☐ Other (specify) _____

☐ Bulk to Landfill ☐ No wet line ☐ Flatbed ☐ Stabilization ☐ Drums ☐ Tanker ☐ Transformers

Laboratory
Time In | Time Out | Initials | Comments

Stabilization
Time In | Time Out | Initials | Gross Wt. | Comments

Landfill
Time In | Time Out | Initials | Comments

Other
Time In | Time Out | Initials | Comments

Aqueous Treatment
Time In | Time Out | Signature (NO Initials) | Comments

Facility Personnel (please initial)

_____ Smoking or eating in prohibited areas
_____ Failure to obey instructions of facility personnel
_____ Failure to wear appropriate PPE
_____ Unsafe driving practices
_____ Other (specify) _____

_____ Leaving truck unattended
_____ Failure to display overweight flag
_____ Improper tarping or detarpin
_____ Overweight upon arrival

Security Guard Initials: _____
(Indicating receipt of Wash Bay pass, if necessary)

Driver's Comments

NYG2463597

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID & HAZARDOUS MATERIALS

HAZARDOUS WASTE MANIFEST

P.O. Box 12820, Albany, New York 12212

Please type or print. Do not staple

(Hazardous Waste Manifest 1/5/99)

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Doc. No.	2. Page 1 of	Information within heavy bold line is not required by Federal Law.
N Y D 0 0 2 2 2 5 7 8 7	6 3 5 9 7	1	

3. Generator's Name and Mailing Address
NYS DEPT. OF ENVIRONMENTAL CONSERVATION
615 ERIE BOULEVARD WEST
SYRACUSE, NY 13204
ATTN: John May

4. Generator's Telephone Number (315) 426-7519

A. NYG2463597

B. Generator's ID 375 MITCHELL STREET OSWEGO, NY 13126

C. State Transporter's ID 5313RNY

D. Transporter's Telephone (315) 834-6681

E. State Transporter's ID

F. Transporter's Telephone ( )

G. State Facility ID

H. Facility Telephone (716) 754-8231

5. Transporter 1 (Company Name): PAGE ETC, INC.
6. US EPA ID Number: N Y D 9 8 6 9 6 9 9 4 7

7. Transporter 2 (Company Name):
8. US EPA ID Number:

9. Designated Facility Name and Site Address
CWM CHEMICAL SERVICES, LLC
1550 BALMER ROAD
MODEL CITY, NY 14107

10. US EPA ID Number: N Y D 0 4 9 8 3 6 6 7 9

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers Number	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ, POLYCHLORINATED BIPHENYLS, SOLID MIXTURE 9, UN2315, III	0 0 1	D T	EST. 2 7 2 0 0	K	EPA STATE B007
b.					EPA STATE
c					EPA STATE
d.					EPA STATE

J. Additional Descriptions for Materials listed Above
a
b
c
d

K. Handling Codes for Wastes Listed Above
a: L
b:
c:
d:

15. Special Handling Instructions and Additional Information
PROFILE NO. CT5622 PCB SOIL AND DEBRIS
EMERGENCY NO. 1-800-424-9300 CHEMTREC
SERVICE REQUEST NO. 610481
Tax Exempt For Manifest Purpose Only 81548291

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and state laws and regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Mo.	Day	Year
John A May	John A May	08	31	01

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Mo.	Day	Year
Brian R Boyle	Brian R Boyle	08	31	01

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Mo.	Day	Year

19. Discrepancy Indication Space
Actual Rec'd 16774K

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Mo.	Day	Year
Ellen Carter	Ellen Carter	08	31	01

GENERATOR

TRANSPORTER

FACILITY

In case of an emergency or spill immediately call the National Response Center (800) 424-8802 and the NYS Department of Environmental Conservation (518) 457-7362

COPY 1 - Disposer State - Mailed by TSD Facility

RTHERN AGGREGATES, INC.
SILK ROAD
LTON, NY 13069-4862
[illegible]98-2141 FAX-593-8252
D: 16-0962968

INVOICE NO: 052157
INVOICE DATE: 08/13/01
PAGE NO: 1
CUSTOMER PO#:
SHIP VIA: DELIVERED
TERMS: NET 30 DAYS
CUSTOMER NO: A30021

LD TO: ABSCOPE ENVIRONMENTAL
PO BOX 487
CANASTOTA NY 13032

SHIP TO: GREAT LAKES VENEER

21838

CKET#	---SHIPPED---	PRODUCT		---PRICED---	PRICE	EXTENSION
713	14.00 YD	3" MINUS BANK RUN	IN PI	14.00 YD	7.000	98.00

SUBTOTAL: 98.00
TAX: (OSW 7%) 6.86
INVOICE TOTAL: 104.86

NO TAX

VENDOR # 140066
INV. # 052157
DATE 8-13-01
$ 98.00

5000.9/21838/60

ENTERED SEP 17 2001

BRONSTEIN CONTAINER COMPANY, INC.

1313 RAMS GULCH ROAD, JAMESVILLE, NEW YORK 13078 - PHONE (315) 469-6191 - FAX 469-0032

INVOICE

Date Jun 21, 2001
Inv. No. ~~C7041~~
Order No. Agway/Liberty

Sold to:	Ship to:
Abscope Environmental P.O. Box 487 Canastota, NY 13032	Abscope Environmental, Inc. 1 Commercial Drive Canastota, NY 13032

PLEASE PAY FROM THIS INVOICE NO MONTHLY STATEMENT WILL BE SENT

A FINANCE CHARGE OF 1 1/2 % PER MONTH , OR AN ANNUAL RATE OF 18% WILL BE ADDED TO ACCOUNT OVER 30 DAYS

Terms	Due Date	Ship Date	Ship Via
Net 15 Days	7/6/01	5/25/01	Customer

Quantity	Item	Description	Unit Price	Extension
1	Misc	New Steel Drum-55 Gallon, Open Head, Lined, 16 Gauge, UN 1A2/Y1.8/200	48.50	48.50

ENTERED JUN 27 2001

VENDOR # 020004
INV. # C7041 $ 51.90
DATE 6-21-01
5000.9/~~21999~~ 21843/60

Subtotal	48.50
Sales Tax	3.40
TOTAL	51.90

"RESPONSIBLE CONTAINER MANAGEMENT"

DiVal Safety Equipment, Inc.

INVOICE

Your Complete Source for Safety Equipment, Service and Supplies
CORPORATE OFFICE: 1721 Niagara Street, Buffalo, NY 14207
(716) 874-9060 • Fax (716) 874-4686

Ship To: Abscope Environmental Inc
MT PLEASANT RD
CANASTOTA NY 13032

OCT 1 2001

Bill To: ABSCOPE ENVIRONMENTAL INC.
PO BOX 487
MT. PLEASANT ROAD
CANASTOTA NY 13032

CUSTOMER NUMBER		Inv Date	Inv No.
90108	NET 30 DAYS	8/27/01	379770

ORDER NUMBER	CUSTOMER PURCHASE ORDER NUMBER	SALESPERSON NUMBER NAME	SHIP VIA
A8913/00	7953	200 SYRACUSE HOUSE SYR	OUR DELIVERY

QUANTITY ORDERED	QUANTITY SHIPPED	B.O.	UNIT OF MEASURE	ITEM NUMBER AND DESCRIPTION	PRICE/UNIT	EXTENDED PRICE
25	25		RL	20100006 20' X 100' 6 MIL POLY SHEETING	30.95000	773.75
240	240		RL	3982 NASHUA 2" X 60 YARD DELUXE DUCT TAPE	2.99000	717.60
50	50		PR	2400900ZXL DISPOSABLE YELLOW LATEX BOOT XL	2.99000	149.50
1	40		BX	T503/8 ARROW STAPLES 3/8" 1250=BX	2.78000	111.20
20	20		EA	7288 3M HEPA FILTER RETAINER ORDERED BY BOB PLEASE DELIVER MONDAY	2.85000	57.00

INVOICE DUE: 9/26/01

VENDOR # 010027
INV. # 379770
DATE 8-27-01
$ 1,935.68

5000.9/21999

ENTERED SEP - 6 2001

INVOICES OVER 30 DAYS WILL BE SUBJECT TO A SURCHARGE OF 1½% PER MONTH.

SUB-TOTAL	TAX %	TAX AMOUNT	TOTAL
1,809.05	7.000	126.63	1,935.68

The Home Safety Store
Safety Shoes • Incentive Awards
www.DIVALSAFETY.com

DiVal Safety Fire Service
Inspection • Service • Recharge

DELIVERED BY _____ DATE _____ RECEIVED BY _____ DATE _____

CUSTOMER COPY

Invoice

Abscope Environmental, Inc.

P.O. Box 487

Canastota NY 13032

21888

6/13/2001	475
Invoice Date	Invoice #
7904	Net 30
PO #	Terms

QUANTITY	PART NO.	DESCRIPTION	PRICE/UNIT	AMOUNT
55	200155	1 @ BioSolve 55 gal. Drum	$32.95	$1,812.25

VENDOR # 130054
INV. # 475
DATE 6-13-01
5000.9/21888

$2,042.85

ENTERED JUN 20 2001

Subtotal:	$1,812.25
Tax:	$126.86
Shipping:	$103.74
TOTAL:	$2,042.85

55 = 32.9

PAID JUL 13 2001

Remit to: Midlantic Environmental Enterprises, Inc.
11 Lindsey Court
Wappingers Falls, NY 12590
Phone: 845-227-4177

DiVal Safety Equipment, Inc.

INVOICE

Your Complete Source for Safety Equipment, Service and Supplies
CORPORATE OFFICE: 1721 Niagara Street, Buffalo, NY 14207
(716) 874-9060 • Fax (716) 874-4686

Ship To: Abscope Environmental Inc
MT PLEASANT RD
CANASTOTA NY 13032

Bill To: ABSCOPE ENVIRONMENTAL INC.
PO BOX 487
MT. PLEASANT ROAD
CANASTOTA NY 13032

CUSTOMER NUMBER		Inv Date	Inv No.
90108	NET 30 DAYS	12/11/00	326231

ORDER NUMBER	CUSTOMER PURCHASE ORDER NUMBER	SALESPERSON NUMBER NAME	SHIP VIA
F548/00	7806	Z00 SYRACUSE HOUSE SYR	OUR DELIVERY

QUANTITY ORDERED	QUANTITY SHIPPED	B.O.	UNIT OF MEASURE	ITEM NUMBER AND DESCRIPTION	PRICE/UNIT	EXTENDED PRICE
30		30	EA	B524253 102ASB VACUUM PAPER BAG	3.90000	.00
72	72		PR	AF1810 MAPA PIONEER FLOCKLINED Z-GRIP NITRILE GLOVE 10	1.29000	92.88
144	144		PR	300DC LEATHER PALM BAND TOP CANVAS BACK WORK GLOVE	1.29000	185.76
	72		PR	300XL PERFECT FIT VINYL COATED COTTON GLOVE	2.50000	180.00
10	10		EA	8ZACGY WILLSON ALPHA GRAY HARD HAT ORDERED BY BOB PLEASE DELIVER MONDAY	5.95000	59.50

INVOICE DUE: 1/10/01

PAID Warehouse JAN 12 2001

ENTERED DEC 2 2000

VENDOR # 010027
INV. # 326231
DATE 12-11-00
$554.41
5000.9/20999

INVOICES OVER 30 DAYS WILL BE SUBJECT TO A SURCHARGE OF 1½% PER MONTH.

SUB-TOTAL	TAX %	TAX AMOUNT	TOTAL
518.14	7.000	36.27	554.41

The Home Safety Store
Safety Shoes • Incentive Awards

DiVal Safety Fire Service
Inspection•Service•Recharge

www.DIVALSAFETY.com

IVERED BY _____ DATE _____ RECEIVED BY _____ DATE _____

CUSTOMER COPY

DiVal Safety Equipment, Inc.

INVOICE

Your Complete Source for Safety Equipment, Service and Supplies
CORPORATE OFFICE: 1721 Niagara Street, Buffalo, NY 14207
(716) 874-9060 • Fax (716) 874-4686

Ship To: Abscope Environmental Inc
NT PLEASANT RD
CANASTOTA NY 13032

Bill To: ABSCOPE ENVIRONMENTAL INC.
PO BOX 487
MT. PLEASANT ROAD
CANASTOTA NY 13032

CUSTOMER NUMBER		INV. DATE	INV. NO.
90106	NET 30 DAYS	7/16/01	371411

ORDER NUMBER	CUSTOMER PURCHASE ORDER NUMBER	SALESPERSON NUMBER NAME	SHIP VIA
Z003/00	7928	200 SYRACUSE HOUSE SYR	OUR DELIVERY

QUANTITY ORDERED	QUANTITY SHIPPED	B/O	UNIT OF MEASURE	ITEM NUMBER AND DESCRIPTION	PRICE/UNIT	EXTENDED PRICE
50	50		RL	20100006FR 20' X 100' 6 MIL FLAME RET. POLY SHEETING	38.75000	1937.50
40	40		CS	6414XXXL WHITE POLYPRO COVERALLS W/HOOD & BOOT XXXL 25=CS	17.95000	718.00
20	20		CL	SSF05 IPC SERPILOC ASBESTOS POST REMOVAL LOCKDOWN - CLEAR	7.25000	145.00
480	480		RL	3002 NASHUA DUCT TAPE 2" X 60 YARD ORDERED BY BOB PLEASE DELIVER MONDAY	2.59000	1243.20

6¢ ea. Wholesale

INVOICE DUE: 8/15/01

ENTERED PAID AUG 23 2001

VENDOR # 010027
INV. # 371411
DATE 7-16-01
$4,326.76
5000.9/21999

INVOICES OVER 30 DAYS WILL BE SUBJECT TO A SURCHARGE OF 1½% PER MONTH.

SUB-TOTAL	TAX %	TAX AMOUNT	TOTAL
4,043.70	7.000	283.06	4,326.76

The Home Safety Store
Safety Shoes • Incentive Awards

DiVal Safety Fire Service
Inspection • Service • Recharge

www.DIVALSAFETY.com

DELIVERED BY _____ DATE _____ RECEIVED BY _____ DATE _____

CUSTOMER COPY

Airgas Safety

**** Invoice ****

SHIP TO: ABSCOPE ENVIRONMENTAL
P O BOX 487
1 COMMERCIAL DR.
CANASTOTA, NY 13032-0487

SOLD TO: ABSCOPE ENVIRONMENTAL
P O BOX 487
1 COMMERCIAL DR.
CANASTOTA, NY 13032-0487

INVOICE # S3739835.001
INV DATE:04/10/01
TERMS:1 % 10 NET 30
ORD DATE:04/10/01
CUST PO:7856
REL#:
EIN : 23-2840701
SHIP VIA:BW BEST WAY
SALES BR:Bristol
SHIP BR: Bristol
ACCT MGR:Jennifer Simkiss
PAGE: 1 of 2

Line	Description	Ordered	Shipped	UM	Unit Pric	Net
1	ENV CS25080 CASSETTE ASBESTOS 25MM 0.8 MCE BANDED 50EA/BX 0	1	1	bx	29.000	29.00
2	3MR 7300 435001 RESPIRATOR HALF MASK 7000 SERIES SZ MEDIUM/LARGE RUBBER 10EA/CA 0	6	6	ea	15.300	91.80
3	SOR ENV100 954453 SORBENT PAD OIL ONLY 16"X20" 36 GALLON 100EA/BA MSDS #192 0	6	6	ba	36.750	220.50
4	DIS 202-25LBS RAGS COLORED COTTON SWEATSHIRT 25LB/CS	4	4	cs	12.000	48.00
5	DIS R330C-50 933150 RAGS COLORED COTTON SWEATSHIRT 50LB/CS 16CS/SK *** THANKS FOR THE ORDER ***** NEW PENN 15PCS 498# 667863013	4	4	ea	24.000	96.00
6	AIRGAS FRT	1	1	EA	0.000	0.00

OK Mike Washburn

INVOICE

ADD MAY 18 2001
ENTERED APR 19 2001

PLEASE DETACH AT PERFORATION AND MAIL BOTTOM PORTION WITH YOUR REMITTANCE.

** Continued on Next Page **

VENDOR # 090011
INV. # S3739835001 $ 519.27
DATE 4-10-01

5000.9/21999

MURK 13d (9/81)

(11)

NEW YORK STATE DEPARTMENT CONSERVATION
TIME AND MATERIALS

Contract No.	Fed. Proj. No.		Contractor ABSCOPE ENVIRONMENTAL, INC					Item No.
D004283		C.O.#3	OOR REMOVAL					C.O. #3
Period	Regular (Direct) Wages	Premium Wages	Gross Wages	$ per Wk Limitation	$ per Wk Limitation	Wages Over $	Wages Over $	Fringe Benefits
	1,554.93	63.27	1,618.20					753.85
Totals	1,554.93	63.27	1,618.20					753.85

insurance policy.

LABOR	AMOUNT
Regular Wages	1,554.93
Fringe Benefits	753.85
Other Benefits	
TAXES AND INSURANCE	
F.I.C.A 7.65% x [Gross Wages less Wages Over $]	181.46
N.Y.S. and Fed. Unempl. 7.90% x [Gross Wages less Wages Over $]	187.39
orkers' Compensation 22.00% x [$ per Week Limitation] or [Gross Wages] *See Note Above	507.93
P.L. and P.D. Insurance 14.14% x [$ per week Limitation] or [Gross Wages] *See Note Above	323.23
SUBTOTAL	3,508.79
Profits & Overhead on Labor-15% *	526.32
Premium Wages	63.27
TOTAL LABOR	4,098.38

MATERIAL	
Invoice	Material Cost
34527	188.24
345459	27.80
346889	55.39
Flat Stock	50.55
1272959	75.52
gravel	315.00
SUBTOTAL	712.50
P. & O. 10% *	71.25
Total Materials	783.75

EQUIPMENT	
Indent. No.	Cost
total equip	838.91
Subtotal	838.91
10%	83.89
Total Equipment	922.80
services	
CES	75.00
Subtotal	75.00
5%	~~75.00~~ 3.7
Total Services	~~75.00~~ 78.7

TOTAL FORCE ACCOUNT	
Labor	4,098.38
Materials	783.75
Services	~~78.75 75.00~~
Equipment	922.80
TOTAL	~~5,870.96~~ 5883.68

CERTIFICATION: - I certify, to the best of my knowledge and belief, that the equipment used on this work was of the proper aterial taken from stock as designated above is air market value, and that account herein shown ate statement of materials and equipment used.

Signed _____ For Contractor

Date 11/9/01

_____ For NYSDEC

11/9/01

MURK 12c (3/79) NYSDEC

FORCE ACCOUNT SUMMARY OF LABOR

Sheet 2 of 3

Period Covered From 09/13/01 to 09/24/01

Contract No. D004283	Proj. No.	Contractor Abscope Environmental Inc.									Item No. C.O. #3		
NAME	Hourly Rate Basic (Regular)	Hourly Rate Premium Additive	Hours for Period TOTAL	Hours for Period O.T. (Premium)	Regular (Direct) Wages	Premium Wages	Gross Wages	$ per Wk Limitation per man	$ per Week Limitation	Wages Over $	Wages Over $	Hourly Fringe Rate	Fringe Benefits
Howard Jenner (la)	21.09	10.55	31.50	3.00	664.34	31.64	695.97					13.05	411.08
Mike Reilly (la)	21.09	10.55	3.00	3.00	63.27	31.64	94.91					7.45	22.35
Robert Conover (la)	21.09	10.55	8.00		168.72		168.72					7.45	59.60
Justin Bally (la)	21.09	10.55	12.50		263.63		263.63					7.45	93.13
Rick Denheese	23.65	11.83	6.00		141.90		141.90					13.05	78.30
Scott Mudge	21.09	10.55	6.00		126.54		126.54					7.45	44.70
Ranny McCormick	21.09	10.55	6.00		126.54		126.54					7.45	144.70
Total for Period					1,554.93	63.27	1,618.20						753.85

NOV. 9.2001 1:31PM ABSCOPE NO.455 P.4

MARK 17 (9-91)

NYSDEC OSWEGO CASTINGS
C.O. #3 DOOR REMOVAL

SHEET 1 OF 3

Period Covered From 09/13/00 TO 09/24/01

Contract No.	Fed. Proj. No.	Contractor	Item No.
D001233		Absocop Environmental Inc.	C.O. #1

Equip. Type	Mfg'r.	Model No.	Blue Book Ref. Sec. No.	Blue Book Ref. Page No.	Blue Book Ref. Code	A Hours Of Actual Use	B Hourly Rate (Note 1)	C Maximum Ownership Cost (Note 2)	D Computation A x B	E Ownership Cost (Note 3)	F Operating Cost/ Hour	G Total Operating Cost AxF	H Total Reimbursement E + G
van 3/4 ton	Ford	250	20	7		16.00	5.38	170.00	86.08	86.08	6.50	88.00	174.08
welder (rental)	888 invoice												246.24
crawler dozer	Deere	550 G	9	30	4/35	8.00	43.84	298.71	262.04	263.04	17.20	103.20	366.24
cutoff saw	Steel				2/00	11.00	4.00	72.74	44.00	44.00	0.85	9.35	53.35

TOTAL FOR PERIOD 838.91

Note 1 - If A is less than 8 hours, use the hourly rate.
If A is between 8 and 40 hours, use the daily rate divided by 8.
If A is between 40 and 176 hours, use the weekly rate divided by 40.
If A is over 176 hour, use the monthly rate divided by 40.

Note 2 - If A is less than 8 hours, use the daily rate.
If A is between 8 and 40 hours, use the weekly rate.
If A is between 40 and 176 hours, use the monthly rate.
If A is over 176 hours, use the monthly rate or the purchase cost of equipment.

NOV. 9.2001 1:32PM ABSCOPE NO.455 P.5

ABSCOPE ENVIRONMENTAL INC.

PO Box 487 Canastota, NY 13022
PH. 315-697-8437
FAX 315-697-9391

JOB # 21838

& DATE WED 9/12/01

CONTACT PERSON

PHONE #

PO #

T & M ☐

CONTRACT ☐

DEPART FROM SHOP

ARRIVE BACK AT SHOP

OR ARRIVE AT NEXT JOB

CLIENT

BILLING ADDRESS

ATTN:

JOB LOCATION OSWEGO CASTINGS

LABOR:

NAME	TITLE	ST	OT	DT
RICK DEWHAESE	oper/Labor	11		
RANNY McCORMICK	Labor	11		
SCOTT MUDGE	oper/Labor	11		
SEE	NOTES			

EQUIPMENT:

QTY.	NAME	FLEET #	# OF HRS.	✓IF DAILY RATE
1	JD 160 EXCAVATOR			
1	JD 550 DOZER			
1	DUMPTRUCK			

NOTES:

DEC ON SITE
COMPACTION TESTER ON SITE 2:30-3P
SURVEYOR ON SITE 2:30-3P - "B" AREA

LUNCH

Rick - 8 DOZER - 3 LABOR
RANNY - 11 LABOR
SCOTT - 2 EXCAVATOR - 9 LABOR

MATERIAL:

QTY.	DESCRIPTION
1	20 X 100 CLEAR POLY
	3205 GRAM 95% @ 7 315

QTY.	DESCRIPTION

JOB DESCRIPTION: REGRADE AREA "B" EXCAVATE 19' LONG, 32" DEEP, 2' WIDE TRENCH - BELOW LOG DECK FOR RECONSTRUCTION OF DEBARKER. FINE GRADE 15' X 106' SECTION OF "C", UNDERCUT 2 SOFT AREAS FILLED WITH - 1½ - MINUS, COMPACTED. THANK

JOB COMPLETED ☐ YES ☐ NO

Customer: _____ (Company Name)

SIGNATURE: _____

By: _____ Signature

Print Name

WHITE COPY: FILE YELLOW COPY: CUSTOMER

ABSCOPE ENVIRONMENTAL INC.

PO Box 487 Canastota, NY 13022
PH. 315-697-8437
FAX 315-697-9391

JOB # 21838

DATE Thurs. 9/13/01

CONTACT PERSON

PHONE #

PO #

T & M [X]

CONTRACT [ ]

DEPART FROM SHOP

ARRIVE BACK AT SHOP

OR ARRIVE AT NEXT JOB

CLIENT

BILLING ADDRESS

ATTN:

JOB LOCATION OSWEGO Castings

LABOR:

NAME	TITLE	ST	OT	DT	
Howard Jenner	Supervisor	8	3		3.5
Mike Reilly	Labor	3	3		3

EQUIPMENT:

QTY.	NAME	FLEET #	# OF HRS.	✓IF DAILY RATE
✓1	circular saw			
✓1	screw gun			
✓1	demo saw			

NOTES:

MATERIAL:

QTY.	DESCRIPTION
✓4	Hinges
✓16	2"x4"x8'
✓2	¾" plywood
✓6	½" plywood
✓2	Slidebolt latches
✓3 lbs	16 penny nails
✓2	door Handles
✓2	drill bits for lags
2	Boxes 1⅝" screws

QTY.	DESCRIPTION

JOB DESCRIPTION:

Took down doors that needed to be shortened put up temporary doors took out wall put up temporary walls sampled doors for Asbestos sent to lab two door with Hinges and locks

JOB COMPLETED [✓] YES [ ] NO

ABSCOPE

SIGNATURE: Howard Jenner

Customer: NYSDEC (Company Name)

By: John A McCoy (Signature)

John A McCoy (Print Name)

WHITE COPY: FILE YELLOW COPY: CUSTOMER

INVOICE

INVOICE DATE	INVOICE NO.	PAG
09/19/01	346889	

T.J. BURKE LUMBER CO.
38 EAST 2ND STREET
OSWEGO, NY 13126
WWW.BURKES.DOITBEST.COM
315-343-6147

21838

SOLD TO
ABSCOPE ENVIRONMENTAL INC
1 COMMERCIAL DRIVE
CANASTOTA, NY 13032

SHIP TO
21838

ORDER NO.	ORDER DATE	CUSTOMER NO.	SALES-PERSON	PURCHASE ORDER NUMBER	SHIP DATE	SHIP VIA / TERMS
346889	09/19/01	2800		21838	ASAP	RC 20/0

QUANTITY ORDERED	QUANTITY SHIPPED	ITEM NUMBER	ITEM DESCRIPTION	UNIT PRICE	PER UNIT	AMOUNT
1	1	326046	25270 BLADE,PLYWD 7 1/4"	8.89	EA	8.89
3	3	143040	512 4 X 4 F M HNGE DULL B	4.59	EA	13.77
8	8	*H	MISC NUTS & BOLTS	.69	EA	5.52
2	2	738535	61601 11/2X72 ANGLE,SLOT	11.79	EA	23.58

21838

Reg: 5 Drw: 5 Usr:TJH 10:02
AR 55.39

Sale amount	51.76
Sales tax	3.63
Total	55.39
Payment rcvd.	.00
Balance due	55.39

RENTAL CONTRACT / INVOICE

[redacted]

Page# 1
09/20/2001
09:45:24
ORIGINAL

[redacted]

21838
21838

[redacted]

Phone#: (315) 697-8437
Ref: Grinder 4 1/2"

CONTRACT #	INVOICE #	DATE	ACCT. #	SALESMAN	P.O. #	SIGNED BY	TAG #	IDENTIFICATION #	TERMS
0000381	0000381-00	09/19/2001	697-8437	A Ulbert	21838				NET 30 DAYS

TRNS TYPE	ITEM NO.	DESCRIPTION	OUT DATE	OUT TIME	OUT METER	DUE/RETURN DATE	DUE/RETURN TIME	DUE/RETURN METER	QTY	UNIT PRICE	EXTENDED PRICE
Rent	GRIND1-001	GRINDER 4 1/2"	09/19/01	09:41		09/20/01	09:41		1	12.00	12.00 *
Sold	MISC	SEGMD CUT OFF WHEEL							2	2.99	5.98 *
Rent	WELD2-001	WELDER WIRE FEED LINCOLN SP-125	09/19/01	09:41		09/20/01	09:41		1	35.00	35.00 *

Min: 35.00 1/2 Day: 35.00 Full Day: 35.00 24 Hrs: 52.00 Week: 110.00 Week: 160.00 Month

NOTICE!
WE HAVE JUST INSTALLED A NEW COMPUTER SYSTEM. IF YOU FIND ANY PROBLEM WITH THE INVOICES OR STATEMENTS.... PLEASE CALL OUR ACCOUNTING OFFICE IMMEDIATELY

ITEMS RECEIVED SUBJECT TO CONDITIONS ON REVERSE SIDE.

There are no warranties or merchantability or fitness either expressed or implied which extend beyond the description on the face hereof.

* - Current Transaction

Lessee Signature. _____

"YOU PAY FOR TIME OUT NOT TIME USED"

Discount	
Delivery Charge	
Misc Charges	
Damage Waiver	
Use & Sales Tax	
Current Total	52.97
Previous Total	
Contract Total	
=) BALANCE DUE	

ABSCOPE ENVIRONMENTAL INC.

PO Box 487 Canastota, NY 13022
PH. 315-697-8437
FAX 315-697-9391

JOB # 21838

DAY & DATE 9-21-01

CONTACT PERSON

PHONE #

T&M

PO #

T&M ☐

CONTRACT ☐

DEPART FROM SHOP 7:00

ARRIVE BACK AT SHOP 5:30

OR ARRIVE AT NEXT JOB

CLIENT

BILLING ADDRESS

JOB LOCATION Great lakes Veneer
Oswego N.Y.

ATTN:

LABOR:

NAME	TITLE	ST	OT	DT
Howard Jenner	Supervisor	8		
Justin Baily	labor	8		

EQUIPMENT:

QTY.	NAME	FLEET #	# OF HRS.	IF DAILY RATE
✓1	truck			
✓1	welder			
✓1	4" grinder			
✓1	Circular Saw			
✓1	Band Saw			
✓1	screw gun			
✓10	½" Flatstock			

NOTES:

MATERIAL:

QTY.	DESCRIPTION

QTY.	DESCRIPTION

JOB DESCRIPTION:

Cut doors down, Reweld Bottoms together, Hang door
Back up, Cut down part of wall rested put in back
up. Drive around getting Materials

JOB COMPLETED ☒ YES ☐ NO

Customer ABSCOPE Environmental
(Company Name)

SIGNATURE

By Howard Jenner
Signature
Howard Jenner
Print Name

WHITE COPY: OFFICE YELLOW COPY: CUSTOMER

CES Certified Environmental Services, Inc.

1401 Erie Blvd. East
Syracuse, NY 13210
Phone 315-478-2374
Fax 315-478-2107

21838

***** INVOICE *****

ABSCOPE ENVIRONMENTAL INC.
P.O. BOX 487
CANASTOTA NY 13032

INVOICE NUMBER: 0023659-IN
INVOICE DATE: 09/21/01
CUSTOMER NO: 0102190
CUSTOMER P.O.:

CONTACT: ACCOUNTS PAYABLE

TERMS - NET 30 DAYS

DESCRIPTION	QUANTITY	UNIT	PRICE	AMOUNT
PROJECT: GREAT LAKEES VENEER DATE: 09/13/01 SAMPLES: 262757-262761				
ASBESTOS (PLM)	5.00	EACH	15.00	75.00

INVOICE TOTAL: 75.00

CES Certified Environmental Services, Inc.

BULK SAMPLE LOG

1401 Erie Boulevard East
Syracuse, New York 13210
Ph (315) 478-2374 Fax (315) 478-2107

ABSCOPE Contact: SEAN HART

Client: N.Y.S. D.E.C. Cell (315) 243-2295

Contact: John May Fax (315) 342-2062

Project: GREAT LAKES VENEER

REQUIRED TURNAROUND: ____ Hour 1 Day

Inspector:

PO# 21838

Analyte: Howard Jenne

Date: 9-13-01

SAMPLE ID	CES LOG NO.	LOCATION	MATERIAL	FRIABLE OR NON-FRIABLE	+ OR -
101		north side of Bldg	unknown	Friable	NEG
102		" "	unknown	Friable	NEG
103		" "	unknown	Friable	NEG
104		" "	unknown	Friable	NEG
105		" "	unknown	Friable	NEG

Delivered By: John A May Date: 9/13/01 Time: 5:08 Received By: Date: Time:

09-13-01P05:05 RCVD

SEP-14-01 01:41 PM SEP-13-01 12:41 PM CERTIFIED ENVIRONMENTAL 3154782107 NO.107 P.1 P.01 P.01

ACCOUNT NO.

CASH

INVOICE NO.

NORTHERN STEEL CORP.

364 EAST AVE. • P.O. BOX 926 • OSWEGO, NEW YORK 13126-0926
PHONE (315) 343-1374 • FAX (315) 343-2934

SOLD TO
Abscope Env.
JAY JENNER
345-9235

21838

SHIP TO

CUST. ORD. NO. 21838 | DATE ORDERED 9/21/01 | DATE REQ'D TODAY | DATE SHIPPED

SHIP	COLLECT	PREPAID	C.O.D.	PICK UP	CARRIER	SHIP POINT	F.O.B.	DEST
	☐	☐	☐	VIA ☒			☐	

QUANTITY ORDERED	QUANTITY SHIPPED	BACK ORDERED	DESCRIPTION
9			1/4" x 2" H.R. FLAT x 4'
			W/DROP

pd
Visa
M.R

THANK YOU

CUSTOMERS INVOICE

NORTHERN STEEL CORP
364 EAST AVENUE
OSWEGO, NY 13126

FRIDAY, SEPTEMBER 28, 2001 @ 12:58P

MERCHANT ID. . . : [illegible]
CARD NUMBER . . . : [illegible]
EXPIRATION. . . . : 0204
INVOICE NUM. . . : 528832
TOTAL. . . . . : 58.55
AUTH CODE. . . . : 004211

X _____
SIGNATURE

THANK YOU!!!
HAVE A NICE DAY!!!!

RETAIN THIS COPY FOR YOUR RECORDS
TOP COPY-MERCHANT BOTTOM COPY-CUSTOMER

ABSCOPE ENVIRONMENTAL INC.

PO Box 487 Canastota, NY 13022
PH. 315-697-8437
FAX 315-697-9391

JOB # 21838

DAY & DATE 9-24-01

CONTACT PERSON

PHONE #

PO #

T & M ☑

CONTRACT ☐

DEPART FROM SHOP 600

ARRIVE BACK AT SHOP 12:30

OR ARRIVE AT NEXT JOB

CLIENT

BILLING ADDRESS

ATTN:

JOB LOCATION Great Lakes Veneer
Oswego N.Y.

LABOR:

NAME	TITLE	ST	OT	DT
Howard Jenner	Supervisor	4.5		
Justin Baily	labor	4.5		

EQUIPMENT:

QTY.	NAME	FLEET #	# OF HRS.	✓IF DAILY RATE
1	~~Water~~			
1	~~Grinder~~			

NOTES:

MATERIAL:

QTY.	DESCRIPTION

QTY.	DESCRIPTION

JOB DESCRIPTION:

Finish hinges on doors. Have them took rent? Equipment Back.

JOB COMPLETED ☑ YES ☐ NO

SIGNATURE:

Customer: ABSCOPE Env (Company Name)

By: Howard Jenner (Signature) Supervisor (Print Name)

WHITE COPY: FILE YELLOW COPY: CUSTOMER

MID-STATE

1811 LEMOYNE AVENUE
P.O. BOX 2189
SYRACUSE, NY 13220-2189
(315) 455-5903

FAX: SALES (315) 455-6420
OFFICE (315) 455-1495
E-MAIL: msis5903@aol.com
WEB SITE: www.midstate.cc

INDUSTRIAL SUPPLY CO., INC.
CONTRACTORS EQUIPMENT CO., INC.

INVOICE NUMBER

00061

1272959-01

BILL TO: ABSCOPE ENVIRONMENTAL CO
COMMERICAL DR
PO BOX 487
CANASTOTA NY 13032-0487

SHIP TO: ABSCOPE ENVIRONMENTAL CO
COMMERICAL DR
PO BOX 487
CANASTOTA NY 13032-0487

CUSTOMER P.O. NO. 21888

SHIP/TR/INVOICE NUMBER	SLSMN	ORDER DATE	TAKER	CUSTOMER P.O. NUMBER	DATE
1272959-01	100	09/24/01	132	21888	09/24/01

INSTRUCTIONS	FRT.	PAGE NO.
	B	1

QUANTITY ORDERED	QUANTITY B.O.	QUANTITY SHIPPED	CODE	ITEM CODE AND DESCRIPTION	U/M	UNIT PRICE	AMOUNT
2		2	*	MW48001400 BLADE 3/PK	EA	14.1800	28.3
2		2	*	MW48001430 BLADE 3/PK	EA	21.1100	42.2

CODE EXPLANATION
* - STATE TAX APPLICABLE
# - FED./OTHER TAX APPLICABLE
- STATE & FEDERAL TAX APPL
BALANCE BACK ORDERED
C - CONSIDER COMPLETE
D - DIRECT SHIPMENT
F - FACTORY MINIMUM

*** THIS IS YOUR INVOICE ***

FREIGHT IN	FREIGHT OUT

SUB TOTAL	70.58
FREIGHT TOTAL	
STATE TAX	4.94
PAYMENT REC'D.	0.00
TOTAL AMOUNT	75.52

NET TERMS: INV 30 DUE: 10/24/01

*** ORDER COMPLETED ***

RENTAL CONTRACT / INVOICE

[redacted]

Page# 1
09/25/2001
09:52:11
FINAL

[redacted]

21838
21838

[redacted]

Phone#: (215) 697-8437

f: Grinder 4 1/2"

ONTRACT #	INVOICE #	DATE	ACCT. #	SALESMAN	P.O. #	SIGNED BY	TAG #	IDENTIFICATION #	TERMS
086381	B0006381-01	09/19/2001	6978437	M Dizent	21838				NET 30 DAYS

RNS YPE	ITEM NO.	DESCRIPTION	OUT DATE	OUT TIME	OUT METER	DUE/RETURN DATE	DUE/RETURN TIME	DUE/RETURN METER	QTY	UNIT PRICE	EXTENDED PRICE
nt	GRIN01-001	GRINDER 4 1/2"	09/19/01	09:41		09/20/01	09:41		1	12.99	12.99
ld	MISC	SEARO CUT OFF WHEEL							2	2.99	5.98
nt	WELD02-001	WELDER WIRE FEED LINCOLN SP-125	09/19/01	09:41		09/20/01	09:41		1	35.00	35.00
rn	WELD02-001	WELDER WIRE FEED LINCOLN SP-125	09/19/01	09:41		09/25/01	09:51		-1	130.00	130.00 *

Circular Saw $10 Day 24 Hour

Band Saw 12 Day - 36

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ITEMS RECEIVED SUBJECT TO CONDITIONS ON REVERSE SIDE.

There are no warranties or merchantability or fitness either expressed or implied which extend beyond the description on the face hereof.

Lessee Signature. [redacted]

Discount
Delivery Charge
Misc Charges
Damage Waiver
Use & Sales Tax
Current Total
Previous Total
Contract Total
=! BALANCE DUE

[redacted]

"YOU PAY FOR TIME OUT NOT TIME USED"

INVOICE

INVOICE DATE	INVOICE NO.	PA
09/13/01	345271	

T.J. BURKE LUMBER CO.
38 EAST 2ND STREET
OSWEGO, NY 13126
WWW.BURKES.DOITBEST.COM
315-343-6147

Change order

SOLD TO
ABSCOPE ENVIRONMENTAL INC
1 COMMERCIAL DRIVE
CANASTOTA, NY 13032

SHIP TO

ORDER NO.	ORDER DATE	CUSTOMER NO.	SALES-PERSON	PURCHASE ORDER NUMBER	SHIP DATE	SHIP VIA / TERMS
345271	09/13/01	2800		21838	ASAP	RC 20/0

QUANTITY ORDERED	QUANTITY SHIPPED	ITEM NUMBER	ITEM DESCRIPTION	UNIT PRICE	PER UNIT	AMOUNT
16	16	248	EX4X8 STUDS CONST.	2.65	PC	42.40
2	2	34CD	3/4 CDX 4X8 PLYWOOD	20.39	SH	40.78
4	4	12CD	1/2 CDX 4X8 PLYWOOD	12.99	SH	51.96
2	2	100313	V6 EXTRA HEAVY PULL ZINC	2.69	EA	5.38
2	2	165506	V1134 SLIDE BOLT LATCH BL	6.13	EA	12.26
4	4	129171	286 6 EXTRA HVY T HINGES	3.41	EA	13.64
2	2	*MB	MAKITA BITS	.79	EA	1.58
2	2	3405	1LB BOX 1 5/8" DRYWALL	2.61	EA	5.22
3	3	474	1LB BOX COMMON 16D NAILS	.90	EA	2.70

Change order
Tim + Mike Terrell
Howard Jewett

Seq: 3 Drw: 3 User:DWW 10:45
AR 188.24

Sale amount	175.92
Sales tax	12.32
Total	188.24
Payment rcvd.	.00
Balance due	188.24

ABSCOPE ENVIRONMENTAL INC.

PO Box 487 Canastota, NY 13022
PH. 315-697-8437
FAX 315-697-9391

JOB # 21838

DAY & DATE 9-19-01

CONTACT PERSON

PHONE #

T+M

PO #

T & M ☑

CONTRACT ☐

DEPART FROM SHOP 700 am

ARRIVE BACK AT SHOP 5:30 pm

OR ARRIVE AT NEXT JOB

CLIENT

BILLING ADDRESS

ATTN:

JOB LOCATION Great Lakes Veneer
Oswego N.Y.

LABOR:

NAME	TITLE	ST	OT	DT
Howard Jenner	Supervisor	8		
Robert Conner	labor	8		

EQUIPMENT:

QTY.	NAME	FLEET #	# OF HRS.	IF DAILY RATE
✓ 1	3/4 ton Van			
✓ 1	welder	7		
✓ 1	4" grinder			
✓ 1	Circular Saw			
✓ 1	Band Saw			
✓ 1	Screwgun			

NOTES:

MATERIAL:

QTY.	DESCRIPTION
✓ 1	Saw blade
✓ 8	Bolts
✓ 3	Sets Hinges
✓ 2	Angle Iron
	Invoiced
	21838

QTY.	DESCRIPTION

JOB DESCRIPTION:

Cut doors down, Reweld Bottoms Hang back up

JOB COMPLETED ☑ YES ☐ NO

SIGNATURE:

Customer: ABSCOPE Environmental
(Company Name)

By:
Signature

Howard Jenner
Print Name

WHITE COPY: FILE YELLOW COPY: CUSTOMER

INVOICE

INVOICE DATE	INVOICE NO.	PAGE
09/13/01	345459	1

J.J. BURKE LUMBER CO.
38 EAST 2ND STREET
OSWEGO, NY 13126
WWW.BURKES.DOITBEST.COM
315-343-6147

SOLD TO

ABSCOPE ENVIRONMENTAL INC
1 COMMERCIAL DRIVE
CANASTOTA, NY 13032

SHIP TO

ORDER NO.	ORDER DATE	CUSTOMER NO.	SALES-PERSON	PURCHASE ORDER NUMBER	SHIP DATE	SHIP VIA / TERMS
345459	09/13/01	2800		21838 PO 21838	ASAP	RC 20/0

QUANTITY ORDERED	QUANTITY SHIPPED	ITEM NUMBER	ITEM DESCRIPTION	UNIT PRICE	PER UNIT	AMOUNT
2	2	12CD	1/2 CDX 4X8 PLYWOOD	12.99	SH	25.98

Change Order
Time + Material

J: 9 Drw: 9 Usr:TPH 17:11
AR 27.80

Sale amount	25.98
Sales tax	1.82
Total	27.80
Payment rcvd.	.00
Balance due	27.80

(5)

TIME AND MATERIALS

Contract No.	Fed. Proj. No.		Contractor ABSCOPE ENVIRONMENTAL, INC					Item No.
D004283		C.O. # 8	STONE					C.O # 8
Period	Regular (Direct) Wages	Premium Wages	Gross Wages	$ per Wk Limitation	$ per Wk Limitation	Wages Over $	Wages Over $	Fringe Benefits
Totals								

insurance policy.

LABOR	AMOUNT
Regular Wages	
Fringe Benefits	
Other Benefits	
TAXES AND INSURANCE	
F.I.C.A 7.65% x [Gross Wages less Wages Over $]	
N.Y.S. and Fed. Unempl. 7.90% x [Gross Wages less Wages Over $]	
Workers' Compensation 22.00% x [$ per Week Limitation] or [Gross Wages] *See Note Above	
P.L. and P.D. Insurance 14.14% x [$ per week Limitation] or [Gross Wages] *See Note Above	
SUBTOTAL	
Profits & Overhead on Labor-15% *	
Premium Wages	
TOTAL LABOR	

MATERIAL	
Date	Material Cost
09/28/01	2,879.99
10/26/01	630.85
SUBTOTAL	3,510.84
P. & O. 10% *	351.08
Total Materials	3,861.92

EQUIPMENT	
Indent. No.	Cost
total equip	
Subtotal	
10%	
Total Equipment	
services	
Subtotal	
5%	
Total Services	

TOTAL FORCE ACCOUNT	
Labor	
Materials	3,861.92
Services	
Equipment	
TOTAL	3,861.92

CERTIFICATION: - I certify, to the best of my knowledge and belief, that the equipment used on this work was of the proper size, that material taken from stock as designated above is at fair market value, and that account herein shown is an accurate statement of materials and equipment used.

Signed _____ For Contractor _____ For NYSDEC

Date 11/05/01 11/9/01

RICCELLI ENTERPRISES INC.

P.O. Box 6418
Syracuse, NY 13217
Telephone: 315-433-5115
FAX: 315-433-1920

When Remitting PLEASE Refer to Invoice

INVOICE NO.	PAGE	DATE
34276	1	09/28/01

21838

(5)

SOLD TO ABSCOPE CO. INC.
P.O. Box 487
Canastota NY 13032

21838

ORIGINAL INVOICE

Fold

JOB SITE: OSWEGO CASTINGS

DATE	TICKET REF.	ITEM DESCRIPTION	QTY. UNITS	PRICE	AMOUNT
09/27/01		"-2" RUN OF CRUSH"	198.03	9.25	1,831.78
09/28/01		"-2" RUN OF CRUSH"	113.32	9.25	1,048.21
				SUB TOTAL $	2,879.99
				TAX TOTAL $	0.00
				TOTAL $	2,879.99

+168

Fold

3167.99

$3167.99

NOTE: As security for the value of this sale the seller/hauler has the right to file a lien upon the real property improved to the extent of the value of such materials/services. Under New York State Law.

A finance charge is computed by a periodic rate of 1½% per month on unpaid bills after 30 days. This is an annual percentage rate of 18%. In addition, if the invoice amount is not collected ninety days from the invoice date, a collection expense of 22% will be assessed to the outstanding balance.

Hanson

Hanson Aggregates New York, Inc.

P.O. Box 231
Easton, PA 18044-0231

3

TICKET NO. 137366

GROSS WEIGHT ACKNOWLEDGED

TRUCKERS SIGNATURE

SEE PRODUCT WARNING ON REVERSE

BUYER AGREES TO PAY ALL COSTS OF COLLECTIONS FOR THIS TICKE INCLUDING ANY REASONABLE ATTORNEYS' FEES.

JAMESVILLE PLANT
M-F 7A-3:45P SA 7A-11:45A
PO BOX 310 4800 SOLVAY RD
JAMESVILLE NY 13078
315-469-5505
HAVE A SAFE DAY!!!!!

RECEIVERS INITIAL

*CURB DELIVERY ONL NOT RESPONSIBLE FC ANY DAMAGE BEYOI CURB.

CUSTOMER NUMBER 00386020
SALES ORDER NUMBER 00020709
DATE 09/27/01 TIME 13:13

PRODUCT NO. DESCRIPTION
4335
CRUSHER RUN

JOB/ITEM #

SOLD TO : Riccelli Enterprises Inc
S.O. DESC : OSWEGO CASTINGS
S.O. INFO :
JOB LOC. :

LOAD # 002

WEIGHTS

	-LBS-	-KILO-
GROSS	98120 *	44607
TARE	39160	17763
NET	58960	26744
TONS	29.48	26.74

TONS TODAY 64.87
TONS TO DATE 64.87
TONNES TODAY 58.85
TONNES TO DATE 58.85

CASH SALE ONLY

MATERIAL PER TONS
TAX
HAUL PER TONS
TOTAL

TRUCKING INFO.

HAUL / TRUCK NUMBER
00000000/X133

HAULER NAME :
TRUCK NAME : RICCELLI TJE
MGW : 000000

TICKET NO. 137366

WEIGHMASTER LICENSE NUMBER 310317

WEIGHMASTER SIGNATURE YOUNG, BRIAN

R-63-K REV 2 2/99

AN EQUAL OPPORTUNITY EMPLOYER M/F

Hanson

3

Hanson Aggregates New York, Inc.

P.O. Box 231
Easton, PA 18044-0231

TICKET NO. 137447

GROSS WEIGHT ACKNOWLEDGED

TRUCKERS SIGNATURE

SEE PRODUCT WARNING ON REVERSE

BUYER AGREES TO PAY ALL COSTS OF COLLECTIONS FOR THIS TICKE INCLUDING ANY REASONABLE ATTORNEYS' FEES.

RECEIVERS INITIAL

JAMESVILLE PLANT
M-F 7A-3:45P SA 7A-11:45A
PO BOX 310 4800 SOLVAY RD
JAMESVILLE NY 13078
315-469-5505
HAVE A SAFE DAY!!!!!

★CURB DELIVERY ONI NOT RESPONSIBLE F(ANY DAMAGE BEYOI CURB.

CUSTOMER NUMBER 00386020
SALES ORDER NUMBER 00020709
DATE 09/27/01 TIME 15:25

PRODUCT NO. DESCRIPTION
4035
CRUSHER RUN

JOB/ITEM #

SOLD TO : Riccelli Enterprises Inc
S.O. DESC : OSWEGO CASTINGS
S.O. INFO :
JOB LOC. :

LOAD # 003

WEIGHTS

	-LBS-	-KILO-
GROSS	103760 #	47066
TARE	39160	17763
NET	64600	29303
TONS	32.30	29.30

TONS TODAY	97.17
TONS TO DATE	97.17
TONNES TODAY	88.15
TONNES TO DATE	88.15

↙ CASH SALE ONLY ↘

MATERIAL	PER TONS
TAX	
HAUL	PER TONS
TOTAL	

TRUCKING INFO.

↙ HAUL / TRUCK NUMBER ↘
00000000/K139

HAULER NAME :
TRUCK NAME : RICCELLI "JE
MGW : 000000

TICKET NO. 137447

WEIGHMASTER LICENSE NUMBER 310317

WEIGHMASTER SIGNATURE ▶ YOUNG, BRIAN

R-63-K REV 2 2/99

AN EQUAL OPPORTUNITY EMPLOYER M/F

Hanson

Hanson Aggregates New York, Inc.

P.O. Box 231
Easton, PA 18044-0231

3

TICKET NO. 137306

GROSS WEIGHT ACKNOWLEDGED

TRUCKERS SIGNATURE

SEE PRODUCT WARNING ON REVERSE

BUYER AGREES TO PAY ALL COSTS OF COLLECTIONS FOR THIS TICKE INCLUDING ANY REASONABLE ATTORNEYS' FEES.

JAMESVILLE PLANT
M-F 7A-3:45P SA 7A-11:45A
PO BOX 310 4300 SOLVAY RD
JAMESVILLE NY 13078
315-469-5505
HAVE A SAFE DAY!!!!!

RECEIVERS INITIAL

★CURB DELIVERY ONI NOT RESPONSIBLE F(ANY DAMAGE BEYOI CURB.

CUSTOMER NUMBER 00356020
SALES ORDER NUMBER 00020032
DATE 09/27/01 TIME 10:53

PRODUCT NO. DESCRIPTION
4835
CRUSHER RUN

JOB/ITEM #

SOLD TO : Riccelli Enterprises Inc
S.O. DESC : CUSTOMER PICK UP
S.O. INFO :
JOB LOC. : OSWEGO CASTINGS
LOAD # 003

WEIGHTS

	-LBS-	-KILO-
GROSS	109940	49869
TARE	39160	17763
NET	70780	32106
TONS	35.39	32.11

TONS TODAY	79.91
TONS TO DATE	9509.73
TONNES TODAY	72.49
TONNES TO DATE	8627.36

CASH SALE ONLY

MATERIAL	PER TONS
TAX	
HAUL	PER TONS
TOTAL	

TRUCKING INFO.

HAUL / TRUCK NUMBER
00000000/X135

HAULER NAME :
TRUCK NAME : RICCELLI
MGW : 000000

TICKET NO. 137306

WEIGHMASTER LICENSE NUMBER 310317

WEIGHMASTER SIGNATURE YOUNG, BRIAN

R-63-K REV 2 2/99

AN EQUAL OPPORTUNITY EMPLOYER M/F

Hanson

Hanson Aggregates GLSC, Inc.

P.O. Box 231
Easton, PA 18044-0231

3

TICKET NO. 108832

GROSS WEIGHT ACKNOWLEDGED

TRUCKERS SIGNATURE

SEE PRODUCT WARNING ON REVERSE

BUYER AGREES TO PAY ALL COSTS OF COLLECTIONS FOR THIS TICK INCLUDING ANY REASONABLE ATTORNEYS' FEES.

RECEIVERS INITIAL

★CURB DELIVERY ON NOT RESPONSIBLE F ANY DAMAGE BEYO CURB.

CUSTOMER NUMBER

SALES ORDER NUMBER

PRODUCT NO. DESCRIPTIO

DATE

TIME

JOB/ITEM #

SOLD TO : RICCELLI ENTERPRISES INC.

S.O. DESC: CPU MISC. MATERIALS

S.O. INFO :

JOB LOC. :

LOAD #

WEIGHTS

	LBS	KILO
GROSS		
TARE		
NET		
TONS		

TONS TODAY

TONS TO DATE

TONNES TODAY

TONNES TO DATE

CASH SALE ONLY

TRUCKING INFO

HAUL / TRUCK NUMBER

MATERIAL	PER TONS	
TAX		
HAUL	PER TONS	
TOTAL		

HAULER NAME :

TRUCK NAME :

MGW :

WEIGHMASTER LICENSE NUMBER

TICKET NO.

WEIGHMASTER SIGNATURE

R-63-KHA REV 1/00

AN EQUAL OPPORTUNITY EMPLOYER M/F

198.03 T
RK

3

Hanson

Hanson Aggregates GLSC, Inc.

P.O. Box 231
Easton, PA 18044-0231

TICKET NO. 108331

GROSS WEIGHT ACKNOWLEDGED

TRUCKERS SIGNATURE

SEE PRODUCT WARNING ON REVERSE

BUYER AGREES TO PAY ALL COSTS OF COLLECTIONS FOR THIS TICK INCLUDING ANY REASONABLE ATTORNEYS' FEES.

BUTLER PLANT
5435 ROUTE 20
RED CREEK, NY 13143
315-594-1457

RECEIVERS INITIAL

★CURB DELIVERY ON NOT RESPONSIBLE F ANY DAMAGE BEYC CURB.

CUSTOMER NUMBER 01203325 SALES ORDER NUMBER 0000210260

DATE 09/27/01 TIME 13:21

PRODUCT NO. DESCRIPTIO
4340
NO.2 CRUSH

JOB/ITEM #

SOLD TO : STOCKLIST ENTERPRISES INC.
S.O. DESC: CPU MISC.MATERIALS
S.O. INFO :
JOB LOC. : Abscopa

LOAD #

WEIGHTS

	-LBS-	-KILO-		
GROSS	142540	64630	TONS TODAY	42.
TARE	37760	17120	TONS TO DATE	1[illegible]
NET	104780	47510		
			TONNES TODAY	47.
TONS	52.41	23.80	TONNES TO DATE	47[illegible]

CASH SALE ONLY

MATERIAL	PER TONS	
TAX		
HAUL	PER TONS	
TOTAL		

TRUCKING INFO.

HAUL / TRUCK NUMBER

HAULER NAME :
TRUCK NAME :
MGW :

TICKET NO.

WEIGHMASTER LICENSE NUMBER

BRENDA SCOTT

WEIGHMASTER SIGNATURE

R-63-KHA REV 1/00

AN EQUAL OPPORTUNITY EMPLOYER M/F

Hanson

3

Hanson Aggregates New York, Inc.

P.O. Box 231
Easton, PA 18044-0231

TICKET NO. 033472

GROSS WEIGHT ACKNOWLEDGED

TRUCKERS SIGNATURE

SEE PRODUCT WARNING ON REVERSE

BUYER AGREES TO PAY ALL COSTS OF COLLECTIONS FOR THIS TICKE INCLUDING ANY REASONABLE ATTORNEYS' FEES.

SKANEATELES PLAN
PO BOX 7

SKANEATELES NY 13152
315-685-3321
OPEN 7:AM-3:30PM

RECEIVERS INITIAL

★CURB DELIVERY ONI NOT RESPONSIBLE F(ANY DAMAGE BEYOI CURB.

CUSTOMER NUMBER 00386020
SALES ORDER NUMBER 00020120
PRODUCT NO. DESCRIPTION 411S
DATE 04/27/01
TIME 13:57
CRUSHER RUN

JOB/ITEM #

SOLD TO : Riccelli Enterprises Inc
S.O. DESC : STONE
S.O. INFO :
JOB LOC. : OSWEGO CASTINGS
LOAD # 201

WEIGHTS

	-LBS-	-KILO-		
GROSS	108200	49050	TONS TODAY	36.50
TARE	35200	15967	TONS TO DATE	507.17
NET	73000	33113		
			TONNES TODAY	33.11
TONS	36.50	33.11	TONNES TO DATE	550.32

↙ CASH SALE ONLY ↘

MATERIAL : PER TONS
TAX
HAUL PER TONS
TOTAL

TRUCKING INFO.

↙ HAUL / TRUCK NUMBER ↘
0000000R 3225

HAULER NAME :
TRUCK NAME : RICCELLI 225
MGW :

WEIGHMASTER LICENSE NUMBER 0110004

TICKET NO.

WEIGHMASTER SIGNATURE ▶

R-63-K REV 2 2/99

AN EQUAL OPPORTUNITY EMPLOYER M/F

NB. 32-1
RC

2

Hanson

Hanson Aggregates New York, Inc.

P.O. Box 231
Easton, PA 18044-0231

TICKET NO. 137658

GROSS WEIGHT ACKNOWLEDGED

TRUCKERS SIGNATURE

SEE PRODUCT WARNING ON REVERSE

BUYER AGREES TO PAY ALL COSTS OF COLLECTIONS FOR THIS TICKE INCLUDING ANY REASONABLE ATTORNEYS' FEES.

JAMESVILLE PLANT
M-F 7A-3:45P SA 7A-11:45A
PO BOX 310 4800 SOLVAY RD
JAMESVILLE NY 13078
315-469-5505
HAVE A SAFE DAY!!!!!

RECEIVERS INITIALS

★CURB DELIVERY ONL NOT RESPONSIBLE FC ANY DAMAGE BEYON CURB.

CUSTOMER NUMBER 00386020
SALES ORDER NUMBER 00020709
DATE 09/28/01 TIME 11:44

PRODUCT NO. DESCRIPTION
4335
CRUSHER RUN

JOB/ITEM #

SOLD TO : Riccelli Enterprises Inc
S.O. DESC : OSWEGO CASTINGS
S.O. INFO :
JOB LOC. : Abscope

LOAD # 008

WEIGHTS

	-LBS-		-KILO-
GROSS	110460	#	50105
TARE	35100		15921
NET	75360		34184
TONS	37.68		34.18

TONS TODAY 113.32
TONS TO DATE 210.49

TONNES TODAY 102.80
TONNES TO DATE 190.96

CASH SALE ONLY

MATERIAL
TAX
HAUL
TOTAL

MATERIAL PER TONS
TAX
HAUL PER TONS
TOTAL

TRUCKING INFO.

HAUL / TRUCK NUMBER
00000000/X265

HAULER NAME :
TRUCK NAME : RICCELLI
MGW : 000000

WEIGHMASTER LICENSE NUMBER 310317
WEIGHMASTER SIGNATURE YOUNG, BRIAN

TICKET NO. 137658

R-63-K REV 2 2/99

AN EQUAL OPPORTUNITY EMPLOYER M/F

Hanson

Hanson Aggregates New York, Inc.

P.O. Box 231
Easton, PA 18044-0231

TICKET NO.
137480

OSS WEIGHT
KNOWLEDGED

ICKERS SIGNATURE

SEE PRODUCT WARNING ON REVERSE

BUYER AGREES TO PAY ALL COSTS OF COLLECTIONS FOR THIS TICKET, INCLUDING ANY REASONABLE ATTORNEYS' FEES.

ESVILLE PLANT 334
M-F 7A-3:45P SA 7A-11:45A
PO BOX 310 4800 SOLVAY RD
JAMESVILLE NY 13078
315-469-5505
HAVE A SAFE DAY!!!!!

RECEIVERS INITIALS

*CURB DELIVERY ONLY. NOT RESPONSIBLE FOR ANY DAMAGE BEYOND CURB.

STOMER MBER 00386020 SALES ORDER NUMBER 00020709
TE 09/28/01 TIME 07:16

PRODUCT NO. DESCRIPTION
4335
CRUSHER RUN

JOB/ITEM #

D TO : Riccelli Enterprises Inc
DESC : OSWEGO CASTINGS
INFO :
LOC. : Abscope

LOAD # 001

WEIGHTS

	-LBS-		-KILO-
OSS	109560	*	49696
E	35100		15921
	74460		33775
IS	37.23		33.78

TONS TODAY	37.23
TONS TO DATE	134.40
TONNES TODAY	33.78
TONNES TO DATE	121.93

CASH SALE ONLY

TERIAL PER TONS
TAX
HAUL PER TONS
OTAL

TRUCKING INFO.

HAUL / TRUCK NUMBER
00000000/X265

HAULER NAME :
TRUCK NAME : RICCELLI
MGW : 000000

EIGHMASTER LICENSE NUMBER 310317
EIGHMASTER YOUNG, BRIAN

TICKET NO.
137480

Hanson

Hanson Aggregates New York, Inc.

P.O. Box 231
Easton, PA 18044-0231

TICKET NO.
137569

OSS WEIGHT
KNOWLEDGED

UCKERS SIGNATURE

SEE PRODUCT WARNING ON REVERSE

BUYER AGREES TO PAY ALL COSTS OF COLLECTIONS FOR THIS TICKET, INCLUDING ANY REASONABLE ATTORNEYS' FEES.

JAMESVILLE PLANT
M F 7A-3:45P SA 7A-11:45A
BOX 310 4800 SOLVAY RD
JAMESVILLE NY 13078
315-469-5505
HAVE A SAFE DAY!!!!!

RECEIVERS INITIALS

*CURB DELIVERY ONLY. NOT RESPONSIBLE FOR ANY DAMAGE BEYOND CURB.

JSTOMER JMBER	00386020	SALES ORDER NUMBER	00020709	PRODUCT NO.	DESCRIPTION
ATE	09/28/01	TIME	09:29	4385	CRUSHER RUN

JOB/ITEM #

LD TO : Riccelli Enterprises Inc
). DESC : OSWEGO CASTINGS
). INFO :
B LOC. : Absecon

LOAD # 002

WEIGHTS

	-LBS-	-KILO-		
OSS	111920 *	50767	TONS TODAY	75.64
RE	35100	15921	TONS TO DATE	172.81
T	76820	34846		
			TONNES TODAY	68.62
NS	38.41	34.85	TONNES TO DATE	156.77

✓ CASH SALE ONLY ↘

TERIAL	PER TONS	
TAX		
HAUL	PER TONS	
OTAL		

TRUCKING INFO.

✓ HAUL / TRUCK NUMBER ↘
00000000/X265

HAULER NAME :
TRUCK NAME : RICCELLI
MGW : 000000

TICKET NO.
137569

EIGHMASTER LICENSE NUMBER 310317

VEIGHMASTER SIGNATURE ▶ YOUNG, BRIAN

AN EQUAL OPPORTUNITY EMPLOYER M/F

RICCELLI ENTERPRISES INC.

P.O. Box 6418
Syracuse, NY 13217
Telephone: 315-433-5115
FAX: 315-433-1920

When Remitting PLEASE Refer to Invoice Number

INVOICE NO.	PAGE	DATE
34276	1	09/28/01

21838

SOLD TO ABSCOPE CO. INC.
P.O. Box 487
Canastota NY 13032

ORIGINAL INVOICE

21838

Fold

JOB SITE: OSWEGO CASTINGS

DATE	TICKET REF.	ITEM DESCRIPTION	QTY. UNITS	PRICE	AMOUNT
09/27/01		"-2" RUN OF CRUSH"	198.03	9.25	1,831.78
09/28/01		"-2" RUN OF CRUSH"	113.32	9.25	1,048.21
				SUB TOTAL $	2,879.99
				TAX TOTAL $	0.00
				TOTAL $	2,879.99

VENDOR # 180059
P.O. # 34276
DATE 9-28-01

$2,879.99

5000,9/21838/60

ENTERED OCT 11 2001

Fold

NOTE: As security for the value of this sale the seller/hauler has the right to file a lien upon the real property improved to the extent of the value of such materials/services. New York State Law.

A finance charge is computed by a periodic rate of 1½% per month on unpaid bills after 30 days. This is an annual percentage rate of 18%. In addition, if the invoice amount is not collected ninety days from the invoice date, a collection expense of 22% will be assessed to the outstanding balance.

MURK 13d (9/81)

(16)

NEW YORK STATE DEPARTMENT CONSERVATION
TIME AND MATERIALS

Contract No.	Fed. Proj. No.		Contractor ABSCOPE ENVIRONMENTAL, INC					Item No.
D004283		C.O.#4	MULCHING					C.O #4
Period	Regular (Direct) Wages	Premium Wages	Gross Wages	$ per Wk Limitation	$ per Wk Limitation	Wages Over $	Wages Over $	Fringe Benefits
	210.90		210.90					85.70
Totals	210.90		210.90					85.70

insurance policy.

LABOR	AMOUNT
Regular Wages	210.90
Fringe Benefits	85.70
Other Benefits	
TAXES AND INSURANCE	
F.I.C.A 7.65% x [Gross Wages less Wages Over $]	22.69
N.Y.S. and Fed. Unempl. 7.90% x [Gross Wages less Wages Over $]	23.43
Workers' Compensation 22.00% x [$ per Week Limitation] or [Gross Wages] *See Note Above	65.25
P.L. and P.D. Insurance 14.14% x [$ per week Limitation] or [Gross Wages] *See Note Above	41.52
SUBTOTAL	449.50
Profits & Overhead on Labor-15% *	67.42
Premium Wages	
TOTAL LABOR	516.92

MATERIAL	
Invoice	Material Cost
seed	60.00
ferilizer	54.00
straw	225.00
SUBTOTAL	339.00
P. & O. 10% *	33.90
Total Materials	372.90

EQUIPMENT	
Indent. No.	Cost
total equip	170.00
Subtotal	170.00
10%	17.00
Total Equipment	187.00
services	
Subtotal	
5%	
Total Services	

TOTAL FORCE ACCOUNT	
Labor	516.92
Materials	372.90
Services	
Equipment	187.00
TOTAL	1,076.82

CERTIFICATION: - I certify, to the best of my knowledge and belief, that the equipment used on this work was of the proper material taken from stock as designated above is fair market value, and that account herein shown is an accurate statement of materials and equipment used.

Signed _____ For Contractor

Date 10/14/01

_____ For NYSDEC

10/16/01

MURK 12c (3/79) NYSDEC

Sheet 2 of 3

FORCE ACCOUNT SUMMARY OF LABOR

Period Covered From 09/13/01 to 09/24/01

Contract No. D004283	Proj. No.	Contractor Abscope Environmental Inc.										Item No. C.O.# 4		
NAME	Hourly Rate Basic (Regular)	Hourly Rate Premium Additive	Hours for Period TOTAL	Hours for Period O.T. (Premium)	Regular (Direct) Wages	Premium Wages	Gross Wages	$ per Wk Limitation per man	$ per Week Limitation	Wages Over $	Wages Over $	Hourly Fringe Rate	Fringe Benefits
Ranny McCormick	21.09	10.55	2.00		42.18		42.18					13.05	26.10
Steve Finley	21.09	10.55	4.00		84.36		84.36					7.45	29.80
Bill Papineau	21.09	10.55	4.00		84.36		84.36					7.45	29.80
Total for Period					210.90		210.90						85.70

*NOTE: Use category (either $ Limitation or Gross

MURK 17 (9/81)

NYSDEC OSWEGO CASTINGS
C.0. #4 MULCHING

SHEET 1 OF 3

Period Covered From 09/28/01 TO 10/01/01

Contract No.	Fed. Proj. No.	Contractor	Item No.
DOO4283		Abscope Environmental Inc.	C.O.#4

			Blue Book Ref.			A	B	C	D	E	F	G	H
Equip. Type	Mfg'r.	Model No.	Sec. No.	Page No.	Code	Hours Of Actual Use	DAILY Rate (Note 1)	Maximum Ownership Cost (Note 2)	Computation A x B	Ownership Cost (Note 3)	Operating Cost/ DAY	Total Operating Cost AxF	Total Reimbursement E + G
van 3/4 ton	Ford	250				1.50	75.00	95.00	112.50	95.00	50.00	75.00	170.00

TOTAL FOR PERIOD 170.00

Note 1 - If A is less than 8 hours, use the hourly rate.
If A is between 8 and 40 hours, use the daily rate divided by 8.
If A is between 40 and 176 hours, use the weekly rate divided by 40.
If A is over 176 hour, use the monthly rate divided by 40.

Note 2 - If A is less than 8 hours, use the daily rate.
If A is between 8 and 40 hours, use the weekly rate.
If A is between 40 and 176 hours, use the monthly rate.
If A is over 176 hours, use the monthly rate or the purchase cost of equipment.

Note 3 - The lesser of Column C or Column D.

ABSCOPE ENVIRONMENTAL INC.

PO Box 487 Canastota, NY 13022
PH. 315-697-8437
FAX 315-697-9391

JOB # 21838

DAY & DATE 10/1/01

CONTACT PERSON

PHONE #

PO #

T & M ☐

CONTRACT ☐

DEPART FROM SHOP

ARRIVE BACK AT SHOP

OR ARRIVE AT NEXT JOB

CLIENT OSWEGO CASTINGS

BILLING ADDRESS

JOB LOCATION OSWEGO CASTINGS

ATTN:

LABOR:

NAME	TITLE	ST	OT	DT
Barney McMurray	LAB	2		

EQUIPMENT:

QTY.	NAME	FLEET #	# OF HRS.	✓IF DAILY RATE
4	CASEMAN	3/4 TON		

NOTES:

MATERIAL:

QTY.	DESCRIPTION
25	BAND STRAW

QTY.	DESCRIPTION

JOB DESCRIPTION:

FINISH SPREADING STRAW NORTH OF POND.

JOB COMPLETED ☐ YES ☐ NO

SIGNATURE:

Customer: (Company Name)

By: Signature

Print Name

WHITE COPY: FILE YELLOW COPY: CUSTOMER

ENVIRONMENTAL INC.

PO Box 487 Canastota, NY 13022
PH. 315-697-8437
FAX 315-697-9391

JOB # 21838

DAY & DATE Thurs 9/27/01

CONTACT PERSON

PHONE #

PO #

T & M ☐

CONTRACT ☐

DEPART FROM SHOP

ARRIVE BACK AT SHOP

OR ARRIVE AT NEXT JOB

CLIENT

BILLING ADDRESS

JOB LOCATION Oswego Castings

ATTN:

LABOR:

NAME	TITLE	ST	OT	DT
Rick DenHaese	oper.	11		
Ranny McCormick	oper/Labor	11		
Scott Mudge	oper.	9		
Steve Findlay	Labor	9		
Bill Papineau	Labor	9		
SEE	NOTES			

EQUIPMENT:

QTY.	NAME	FLEET #	# OF HRS.	✓IF DAILY RATE
1	JD160 EXCAVATOR			
1	JD 550 DOZER			
1	Bobcat			
1	DRESSER DOZER (RENT)			
1	ROLLER (RENT)			
8	3/4 TON			

NOTES:

DEC ON SITE
SURVEYOR ON SITE – UNDER CUT AREAS of SILT INTO Sub grade
HIRED TRUCKS – NORTHERN ON SITE
RICCELLI HAULED IN 6 LOADS XTRA STONE

RICK 11HRS DOZER
RANNY 3HRS DOZER – 8HRS LABOR
SCOTT 9HRS EXCAVATOR
BILL 9HR LABOR 4HRS of 9HRS WERE T+M
STEVE 9HRS LABOR 4HRS of 9 WERE T+M

MATERIAL:

QTY.	DESCRIPTION
	grass seed
	fertilizer
50	straw
	Rolls Fabric

QTY.	DESCRIPTION

JOB DESCRIPTION: REPLACE fabric & stone to former LANDFILL AREA SOME STONE ON SITE from PRIOR stripping of AREA MORE HAULED IN by RICCELLI EXCAVATED silt AREAS to obtain sub grade – stayed ON SITE – seeded, mulched, fertilized WETLAND AREA.
(CAULKED JOINTS IN AREA "A")

JOB COMPLETED ☐ YES ☐ NO

SIGNATURE:

WHITE COPY: FILE YELLOW COPY: CUSTOMER

Customer: (Company Name)

By: Signature

Print Name

Merritt Seed Company

7880 Gates Road
Baldwinsville, NY 13027
Phone: (315) 638-0610 Fax: (315) 638-0071

Invoice

Date	Invoice #
9/19/2001	3823

Bill To

Abscope Environmental, Inc.
P.O. Box 487
Canastota, NY 13032

Ship To

Pickup

Fax 697 9391

P.O. Number	Terms	Rep	Ship Date	Via	Project
Per Rob Gray	Net 30	MSC	9/25/2001	Pick Up	Oswego Castings

Quantity	Unit	Item Code	Description	Price Each	Amount
~~100~~ 50	lbs.	MB357	Special Grass Mix MB 357 (Oswego Castings)	1.20	~~120.00~~T 60
3	lbs.	WT118	Northeast Wetland Hummock Mix	~~120.00~~	360.00T
6	50 lb. bag	2485B	19-19-19 All Mineral (50 lb)	9.00	54.00T
			Onondaga Sales Tax	~~7.00%~~	37.38
					114

We appreciate your prompt payment.

Total $571.38

ABSCOPE ENVIRONMENTAL, INC.
P.O. BOX 487
1 COMMERCIAL DR.
CANASTOTA, NY 13032-0487
(315) 697-8437
FED. ID # 16-1352765

EXPLANATION	AMOUNT	
21838		

5507

50-7087-2213

PAY AMOUNT OF ONE HUNDRED FIFTY DOLLARS

CHECK AMOUNT

DATE	TO THE ORDER OF	DESCRIPTION	CHECK NUMBER	
9-26-01	Daniel Collins	Hay/Straw Bales 50	5507	$ 150.00

111011

Security Features Included. Details on Back.

Oneida Savings
Your Link To A Brighter Future.
Member FDIC

MP

⑈005507⑈ ⑆221370878⑆ 510 014523 5⑈

VENDOR # 030200
INV. # 5507
DATE 9-26-01 $ 150.00

ENTERED OCT - 1 2001

5000.9/21838/60

ABSCOPE ENVIRONMENTAL, INC.
P.O. BOX 487
1 COMMERCIAL DR.
CANASTOTA, NY 13032-0487
(315) 697-8437
FED. ID # 16-1352765

EXPLANATION	AMOUNT	

5509

50-7087-2213

PAY AMOUNT OF THE SUM OF DOLLARS,

CHECK AMOUNT

DATE	TO THE ORDER OF	DESCRIPTION	CHECK NUMBER	
9-27-01	David Collins	Straw - 25 bales	5509	$ 75.00

111011

Security Features Included. Details on Back.

Oneida Savings
Your Link To A Brighter Future.
Member FDIC

⑈005509⑈ ⑆221370878⑆ 510 014523 5⑈

VENDOR # 030200
INV. # 5509
DATE 9-27-01

$75.00

5000.9/21838/60

ENTERED OCT - 1 2001

(17)

ed (9/81)

NEW YORK STATE DEPARTMENT CONSERVATION
TIME AND MATERIALS

Contract No.	Fed. Proj. No.		Contractor ABSCOPE ENVIRONMENTAL, INC					Item No.
D004283		C.O. #5	CWM PCB SOI REMOVAL					C.0 #5
Period	Regular (Direct) Wages	Premium Wages	Gross Wages	$ per Wk Limitation	$ per Wk Limitation	Wages Over $	Wages Over $	Fringe Benefits
	141.90		141.90					78.30
Totals	141.90		141.90					78.30

insurance policy.

LABOR	AMOUNT
Regular Wages	141.90
Fringe Benefits	78.30
Other Benefits	
TAXES AND INSURANCE	
F.I.C.A 7.65% x [Gross Wages less Wages Over $]	16.85
N.Y.S. and Fed. Unempl. 7.90% x [Gross Wages less Wages Over $]	17.40
Workers' Compensation 22.00% x [$ per Week Limitation] or [Gross Wages] *See Note Above	48.44
P.L. and P.D. Insurance 14.14% x [$ per week Limitation] or [Gross Wages] *See Note Above	30.83
SUBTOTAL	333.71
Profits & Overhead on Labor-15% *	50.06
Premium Wages	
TOTAL LABOR	383.77

MATERIAL	
Date	Material Cost
SUBTOTAL	
P. & O. 10% *	
Total Materials	

EQUIPMENT	
Indent. No.	Cost
total equip	516.84
Subtotal	516.84
10%	51.68
Total Equipment	568.52
services	
SOIL T&D	12,701.74
SOIL T&D	3,987.26
SOIL T&D	4,261.72
SOIL T&D	4,290.67
SOIL T&D	4,246.61
SOIL T&D	4,221.43
SOIL T&D	3,690.13
SOIL T&D	3,968.37
Subtotal	41,367.93
5%	2,068.40
Total Services	43,436.33

TOTAL FORCE ACCOUNT	
Labor	383.77
Materials	
Services	43,436.33
Equipment	568.52
TOTAL	44,388.62

CERTIFICATION: - I certify, to the best of my knowledge and belief, that the equipment used on this work was of the proper [illegible]aterial taken from stock as designated above is charged at fair market value, and that account herein shown [illegible]ate statement of materials and equipment used.

Signed B. My
For Contractor

Date 11/9/01

John A Mac
For NYSDEC
11/9/01

MURK 12c (3/79) NYSDEC

FORCE ACCOUI MARY OF LABOR

Sheet 2 of 3

Period Covered From 10/22/01 to 10/23/01

Contract No.	Proj. No.	Contractor										Item No.		
D004283		Abscope Environmental Inc.										C.O.5		
NAME	Hourly Rate		Hours for Period		Regular			$ per Wk	$ per	Wages Over	Wages Over	Hourly	
	Basic (Regular)	Premium Additive	TOTAL	O.T. (Premium)	(Direct) Wages	Premium Wages	Gross Wages	Limitation per man	Week Limitation	$	$	Fringe Rate	Fringe Benefits
Rick DenHaese op	23.65	11.83	6.00		141.90		141.90					13.05	78.30
Total for Period					141.90		141.90						78.30

ABSCOPE ENVIRONMENTAL INC.

PO Box 487 Canastota, NY 13022
PH. 315-697-8437
FAX 315-697-9391

JOB # 21838

DATE MON 10/22/01

CONTACT PERSON _____

PHONE # _____

PO # _____

T & M ☒

CONTRACT ☐

DEPART FROM SHOP _____

ARRIVE BACK AT SHOP _____

OR ARRIVE AT NEXT JOB _____

CLIENT _____

BILLING ADDRESS _____

JOB LOCATION Oswego Castings

ATTN: _____

LABOR:

NAME	TITLE	ST	OT	DT
Rick Den Herder	oper	3		

EQUIPMENT:

QTY.	NAME	FLEET #	# OF HRS.	√IF DAILY RATE
1	JD 160			
	EXCAVATOR			

NOTES:

6 TRUCKS

MATERIAL:

QTY.	DESCRIPTION

QTY.	DESCRIPTION

JOB DESCRIPTION:

LOAD CONTAMINATED SOIL TO BE HAULED OFF SITE TO MODEL CITY

JOB COMPLETED ☐ YES ☐ NO

SIGNATURE: _____

Customer: NYSDEC (Company Name)

By: John A Mac (Signature)

John A Mac (Print Name)

WHITE COPY: FILE YELLOW COPY: CUSTOMER

Page - Map 1/52

CWM Chemical Services, LLC
A WASTE MANAGEMENT COMPANY
P.O. Box 200
1550 Balmer Rd.
Model City, NY 14107
(716) 754-8231
(716) 754-0211

INVOICE

THIS IS AN INVOICE FOR CURRENT CHARGES. PLEASE PAY AMOUNT INDICATED BELOW.

TERMS

DUE UPON RECEIPT
OR PER CONTRACT TERMS

ALL PAST DUE AMOUNTS WILL BEAR INTEREST AT ONE AND ONE HALF PERCENT PER MONTH OR THE MAXIMUM RATE ALLOWED BY LAW, WHICHEVER IS LESS.

ASSOCPE ENVIRONMENTAL INC
ATTN: ACCOUNTS PAYABLE
1 COMMERCIAL DR
PO BOX 487
CANASTOTA NY 13032-0487

21838

Invoice Date: 10/25/2001
Customer #: 378-1141104
Invoice #: 2045-9914591
Page #: 1

Manifest#	Profile Description	Gener/Quantity	P.O.#/Unit	Biller	Rate	Total
YG2463642	CT5622 PCB CONTAMINATED SOI 006874 NEW YORK DEPT E			PBYERS	Svc Date	10/23/2001
	LANDFILL PCB BULK	DISPOSAL 34.17	TON		90.00000	3,075.30
	TRANSPORTATION	TRANSPORTATION 34.17	TON		30.50000	1,042.19
	FUELS SURCHARGE	5 % OF TRANS 1,042.19	TRIP		.05000	52.11
	SALES TAX	3,075.30			7.00000 %	215.27
	TOWN HOST TAX	3,075.30			6.00000 %	184.52
	SALES TAX	1,042.19			7.00000 %	72.95
	SALES TAX	52.11			7.00000 %	3.65
	81551426O1					
					Subtotal	4,645.99
						4354.12
YG2463679	CT5622 PCB CONTAMINATED SOI 006874 NEW YORK DEPT E			PBYERS	Svc Date	10/23/2001
	LANDFILL PCB BULK	DISPOSAL 34.74	TON		90.00000	3,126.60
	TRANSPORTATION	TRANSPORTATION 34.74	TON		30.50000	1,059.57
	FUELS SURCHARGE	5 % OF TRANS 1,059.57	TRIP		.05000	52.98
	SALES TAX	3,126.60			7.00000 %	218.86
	TOWN HOST TAX	3,126.60			6.00000 %	187.60
	SALES TAX	1,059.57			7.00000 %	74.17
	SALES TAX	52.98			7.00000 %	3.71
	81551425O1					
					Subtotal	4,723.49
						4476.75
YG2463696	CT5622 PCB CONTAMINATED SOI 006874 NEW YORK DEPT E			PBYERS	Svc Date	10/23/2001
	LANDFILL PCB BULK	DISPOSAL 30.77	TON		90.00000	2,769.30
	TRANSPORTATION	TRANSPORTATION 30.77	TON		30.50000	938.49
	FUELS SURCHARGE	5 % OF TRANS 938.49	TRIP		.05000	46.92
	SALES TAX	2,769.30			7.00000 %	193.85
	TOWN HOST TAX	2,769.30			6.00000 %	166.16
	SALES TAX	938.49			7.00000 %	65.69
	SALES TAX	46.92			7.00000 %	3.28
	81551427O1 616897-1;					
					Subtotal	4,187.67
						3920.87

REMIT TO ADDRESS
PO BOX 840606
DALLAS
TEXAS 75284

PLEASE PAY THIS AMOUNT

Continued

ORIGINAL INVOICE

WM 105 CWM

CWM Chemical Services, LLC
A WASTE MANAGEMENT COMPANY
P.O. Box 200
1550 Balmer Rd.
Model City, NY 14107
(716) 754-8231
(716) 754-0211

INVOICE

THIS IS AN INVOICE FOR CURRENT CHARGES. PLEASE PAY AMOUNT INDICATED BELOW.

TERMS

DUE UPON RECEIPT
OR PER CONTRACT TERMS

ALL PAST DUE AMOUNTS WILL BEAR INTEREST AT ONE AND ONE HALF PERCENT PER MONTH OR THE MAXIMUM RATE ALLOWED BY LAW, WHICHEVER IS LESS.

ABSCOPE ENVIRONMENTAL INC
ATTN: ACCOUNTS PAYABLE
1 COMMERCIAL DR
PO BOX 487
CANASTOTA NY 13032-0487

Invoice Date: 10/25/2001
Customer #: 378-1141104
Invoice #: 2045-9914591
Page #: 2

Manifest#	Profile Description	Gener/Quantity	P.O.#/Unit	Biller	Rate	Total

12,701.74

REMIT TO ADDRESS

PO BOX 840606
DALLAS
TEXAS 75284

PLEASE PAY THIS AMOUNT

$13,725.17

ORIGINAL INVOICE

WM 105 CW

Transporter Log

CWM Chemical Services, Inc.
Model City, NY

88085

54 Cubic Yards

6155426 Receipt #

181207A NY Trailer License Plate # and State

35

Service Req. # | CT5622 Profile # | PA242 Permit #

U.S.R.I.K. Transporter Name

3/6 - 316A Tractor/Trailer/Roll-off #

Wm. Kelmann Driver's Name

NY-DEC Generator

10160 LB G 2
12:28
10/23/01
38480 LB D 1
13:54
10/23/01
68340 P

Scheduled Arrival: Date | Time

Actual Arrival: Date | Time In 1157 | Time Out

30499 K

Arrived during Blackout? Y / N Notified DEC? Y / N

Receiving: Initials | Comments

☐ Leaker ☐ Permit Violation ☐ Placarding/Veh. I.D. Violation

☐ Other (specify)

☒ Bulk to Landfill ☐ No wet line ☐ Flatbed ☐ Stabilization ☐ Drums ☐ Tanker ☐ Transformers

Laboratory
Time In | Time Out | Initials | Comments

Stabilization
Time In | Time Out | Initials | Gross Wt. | Comments

Landfill
Time In | Time Out | Initials | Comments

Other
Time In | Time Out | Initials | Comments

Aqueous Treatment
Time In | Time Out | Signature (NO Initials) | Comments

Facility Personnel (*please initial*)

_____ Smoking or eating in prohibited areas
_____ Leaving truck unattended
_____ Failure to obey instructions of facility personnel
_____ Failure to display overweight flag
_____ Failure to wear appropriate PPE
_____ Improper tarping or detarpin
_____ Unsafe driving practices
_____ Overweight upon arrival
_____ Other (specify)

Security Guard Initials: _____
(Indicating receipt of Wash Bay pass, if necessary)

Driver's Comments

White: Records Green & Canary: Accts Rec. Pink: Environmental Goldenrod: Driver

Transporter Log

CWM Chemical Services, Inc.
Model City, NY

88084

50 / 73361J NY
Cubic Yards

105920 LB G 2
12:27
10/23/01

36440 LB G 1
13:56
10/23/01 69480P

Receipt # 9155162 | Trailer License Plate # and State 73361J NY

Service Req. # 60421 | Profile # CT5622 | Permit # PA 242

Transporter Name US BULK TRANSPORT INC | Tractor/Trailer/Roll-off # 308 30EA

Driver's Name [illegible] | Generator NYS DEC (OSWEGO)

Scheduled Arrival: Date _____ Time _____

Actual Arrival: Date _____ Time In 1156 Time Out _____

31516K

Arrived during Blackout? Y / N Notified DEC? Y / N

Receiving: Initials PP Comments _____

☐ Leaker ☐ Permit Violation ☐ Placarding/Veh. I.D. Violation

☐ Other (specify) _____

☑ Bulk to Landfill ☐ No wet line ☐ Flatbed ☐ Stabilization ☐ Drums ☐ Tanker ☐ Transformers

Laboratory

Time In	Time Out	Initials	Comments

Stabilization

Time In	Time Out	Initials	Gross Wt.	Comments

Landfill

Time In	Time Out	Initials	Comments

Other

Time In	Time Out	Initials	Comments

Aqueous Treatment

Time In	Time Out	Signature (NO Initials)	Comments

Facility Personnel (*please initial*)

_____ Smoking or eating in prohibited areas

_____ Failure to obey instructions of facility personnel

_____ Failure to wear appropriate PPE

_____ Unsafe driving practices

_____ Other (specify) _____

_____ Leaving truck unattended

_____ Failure to display overweight flag

_____ Improper tarping or detarpin

_____ Overweight upon arrival

Security Guard Initials: _____
(Indicating receipt of Wash Bay pass, if necessary)

Driver's Comments

White: Records Green & Canary: Accts Rec. Pink: Environmental Goldenrod: Driver

NYG2463642

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID & HAZARDOUS MATERIALS

HAZARDOUS WASTE MANIFEST

P.O. Box 12820, Albany, New York 12212

Please type or print. Do not staple

(Hazardous Waste Manifest 1/5/99)

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Doc. No.	2. Page 1 of	Information within heavy bold line is not required by Federal Law.
N Y D0 0 2 2 2 5 7 8 7	6 3 6 4 2	1	

3. Generator's Name and Mailing Address
NYS DEPT. OF ENVIRONMENTAL CONSERVATION
615 ERIE BLVD WEST
SYRACUSE, NY 13204 ATTN: JOHN MAY
4. Generator's Telephone Number (315) 426-7519

A. NYG2463642
B. Generator's ID 375 MITCHELL STREET OSWEGO, NY 13126

5. Transporter 1 (Company Name)	6. US EPA ID Number
US BULK TRANSPORT, INC.	P A D 9 8 7 3 4 7 5 1 5
7 Transporter 2 (Company Name)	8. US EPA ID Number

C. State Transporter's ID 181207A NY
D. Transporter's Telephone (315) ~~XXX-XXXX~~ 314-638-2555
E. State Transporter's ID
F. Transporter's Telephone (800) 609-6611

9. Designated Facility Name and Site Address	10. US EPA ID Number
CWM CHEMICAL SERVICES, LLC 1550 BALMER ROAD MODEL CITY, NY 14107	N Y D 0 4 9 8 3 6 6 7 9

G. State Facility ID
H. Facility Telephone (315) 754-8231

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers Number	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ,POLYCHLORINATED BIPHENYLS, SOLID MIXTURE 9,UN2315,III	0 0 1	D T	30686 ~~2 7 2 0 0~~	K	EPA STATE B007
b.					EPA STATE
c					EPA STATE
d.					EPA STATE

J. Additional Descriptions for Materials listed Above		K. Handling Codes for Wastes Listed Above	
a	c	a L	c
b	d	b	d

15. Special Handling Instructions and Additional Information
Out of Service Date 10/23/01
TAX EXEMPT FOR MANIFEST PURPOSE ONLY
PROFILE NO. CT5622 PCB SOIL AND DEBRIS
EMERGENCY NO. 1-800-424-9300 CHEMTREC
SERVICE REQUEST NO. 610481 8158426

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and state laws and regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Mo.	Day	Year
JOHN A. MAY	John A May	10	23	01

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Mo.	Day	Year
Richard Workman		10	23	01

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Mo.	Day	Year

19. Discrepancy Indication Space
Actual rec'd 30999 K

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Mo.	Day	Year
SHELLEY KOPP	Shelley Kopp	10	23	01

In case of emergency or spill immediately call the National Response Center (800) 424-8802 and the NYS Department of Environmental Conservation (518) 457-7362

GENERATOR — TRANSPORTER — FACILITY

COPY 1—Disposer State—Mailed by TSD Facility

Transporter Log

CWM Chemical Services, Inc.
Model City, NY

88086

53 Cubic Yards

8155427 Receipt #

296646 A N.Y. Trailer License Plate # and State

PA 242

36

Service Req. # | Profile # | Permit #

US BULK TRANSPORT 321-321A Transporter Name | Tractor/Trailer/Roll-off #

DAVE LATHROP N.Y. DEC Driver's Name | Generator

12:02 33540 LB G 2
10/23/01
13:59 32900 LB G 1
10/23/01 6/540P

Scheduled Arrival: Date | Time

Actual Arrival: Date | Time In 1155 | Time Out

27914 K

Arrived during Blackout? Y / N Notified DEC? Y / N

Receiving: Initials | Comments

☐ Leaker ☐ Permit Violation ☐ Placarding/Veh. I.D. Violation

☐ Other (specify)

☒ Bulk to Landfill ☐ No wet line ☐ Flatbed ☐ Stabilization ☐ Drums ☐ Tanker ☐ Transformers

Laboratory

Time In | Time Out | Initials | Comments

Stabilization

Time In | Time Out | Initials | Gross Wt. | Comments

Landfill

Time In | Time Out | Initials | Comments

Other

Time In | Time Out | Initials | Comments

Aqueous Treatment

Time In | Time Out | Signature (NO Initials) | Comments

Facility Personnel (please initial)

_____ Smoking or eating in prohibited areas

_____ Failure to obey instructions of facility personnel

_____ Failure to wear appropriate PPE

_____ Unsafe driving practices

_____ Other (specify)

_____ Leaving truck unattended

_____ Failure to display overweight flag

_____ Improper tarping or detarpin

_____ Overweight upon arrival

Security Guard Initials: _____
(Indicating receipt of Wash Bay pass, if necessary)

Driver's Comments

White: Records Green & Canary: Accts Rec. Pink: Environmental Goldenrod: Driver

NYG2463696

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID & HAZARDOUS MATERIALS

HAZARDOUS WASTE MANIFEST

P.O. Box 12820, Albany, New York 12212

Please type or print. Do not staple

(Hazardous Waste Manifest 1/5/99)

In case of emergency or spill immediately call the National Response Center (800) 424-8802 the NYS Department of Environmental Conservation (518) 457-7362

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. NYD002225787 | Manifest Doc. No. 63696 | 2. Page 1 of 1 | Information within heavy bold line is not required by Federal Law.

3. Generator's Name and Mailing Address
NYS DEPT. OF ENVIRONMENTAL CONSERVATION
615 ERIE BLVD. WEST ATTN John Macy
SYRACUSE, N.Y. 13204

4. Generator's Telephone Number (315) 426-7519

A NYG2463696

B. Generator's ID 375 MITCHELL ST. OSWEGO, N.Y. 13126

5. Transporter 1 (Company Name) USBULK Transport, Inc. | 6. US EPA ID Number PAD987347515

C. State Transporter's ID 296646 A NY.

D. Transporter's Telephone (800) 609-6611

7. Transporter 2 (Company Name) | 8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Telephone ( )

9. Designated Facility Name and Site Address
CWM CHEMICAL SER. INC.
1550 BALMER ROAD
MODEL CITY, NY 14107

10. US EPA ID Number NYD049836679

G. State Facility ID

H. Facility Telephone (716) 754 8231

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers Number	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ, POLYCHLORINATED BIPHENYLS, SOLID MIX 9, UN 2315, III	001	DT	27632	K	EPA STATE B007
b.					EPA STATE
c					EPA STATE
d.					EPA STATE

J. Additional Descriptions for Materials listed Above
a
b
c
d

K. Handling Codes for Wastes Listed Above
a
b
c
d

15. Special Handling Instructions and Additional Information
TAX EXEMPT PROFILE NO. CT5622 EMERGENCY PHONE 1-800-424 9300
Out of Service Date 10/23/01 815514 27 CHEMTREC

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and state laws and regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR

Printed/Typed Name	Signature	Mo.	Day	Year
John A May	John A May	10	23	01

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Mo.	Day	Year
DAVID L. CATHCART	David L Cathcart	10	23	01

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Mo.	Day	Year

FACILITY

19. Discrepancy Indication Space
actual rec 27914 K
Stan K LL

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Mo.	Day	Year
SHELLEY KUOPP	Shelley Kuopp	10	23	01

COPY 1—Disposer State—Mailed by TSD Facility

NYG 2463678

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID & HAZARDOUS MATERIALS

HAZARDOUS WASTE MANIFEST

P.O. Box 12820, Albany, New York 12212

Please type or print. Do not staple

(Hazardous Waste Manifest 1/5/99)

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Doc. No.	2. Page 1 of	Information within heavy bold line is not required by Federal Law.
NYD0022257887	63678 XXXXX	1	

3. Generator's Name and Mailing Address
NYS DEPT. OF ENVIRONMENTAL CONSERVATION
615 ERIE BLVD WEST
SYRACUSE, NY 13204 ATTN: JOHN MAY

4. Generator's Telephone Number (315) 426-7519

A. NYG 2463678

B. Generator's ID 375 MITCHELL STREET OSWEGO, NY 13126

5. Transporter 1 (Company Name)	6. US EPA ID Number	C. State Transporter's ID 73615 NY
US BULK TRANSPORT, INC.	PAD987347515	D. Transporter's Telephone (800) 609-6611
7 Transporter 2 (Company Name)	8. US EPA ID Number	E. State Transporter's ID
		F. Transporter's Telephone ( )

9. Designated Facility Name and Site Address	10. US EPA ID Number	G. State Facility ID
CWM CHEMICAL SERVICES, LLC 1550 BALMER ROAD MODEL CITY, NY 14107	NYD049836679	H. Facility Telephone (716) 754-8231

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers Number	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ,POLYCHLORINATED BIPHENYLS,SOLID MIXTURE 9,UN2315,III	001	DT	30181	K	EPA STATE B007
b.					EPA STATE
c					EPA STATE
d.					EPA STATE

J. Additional Descriptions for Materials listed Above		K. Handling Codes for Wastes Listed Above	
a	c	a L	c
b	d	b	d

15. Special Handling Instructions and Additional Information
Out of Service Date 10/23/01
TAX EXEMPT FOR MANIFEST PURPOSE ONLY
PROFILE NO. CT5622 PCB SOIL AND DEBRIS
EMERGENCY NO. 1-800-424-9300 CHEMTREC
SERVICE REQUEST NO. 610481 8155128

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and state laws and regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Mo.	Day	Year
JOHN A. MAY	John A May	10	23	01

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Mo.	Day	Year
Sean Smith	Sean Smith	10	23	01

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Mo.	Day	Year

FACILITY

19. Discrepancy Indication Space
Actual Rec 31516K

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Mo.	Day	Year
Pam Byers	Pam Byers	10	23	01

In case of emergency or spill immediately call the National Response Center (800) 424-8802 and the NYS Department of Environmental Conservation (518) 457-7362

GENERATOR

COPY 1—Disposer State—Mailed by TSD Facility

CWM Chemical Services, LLC
A WASTE MANAGEMENT COMPANY
P.O. Box 200
1550 Balmer Rd.
Model City, NY 14107
(716) 754-8231
(716) 754-0211

INVOICE

THIS IS AN INVOICE FOR CURRENT CHARGES. PLEASE PAY AMOUNT INDICATED BELOW.

TERMS

DUE UPON RECEIPT
OR PER CONTRACT TERMS

ALL PAST DUE AMOUNTS WILL BEAR INTEREST AT ONE AND ONE HALF PERCENT PER MONTH OR THE MAXIMUM RATE ALLOWED BY LAW, WHICHEVER IS LESS.

ABSCOPE ENVIRONMENTAL INC
ATTN: ACCOUNTS PAYABLE
1 COMMERCIAL DR
PO BOX 487
CANASTOTA NY 13032-0487

21138

Invoice Date: 10/23/2001
Customer #: 378-1141104
Invoice #: 2045-9914529
Page #: 1

anifest#	Profile	Description	Gener/Quantity		P.O.#/Unit	Biller	Rate	Total
YG2463669	CT3622	PCB CONTAMINATED SOI	006974 NEW YORK DEPT E			PBYERS	Svc Date	10/22/2001
	LANDFILL PCB BULK	DISPOSAL		31.67	TON		90.00000	2,850.30
	TRANSPORTATION	TRANSPORTATION		31.67	TON		30.50000	965.94
	SALES TAX			2,850.30			7.00000 %	199.52
	TOWN HOST TAX			2,850.30			6.00000 %	171.02
	SALES TAX			965.94			7.00000 %	67.62

8155135901 616713-6;

Subtotal 4,254.40

3987.26

EMIT TO DDRESS
PO BOX 849606
DALLAS
TEXAS 75284

PLEASE PAY THIS AMOUNT
$4,254.40

ORIGINAL INVOICE

WM 105 CWI

88023 50

Cubic Yards

Transporter Log

CWM Chemical Services, Inc.
Model City, NY

96940 LB G 2
13:52
10/22/01 33600 LB G 1
14:30
10/22/01

63340 P
28731 K

81551359 — Receipt #

61486 GM1 — Trailer License Plate # and State

Service Req. # — CL562L — Profile # — PA242 — Permit #

US Ecology Transp. — 317317A — Transporter Name / Tractor/Trailer/Roll-off #

Ervin Smith — NY DEC — Driver's Name / Generator

Scheduled Arrival: Date ____ Time ____

Actual Arrival: Date ____ Time In 1324 Time Out ____

Arrived during Blackout? Y / N Notified DEC? Y / N

Receiving: Initials ____ Comments ____

☐ Leaker ☐ Permit Violation ☐ Placarding/Veh. I.D. Violation

☐ Other (specify) ____

☐ Bulk to Landfill ☐ No wet line ☐ Flatbed ☐ Stabilization ☐ Drums ☐ Tanker ☐ Transformers

Laboratory

Time In	Time Out	Initials	Comments

Stabilization

Time In	Time Out	Initials	Gross Wt.	Comments

Landfill

Time In	Time Out	Initials	Comments

Other

Time In	Time Out	Initials	Comments

Aqueous Treatment

Time In	Time Out	Signature (NO Initials)	Comments

Facility Personnel (*please initial*)

____	Smoking or eating in prohibited areas	____	Leaving truck unattended
____	Failure to obey instructions of facility personnel	____	Failure to display overweight flag
____	Failure to wear appropriate PPE	____	Improper tarping or detarpin
____	Unsafe driving practices	____	Overweight upon arrival
____	Other (specify) ____		

Security Guard Initials: ____
(Indicating receipt of Wash Bay pass, if necessary)

Driver's Comments

NYG2463669

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID & HAZARDOUS MATERIALS

HAZARDOUS WASTE MANIFEST

P.O. Box 12820, Albany, New York 12212

(Hazardous Waste Manifest 1/5/99)

ase type or print. Do not staple

In case of emergency or spill immediately call the National Response Center (800) 424-8802 or NYS Department of Environmental Conservation (518) 457-7362

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Doc. No.	2. Page 1 of	Information within heavy bold line is not required by Federal Law.
NYD002225787	63669 XXXXX	1	

3. Generator's Name and Mailing Address
NYS DEPT. OF ENVIRONMENTAL CONSERVATION
615 ERIE BLVD WEST
SYRACUSE, NY 13204

4. Generator's Telephone Number (315) 426-7519 ATTN: JOHN MAY

A. NYG2463669

B. Generator's ID 375 MITCHELL STREET OSWEGO, NY 13126

5. Transporter 1 (Company Name)	6. US EPA ID Number	C. State Transporter's ID 61486GNY
XX US BULK TRANSPORT, INC.	PAD987347515	D. Transporter's Telephone (800) 609-6611
7 Transporter 2 (Company Name)	8. US EPA ID Number	E. State Transporter's ID
		F. Transporter's Telephone ( )
9. Designated Facility Name and Site Address CWM CHEMCIAL SERVICES, LLC 1550 BALMER ROAD MODEL CITY, NY 14107	10. US EPA ID Number NYD049836679	G. State Facility ID H. Facility Telephone (716) 754-8231

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers Number	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ,POLYCHLORINATED BIPHENYLS,SOLID MIXTURE 9,UN2315,III	001	DT	27200	K	EPA STATE BM007
b.					EPA STATE
c					EPA STATE
d.					EPA STATE

GENERATOR

J. Additional Descriptions for Materials listed Above		K. Handling Codes for Wastes Listed Above	
a	c	a L	c
b	d	b	d

15. Special Handling Instructions and Additional Information
Out of Service Date 10/22/01
PROFILE NO. CT5622 PCB SOIL AND DEBRIS
EMERGENCY NO. 1-800-424-9300 CHEMTREC
SERVICE REQUEST NO. ~~610481~~ 616713-06
TAX EXEMPT FOR MANIFEST PURPOSE ONLY 81551359

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and state laws and regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storoge, or disposal currently available to me which minimizes the present and future threat to human heolth and the environment; OR if I am a small quantity generator, I have made a good foith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Mo.	Day	Year
JOHN A. MAY	John A May	10	22	01

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Mo.	Day	Year
Ernie Smith	Ernie Smith	10	22	01

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Mo.	Day	Year

FACILITY

19. Discrepancy Indication Space
Actual Rec'd 28731 K

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Mo.	Day	Year
Lynn Piechowski	Lyn Piechowski	10	22	01

COPY 1—Disposer State—Mailed by TSD Facility

CWM Chemical Services, LLC
A WASTE MANAGEMENT COMPANY
P.O. Box 200
1550 Balmer Rd.
Model City, NY 14107
(716) 754-8231
(716) 754-0211

INVOICE

THIS IS AN INVOICE FOR CURRENT CHARGES.
PLEASE PAY AMOUNT INDICATED BELOW.

TERMS

DUE UPON RECEIPT
OR PER CONTRACT TERMS

ALL PAST DUE AMOUNTS WILL BEAR INTEREST AT ONE AND ONE HALF PERCENT PER MONTH OR THE MAXIMUM RATE ALLOWED BY LAW, WHICHEVER IS LESS.

ABSCOPE ENVIRONMENTAL INC
ATTN: ACCOUNTS PAYABLE
1 COMMERCIAL DR
PO BOX 487
CANASTOTA NY 13032-0487

21838

Invoice Date: 10/23/2001
Customer #: 378-1141104
Invoice #: 2045-9914524
Page #: 1

Manifest#	Profile	Description	Gener/Quantity		P.O.#/Unit	Biller	Rate	Total
NYG2463806	CT5622	PCB CONTAMINATED SOI	006874 NEW YORK DEPT E			PDYERS	Svc Date	10/22/2001
	LANDFILL PCB BULK	DISPOSAL	33.85	TON			90.00000	3,046.50
	TRANSPORTATION	TRANSPORTATION	33.85	TON			30.50000	1,032.43
	SALES TAX		3,046.50				~~7.00000 %~~	~~213.26~~
	TOWN HOST TAX		3,046.50				6.00000 %	182.79
	SALES TAX		1,032.43				~~7.00000 %~~	~~72.27~~
	8155135301 616713-2;							
							Subtotal	~~4,547.25~~

420.72

REMIT TO ADDRESS
PO BOX 540606
DALLAS
TEXAS 75284

PLEASE PAY THIS AMOUNT
$4,547.25

ORIGINAL INVOICE

WM 105 CWM

Transporter Log

CWM Chemical Services, Inc.
Model City, NY

88017

50 Cubic Yards

8155353 Receipt #

67047E NY Trailer License Plate # and State

101980 LB S 2
12135
10/22/01

610491 Service Req. # | Profile # | PA-242 Permit #

US Bulk Transport Inc Transporter Name | 314 314-A Tractor/Trailer/Roll-off #

Jack Knapp Driver's Name | NYS DEC Generator

34280 LB S 1
13157
10/22/01
67,700 D
30709K

Scheduled Arrival: 10-22-01 Date | Time

Actual Arrival: Date | 1225 Time In | Time Out

Arrived during Blackout? Y / N Notified DEC? Y / N

Receiving: Initials | Comments

☐ Leaker ☐ Permit Violation ☐ Placarding/Veh. I.D. Violation

☐ Other (specify)

☐ Bulk to Landfill ☐ No wet line ☐ Flatbed ☐ Stabilization ☐ Drums ☐ Tanker ☐ Transformers

Laboratory

Time In	Time Out	Initials	Comments

Stabilization

Time In	Time Out	Initials	Gross Wt.	Comments

Landfill

Time In	Time Out	Initials	Comments

Other

Time In	Time Out	Initials	Comments

Aqueous Treatment

Time In	Time Out	Signature (NO Initials)	Comments

Facility Personnel (*please initial*)

____	Smoking or eating in prohibited areas	____	Leaving truck unattended
____	Failure to obey instructions of facility personnel	____	Failure to display overweight flag
____	Failure to wear appropriate PPE	____	Improper tarping or detarpin
____	Unsafe driving practices	____	Overweight upon arrival
____	Other (specify) ____		

Security Guard Initials: ____
(Indicating receipt of Wash Bay pass, if necessary)

Driver's Comments

White: Records Green & Canary: Accts Rec. Pink: Environmental Goldenrod: Driver

NYG2463606

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID & HAZARDOUS MATERIALS

HAZARDOUS WASTE MANIFEST

P.O. Box 12820, Albany, New York 12212

(Hazardous Waste Manifest 1/5/99)

Please type or print. Do not staple

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No.	Manifest Doc. No.	2. Page 1 of	Information within heavy bold line is not required by Federal Law.
	NYD002225787	63606	1	

3. Generator's Name and Mailing Address
NYS DEPT. OF ENVIRONMENTAL CONSERVATION
615 ERIE BLVD WEST
SYRACUSE, NY 13204 ATTN: JOHN MAY

4. Generator's Telephone Number (315) 426-7518 9

A. NYG2463606

B. Generator's ID 375 MITCHELL STREET OSWEGO, NY 13126

5. Transporter 1 (Company Name): US BULK TRANSPORT, INC.

6. US EPA ID Number: PAD987347515

C. State Transporter's ID 67047E NY

D. Transporter's Telephone (800) 609-6611

7. Transporter 2 (Company Name)

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Telephone ( )

9. Designated Facility Name and Site Address
CWM ~~CHEMICAL~~ CHEMICAL SERVICES, LLC
1550 BALMER ROAD
MODEL CITY, NY 14107

10. US EPA ID Number NYD049836679 (LP) 10/22

G. State Facility ID

H. Facility Telephone (716) 754-8231

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers Number	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ, POLYCHLORINATED BIPHENYLS, SOLID MIXTURE 9, UN2315, III	001	DT	27200	K	EPA STATE B007
b.					EPA STATE
c					EPA STATE
d.					EPA STATE

J. Additional Descriptions for Materials listed Above
a
b
c
d

K. Handling Codes for Wastes Listed Above
a
b
c
d

15. Special Handling Instructions and Additional Information
8155 1353
PROFILE NO. CT5622 PCB SOIL AND DEBRIS
EMERGENCY NO. 1-800-424-9300 CHEMTREC
SERVICE REQUEST NO. ~~210481~~ 606713-02
TAX EXEMPT FOR MANIFEST PURPOSE ONLY

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and state laws and regulations.
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Printed/Typed Name	Signature	Mo.	Day	Year
JOHN A. MAY	John A May	10	22	01

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Mo.	Day	Year
JACK KNAPP	Jack Knapp	10	22	01

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Mo.	Day	Year

FACILITY

19. Discrepancy Indication Space PCB OSD = 10/22/01 Item K-L
Actual Rec'd 30709K Weight estimated Generator Residue

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Mo.	Day	Year
Lynn Piechowski	Lynn Piechowski	10	22	01

In case of emergency or spill immediately call the National Response Center (800) 424-8802 and the NYS Department of Environmental Conservation (518) 457-7362

GENERATOR

COPY 1—Disposer State—Mailed by TSD Facility

CWM Chemical Services, LLC
A WASTE MANAGEMENT COMPANY
P.O. Box 200
1550 Balmer Rd.
Model City, NY 14107
(716) 754-8231
(716) 754-0211

INVOICE

THIS IS AN INVOICE FOR CURRENT CHARGES. PLEASE PAY AMOUNT INDICATED BELOW.

TERMS

DUE UPON RECEIPT
OR PER CONTRACT TERMS

ALL PAST DUE AMOUNTS WILL BEAR INTEREST AT ONE AND ONE HALF PERCENT PER MONTH OR THE MAXIMUM RATE ALLOWED BY LAW, WHICHEVER IS LESS.

ABSCOPE ENVIRONMENTAL INC
ATTN: ACCOUNTS PAYABLE
1 COMMERCIAL DR
PO BOX 487
CANASTOTA NY 13032-0487

21838

Invoice Date: 10/23/2001
Customer #: 378-1141104
Invoice #: 2045-9914529
Page #: 1

Manifest#	Profile	Description	Gener/Quantity	P.O.#/Unit	Biller	Rate	Total
NYG2463687	CT5622	PCB CONTAMINATED SOI	006874 NEW YORK DEPT E		PBYERS	Svc Date	10/22/2001
	LANDFILL PCB BULK	DISPOSAL	34.08	TON		90.00000	3,067.20
	TRANSPORTATION	TRANSPORTATION	34.08	TON		30.50000	1,039.44
	SALES TAX		3,067.20			7.00000 %	214.70
	TOWN HOST TAX		3,067.20			6.00000 %	184.03
	SALES TAX		1,039.44			7.00000 %	72.76

8155135201 816713-1;

Subtotal 4,578.13

4390.67

EMIT TO ADDRESS
PO BOX 840606
DALLAS
TEXAS 75284

PLEASE PAY THIS AMOUNT
$4,578.13

ORIGINAL INVOICE

WM 105 CWM

Transporter Log

CWM Chemical Services, Inc.
Model City, NY

88016

50 Cubic Yards

104940 LB & 2
12:33
10/22/01
14:00 36780 LB & 1
10/22/01 68160 P
30917K

81551352 — Receipt #
73361J NY — Trailer License Plate # and State
610481-1 — Service Req. #
CT5622 — Profile #
PA 242 — Permit #
US BULK TRANSPORT — Transporter Name
30E, 30EA — Tractor/Trailer/Roll-off #
Scott Smith — Driver's Name
DEC (OSWEGO) — Generator

Scheduled Arrival: ____ Date ____ Time

Actual Arrival: ____ Date 1123 Time In ____ Time Out

Arrived during Blackout? Y / N Notified DEC? Y / N

Receiving: AB Initials ____ Comments

☐ Leaker ☐ Permit Violation ☐ Placarding/Veh. I.D. Violation

☐ Other (specify) ____

☐ Bulk to Landfill ☐ No wet line ☐ Flatbed ☐ Stabilization ☐ Drums ☐ Tanker ☐ Transformers

	Time In	Time Out	Initials	Gross Wt.	Comments
Laboratory			CS		
Stabilization					
Landfill					
Other					
Aqueous Treatment			Signature (NO Initials)		

Facility Personnel (*please initial*)

____ Smoking or eating in prohibited areas
____ Leaving truck unattended
____ Failure to obey instructions of facility personnel
____ Failure to display overweight flag
____ Failure to wear appropriate PPE
____ Improper tarping or detarpin
____ Unsafe driving practices
____ Overweight upon arrival
____ Other (specify) ____

Security Guard Initials: ____
(Indicating receipt of Wash Bay pass, if necessary)

Driver's Comments

NYG2463687

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID & HAZARDOUS MATERIALS

HAZARDOUS WASTE MANIFEST

P.O. Box 12820, Albany, New York 12212

Please type or print. Do not staple

(Hazardous Waste Manifest 1/5/99)

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Doc. No.	2. Page 1 of	Information within heavy bold line is not required by Federal Law.
NYD 0 0 2 2 2 5 7 8 7	6 3 6 8 7	1	

3. Generator's Name and Mailing Address
NYS DEPT. OF ENVIRONMENTAL CONSERVATION
615 ERIE BLVD WEST
SYRACUSE, NY 13204 ATTN: JOHN MAY

4. Generator's Telephone Number (315) 426-7519

A. NYG2463687

B. Generator's ID ☒ 375 MITCHELL STREET OSWEGO, NY 13126

5. Transporter 1 (Company Name): US BULK TRANSPORT, INC.
6. US EPA ID Number: PAD987347515
C. State Transporter's ID 73615 NY
D. Transporter's Telephone (800) 609-6611

7. Transporter 2 (Company Name)
8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Telephone ( )

9. Designated Facility Name and Site Address
CWM CHEMICAL SERVICES, LLC
1550 BALMER ROAD
MODEL CITY, NY 14107
10. US EPA ID Number NYD049836679 (ej 10/22)
G. State Facility ID
H. Facility Telephone (716) 754-8231

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers Number	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ,POLYCHLORINATED BIPHENYLS, SOLID MIXTURE 9,UN2315, III	001	DT	27200	K	EPA / STATE B007
b.					EPA / STATE
c					EPA / STATE
d.					EPA / STATE

J. Additional Descriptions for Materials listed Above		K. Handling Codes for Wastes Listed Above	
a	c	a	c
b	d	b	d

15. Special Handling Instructions and Additional Information
81551352
TAX EXEMPT FOR MANIFEST PURPOSE ONLY
PROFILE NO. CT5622 ~~PNX~~ PCB SOIL AND DEBRIS
EMERGENCY NO. 1-800-424-9300 CHEMTREC
SERVICE REQUEST NO. ~~610481~~ 616713-01

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, pocked, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and state laws and regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Mo.	Day	Year
JOHN A. MAY	John A May	10	22	01

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Mo.	Day	Year
Scott Smith	Scott Smith	10	22	01

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Mo.	Day	Year

19. Discrepancy Indication Space
PCB OSD = 10/22/01 Item K-L
Actual Reid 30917K Weight estimated. Generator used

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Mo.	Day	Year
Lynn Piechowski	Lyn Piechowski	10	22	01

GENERATOR

TRANSPORTER

FACILITY

In case of emergency or spill immediately call the National Response Center (800) 424-8802 the NYS Department of Environmental Conservation (518) 457-7362

COPY 1—Disposer State—Mailed by TSD Facility

mical Services, LLC
ANAGEMENT COMPANY
200
ner Rd.
ity, NY 14107
4-8231
4-0211

INVOICE

THIS IS AN INVOICE FOR CURRENT CHARGES. PLEASE PAY AMOUNT INDICATED BELOW.

TERMS

DUE UPON RECEIPT
OR PER CONTRACT TERMS

ALL PAST DUE AMOUNTS WILL BEAR INTEREST AT ONE AND ONE HALF PERCENT PER MONTH OR THE MAXIMUM RATE ALLOWED BY LAW, WHICHEVER IS LESS.

ABSCOPE ENVIRONMENTAL INC
ATTN: ACCOUNTS PAYABLE
1 COMMERCIAL DR
PO BOX 487
CANASTOTA NY 13032-0487

21838

Invoice Date: 10/23/2001
Customer #: 378-1141104
Invoice #: 2045-9914525
Page #: 1

Manifest#	Profile	Description	Gener/Quantity		P.O.#/Unit	Biller	Rate	Total
NYG2463624	CT5622	PCB CONTAMINATED SOI	006874 NEW YORK DEPT E			PBYERS	Svc Date	10/22/2001
	LANDFILL PCB BULK	DISPOSAL	33.73	TON			90.00000	3,035.70
	TRANSPORTATION	TRANSPORTATION	33.73	TON			30.50000	1,028.77
	SALES TAX		3,035.70				7.00000 %	212.50
	TOWN HOST TAX		3,035.70				6.00000 %	182.14
	SALES TAX		1,028.77				7.00000 %	72.01

8155135501 616713-4;

Subtotal 4,531.12

424661

EMIT TO
DDRESS

PO BOX 840606
DALLAS
TEXAS 75284

PLEASE PAY
THIS AMOUNT

$4,531.12

ORIGINAL INVOICE

WM 105 CWM

88019

54 Cubic Yards

ervices, Inc.

Y, NY

10080 LB 6 2
12:49
10/22/01
33400 LB 6 1
14:05
10/22/01

67460 P
30600 K

8155855 Receipt #

181207 NY Trailer License Plate # and State

616481 Service Req. #

CT5622 Profile #

P4242 Permit #

U.S Bulk Transporter Name

316-316A Tractor/Trailer/Roll-off #

Winkelman Driver's Name

N.Y.D.E.C. Generator

Scheduled Arrival: Date Time

Actual Arrival: Date 1941 Time In Time Out

Arrived during Blackout? Y / N Notified DEC? Y / N

Receiving: Initials Comments

☐ Leaker ☐ Permit Violation ☐ Placarding/Veh. I.D. Violation

☐ Other (specify)

☒ Bulk to Landfill ☐ No wet line ☐ Flatbed ☐ Stabilization ☐ Drums ☐ Tanker ☐ Transformers

Laboratory — Time In | Time Out | Initials | Comments

Stabilization — Time In | Time Out | Initials | Gross Wt. | Comments

Landfill — Time In | Time Out | Initials | Comments

Other — Time In | Time Out | Initials | Comments

Aqueous Treatment — Time In | Time Out | Signature (NO Initials) | Comments

Facility Personnel (please initial)

_____ Smoking or eating in prohibited areas

_____ Failure to obey instructions of facility personnel

_____ Failure to wear appropriate PPE

_____ Unsafe driving practices

_____ Other (specify)

_____ Leaving truck unattended

_____ Failure to display overweight flag

_____ Improper tarping or detarpin

_____ Overweight upon arrival

Security Guard Initials: _____
(indicating receipt of Wash Bay pass, if necessary)

Driver's Comments

NYG2463624

DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID & HAZARDOUS MATERIALS

HAZARDOUS WASTE MANIFEST

P.O. Box 12820, Albany, New York 12212

(Hazardous Waste Manifest 1/5/99)

Please type or print. Do not staple

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No.	Manifest Doc. No.	2. Page 1 of	Information within heavy bold line is not required by Federal Law.
	NYD002225787	63624	1	

3. Generator's Name and Mailing Address
NYS DEPT. OF ENVIRONMENTAL CONSERVATION
615 ERIE BLVD WEST
SYRACUSE, NY 13204 ATTN: JOHN MAY

4. Generator's Telephone Number (315) 426-7519

A. NYG2463624

B. Generator's ID 375 MITCHELL STREET OSWEGO, NY 13126

5. Transporter 1 (Company Name): US BULK TRANSPORT, INC.
6. US EPA ID Number: PAD987347515
C. State Transporter's ID 18120TA NY
D. Transporter's Telephone (~~800~~ 609-661-RS 814-838-2555
E. State Transporter's ID

7. Transporter 2 (Company Name)
8. US EPA ID Number
F. Transporter's Telephone ( )

9. Designated Facility Name and Site Address
CWM CHEMICAL SERVICES, LLC
1550 BALMER ROAD
MODEL CITY, NY 14107
10. US EPA ID Number NYD049836679 10/22
G. State Facility ID
H. Facility Telephone (716) 754-8231

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers Number	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ,POLYCHLORINATED BIPHENYLS, SOLID MIXTURE 9,UN2315,III	001	DT	27200	K	EPA STATE B007
b.					EPA STATE
c					EPA STATE
d.					EPA STATE

J. Additional Descriptions for Materials listed Above		K. Handling Codes for Wastes Listed Above	
a	c	a L	c
b	d	b	d

15. Special Handling Instructions and Additional Information
81551355
out of Serv, Date 10/22/01
PROFILE NO. CT5622 PCB SOIL AND DEBRIS
TAX EXEMPT FOR MANIFEST PURPOSE ONLY
EMERGENCY NO. 1-800-424-9300 CHEMTREC
SERVICE REQUEST NO. ~~610481~~ 616713-04

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Printed/Typed Name	Signature	Mo.	Day	Year
JOHN A, MAY	John A May	10	22	01

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Mo.	Day	Year
Ricky A Winkelmann	Ricky Winkelmann	10	22	01

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Mo.	Day	Year

19. Discrepancy Indication Space
Actual Rec'd 30600K Weight estimated generator resolved.

FACILITY

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Mo.	Day	Year
Lynn Piechowski	Ly Piechowski	10	22	01

COPY 1—Disposer State—Mailed by TSD Facility

GENERATOR: In case of emergency or spill immediately call the National Response Center (800) 424-8802 the NYS Department of Environmental Conservation (518) 457-7362

CWM Chemical Services, LLC
A WASTE MANAGEMENT COMPANY
P.O. Box 200
1550 Balmer Rd.
Model City, NY 14107
(716) 754-8231
(716) 754-0211

INVOICE

THIS IS AN INVOICE FOR CURRENT CHARGES.
PLEASE PAY AMOUNT INDICATED BELOW.

TERMS

DUE UPON RECEIPT
OR PER CONTRACT TERMS

ALL PAST DUE AMOUNTS WILL BEAR INTEREST AT ONE AND ONE HALF PERCENT PER MONTH OR THE MAXIMUM RATE ALLOWED BY LAW, WHICHEVER IS LESS.

ABSCOPE ENVIRONMENTAL INC
ATTN: ACCOUNTS PAYABLE
1 COMMERCIAL DR
PO BOX 487
CANASTOTA NY 13032-0487

21838

Invoice Date: 10/23/2001
Customer #: 378-1141104
Invoice #: 2045-9914526
Page #: 1

Manifest#	Profile	Description	Gener/Quantity	P.O.#/Unit	Biller	Rate	Total
NYG2463633	CT5622	PCB CONTAMINATED SOI	006874 NEW YORK DEPT E		PBYERS	Svc Date	10/22/2001
	LANDFILL PCB BULK	DISPOSAL	33.53	TON		90.00000	3,017.70
	TRANSPORTATION	TRANSPORTATION	33.53	TON		30.50000	1,022.67
	SALES TAX		3,017.70			~~7.00000 %~~	~~211.24~~
	TOWN HOST TAX		3,017.70			6.00000 %	181.06
	SALES TAX		1,022.67			~~7.00000 %~~	~~71.58~~
	8155135701						
						Subtotal	~~4,504.25~~

922.43

REMIT TO ADDRESS
PO BOX 840606
DALLAS
TEXAS 75284

PLEASE PAY THIS AMOUNT
$4,504.25

ORIGINAL INVOICE

WM 105 CWM

Transporter Log

CWM Chemical Services, Inc.
Model City, NY

88021

53
Cubic Yards

81351357
Receipt #

296646 N.Y.
Trailer License Plate # and State

99760 LB G 2
13:13
10/22/01

6/14/91
Service Req. #

Profile #

NA242
Permit #

US Bulk
Transporter Name

321-321A
Tractor/Trailer/Roll-off #

DAVE LATHROP
Driver's Name

NYS DEC
Generator

32700 LB G 1
14:18
10/22/01

67060 P
30418

Scheduled Arrival: Date Time

Actual Arrival: Date 1307 Time In Time Out

Arrived during Blackout? Y / N Notified DEC? Y / N

Receiving: Initials Comments

☐ Leaker ☐ Permit Violation ☐ Placarding/Veh. I.D. Violation

☐ Other (specify)

☐ Bulk to Landfill ☐ No wet line ☐ Flatbed ☐ Stabilization ☐ Drums ☐ Tanker ☐ Transformers

Laboratory
Time In | Time Out | Initials | Comments

Stabilization
Time In | Time Out | Initials | Gross Wt. | Comments

Landfill
Time In | Time Out | Initials | Comments

Other
Time In | Time Out | Initials | Comments

Aqueous Treatment
Time In | Time Out | Signature (NO Initials) | Comments

Facility Personnel (please initial)

_____ Smoking or eating in prohibited areas

_____ Failure to obey instructions of facility personnel

_____ Failure to wear appropriate PPE

_____ Unsafe driving practices

_____ Other (specify)

_____ Leaving truck unattended

_____ Failure to display overweight flag

_____ Improper tarping or detarpin

_____ Overweight upon arrival

Security Guard Initials: _____
(Indicating receipt of Wash Bay pass, if necessary)

Driver's Comments

NYG 2463633

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID & HAZARDOUS MATERIALS

HAZARDOUS WASTE MANIFEST

P.O. Box 12820, Albany, New York 12212

Please type or print. Do not staple

(Hazardous Waste Manifest 1/5/99)

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No.	Manifest Doc. No.	2. Page 1 of	Information within heavy bold line is not required by Federal Law.
	NYD002225787	636333	1	

GENERATOR

3. Generator's Name and Mailing Address
NYS DEPT. OF ENVIRONMENTAL CONSERVATION
615 ERIE BLVD WEST
SYRACUSE, NY 13204 ATTN: JOHN MAY

4. Generator's Telephone Number (315) 426-7519

A. NYG 2463633

B. Generator's ID 375 MITCHELL STREET OSWEGO, NY 13126

TRANSPORTER

5. Transporter 1 (Company Name): US BULK TRANSPORT, INC.
6. US EPA ID Number: PAD987347515
C. State Transporter's ID 296646A N.Y.
D. Transporter's Telephone (800) 609-6611

7. Transporter 2 (Company Name):
8. US EPA ID Number:
E. State Transporter's ID
F. Transporter's Telephone ( )

FACILITY

9. Designated Facility Name and Site Address
CWM CHEMICAL SERVICES, LLC
1550 BALMER ROAD
MODEL CITY, NY 14107

10. US EPA ID Number NYD049836679 10/22
G. State Facility ID
H. Facility Telephone (716) 754-8231

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers Number	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ,POLYCHLORINATED BIPHENYLS, SOLID MIXTURE 9,UN2315,III	001	DT	27200	K	EPA STATE B007
b.					EPA STATE
c					EPA STATE
d.					EPA STATE

J. Additional Descriptions for Materials listed Above		K. Handling Codes for Wastes Listed Above	
a	c	a	c
b	d	b	d

15. Special Handling Instructions and Additional Information
EMERGENCY NO. 1-800-424-9300 CHEMTREC Out of Service Date 10/22/01 PROFILE NO. CT5622 PCB SOIL AND DEBRIS
SERVICE REQUEST NO. ~~610481~~ 616713-04
TAX EXEMPT FOR MANIFEST PURPOSE ONLY 8155357

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and state laws and regulations.
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Printed/Typed Name	Signature	Mo.	Day	Year
JOHN A. MAY	John A May	10	22	01

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Mo.	Day	Year
DAVID L. LATHROP	David L. Lathrop	10	22	01

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Mo.	Day	Year

FACILITY

19. Discrepancy Indication Space
Actual Rec'd 30418K Weight est. Item K-L Generator resolved.

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Mo.	Day	Year
Lynn Piechowski	Lynn Piechowski	10	22	01

In case of agency or spill immediately call the National Response Center (800) 424-8802 and the NYS Department of Environmental Conservation (518) 457-7362

COPY 1—Disposer State—Mailed by TSD Facility

CWM Chemical Services, LLC
A WASTE MANAGEMENT COMPANY
P.O. Box 200
1550 Balmer Rd.
Model City, NY 14107
(716) 754-8231
(716) 754-0211

INVOICE

THIS IS AN INVOICE FOR CURRENT CHARGES.
PLEASE PAY AMOUNT INDICATED BELOW.

TERMS

DUE UPON RECEIPT
OR PER CONTRACT TERMS

ALL PAST DUE AMOUNTS WILL BEAR INTEREST AT ONE AND ONE HALF PERCENT PER MONTH OR THE MAXIMUM RATE ALLOWED BY LAW, WHICHEVER IS LESS.

ABSCOPE ENVIRONMENTAL INC
ATTN: ACCOUNTS PAYABLE
1 COMMERCIAL DR
PO BOX 487
CANASTOTA NY 13032-0487

21838

Invoice Date: 10/23/2001
Customer #: 378-1141104
Invoice #: 2045-9914527
Page #: 1

anifest#	Profile	Description	Gener/Quantity		P.O.#/Unit	Biller	Rate	Total
YG2463651	CT5622	PCB CONTAMINATED SOI	006874 NEW YORK DEPT E			PAYERS	Svc Date	10/22/2001
	LANDFILL PCB BULK	DISPOSAL		29.31	TON		90.00000	2,637.90
	TRANSPORTATION	TRANSPORTATION		29.31	TON		30.50000	893.96
	SALES TAX			2,637.90			7.00000 %	184.65
	TOWN HOST TAX			2,637.90			6.00000 %	158.27
	SALES TAX			893.96			7.00000 %	62.58
		81551358Ø1						
							Subtotal	3,937.36

3690.13

EMIT TO
DDRESS

PO BOX 840606
DALLAS
TEXAS 75284

PLEASE PAY
THIS AMOUNT

$3,937.36

ORIGINAL INVOICE

WM 105 CWM

88022

Transporter Log

CWM Chemical Services, Inc.
Model City, NY

50
Cubic Yards

13:47 92340 LB 6 2
10/22/01
35720 LB 6 1
14:29
10/22/01

58620 P
26590 K

81551358 — *Receipt #*
AC 40405 — *Trailer License Plate # and State*
610481 — *Service Req. #*
CT5622 — *Profile #*
AA242 — *Permit #*
USBulk Transport — *Transporter Name*
379-379A — *Tractor/Trailer/Roll-off #*
John Tyler — *Driver's Name*
N4SDEC — *Generator*

Scheduled Arrival: _____ *Date* _____ *Time*

Actual Arrival: _____ *Date* 1322 *Time In* _____ *Time Out*

Arrived during Blackout? Y / N Notified DEC? Y / N

Receiving: _____ *Initials* _____ *Comments*

☐ Leaker ☐ Permit Violation ☐ Placarding/Veh. I.D. Violation

☐ Other (specify) _____

☐ Bulk to Landfill ☐ No wet line ☐ Flatbed ☐ Stabilization ☐ Drums ☐ Tanker ☐ Transformers

Laboratory — *Time In* | *Time Out* | *Initials* GD | *Comments*

Stabilization — *Time In* | *Time Out* | *Initials* | *Gross Wt.* | *Comments*

Landfill — *Time In* | *Time Out* | *Initials* | *Comments*

Other — *Time In* | *Time Out* | *Initials* | *Comments*

Aqueous Treatment — *Time In* | *Time Out* | *Signature (NO Initials)* | *Comments*

Facility Personnel (*please initial*)

_____ Smoking or eating in prohibited areas
_____ Leaving truck unattended
_____ Failure to obey instructions of facility personnel
_____ Failure to display overweight flag
_____ Failure to wear appropriate PPE
_____ Improper tarping or detarpin
_____ Unsafe driving practices
_____ Overweight upon arrival
_____ Other (specify) _____

Security Guard Initials: _____
(Indicating receipt of Wash Bay pass, if necessary)

Driver's Comments

NYG2463651

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID & HAZARDOUS MATERIALS

HAZARDOUS WASTE MANIFEST

P.O. Box 12820, Albany, New York 12212

Please type or print. Do not staple

(Hazardous Waste Manifest 1/5/99)

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Doc. No.	2. Page 1 of	Information within heavy bold line is not required by Federal Law.
NYD002225787	63651 XXXXX	1	

3. Generator's Name and Mailing Address
NYS DEPT. OF ENVIRONMENTAL CONSERVATION
615 ERIE BLVD WEST
SYRACUSE, NY 13204 ATTN: JOHN MAY

4. Generator's Telephone Number (315) 426-7519

A. NYG 2463651

B. Generator's ID 375 MITCHELL STREET OSWEGO, NY 13126

5. Transporter 1 (Company Name)	6. US EPA ID Number	C. State Transporter's ID AE40405 NY
US BULK TRANSPORT, INC.	PAD987347515	D. Transporter's Telephone (XXX XXX-XXXX
7 Transporter 2 (Company Name)	8. US EPA ID Number	E. State Transporter's ID
		F. Transporter's Telephone (800) 609-6611

9. Designated Facility Name and Site Address	10. US EPA ID Number	G. State Facility ID
CWM CHEMICAL SERVICES, LLC 1550 BALMER ROAD MODEL CITY, NY 14107	NYD049836679	H. Facility Telephone (716) 754-8X231

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers Number	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ,POLYCHLORINATED BIPHENYLS,SOLID MIXTURE 9,UN2315,III	001	DT	EST. 27200	K	EPA STATE B007
b.					EPA STATE
c					EPA STATE
d.					EPA STATE

J. Additional Descriptions for Materials listed Above		K. Handling Codes for Wastes Listed Above	
a	c	a L	c
b	d	b	d

15. Special Handling Instructions and Additional Information
out of Service Date
PROFILE NO. CT5622 PCB SOIL AND DEBRIS
EMERGENCY NO. 1-800-424-9300 CHEMTREC
SERVICE REQUEST NO. 610481
TAX EXEMPT FOR MANIFEST PURPOSE ONLY
81551358

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and state laws and regulations.
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Printed/Typed Name	Signature	Mo.	Day	Year
JOHN A. MAY	John A May	10	22	01

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Mo.	Day	Year
John D Tyler	John D Tyler	10	22	01

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Mo.	Day	Year

FACILITY

19. Discrepancy Indication Space PCB OSD = 10/22/01
Actual Rec'd 26590 K

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Mo.	Day	Year
Lynn Piechowski	Lynn Piechowski	10	22	01

COPY 1—Disposer State—Mailed by TSD Facility

In case of emergency or spill immediately call the National Response Center (800) 424-8802 the NYS Department of Environmental Conservation (518) 457-7362

CWM Chemical Services, LLC
A WASTE MANAGEMENT COMPANY
P.O. Box 200
1550 Balmer Rd.
Model City, NY 14107
(716) 754-8231
(716) 754-0211

INVOICE

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DUE UPON RECEIPT
OR PER CONTRACT TERMS

ALL PAST DUE AMOUNTS WILL BEAR INTEREST AT ONE AND ONE HALF PERCENT PER MONTH OR THE MAXIMUM RATE ALLOWED BY LAW, WHICHEVER IS LESS.

ABSCOPE ENVIRONMENTAL INC
ATTN: ACCOUNTS PAYABLE
1 COMMERCIAL DR
PO BOX 487
CANASTOTA NY 13032-0487

Invoice Date: 10/29/2001
Customer #: 378-1141104
Invoice #: 2045-9914751
Page #: 1

21838

Manifest#	Profile Description	Gener/Quantity	P.O.#/Unit	Biller	Rate	Total
NYG2463705	CT5622 PCB CONTAMINATED SOI	006874 NEW YORK DEPT E		PAYERS	Svc Date	10/24/2001
	LANDFILL PCB BULK	DISPOSAL	31.52 TON		90.00000	2,836.80
	TRANSPORTATION	TRANSPORTATION	31.52 TON		30.50000	961.36
	SALES TAX		2,836.80		7.00000 %	198.58
	TOWN HOST TAX		2,836.80		6.00000 %	170.21
	SALES TAX		961.36		7.00000 %	67.30
	8155144001 616897-7;					
					Subtotal	4,234.25

396837

REMIT TO ADDRESS
PO BOX 940606
DALLAS
TEXAS 75394

PLEASE PAY THIS AMOUNT
$4,234.25

ORIGINAL INVOICE

WM 105 CWM

NYG2463705

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID & HAZARDOUS MATERIALS

HAZARDOUS WASTE MANIFEST

P.O. Box 12820, Albany, New York 12212

Please type or print. Do not staple

(Hazardous Waste Manifest 1/5/99)

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Doc. No.	2. Page 1 of	Information within heavy bold line is not required by Federal Law.
NYD002225787	63705		

3. Generator's Name and Mailing Address
NYS DEPT. OF ENVIRONMENTAL CONSERVATION
615 ERIE BLVD WEST
SYRACUSE, NY 13204 Attn John MAY

4. Generator's Telephone Number (315) 426 7519

A. NYG2463705

B. Generator's ID 375 MITCHELL ST. OSWEGO, N.Y. 13126

5. Transporter 1 (Company Name): US BULK Transport Inc

6. US EPA ID Number: PAD987347515

C. State Transporter's ID 5305 RNY

D. Transporter's Telephone 888) 657 8182

7. Transporter 2 (Company Name)

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Telephone ( )

9. Designated Facility Name and Site Address
CWM CHEMICAL SERVICES LLC
1550 BALMER ROAD
MODEL CITY, NY. 14107

10. US EPA ID Number: NYD 049836679

G. State Facility ID

H. Facility Telephone 716) 754-8231

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers Number	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ, Polychlorinated Biphenyls, Solid Mixture 9, UN2315, PGII	001	PT	28577	K	EPA STATE B007
b.					EPA STATE
c					EPA STATE
d.					EPA STATE

J. Additional Descriptions for Materials listed Above		K. Handling Codes for Wastes Listed Above	
a	c	a L	c
b	d	b	d

15. Special Handling Instructions and Additional Information PROFILE No. CT5622 PCB SOIL AND DEBRIS
Out of Service Date 10/23/01 EMERGENCY NO. 1-800-424-9300 CHEMTREC
Tax Exempt FOR MANIFEST PURPOSE ONLY 8155140

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and state laws and regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Mo.	Day	Year
John A May	John A May	10	23	01

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Mo.	Day	Year
Ronald Jordan	Ronald Jordan	10	23	01

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Mo.	Day	Year

FACILITY

19. Discrepancy Indication Space
actual recd 28595K

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Mo.	Day	Year
Ellen Carter	Ellen Carter	10	24	01

GENERATOR

In case of emergency or spill immediately call the National Response Center (800) 424-8802 the NYS Department of Environmental Conservation (518) 457-7362

COPY 1—Disposer State—Mailed by TSD Facility

MURK 136 (9/81)

NEW YORK STATE DEPARTMENT CONSERVATION
TIME AND MATERIALS

Contract No.	Fed. Proj. No.		Contractor ABSCOPE ENVIRONMENTAL, INC					Item No.
D004283		C.O. #9	H SOIL TO HIG ACRES					C.O #9
Period	Regular (Direct) Wages	Premium Wages	Gross Wages	$ per Wk Limitation	$ per Wk Limitation	Wages Over $	Wages Over $	Fringe Benefits
	82.78		82.78					45.68
Totals	82.78		82.78					45.68

insurance policy.

LABOR	AMOUNT
Regular Wages	82.78
Fringe Benefits	45.68
Other Benefits	
TAXES AND INSURANCE	
F.I.C.A 7.65% x [Gross Wages less Wages Over $]	9.83
N.Y.S. and Fed. Unempl. 7.90% x [Gross Wages less Wages Over $]	10.15
Workers' Compensation 22.00% x per Week Limitation] or [Gross Wages] *See Note Above	28.26
P.L. and P.D. Insurance 14.14% x [$ per week Limitation] or [Gross Wages] *See Note Above	17.98
SUBTOTAL	194.67
Profits & Overhead on Labor-15% *	29.20
Premium Wages	
TOTAL LABOR	223.87

MATERIAL	
Date	Material Cost
SUBTOTAL	
P. & O. 10% *	
Total Materials	

EQUIPMENT	
Indent. No.	Cost
total equip	301.50
Subtotal	301.50
10%	30.15
Total Equipment	331.64
services	
HIGH ACRES	5,027.93
RICELLI	1,584.06
Subtotal	6,611.99
5%	330.60
Total Services	6,942.59

TOTAL FORCE ACCOUNT	
Labor	223.87
Materials	
Services	6,942.59
Equipment	331.64
TOTAL	7,498.10

CERTIFICATION: - I certify, to the best of my knowledge and belief, that the equipment used on this work was of the proper material taken from stock as designated above is charged at fair market value, and that account herein shown urate statement of materials and equipment used.

Signed _____ For Contractor _____ For NYSDEC

Date 11/9/01 11/9/01

NOV. 9.2001 1:31PM ABSCOPE NO.455 P.2

MURK 12c (3/79) NYSDEC

FORCE ACCOUNT SUMMARY OF LABOR

Sheet 2 of 3

Period Covered From 10/29/01 to 10/29/01

Contract No.	Proj. No.	Contractor	Item No.
D004283		Abscope Environmental Inc.	C.O.9

NAME	Hourly Rate		Hours for Period		Regular (Direct) Wages	Premium Wages	Gross Wages	$ per Wk Limitation per man	$ per Week Limitation	Wages Over $	Wages Over $	Hourly Fringe Rate	Fringe Benefits
	Basic (Regular)	Premium Additive	TOTAL	O.T. (Premium)									
Rick DenHaese op	23.65	11.83	3.50		82.78		82.78					13.05	45.68
Total for Period					82.78		82.78						45.68

ABSCOPE ENVIRONMENTAL INC.

PO Box 487 Canastota, NY 13022
PH. 315-697-8437
FAX 315-697-9391

JOB # 21838

DAY & DATE Mon 10/22/01

CONTACT PERSON

PHONE #

PO #

T & M ☒

CONTRACT ☐

DEPART FROM SHOP

ARRIVE BACK AT SHOP

OR ARRIVE AT NEXT JOB

CLIENT

BILLING ADDRESS

JOB LOCATION Oswego Castings

ATTN:

LABOR:

NAME	TITLE	ST	OT	DT
Rick DeWitt	oper/Labor	3½		

EQUIPMENT:

QTY.	NAME	FLEET#	# OF HRS.	/IF DAILY RATE
1	ID 160 EXCAVATOR	operator	2	
1	CONCRETE PATCHING	Labor	1½	

NOTES:

N-H Soil

MATERIAL:

QTY.	DESCRIPTION

QTY.	DESCRIPTION

JOB DESCRIPTION: Loaded 4 trucks (Riccelli) soil & concrete patch wide gaps between new concrete & buildings

JOB COMPLETED ☐ YES ☐ NO

SIGNATURE:

WHITE COPY: FILE YELLOW COPY: CUSTOMER

Customer: NYSDEC
(Company Name)

By: John A May
Signature

John A May
Print Name

WASTE MANAGEMENT OF NY
HIGH ACRES LANDFILL
425 PERINTON PKWY
FAIRPORT, NY 14450-9104
223-6132
(716) 223-6898 (FAX)

INVOICE

300-0002621-2277-3
ABSCOPE ENVIRONMENTAL INC.
1 COMMERCIAL DRIVE
PROFILE CP3180
CANASTOTA NY 13032-4763

LD
Acct No: 300-0002621-2277-3
Invoice No: 0013159-2277-1
10/31/2001
Page: 0001-0001

Ticket	Description	Quantity	Rate	Extended
233365	10/29/2001 VEH#:R140			
	MANF#: 4046			
	NON-CONTAMINATED SOILS (LF)	22.57 TON	55.00	1241.35
	GNRTR:NYS DE			
	FUEL SURCHARGE			10.30
	Ticket Total			1251.65
233366	10/29/2001 VEH#:R155			
	MANF#: 4045			
	NON-CONTAMINATED SOILS (LF)	24.92 TON	55.00	1370.60
	GNRTR:NYS DE			
	FUEL SURCHARGE			11.37
	Ticket Total			1381.97
233393	10/29/2001 VEH#:R156			
	MANF#: 4047			
	NON-CONTAMINATED SOILS (LF)	25.22 TON	55.00	1387.10
	GNRTR:NYS DE			
	FUEL SURCHARGE			11.51
	Ticket Total			1398.61
233527	10/29/2001 VEH#:R156			
	MANF#: 4048			
	NON-CONTAMINATED SOILS (LF)	30.46 TON	55.00	1675.30
	GNRTR:NYS DE			
	FUEL SURCHARGE			13.90
	Ticket Total			1689.20
	Total of current charges			5,721.43
	Balance from previous billing			1,333.22
10/01/2001	Payment - Thank you			1,333.22-
	Total Due			$5,721.43

HIGH ACRES LANDFILL
425 PERINTON PARKWAY
FAIRPORT, NY 14450

Current	09/30/2001	08/31/2001	07/31/2001	06/30/2001
5,721.43				

NET 10 DAYS
PLEASE NOTE: THE REMIT ADDRESS HAS CHANGED.
BILLING CALL: (716) 223-6132 PAYMENTS CALL: (716) 254-7574 EXT. 270

TO ENSURE PROPER CREDIT, PLEASE INCLUDE YOUR ACCOUNT NUMBER ON YOUR CHECK AND RETURN THE BOTTOM PORTION WITH YOUR PAYMENT IN THE ENCLOSED ENVELOPE

(716) 223-6132
(716) 223-6898 (FAX)

WASTE MANAGEMENT OF NY
HIGH ACRES LANDFILL
425 PERINTON PKWY
FAIRPORT, NY 14450-9104
Return Service Requested

IF PAYING BY CREDIT CARD, FILL OUT BELOW		CHECK CARD USING FOR PAYMENT
CARD NUMBER	AMOUNT PAID	VISA ☐ ☐
SIGNATURE	EXP. DATE	

ACCOUNT#	INVOICE DATE	INVOICE NUMBER	CHECK NO.
300-0002621-2277-3	10/31/2001	0013159-2277-1	
CURRENT	TOTAL DUE	AMOUNT ENCLOSED	
5,721.43	5,721.43		

22773000002621000131590000057214300000572143 1

300-0002621-2277-3
ABSCOPE ENVIRONMENTAL INC.
1 COMMERCIAL DRIVE
PROFILE CP3180
CANASTOTA NY 13032-4763

Remit To:
HIGH ACRES LANDFILL
WASTE MANAGEMENT OF NY
PO BOX 60448
ROCHESTER, NY 14606-0448

P 000196 98-01306-0001-0001 *P2277LLD (2277 TR) 2277PT00 233 DD&C
2001306030

RICCELLI ENTERPRISES, Inc.

Syracuse
P.O. Box 6418
Syracuse, NY 13217
(315) 433-5115
FAX (315) 433-1920

Rochester
2226 North Road
Scottsville, NY 14546
(716) 538-6550
FAX (716) 538-6737

Geneva
1210 Gifford Road
Phelps, NY 14532
(315) 548-4049
FAX (315) 548-5025

11-6-01

Absorbe Env.

Attn: Bob

Oswego Castings

Riccelli is billing you 105.68 Ton

@ 17 per Ton For 1,796.56 Total.

Thanks

Michael Reilly.

...VIRONMENTAL, INC.
1 Commercial Dr.
PO Box 487
Canastota, NY 13032
(315) 697-8437
FAX (315) 697-9391

DOCUMENT 4045

AEI JOB NO. 21838

STRAIGHT BILL OF LADING

NYSDEC 364 Permit No. ZA-402

TRANSPORTER 1 RICELLI ENTERPRISES, INC. VEHICLE ID # 7618PB
EPA ID # N/A TRANS. 1 PHONE 315/433-5115

TRANSPORTER 2 _____ VEHICLE ID # _____
EPA ID # _____ TRANS. 2 PHONE _____

DESIGNATED FACILITY	SHIPPER
HIGH ACRES LANDFILL	NYSDEC
FACILITY EPA ID #	SHIPPER EPA ID #
N/A	N/A
ADDRESS	ADDRESS
425 PERINTON PARKWAY	375 MITCHELL STREET
CITY STATE ZIP	CITY STATE ZIP
FAIRPORT NY 14490	OSWEGO NY 13126

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
1	CM		A. SOLIDS CONTAINING OIL, AND LESS THAN 50 PPM PCB'S, NON-HAZARDOUS, N012	EST.	32 TONS
			B.		
			C.		
			D.		
			E.		
			F.		

SPECIAL HANDLING INSTRUCTIONS

EMERGENCY NO. 1-800-424-9300 CHEMTREC
PROFILE NO. CP 3180

TIME DEPARTED SHOP _____ TIME ON SITE _____ TIME LEFT SITE _____ TIME RETURN TO SHOP _____

CUSTOMER SIGNATURE _____

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

	PRINT	SIGN	DATE
SHIPPER	Tony A May NYSDEC	Tony A May	10/29/01
TRANSPORTER 1	Nelson J. Zigrid		10/29/01
TRANSPORTER 2			
RECEIVED BY			

WHITE - OFFICE YELLOW - SHIPPER PINK - TSDF GOLD - OFFICE

...NMENTAL, INC.
1 Commercial Dr.
PO Box 487
Canastota, NY 13032
(315) 697-8437
FAX (315) 697-9391

DOCUMENT 4046

AEI JOB NO. 21838

STRAIGHT BILL OF LADING

NYSDEC 364 Permit No. 7A-402

TRANSPORTER 1 RICELLI ENTERPRISES, INC. VEHICLE ID # 180944
EPA ID # N/A TRANS. 1 PHONE 315/433-5115

TRANSPORTER 2 _____ VEHICLE ID # _____
EPA ID # _____ TRANS. 2 PHONE _____

DESIGNATED FACILITY	SHIPPER
HIGH ACRES LANDFILL	NYSDEC
FACILITY EPA ID # N/A	SHIPPER EPA ID # N/A
ADDRESS 425 PERINTON PARKWAY	ADDRESS 375 MITCHELL STREET
CITY FAIRPORT STATE NY ZIP 14490	CITY OSWEGO STATE NY ZIP 13126

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
1	CM		A. SOLIDS CONTAINING OIL, AND LESS THAN 50 PPM PCB'S, NON-HAZARDOUS, N012	EST. 30	TONS
			B.		
			C.		
			D.		
			E.		
			F.		

SPECIAL HANDLING INSTRUCTIONS

EMERGENCY NO. 1-800-424-9300 CHEMTREC
PROFILE NO. CP 3180

TIME DEPARTED SHOP _____ TIME ON SITE _____ TIME LEFT SITE _____ TIME RETURN TO SHOP _____

CUSTOMER SIGNATURE _____

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

	PRINT	SIGN	DATE
SHIPPER	John A May NYSDEC	John A May	10/29/01
TRANSPORTER 1	Steve Closs		10-29-01
TRANSPORTER 2			
RECEIVED BY			

WHITE - OFFICE YELLOW - SHIPPER PINK - TSDF GOLD - OFFICE

DOCUMENT 4047

...MENTAL, INC.
1 Commercial Dr.
PO Box 487
Canastota, NY 13032
(315) 697-8437
FAX (315) 697-9391

AEI JOB NO. 21838

STRAIGHT BILL OF LADING

NYSDEC 364 Permit No. 7A-402

TRANSPORTER 1 RICELLI ENTERPRISES, INC.
EPA ID # N/A

VEHICLE ID # 7616PB
TRANS. 1 PHONE 315/433-5115

TRANSPORTER 2 _____
EPA ID # _____

VEHICLE ID # _____
TRANS. 2 PHONE _____

DESIGNATED FACILITY	SHIPPER
HIGH ACRES LANDFILL	NYSDEC
FACILITY EPA ID #	SHIPPER EPA ID #
N/A	N/A
ADDRESS	ADDRESS
425 PERINTON PARKWAY	375 MITCHELL STREET
CITY STATE ZIP	CITY STATE ZIP
FAIRPORT NY 14490	OSWEGO NY 13126

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
1	CM		A. SOLIDS CONTAINING OIL, AND LESS THAN 50 PPM PCB'S, NON-HAZARDOUS,	EST. N012	30 TONS
			B.		
			C.		
			D.		
			E.		
			F.		

SPECIAL HANDLING INSTRUCTIONS EMERGENCY NO. 1-800-424-9300 CHEMTREC
PROFILE NO. CP 3180

TIME DEPARTED SHOP _____ TIME ON SITE _____ TIME LEFT SITE _____ TIME RETURN TO SHOP _____

CUSTOMER SIGNATURE _____

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

	PRINT	SIGN	DATE
SHIPPER	John A May NYSDEC	John A May	10/29/01
TRANSPORTER 1	Don Hollister	Don Hollister	10/29/01
TRANSPORTER 2			
RECEIVED BY			

WHITE - OFFICE YELLOW - SHIPPER PINK - TSDF GOLD - OFFICE

...MENTAL, INC.
1 Commercial Dr.
PO Box 487
Canastota, NY 13032
(315) 697-8437
FAX (315) 697-9391

DOCUMENT 4048

AEI JOB NO. 21838

STRAIGHT BILL OF LADING

NYSDEC 364 Permit No. 7A-402

TRANSPORTER 1 RICELLI ENTERPRISES, INC.
EPA ID # N/A

VEHICLE ID # 7616PB
TRANS. 1 PHONE 315/433-5115

TRANSPORTER 2 _____
EPA ID # _____

VEHICLE ID # _____
TRANS. 2 PHONE _____

DESIGNATED FACILITY	SHIPPER
HIGH ACRES LANDFILL	NYSDEC
FACILITY EPA ID # N/A	SHIPPER EPA ID # N/A
ADDRESS 425 PERINTON PARKWAY	ADDRESS 375 MITCHELL STREET
CITY FAIRPORT STATE NY ZIP 14490	CITY OSWEGO STATE NY ZIP 13126

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
1	CM		A. SOLIDS CONTAINING OIL, AND LESS THAN 50 PPM PCB'S, NON-HAZARDOUS, N012	EST.	30 TONS
			B.		
			C.		
			D.		
			E.		
			F.		

SPECIAL HANDLING INSTRUCTIONS EMERGENCY NO. 1-800-424-9300 CHEMTREC
PROFILE NO. CP 3180

TIME DEPARTED SHOP _____ TIME ON SITE _____ TIME LEFT SITE _____ TIME RETURN TO SHOP _____

CUSTOMER SIGNATURE _____

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

	PRINT	SIGN	DATE
SHIPPER	John A May NYSDEC	John A May	10/29/01
TRANSPORTER 1	Don Hollister	Don Hollister	10/29/01
TRANSPORTER 2			
RECEIVED BY			

WHITE - OFFICE YELLOW - SHIPPER PINK - TSDF GOLD - OFFICE

MURK 17 (9/81)

NYSDEC OSWEGO CASTINGS
C.0. #9 N-H SOIL HIGH ACRES

SHEET 1 OF 3

Period Covered From 10/29/01 TO 10/29/01

Contract No.	Fed. Proj. No.	Contractor	Item No.
DO04283	Abscope	Environmental Inc.	C.O. #9

			Blue Book Ref.			A	B	C	D	E	F	G	H
Equip. Type	Mfg'r.	Model No.	Sec. No.	Page No.	Code	Hours Of Actual Use	Hourly Rate (Note 1)	Maximum Ownership Cost (Note 2)	Computation A x B	Ownership Cost (Note 3)	Operating Cost/ Hour	Total Operating Cost AxF	Total Reimbursement E + G
excavator	Deere	160LC	10	6	4/00	3.50	64.69	429.53	226.42	226.42	21.45	75.08	301.50

TOTAL FOR PERIOD 301.50

Note 1 - If A is less than 8 hours, use the hourly rate.
If A is between 8 and 40 hours, use the daily rate divided by 8.
If A is between 40 and 176 hours, use the weekly rate divided by 40.
If A is over 176 hour, use the monthly rate divided by 40.

Note 2 - If A is less than 8 hours, use the daily rate.
If A is between 8 and 40 hours, use the weekly rate.
If A is between 40 and 176 hours, use the monthly rate.
If A is over 176 hours, use the monthly rate or the purchase cost of equipment.

te 3 - The lesser of Column C or Column D.

ADDENDUM NUMBER 2
TO THE CONTRACT DOCUMENTS
FOR
REMEDIATION OF THE OSWEGO CASTINGS SITE
OSWEGO COUNTY, NEW YORK
APRIL 17, 2001

NYSDEC SITE NO. 7-38-033
CONTRACT NO. D004283

TO ALL HOLDERS OF THE CONTRACT DOCUMENTS:

Your attention is directed to the following changes and additions to the contract documents for the remediation of the Oswego Castings site. This addendum has been prepared in accordance with the provisions of the Contract Documents.

A. Cover

Replace "John P. Cahill" with "Erin Crotty."

B. Section I, Advertisement and Notice to Bidders

Bottom of page, replace "John P. Cahill" with "Erin Crotty."

C. Section IV, Supplementary Bidding Information and Requirements

1. Article 2, Department Representatives, George Harris should be identified as "Section Chief," Michael Cruden as "Project Manager," and John May as "Project Field Representative."

2. Article 5, Other Available Documents, at the end, "Richard Brazell" should be replaced with "Reginald Parker."

3. Article 7, Subcontracting, insert "(excluding concrete installation)" after "40 per cent."

D. Section VI, Agreement, Article 6, Contract Time, 6.3, replace "two hundred and ten" with "one hundred and ninety five."

E. Section XI, Supplementary Specifications

1. Section 01540, 1.1 Site Security, paragraph A, insert: "During construction, contractor's watchman shall ensure only authorized

personnel enter the contract work area(s). During weekends and holidays, security checks shall be made at eight (8) hour intervals."

2. Section 02226, 1.1 Scope of Work, paragraph B, replace "12"" with "24"."

3. Section 02670, 2.3 Bollards, paragraph A, last sentence, concrete base will be a minimum of fourteen (14) inches in diameter.

F. Section XII, Measurement for Payment, Paragraphs 8.1 A and 8.2 A, "bid item 9" should be replaced with "bid item 8" in all cases.

G. The attached meeting minutes from the pre-bid conference of April 11, 2001, along with significant questions that have been received by the Department and associated answers and clarifications hereby become part of the Contract Documents.

for George Harris, P.E.
Chief, Western Field Services Section
Bureau of Construction Services
Division of Environmental Remediation

MINUTES OF THE PRE-BID CONFERENCE
HELD ON APRIL 11, 2001
FOR
REMEDIATION OF THE
OSWEGO CASTINGS SITE
OSWEGO COUNTY, NEW YORK

NYSDEC SITE NO. 7-38-033

1. Attendees were requested to sign in using the provided sign in sheets (see attached) prior to the beginning of the pre-bid meeting and the site walk. The Department stated that attendance was mandatory for bidding this project.

2. The site meeting was held at the Oswego Castings site. The meeting included the following items:

   A. The bid items and work involved were reviewed.

   B. The history of the site was briefly reviewed.

   C. Minority and women business enterprise (M/WBE) goals and Affirmative Action goals for the project were reviewed and referenced by section in the contract documents. Questions regarding M/WBE requirements can be discussed with Mr. Vincente Alfonso of the Department at (518) 457-0749.

   D. Prospective bidder's attention was directed to the following problems the Department has had with past bids for remedial construction contracts:

      Form of Bid: The bidder is not allowed to alter the Form of Bid or attach any conditions. Contracts requiring separate line items for lump sum and unit prices must be completed correctly. All calculations should be checked carefully.

      Late Bids: Late bids will be returned unopened.

      Project Plans: A bidder must submit within 5 days of notification of being the apparent low bidder a health and safety plan, work plan and quality assurance/quality control plan as required by the contract documents. The project plans will assist the Department in determining if the bidder is responsible and has an understanding of the work. The Department will review the plans of the lowest, acceptable bidder and the bidder must make all necessary changes before the contract

can be awarded.

Submittals: Contractor will utilize forms contained in the contract documents for submittals such as performance and labor and material bonds, insurance certificate, bid form, bid bond, New York State Uniform Contracting Questionnaire and the M/WBE Utilization Plan.

E. Errors and omissions to the plans and specifications identified by prospective bidders should be brought to the attention of the Engineer immediately so that they may be addressed prior to the submission of bids. Refer to Article 2 - Interpretation of Bidding Documents in Section III Bidding Information and Requirements of the Contract Documents.

3. The site was toured and the overall general project work was described. Attendees had the opportunity to take photographs and ask more questions during the pre-bid tour.

4. The Department directed the attendees' attention to the active operations of Great Lakes Veneer Corporation.

End

OSWEGO CASTINGS
PRE-BID MEETING
APRIL 11, 2001

NAME	REPRESENTING	PHONE/FAX
Pete Porter	AAA Environmental, Inc.	(716) 426-6060 ph 426-6171 fax
Patrick Foote	Industrial Site Services, Inc.	(716) 775-1401 Phone 775-1410 Fax
Conrad Wilson	ERM/CRO Services FAX 607 397-9529	518 452-4291 Conrad@clmcom.net
Anthony L. Geiss	Clemetl & Co. Inc.	315-454-4435 315-454-0215
Akbar Mashayekhi	Target Group of CNY, Inc.	(315) 472-2247 Fax 476-3002
Mike Ritter	Ritter & Partton Cons.	(315) 738-0136 Fax 738-0181
Lisa King + Bill Goldsworthy	S+W Services Inc.	315 655 4953 315 655 2285
Michael Wright	Tyree Organization	518 786 3200 786 9723 (fax)
Robert Gray	Absope Environmental Inc	315-697-8437 Fax 315-697-9391
Ed Burns	Tuscarora	311-298-5747
L. Dale Bisham	I.T.S.	Fax - 298-6639
Field Director	Madison Court	856-722-1991 856-722-0404
		ph 697-5813 Fax 697-2051
Henry McConnell	McConnell P.C.	479-6892 Fax

OSWEGO CASTINGS
PRE-BID MEETING
APRIL 11, 2001

NAME	*REPRESENTING*	*PHONE/FAX*
GEORGE LARKIN	TUBHILL CONST.	315-773-4011 315-773-4175

QUESTIONS AND ANSWER SUMMARY
PRE-BID CONFERENCE, APRIL 11, 2001
REMEDIATION OF THE OSWEGO CASTINGS SITE
OSWEGO COUNTY, NEW YORK
NYSDEC SITE NO. 7-38-033

1. Q: When is the start of work anticipated?

   A: July 2001.

2. Q: Is the end of the sewer line to be a cap or valve?

   A: The end is to be capped.

3. Q: Is the contractor allowed to modify (block or restrict) the discharge point(s) or area(s) of the wetland while dewatering the cooling water pond or portions of the wetland involving sediment removal?

   A: Yes. Contractor may take reasonable steps to prevent water from flowing from the wetland area by building a berm(s) or other shoring device(s) to increase the freeboard and/or capacity of the wetland. Contractor is responsible for identifying the probable discharge point(s) of the wetland and taking what ever steps are necessary to prevent any off-site discharge during dewatering of either the cooling water pond or other portions of the wetland. For example, during high water conditions there is at least one discharge point along the road (near the fire hydrant) adjacent to the western edge of the site.

4. Q: Can the contractor utilize the new pond as a "holding tank" during dewatering of the cooling water pond?

   A: Yes. The contractor is responsible for coordinating and sequencing the work as necessary to accomplish this. Excavated materials may be stockpiled with appropriate erosion controls until contaminated wastes have been backfilled into the cooling water pond. The contractor is also responsible for ensuring no off-site discharge of water occurs.

5. Q: Where are costs to perform dewatering to be included?

   A: Dewatering costs shall be included in the bid item for the material or item being dewatered. For example, dewatering costs related to yard area excavation would

be included in bid item 5A. Contractor is responsible for all costs related to filtering waters (including filter disposal) to meet turbidity requirements.

6. Q: What is the minimum weight of the loaded tandem axle dump required for proof rolling per section 03010, 3.2 B?

   A: 10 tons.

7. Q: What is the specification of the water line shut off valve to be provided?

   A: Metroseal 250 Resilient Seated Gate Valve by U.S. Pipe and Foundry Company, or approved equal.

8. Q: What is the specification of the manhole chamber to be provided?

   A: Four (4) foot diameter, pre-cast sanitary manhole by Kistner Concrete Products, Inc., or approved equal.

9. Q: What is the riser length of the monitoring wells to be installed?

   A: Five (5) feet.

10. Q: Can the contaminated sediments be excavated and staged prior to dewatering the cooling water pond?

    A: Yes. Contractor is responsible for staging the materials with appropriate engineering controls to prevent any migration of contamination.

11. Q: Will scrap wood and sawdust in the area of the wetland and the new pond be removed by Great Lakes Veneer?

    A: Yes.

12. Q: Does a concrete subcontractor need to be 40 hour trained?

    A: Once excavation in the yard area has been completed and the sub-base has been placed, the contractor does not have to maintain an exclusion zone and workers will not need to be 40 hour trained.

13. Q: Are there any other areas that field trailers may be staged?

    A: Yes. The contractor may utilize the access road along the western edge of the site

and stage the field trailers near the power pole installed during the previous construction contract.

14. Q: Where are the shut offs for the water line to be tapped into?

A: There are shut offs inside the pump room and in a valve box at the street.

15. Q: With respect to the building to be removed by Great Lakes Veneer, will the existing concrete slab be removed in that area?

A: No. The building will be demolished to the grade of the existing slab.

16. Q: Does all material placed in the cooling water pond have to be done in six inch lifts?

A: No. Contaminated materials do not have to be. Once all contaminated materials have been placed in the pond, the contractor shall then proceed to place materials in six inch lifts with adequate compaction.

17. Q: Who is the surveyor depicted on the drawings?

A: Russell L. Getman, PLS, 1324 C.R. #7, Oswego, NY 13126.

18. Q: Can the contractor saw cut contraction joints in lieu of construction joints (i.e., at the form)?

A: Yes. However, the saw cut(s) must be performed within 72 hours of the pour and the contractor is responsible for repairing any cracking which might occur in the interim.

End

ADDENDUM NUMBER 1
TO THE CONTRACT DOCUMENTS
FOR
REMEDIATION OF THE OSWEGO CASTINGS SITE
OSWEGO COUNTY, NEW YORK

NYSDEC SITE NO. 7-38-033
CONTRACT NO. D004283

TO ALL HOLDERS OF THE CONTRACT DOCUMENTS:

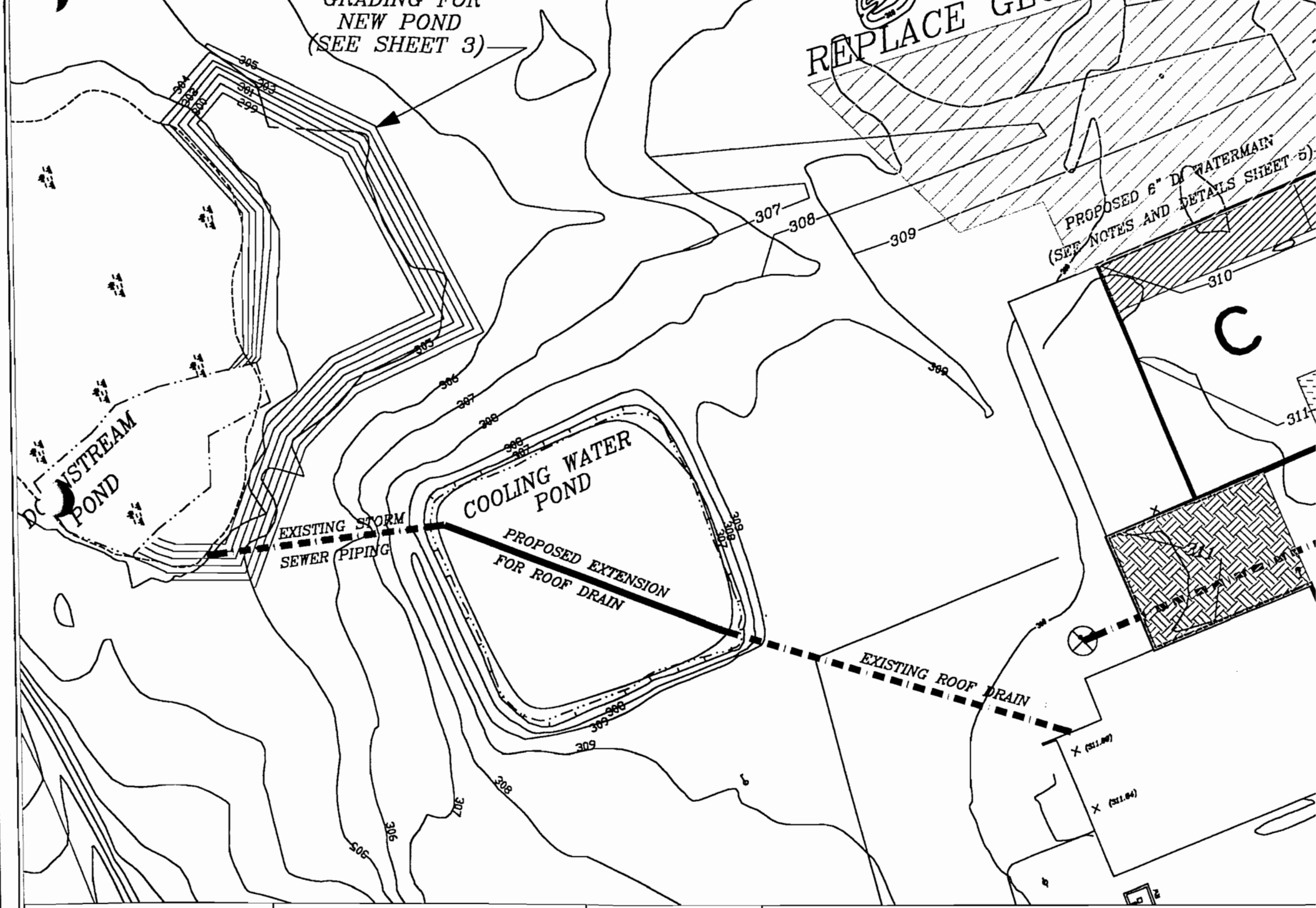
Your attention is directed to the following changes and additions to the contract documents for the remediation of the Oswego Castings site. This addendum has been prepared in accordance with the provisions of the Contract Documents.

A. Section IV, Supplementary Bidding Information and Requirements, Article 3, Pre-Bid Conference, insert April 11, 2001 at 11:00 a.m.

B. Contract Drawings, delete figures 2 and 3 and replace with attached figures 2 and 3, which have been reprinted due to the poor quality (faintness of existing contours) of the copies.

Michael J. Ryan, P.E.
Chief, Remedial Section A
Bureau of Western Remedial Action
Division of Environmental Remediation

c:\MyFiles\oswego.addendum1.wpd



LEGEND:

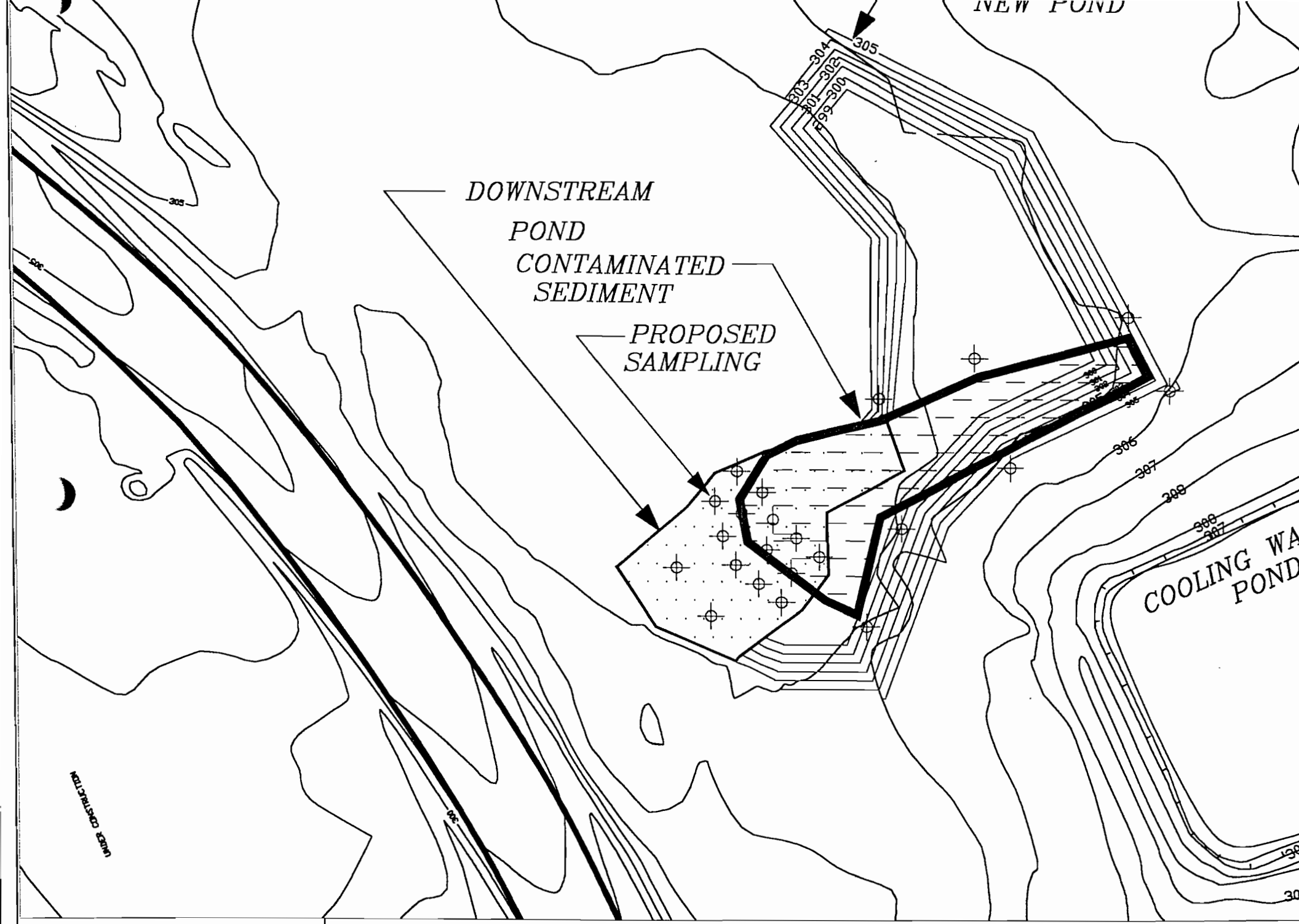
- SURFACE ELEVATION CONTOUR
- PROPERTY LINE
- EXISTING MONITORING WELL
- WETLAND AREA
- EXISTING MANHOLE

NOTES

1. "KNOWN CLEAN" AREAS ARE TO BE EXCAVATED AND USED TO FILL IN THE COOLING WATER POND
2. "NEARLY CLEAN" MATERIAL SHOULD BE ASSUMED TO CONTAIN PCB'S AT LEVELS LESS THAN 10 PPM, BUT MORE THAN 1 PPM. THESE MATERIALS ARE TO BE EXCAVATED AND CONSOLIDATED WITH CONTAMINATED SEDIMENTS IN THE COOLING WATER POND.

SECTION A
TOTAL AREA: 10,700 S.F.
CLEAN AREAS: 3,290 S.F.
EXCAVATION DEPTH: 3.26'

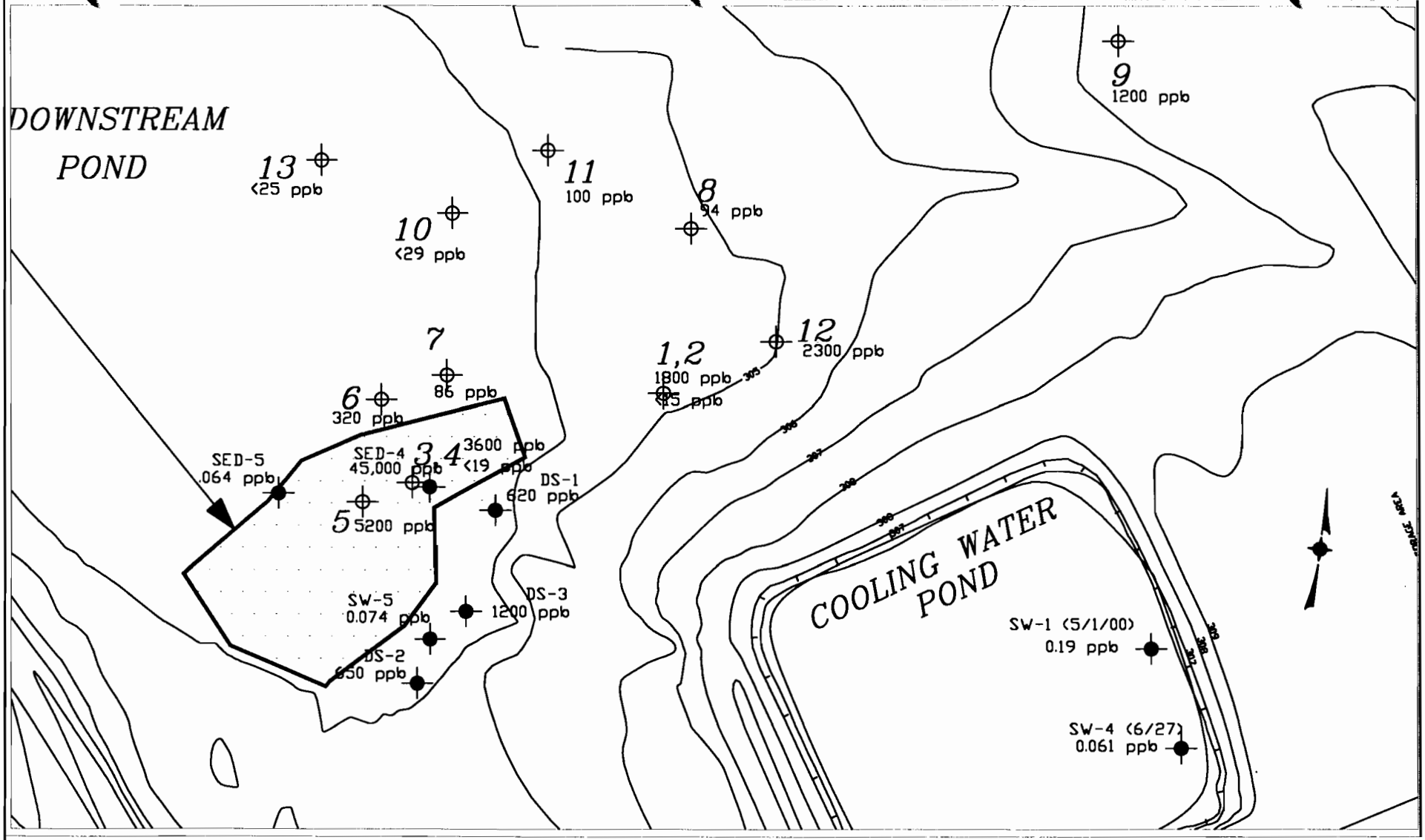
SECTION B
TOTAL AREA: 13,735 S.F.
CLEAN AREAS: 4,123 S.F.


NEW POND
DOWNSTREAM
POND
CONTAMINATED
SEDIMENT
PROPOSED
SAMPLING
COOLING WA
POND
UNDER CONSTRUCTION
LEGEND:
SURFACE ELEVATION CONTOUR
PROPERTY LINE
EXISTING MONITORING WELL

SUPPLEMENTARY DOCUMENT
LIMITED SITE DATA
OSWEGO CASTINGS SITE
SITE NO. 7-38-033

This document is NOT part of the Contract Documents for soil and sediment remediation at the Oswego Castings Site. The Department neither represents that the site conditions will be the same as in the attached document nor considers the attached document as being a comprehensive and actual description of the site conditions. The Contractor shall be responsible for performing the Work based on the existing conditions at the site.

January 2001



LEGEND:

- SURFACE ELEVATION CONTOUR
- PROPERTY LINE
- EXISTING MONITORING WELL
- WETLAND AREA
- PROPOSED GRADING FOR NEW POND

WARNING: IT IS A VIOLATION OF NEW YORK EDUCATION LAW SECTION 7209.2 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW SECTION 7209.2.

OSWEGO CASTINGS SITE
OSWEGO, OSWEGO COUNTY, NEW YORK
SITE No. 7-38-033

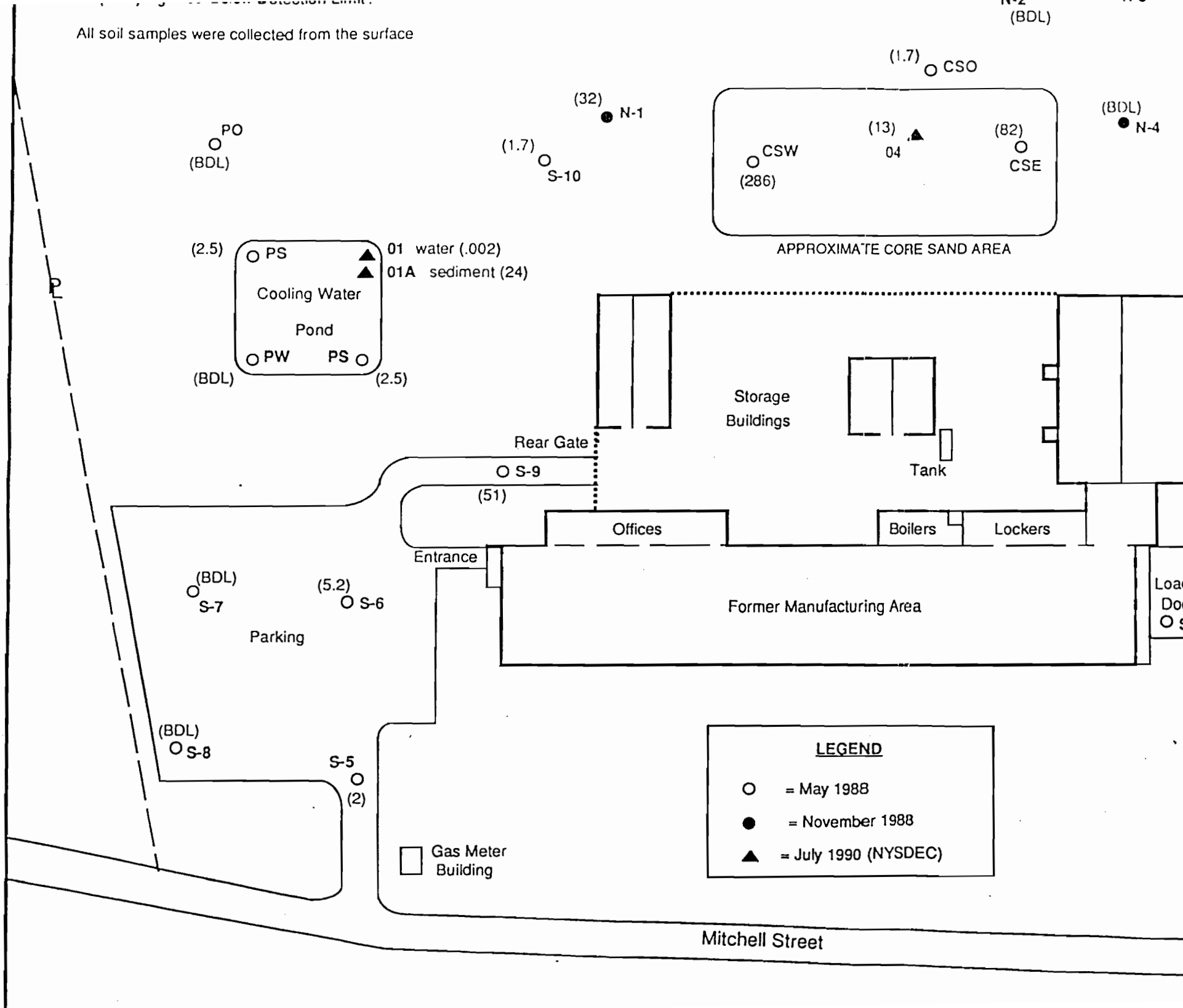
New York State Department of Environmental Conservation

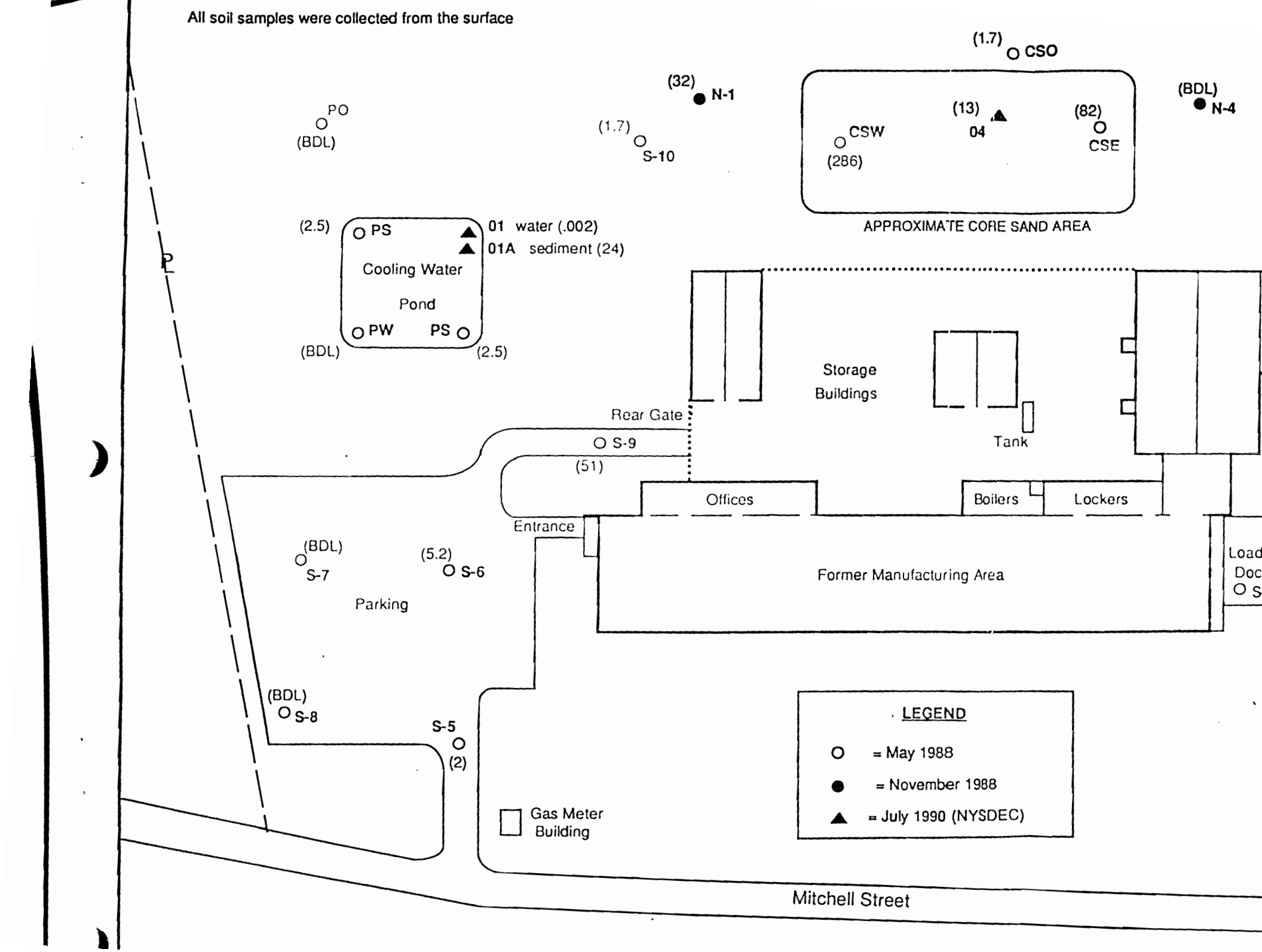
SCALE: 1"=40' | DRAWING: DRAWN FROM STEARNS AND WHEELER BASE MAP

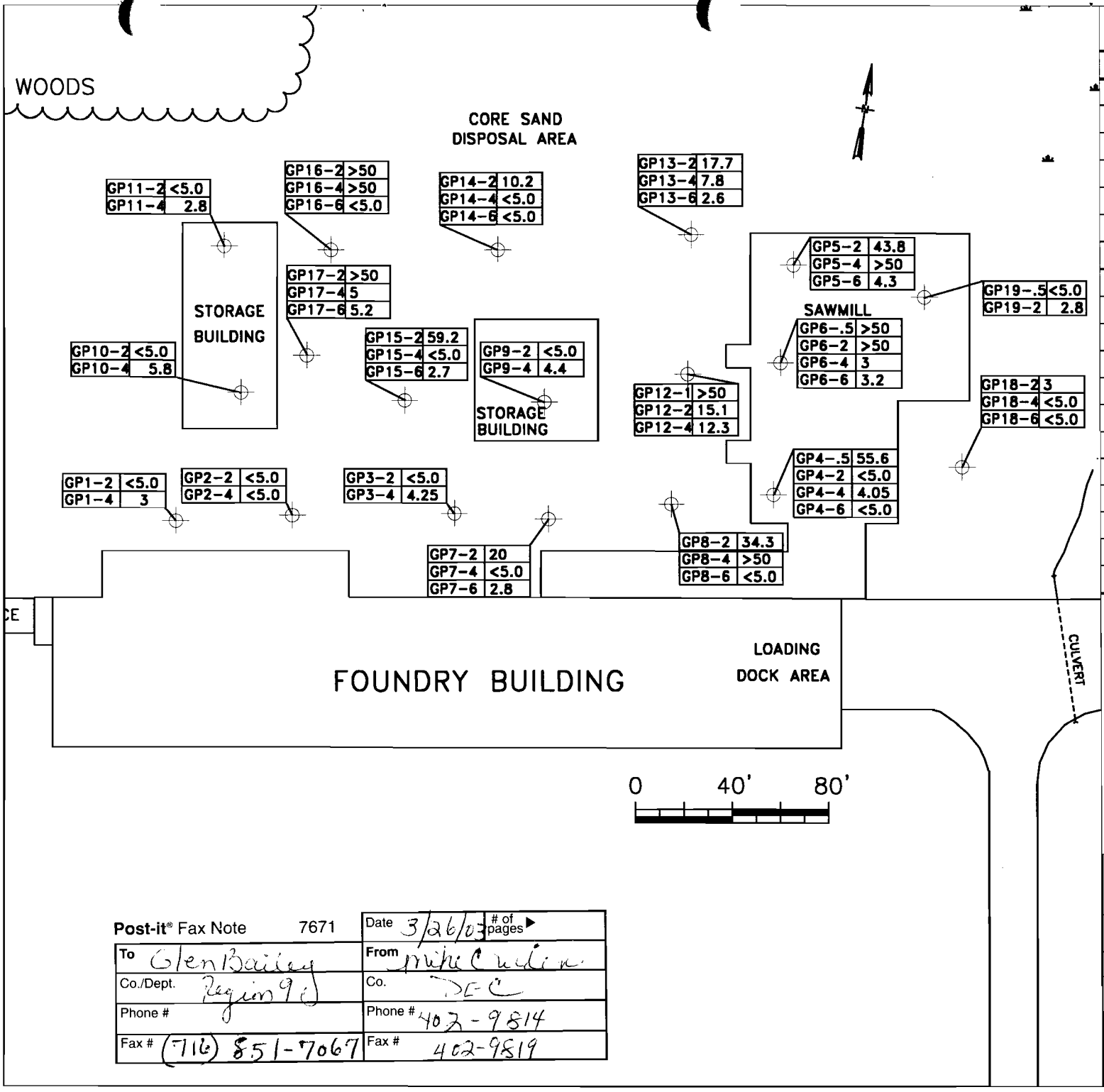
SEDIMENT TESTING

DATE: | FIGURE 3

All soil samples were collected from the surface




All soil samples were collected from the surface
(1.7) CSO
(32) N-1
(BDL) N-4
PO (BDL)
(1.7) S-10
(13) 04
(82) CSE
CSW (286)
APPROXIMATE CORE SAND AREA
(2.5) PS
01 water (.002)
01A sediment (24)
Cooling Water Pond
PW PS
(BDL) (2.5)
Storage Buildings
Tank
Rear Gate
S-9 (51)
Offices
Boilers
Lockers
Entrance
(BDL) S-7
(5.2) S-6
Former Manufacturing Area
Parking
(BDL) S-8
S-5 (2)
Gas Meter Building
LEGEND
= May 1988
= November 1988
= July 1990 (NYSDEC)
Mitchell Street



CONFIRMATORY SAMPLE RESULTS

Sample ID	PCB LEVEL (PPM)
GP1-2	<0.16
GP2-2	0.09
GP3-2	0.22
GP4-0.5	28.8
GP5-2	29.5
GP5-4	2,400
GP6-0.5	3,900
GP6-0.5	2,082
GP6-2	71.5
GP6-2	150
GP7-2	8.9
GP8-2	23.2
GP8-4	58
GP9-2	1.1
GP10-2	0.12
GP12-1	250
GP16-2	1,700
GP16-4	800
GP17-2	720

GP(X)-(Y)
X = Sample ID
Y = Depth of Sample (ft. bgs)
All Concentration in PPM

Post-it® Fax Note 7671

To Glen Bailey	Date 3/26/03 # of pages ▶
Co./Dept. Region 9	From Mike Cruden
Phone #	Co. DEC
Fax # (716) 851-7067	Phone # 402-9814
	Fax # 402-9819

OSWEGO CASTINGS SITE

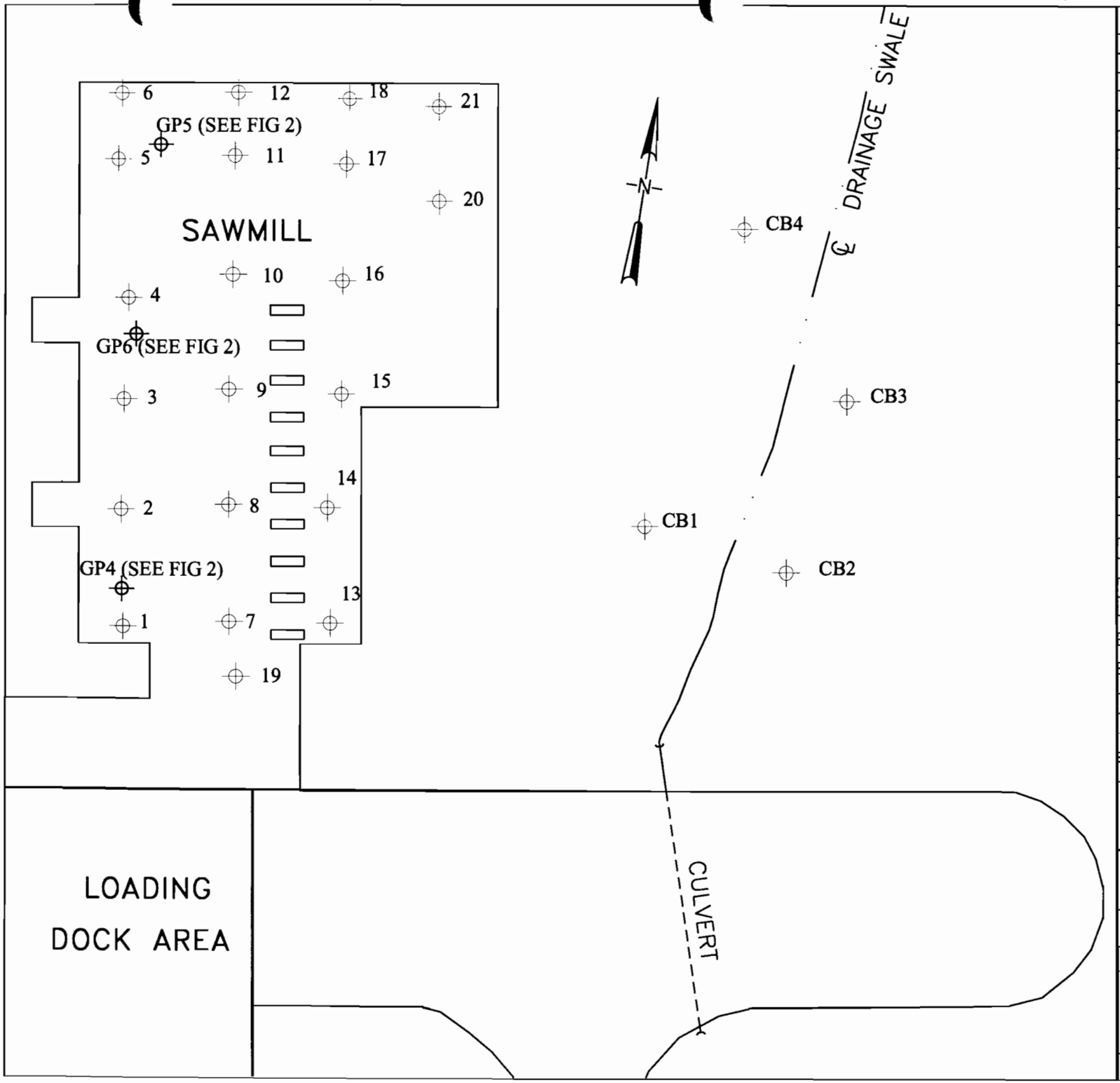
Oswego, Oswego County, New York
Site No. 7-38-033

New York State Department of Environmental Conservation

FILE: [redacted] FROM STEARNS AND WHELER BASE MAP

IMMUNOASSAY RESULTS

DATE: [redacted] FIGURE 2



FB#	DEPTH	CONC. (PPM)
2	1'	1.6
2	2.5'	ND
3	0.5'	45.0
3	1.5'	7.7
4	1'	1.5
5	0.5'	18.0
5	3'	0.58
5	5'	140.0
5	6'	0.07
6	0.5'	24.0
6	3'	99.0
7	2.5'	0.61
8	0.5'	20.0
8	1.5'	ND
9	1'	120.0
10	3.5'	2.9
11	1'	12.0
12	1'	47.0
12	3.5'	1.3
13	3'	1.5
14	1.5'	ND
15	0.5'	16.0
15	1'	0.81
16	0.5'	36.0
17	0.5'	32.0
17	1'	13.0
18	0.5'	32.0
18	3'	25.0
19	1.5'	ND
20	0.5'	0.6
21	0.5'	0.67
CB3	1'	0.71

EAST ROOF VENT	0.20
ROOF VENT 2	0.11
ROUND ROOF VENT 3	0.14
WEST ROOF VENT 4	0.20
POND	ND

SAMPLED ON 5/21-22/99

OSWEGO CASTINGS SITE
OSWEGO, OSWEGO COUNTY, NEW YORK
SITE NO. 7-38-033

New York State Department of Environmental Conservation

FILE: DRAWING: by: WSO

Saw Mill Building

DATE: 2/10/00 FIGURE 3

Department of Environmental Conservation

Division of Environmental Remediation

Site Name - Oswego Castings
Operable Unit Number 2
Yard and Buildings
Site Number - 7-38-033
Contract Number D004283
OU2 - Yard and Buildings
Oswego (C),Oswego County, New York

Contract Documents

Michael Ryan, P.E.

Date: 3/1/01

New York State Department of Environmental Conservation
GEORGE E. PATAKI, *Governor* JOHN P. CAHILL, *Commissioner*

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SECTION I

Advertisement and Notice to Bidders

New York State Department of Environmental Conservation

Project Name: Oswego Castings Site, NYS Site Number: 7-38-033

Sealed bids for the Oswego Castings Site Remediation ("project"), will be received by the New York State Department of Environmental Conservation, Division of Management and Budget Services, Procurement Bureau, Room 686, 50 Wolf Road, Albany, New York, 12233-5027, Attn: Kathy Mascelli, until the time of 1:00 PM and on the date of April 25, 2001. The bids will be publicly opened and read aloud at the above time and date. Telegraphic or other electronically transferred bids are not acceptable.

The project involves the implementation of remedial activities at the Oswego Castings Site in Oswego, New York. These include, but are not necessarily limited to, the following:

- Construction of a 36,000 +/- s.f concrete slab as shown on the plans, including site preparation:
  - excavation of 12" of material,
  - consolidation of contaminated soil in Cooling Water Pond,
  - placement and compaction of a 4" granular subbase,
  - installation of reinforcing mesh.
- Excavation of contaminated sediment in the wetland area north and west of the cooling water pond. Consolidation of sediment containing PCBs at levels above 10 ppm in the Cooling Water Pond.
- Complete the filling of the Cooling Water Pond with on-site material.

The estimated range for this work is: $250,000 to $500,000.

Drawings, specifications and proposal forms may be purchased for a non-refundable fee of $49.00 from the Division of Management and Budget Services, Procurement Bureau, Room 686, 50 Wolf Road, Albany, New York 12233-5027; Attn: Kathy Mascelli (tel. number 518-457-3245). Individual checks for each set shall be made payable to the New York State Department of Environmental Conservation.

Proposals will be accepted only from bidders who purchase contract documents. All proposals must be made on the official proposal form and enclosed in the envelope furnished with the contract documents. Each proposal must be accompanied by a deposit or a bid bond in the amount of 5% of bid amount.

Prospective Bidders are cautioned concerning the use of the Post Office Box address as telegraphic and overnight delivery cannot be sent to Post Office Boxes.

All Bidders must attend a Pre-Bid Conference to discuss special requirements for the contract, to be held on April 11, 2001 at the Oswego Castings Site starting at 11:00 AM prevailing local time. **ATTENDANCE IS MANDATORY AS A CONDITION OF BIDDING.**

Minority and Women owned businesses are encouraged to submit bids in response to this solicitation. The New York State Department of Environmental Conservation is an Equal Opportunity/Affirmative Action Employer.

For the purpose of this Notice to Bidders, the Director of the Division of Environmental Remediation, Room 260B, 50 Wolf Road, Albany, New York, 12233-7010, shall be the Department's designated Representative. Any questions, however, shall be directed to Mike Cruden at (518) 457-7878.

John P. Cahill
Commissioner

SECTION II

Terms and Definitions

Wherever used in the Contract Documents the following terms (or pronouns in place of terms) have the meanings indicated which are applicable to both the singular and plural thereof:

Addenda - Written or graphic instruments issued prior to the date for opening of Bids which interpret or modify the Contract Documents by way of changes, clarifications, or corrections.

Administrative Agreement - A written explanation of the Contract Documents, signed by **Department, Engineer** and **Contractor** on or after the Effective Date of the Agreement and dealing with procedural or administrative aspects of the Contract Documents which do not change the contract price.

Agreement - The written agreement between **Department** and **Contractor** covering the Work to be performed; other Contract Documents are attached to the Agreement and made a part thereof as provided therein.

Application for Payment - The form furnished by **Department** on which **Contractor** must request progress or final payments and which is to include such supporting documentation as is required by the Contract Documents.

Bid - The written offer or proposal of the Bidder, submitted pursuant to Article 5 of Section III of the Bidding Documents on form provided.

Bidder - The person, partnership, corporation, joint venture or other combination thereof, who has submitted a Bid.

Bid Security - The security designated in the Bidding Documents to be furnished by the Bidder as guarantee that he/she will enter into a Contract with **Department** for the performance of the Work, if the Work involved in the Bid is awarded to that Bidder.

Bidding Documents - The Advertisement and Notice to Bidders, Bidding Information and Requirements, the Bid Forms and Attachments, and the proposed Contract Documents (including all Addenda issued prior to receipt of Bids).

Bonds - Instruments of security furnished by **Contractor** and its surety in accordance with the Contract Documents. This refers to the labor and material payment Bond, performance Bond and those other instruments of security required by the Contract Documents.

Change Order - A document prepared and recommended by **Engineer**, which is reviewed by **Department** and has been signed by **Contractor** and **Department** and approved by Comptroller. It authorizes an addition, deletion or revision in the Work, or an adjustment in Contract Price or Contract Time, or any combination thereof, issued on or after the Effective Date of the Agreement.

Commissioner - Commissioner of the New York State Department of Environmental Conservation.

Comptroller - The Comptroller of the New York State Department of Audit and Control.

Contract Documents - The Agreement, Addenda (which pertain to the Contract Documents), **Contractor's** Bid including documentation accompanying the Bid and any post-Bid documentation submitted prior to the Notice of Award, all bid forms and attachments required by Section V, the General Conditions, the Supplementary Conditions, the Standard Specifications, the Special Specifications, Appendix A, Appendix B, Measurement for Payment, Advertisement, Terms and Definitions, Bidding Information and Requirements, Supplementary Bid Information and Requirements, and the Drawings, together with all amendments, modifications and supplements issued pursuant to paragraphs 2.4 and 2.5 of Article 2 of the General Conditions on or after the Effective Date of the Agreement.

Contract Price - The money payable by **Department** to **Contractor** under the Contract Documents.

Contract Time - The number of days permitted by the Agreement for completion of work. This number may be stated or implied by a requirement that all work be completed by a certain date.

Contractor - The person, partnership, corporation, joint venture, or other combination thereof, who has entered into the Contract with **Department** for the Work. The term "**Contractor**" means **Contractor** or its authorized representative.

Correction Period - The period of time within which **Contractor** shall promptly, without cost to **Department** and in accordance with **Department's** written instructions, either correct Defective Work or if it has been rejected by **Department**, remove it from the site and replace it with nondefective Work, pursuant to paragraph 12.12 of the General Conditions.

Cost and Pricing Data - Refers to all data available to and relied upon by **Contractor** in negotiating, pricing or performing Work covered by a Change Order or a Proposed Change Order, or involved in a claim. Sample Cost and Pricing Data include data and supporting documents pertaining to labor wages and material rates, crew mixes, labor productivity, payroll costs, price catalogs, quotations from and payments to Subcontractors, Suppliers or others, equipment production rates, equipment costs, sales and use taxes, cost of premiums for Bonds and Insurances, costs related to the determination of general and administrative overhead, site office overhead, profit, estimates and estimating guides, **Contractor's** computations and projections, and all of the relevant assumptions made by **Contractor** in pricing or figuring increases or decreases in Contract Price or Contract Time.

Cost of the Work Involved - The sum of all costs necessarily incurred and paid by **Contractor** in the proper performance of the Work Involved.

Day - A calendar day of 24 hours lasting from midnight one day to midnight the next day.

Defective Work - Work that is unsatisfactory, faulty or deficient, or does not conform to the Contract Documents, or does not meet the requirements of any inspection, reference standard, test or approval referred to in the Contract Documents, or has been damaged prior to **Engineer's** recommendation of final payment (unless responsibility for the protection thereof has been assumed by **Department** at Substantial Completion in accordance with paragraphs 13.8 or 13.10).

Delivery - Shall be effected on the date of receipt by the addressee.

Department - New York State Department of Environmental Conservation.

Department Representative(s) - Employee(s) of **Department** engaged in **Department** activities relating to the work but who is not responsible for day to day administration of the Project.

Design Engineer - The individual, partnership, corporation, joint venture, or any combination thereof, who prepared and sealed the Contract Documents that were bid by **Department.**

Designated Representative - **Department** employee responsible for resolving all disputes between contractor and Project Manager, as identified in the Supplementary Bidding Information and Requirements.

Drawings, Plans - The Drawings, Plans or reproductions thereof, which show location, character, dimensions, and details of the Work to be performed and which are referred to in the Contract Documents.

Effective Date of the Agreement - The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is approved and filed by Comptroller.

Employee - Any person working on the project mentioned in the contract of which these specifications are a part, and who is under the direction or control, or receives compensation from **Contractor** or Subcontractor.

Engineer - The individual, partnership, corporation, joint venture, or any combination thereof, any entity named as **Engineer** in the Agreement who will have the rights and authority assigned to **Engineer** in the Contract Documents. The term "**Engineer**" means the **Engineer** or its authorized representative.

Equipment - All machinery and equipment, together with the necessary supplies for upkeep and maintenance, and also tools and apparatus necessary for the proper construction and acceptable completion of the work.

Field Order - A written order issued by **Engineer** to **Contractor** which orders minor changes in the Work in accordance with paragraph 9.2 of the General Conditions not involving an adjustment in the Contract Price or the Contract Time.

Law(s) - Applicable laws, rules, regulations, ordinances, codes or orders of a federal or New York State court.

Material - Any approved material acceptable to **Department** and conforming to the requirements of the specifications.

Notice of Award - **Department** written notice of bid acceptance and filing by the New York Office of the State Comptroller and stating pertinent information **Contractor** shall comply with.

Notice of Intent to Award - The written notice by **Department** to a Bidder stating that upon compliance by that Bidder with the conditions precedent enumerated therein, within the time specified, **Department** intends to process contract through the appropriate New York State contract reviews.

Notice to Proceed - The written notice issued by **Department** to **Contractor** establishing the Date for Commencement of the Contract Time and, where applicable authorizing **Contractor** to proceed with the Work at the site.

Overhead - General and administrative costs (whether at the site or in **Contractor's** principal or branch offices) and all other miscellaneous costs not assigned to a specific payment item as identified in Articles 9, 10 and 11 of the General Conditions.

Partial Utilization - Placing a portion of the Work in service for the purpose for which it is intended (or a related purpose) before reaching Substantial Completion for all the Work.

Physical Completion - The Work and all parts thereof have been completed to the satisfaction of **Department.**

Progress Schedule - Drawings, data computer reports, and narratives disclosing **Contractor's** approach to the Work; the associated Early Schedule, Late Schedule and Float times, as supported by the Critical Path Method (CPM) or Bar Chart Diagram; the Schedule of Values; and the Schedule of Shop Drawing submissions.

Project - The total construction of which the Work to be provided under the Contract Documents may be the whole, or a part as indicated elsewhere in the Contract Documents.

Project Field Representative - **Department** employee assigned responsibility for the day to day administration of the Project.

Project Manager - **Department** employee identified in the Supplementary Bidding Information and Requirements, responsible for administration of work required by Contract Documents and supervision of the Project Field Representative(s).

Proposed Change Order - A document prepared on a form furnished by **Department** which is to be used: 1) by **Department** when requiring that **Contractor** figure the potential effect on Contract Price or Contract Time of a proposed change, (the proposed change is ordered upon signing by **Department**), or 2) by **Contractor** to notify **Department** that in the opinion of **Contractor** a change is required to respond to differing or unforeseen physical conditions under which the Work is to be performed as provided in paragraph 3.11 or 3.12 of Article III of the General Conditions or to emergencies under paragraph 5.22 of Article V of the General Conditions, or has been ordered in a Field Order, or in **Engineer's** approval of a Shop Drawing or sample, or in **Engineer's** written interpretation or clarification of the requirements of the Contract Documents. When signed by **Department**, a Proposed Change Order may or may not fully adjust Contract Price or Contract Time, but is evidence that the change directed or documented by the Proposed Change Order will be incorporated in a subsequently issued Change Order following negotiations as to its effect, if any, on Contract Price or Contract Time.

Resident Engineer - The authorized representative of **Engineer** who is assigned to the site or any part thereof.

Resident Project Representative - Person acting as assistant to the Resident Engineer who is assigned to the site or any part thereof.

Shop Drawings - All drawings, diagrams, illustrations, schedules and other data which are specifically prepared by or for **Contractor** to illustrate some portion of the Work and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams and other information prepared by a Supplier and submitted by **Contractor** to illustrate material or equipment for some portion of the Work.

Site - The area within the vertical boundaries of the location where the Contract Documents require Work by **Contractor**.

Specifications - Those portions of the Contract Documents consisting of written technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to the Work and certain administrative details applicable thereto.

Subcontractor - An individual, partnership, corporation, joint venture or other combination thereof, having a direct contract with **Contractor** or with any other Subcontractor for the performance of a part of the Work at the site.

Substantial Completion - The Work, or a specified part thereof, has progressed to the point where in the opinion of **Engineer** as evidenced by **Engineer's** definitive Certificate of Substantial Completion, it is sufficiently complete, in accordance with the Contract Documents (with the exception of the minor items

identified during inspection described in paragraph 13.6 of the General Conditions), so that it can be utilized continuously for the purposes for which it is intended. Substantial Completion of the Work, or specified part thereof, may be achieved either upon completion of Pre-operational Testing or Start-up Testing, depending upon the requirements of the Contract Documents. The terms "substantially complete" and "substantially completed" as applied to any Work refer to Substantial Completion thereof.

Supplier - A manufacturer, fabricator, supplier, distributor, material man or vendor.

Testing, Pre-Operational - All testing, associated trimout activities and specified manufacturer or supplier training required prior to placing the facilities in service, including but not limited to manufacturer or supplier installation checks; leak, disinfection and pressure tests; removal or erection of temporary components; tie-ins; flushing and chemical/mechanical cleaning operations; specified performance tests; and other necessary non-operating adjustments, cold-alignment checks, corrections, housekeeping and spare parts stocking required of **Contractor** to demonstrate to **Department** and **Engineer** that individual components of the Work have been properly erected and do operate in accordance with the Contract Documents, and that they can be placed in service and utilized continuously for their intended purposes.

Testing, Start-Up - Follows Pre-operational Testing. Start-up Testing commences by placing portions of the Work in service under interim conditions, continues through initial utilization of the facilities under design media, and culminates with predefined trial utilization tests during which **Contractor** is to operate the Work, or specified parts thereof, under actual and simulated operating conditions and performing as defined in the Contract Documents, for the purposes of: a) making such minor adjustments and changes as may be found necessary to comply with the requirements of the Contract Documents, and b) complying with the Start-up Test requirements outlined in the Contract Documents.

Total Float - Number of working days by which a part of the Work identified in the progress schedule may be delayed without necessarily extending the corresponding Contract Time, or Contract Times.

Underground Facilities - All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments, and any encasements containing such facilities which have been installed under ground to furnish any of the following services or materials: electricity, gases, steam, liquid petroleum products, chemicals, telephone or other communications, cable television, sewage and drainage removal, traffic or other control systems or water.

Work - Any and all obligations, duties, responsibilities, labor, materials, equipment, temporary facilities, and incidentals, and the furnishing thereof necessary to complete the construction assigned to, or undertaken by **Contractor** pursuant to the Contract Documents. Also, the entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents. Work is the result of performing services, furnishing labor, and furnishing and incorporating materials and equipment into the construction, all as required by the Contract Documents.

SECTION III

Bidding Information and Requirements

ARTICLE 1 - Address for Notices

It is understood and agreed between the parties that **Department's** Representatives for the implementation of this Agreement, or for approval and direction called for therein, shall be the individuals named in Article 2 of Section IV, "Supplementary Bidding Information and Requirements."

Whenever it is provided in this Agreement that notice shall be given or other communications sent to **Department,** such notices or communications shall be delivered or sent to the Project Manager at the address set forth in Article 2 of Section IV, "Supplementary Bidding Information and Requirements." However, the Bid submittal should be addressed as stated in Article 3 below.

ARTICLE 2 - Interpretation of Bidding Documents

No interpretation of the meaning of the Bidding Documents will be made orally: all questions regarding the intent or meaning of the Bidding Documents shall be submitted in writing to the Project Manager at the address set forth in Article 2 of Section IV, "Supplementary Bidding Information and Requirements". The reply to the same, when deemed necessary, will be sent by addendum to all persons who have purchased Bidding Documents. To be given consideration, all inquiries must be received in writing at the above address at least ten days prior to the date fixed for the opening of Bids. Any and all interpretations and any supplemental instructions will be in the form of written Addenda which, if issued, will be sent by certified or registered mail with return receipt requested or telegraph, to all purchasers of Bidding Documents at the respective addresses furnished for such purposes. Failure of any Bidder to receive any such Addenda shall not relieve said Bidder from any obligation under its Bid as submitted. All Addenda so issued shall become part of the Bidding Documents.

All pre-bid inquiries answered by means other than Addenda shall not be binding.

ARTICLE 3 - Bid Instructions

Department invites sealed Bids on the forms attached hereto, and submitted in the envelopes provided to: Division of Management and Budget Services, Procurement Bureau, New York State Department of Environmental Conservation, Room 686, 50 Wolf Road, Albany, New York 12233-5027, **Attn:** Kathy Mascelli.

The outside of the envelopes must bear the name and address of the Bidder, the Project name and Project designation number from the cover of the specification book, and be clearly marked as "Bid."

Department may consider non-responsive any Bid not prepared and submitted in accordance with the provisions hereof and may waive any informalities or irregularities in or may reject any or all Bids. Bids that are illegible or that contain any omission, erasures, alterations, additions, conditions, or items not called for in the Bidding Documents or that contain other irregularities of any kind, may be rejected as non-responsive. The failure or omission of any Bidder to obtain or examine any form, instrument, document or Bidding Documents or any part thereof, shall in no way relieve any Bidder from any obligation in respect to its Bid. Complete sets of Bidding Documents shall be used in preparing Bids; neither **Department** nor **Engineer** assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

Department is responsible for providing Addenda only to those persons or firms listed in its plan sales ledger as having purchased Bidding Documents from **Department**. Persons or firms which obtain Bidding Documents from sources other than **Department** bear the sole responsibility for obtaining any Addenda issued for the Project.

Department and **Engineer** make copies of Bidding Documents available only for the purpose of obtaining Bids on the Work and do not authorize any other use of the Bidding Documents.

Each Bid must be submitted on the official form which is furnished by **Department**. All blank spaces in the Bid must be filled in as noted, and no change shall be made in the phraseology of the Bid or in the items mentioned therein.

The Bidder shall sign, in the space provided in the Bid form, with his or her usual signature. An officer of a corporation or a member of a partnership signing for the Bidder, shall place his or her signature and title after the word "By" under the name of the **Contractor**. The same procedure shall apply to the Bid of a joint venture by two or more Bidders; however, if the signature is by an agent or attorney-in-fact for the joint venturers, then the Bid shall be accompanied by evidence of his or her authority to act on behalf of all of the joint venturers.

The Bidder shall complete that portion of the Bid form requesting a statement of the Addenda which have been received, by Addenda number and date. If no Addenda have been received, insert the word, "NONE." Failure to complete this portion of the Bid form may result in a bid being declared non-responsive at **Department's** option.

Each Bid shall specify in words and figures, the correct gross sum, in the manner hereafter described for which the Work shall be performed according to the Bidding Documents together with a unit price expressed in words and figures for each separate items for which such a price is required. The lowest Bid shall be determined by **Department** on the basis of the total sum for which the entire Work will be performed, arrived at by a correct computation of all items specified in the Bidding Documents at the prices stated in the Bid. **Department** reserves the right to reject any Bid in which the Bid prices appear to constitute an unbalanced Bid for the work.

In the event there is a discrepancy in any Bid between the unit prices and the extended totals, the unit prices shall govern. In the event there is a discrepancy in any Bid between the prices written in figures and the unit or lump sum prices written in words, the prices written in words shall govern. **Department** may reject as non-responsive bids which do not contain a price for every numbered item contained in the Bid form, or may insert a zero for every numbered item that doesn't contain a price.

Unless **Department** gives instructions to the contrary, the Bidder shall use no more than three decimal places in the cents column under unit Bid price items. If Bidder uses more than three decimal places without such instructions, **Department** may round off the Bid item to three decimal places.

The Bidder is responsible for examining supplemental information which is available for inspection at the address for notices in Article 1 of this Section.

Department will not accept any Bid which has been transmitted via Facsimile, Telephone, Telegraph or which has been received after the designated bid opening time except where there is evidence that the bid arrived on time, but was mishandled by the **Department**. A late Bid will be returned unopened with notification of the reason for non-acceptance.

Bids will only be accepted from Bidders who have purchased Contract Documents from **Department**.

ARTICLE 4 - Modification or Withdrawal of Bid

Permission will not be given to modify or explain by letter, telegram, telephone or otherwise, any Bid after it has been deposited with **Department** except that a Bid may be withdrawn, modified, and resubmitted prior to the date and time for opening the Bids. After such date and time, no Bid may be withdrawn by a Bidder except as provided by law, and provided further that: 1) the Bidder files a duly signed written notice of a Bid mistake with **Department** within two business days after the day of the Bid opening, and 2) within 3 business days thereafter demonstrates to the reasonable satisfaction of **Department** that there has been a material and substantial mistake in the preparation of the Bid.

Prior to submittal of Bid, a Bidder may alter or correct a unit price, or a lump sum item, which has been entered on the Bid form by crossing out the entry, entering the new figure above or below the crossed-out entry, and initialing on the line of change. The crossing out of entries shall be with ink, or typed. All new entries and initials shall be legibly handwritten with ink, or typed. Any ambiguity arising from entries altered or corrected on the Bid Form may be cause for **Department's** rejection of the Bid as non-responsive.

If the Bid is made by an individual, the business address shall be given. If made by a corporation, the names and business addresses of the president, secretary and treasurer shall be given. If made by a partnership, the names and business addresses of the partners shall be given.

Department reserves the right to disqualify Bids, before or after opening, upon evidence of collusion with intent to defraud or other illegal practices upon the part of the Bidder.

All Bids submitted by an individual, firm or partnership, a corporation or association which submits more than one Bid for the same Work under the same or different name shall be rejected.

ARTICLE 5 - Required Bid Submittals

The following are to be submitted within the time periods indicated. At the option of **Department**, failure to make or amend a submittal will constitute proof that the Bidder has abandoned all rights and interests in the contract; that the Bid Security is forfeited to **Department** as liquidated damages; and that the Work may be awarded to another Bidder in a manner consistent with Law.

a) The following items are to accompany Contractor's Bid to **Department**:

- Form of Bid filled out
- Bid Bond or Certified Check
- Non-Collusion Certificate
- MacBride Fair Employment Principles (signed)

b) The following items shall be submitted within 5 days of notification that the Bidder is the apparent low Bidder:

- Off-site permitted facility to receive material along with a copy of the facilities permit
- Plan of Operations (Work Plan) and Progress Schedule, Health and Safety Plan, Sampling Plan, and QA/QC Plan

- Statement of Surety's intent, complete and signed by and duly authorized surety company licensed to do business in the State of New York

- A copy of the proposed site Pollution Liability insurance policy demonstrating that the bidder has the required $1 million of Pollution Liability insurance and the additional $4 million (for a total of $5 million) of Pollution Liability insurance if required by the **Department** on a specific project basis. If the Bidder is unable to obtain the $4 million of site specific Pollution Liability insurance, Department requires letters from three (3) sureties stating that the additional Pollution Liability insurance is unavailable.

- A description of projects completed by Bidder documenting its experience in this type of work

- Proof of Availability of insurance or Certificate of insurance with endorsements

- NYS Uniform Contracting Questionnaire (completed) or affidavit of no change (if appropriate)

- Policy Statement and M/WBE Workplan

- Any other information that demonstrates the Bidder's ability to perform the work described herein

- Low bidders may be asked to submit additional information to demonstrate competency

c) The following items shall be submitted by the apparent low Bidder within **14 days** from the date of the Notice of Intent to Award letter from **Department**:

- Executed Agreement and Rider to Appendix B (six copies with original signatures)
- Performance Bond with Power of Attorney & Surety Financial Statement (original and five copies)
- Labor & Materials Bond with Power of Attorney & Surety Financial Statement (original & five copies)
- Bid Breakdown of Items (original)
- Certificates of Insurance (original and five copies)

ARTICLE 6 - Bid Security and Bonds

Bid Security shall be made payable to **Department** in an amount not less than five percent (5%) of the Bidder's gross sum Bid. The Bid Security shall be in the form of either a certified or bank check upon an incorporated bank or trust company, or a Bid Bond issued by a surety satisfactory to **Department**.

Department will accept only Bonds from a surety company licensed to write Bonds of such character and amount under the laws of New York State and which are listed on the U.S. Treasury Department Circular 570.

Attorneys-in-fact who sign Bonds shall file with such Bonds a certified copy of their Power of Attorney to sign Bonds and to conduct business in the State of New York.

The Bid Security of a Bidder awarded a Contract for the Work will be retained until such Bidder has executed the Agreement and furnished the required bonds and insurance, whereupon the Bid Security will be returned. If the Bidder fails to execute and deliver the Agreement, other required documents and furnish the required bonds and insurance within fourteen (14) days after the Notice of Intent to Award, **Department** may annul the Notice of Intent to Award, and the Bid Security of that Bidder will be forfeited to **Department**. The Bid Security of any Bidder whom **Department** believes to have a reasonable chance of receiving the award may be retained by **Department** until the earlier of the 45th day after the Bid opening or seven (7) days after the

Effective Date of the Agreement, whereupon Bid Security furnished by such Bidders will be returned. Bid Security of other Bidders will be returned after the Bid opening.

ARTICLE 7 - Approval of "or Equal" or Substitution Equipment, Systems or Items

There shall be no approval given by **Engineer** during the bidding period or prior to Award of Contract for any "or equal" or substitution equipment, systems or items.

ARTICLE 8 - Other Contracts and Occupancy

Department may award other contracts in connection with this Work. **Contractor** shall not have exclusive occupancy of the real property within or adjacent to the limits of the Work.

In case of interference between the operations of utility owners and different contractors, **Department** will be the sole judge of the rights of each contractor and the sequence of work necessary to expedite the completion of the entire Project. In all such cases, **Department's** decision shall be accepted as final.

ARTICLE 9 - Taxes

Department is exempt from the payment of sales and compensating use taxes of the State of New York and of cities and counties on all materials, equipment and supplies sold to **Department** pursuant to this Contract. Also exempt from such taxes are purchases by **Contractor** and its Subcontractors of materials, equipment and supplies to be sold to **Department** pursuant to this Contract, including tangible personal property to be incorporated in any structure, building or other real property forming part of the Project. These taxes are therefore not to be included in the Bid. The cost of all other taxes under the Contract shall be included in the Bid prices for the several items of the Contract.

ARTICLE 10 - Experience and Financial Statements

In accordance with New York State Executive Order No. 170, a Contract shall only be awarded to a responsible Bidder capable of performing and completing the Work in a satisfactory manner. The **New York State Uniform Contracting Questionnaire**, which is included in Section V, "Bid Forms and Attachments " must be completed and submitted to **Department** by the apparent low Bidder within five (5) days after the apparent low Bidder has been so notified. The completed questionnaire or the affidavit of no change (if appropriate) must be addressed to:

NYS Department of Environmental Conservation
Division of Management and Budget Services
Procurement Bureau, Room 686
50 Wolf Road
Albany, NY 12233-5027, Attn: Kathy Mascelli

The envelope should be clearly marked "NYS Uniform Contracting Questionnaire." Failure of the apparent low Bidder to timely submit the complete, properly executed questionnaire within five (5) days may result in disqualification.

Before **Department** will consent to any subcontracts over $10,000, the proposed subcontractor must submit the complete, properly executed "NYS Uniform Contracting Questionnaire" through **Contractor**. Any delay in the progression of work caused by the failure of a subcontractor to comply with these requirements will be attributable to **Contractor** and any additional costs will be **Contractor's** responsibility.

The low Bidder shall demonstrate its responsibility to perform and complete Work by submitting a statement of its experience and the experience of any Subcontractor which the low Bidder intends to use to perform the Work.

Department may require the low Bidder to further demonstrate its responsibility to perform and complete Work by submitting an additional experience and financial statement or information seven (7) days after bid opening or within seven (7) days of **Department** request, which shall include at a minimum, information pertaining to the Bidder's financial resources. The submitted financial information shall be certified by a Certified Public Accountant, and shall be submitted in the form required by **Department**. This can also apply to **Contractor's** subcontractors.

ARTICLE 11 - Preliminary Progress Schedule

The Preliminary Progress Schedule shall consist of three copies of a narrative description and a time-scaled critical path method diagram or bar chart diagram as specified in the Contract Documents. The narrative in the Preliminary Progress Schedule shall describe the order in which Bidder proposes to perform the Work pursuant to the specified Contract Time(s) and Work sequence conditions indicated in or required by the Bidding Documents. It shall also indicate proposed starting and completion dates for Work expressed in terms of days elapsed from the Notice to Proceed associated with each division of the Specifications within each major structure or geographical area of Work. Activities shall further identify significant submittals, approvals and associated deliveries, significant testing, major **Department** responsibilities, and responsibilities of affected utilities and third parties. The narrative shall include monthly percentages of completion for the Work in relation to the rate of progress anticipated in the Preliminary Progress Schedule.

ARTICLE 12 - Bid Breakdown

The Bid breakdown shall be submitted by the apparent low Bidder within fourteen (14) days after the date of the Notice of Intent to Award letter. Discrepancies, ambiguities or conflicts in the Bid breakdown shall be resolved in accordance with the terms and conditions set forth in Article 15 of the General Conditions.

A Bidder submitting a Bid breakdown and awarded a Contract for the Work agrees and understands that those prices for separable parts of the Work disclosed on the Bid breakdown, where they are applicable and determined to be reasonable by **Department** may be used for the purposes of: a) measurement and payment, b) increase(s) or decrease(s) in the Contract Price due to adjustments in quantities to the separable parts of the Work, and c) Change Orders or Proposed Change Orders which add or deduct like Work.

ARTICLE 13 - Subsurface and Technical Information

If boring logs and other subsurface information were made available for the inspection of Bidders, please note that such data were obtained with reasonable care and were recorded in good faith by **Department**, **Engineer** or the **Design Engineer**.

The soil and rock descriptions shown are as determined by a visual inspection of the samples from the various explorations unless otherwise noted. The observed water levels and/or water conditions indicated thereon are as recorded at the time of the exploration. These levels and/or conditions may vary considerably, according to the prevailing climate, rainfall and other factors, including the passage of time.

Similarly, data concerning leachate were obtained with reasonable care and recorded in good faith. The location and concentrations of leachate may vary considerably according to the prevailing climate, rainfall and other factors, including the passage of time. Bidders may rely upon accuracy of the subsurface technical data as to

where (location) and when (exact time) data was obtained; but not upon non-technical data, interpretations or opinions contained therein or for the completeness thereof.

When reports showing data obtained by investigations and tests at the site by **Department, Engineer** or the **Design Engineer** are included with the Bidding Documents, or made available to Bidders as set forth in the Bidding Documents, it is expressly understood and agreed that technical data, but not any non-technical data, interpretations or opinions contained in such reports, are incorporated by reference into the Contract Documents. Bidders may rely upon the accuracy of all such technical data contained in such reports as to where (location) and when (exact time) such technical data was obtained, unless the Bidding Documents limit any other basis upon which such technical data may be relied upon. It is further expressly understood and agreed that the use of any technical data contained in such reports is subject to all of the conditions and limitations set forth in the Bidding Documents.

Subsurface and technical information is made available to Bidders in good faith so that they may be aware of the information utilized for design and estimating purposes. **Department** makes no representations or warranties, express or implied, as to the completeness of this information or data, nor is such disclosure intended as a substitute for personal investigations, interpretations, and judgment of the Bidder.

ARTICLE 14 - Underground Facilities

The locations of Underground Facilities were ascertained with reasonable care and recorded in good faith from various sources, including the records of municipal and other public service corporations, and therefore such locations may only be approximate. **Department** does not assume responsibility for the accuracy or completeness of such locations.

ARTICLE 15 - Examination of Bidding Documents and Site

It is the responsibility of each Bidder, before submitting a Bid to: a) examine the Bidding Documents thoroughly, b) visit and visually inspect the site during the Pre-Bid Conference required pursuant to Article 3 of Section IV, "Supplementary Bidding Information and Requirements," c) become familiar with local conditions that may affect cost, schedule, performance or furnishing of the Work, d) become familiar with applicable Laws that may in any manner affect cost, schedule, performance or furnishing of the Work, e) study and carefully correlate Bidder's observations with the Bidding Documents, and f) notify the Project Manager identified in Article 1 of this section promptly after discovering any conflicts, ambiguities, errors or inconsistencies in the Bidding Documents.

It is the responsibility of each Bidder to obtain any additional documents, information or data which pertain to the physical conditions (surface, subsurface and Underground Facilities) at or contiguous to the site which may affect cost, schedule, progress, performance or furnishing of the Work and which Bidder deems necessary to determine its Bid for performing and furnishing the Work in accordance with the Bidding Documents.

The submission of a Bid constitutes an incontrovertible representation by Bidder that Bidder has taken steps reasonably necessary to ascertain the nature and location of the Work, and that Bidder has investigated and accounted for in the preparation of the Bid: a) Governmental requirements and all reasonably foreseeable general and local conditions that may affect cost, schedule, performance or furnishing of the Work. Examples of such conditions include: 1) conditions bearing upon the transportation, disposal, handling and storage of materials, 2) the availability and suitability of labor, water, electric power, telephone, sanitary services, and roads, 3) weather, river stages, tides or similar conditions at or contiguous to the site, 4) physical conditions of the site, and 5) the character of equipment and facilities needed preliminary to and during Work performance, b) character, quality and quantity of surface, subsurface and Underground Facilities at or contiguous to the site insofar as this information is reasonably ascertainable from the Drawings and Specifications included as part

of the Bidding Documents, from the reports referenced in the Supplementary Bid Information and from the documents, information and data regarding physical conditions at or contiguous to the site obtained by Bidder, and c) Bidding Documents to be sufficient in scope and detail to indicate and convey understanding of all terms and conditions affecting cost, schedule, performance and furnishing of the Work.

Any Failure to take the actions described in this Article will not relieve that Bidder from responsibility for estimating properly the difficulty, cost of and schedule for successfully performing the Work, or from performing the Work successfully without an increase in Contract Price or an extension in Contract Time.

Department, Engineer, or **Design Engineer** do not assume any responsibility for any conclusions or interpretations made by any Bidder based on the information made available by the Bidding Documents. Nor does **Department,** or **Engineer** assume any responsibility for any understanding reached or representation made concerning conditions which can affect the cost, schedule, progress, furnishing and performance of the Work prior to execution of the Contract, unless that understanding or representation is expressly stated in the Bidding Documents.

In an itemized contract, the estimate of quantities of work to be done and materials to be furnished is approximate and is given only as a basis of calculation upon which the award of the contract is to be made. **Department** does not assume any responsibility that the quantities estimated will be the actual quantities required; **Contractor** may not claim misunderstanding or deception because of such estimates of quantities or of the character of the work, location, or other condition pertaining thereto. **Department** may increase or diminish any or all of the quantities of work mentioned above or omit any of them, as deemed necessary.

ARTICLE 16 - Subcontractors, Suppliers or Others

Unless otherwise agreed in writing by **Department, Contractor** shall subcontract no more than the percentage (%) of the total cost of the work under its contract as may be provided by the Contract Documents in Article 7 of Section IV, "Supplementary Bidding Information and Requirements". Procedures for approval of Subcontractors, Suppliers or other persons or organizations, after execution of the Agreement, are set forth in the General Conditions and the Supplementary Conditions.

ARTICLE 17 - Award of Contract

The Contract(s) will be awarded to the lowest, responsive and responsible Bidder(s) that has prepared acceptable required submittals, in the opinion of **Department,** as stipulated in Article 5 of this Section.

To the extent permitted by applicable Law, **Department** reserves the right to reject any and all Bids, to waive any and all informalities or irregularities, to disregard all nonconforming, nonresponsive, or conditional Bids, or to re-advertise for Bids.

In order to be considered responsive, a Bid shall be completed, signed and be responsive in all respects to the Bidding Documents unless informalities are waived by **Department**.

In order to be considered responsive, a Bidder must establish to the complete satisfaction of **Department** and **Engineer**, as a minimum, that it has adequate and satisfactory experience and financial resources to meet the obligations under the Contract and award of the Contract would be in the best interest of the State. A Bidder's prior experience shall be considered satisfactory when among other factors, its performance of prior work was timely, of good quality, in compliance with any contract requirements including contracted costs and schedule, and in compliance with applicable Law. The Bidder must have a minimum of three (3) years satisfactory experience in construction of the work to be performed.

Department may conduct such investigations as it deems necessary to assist in the evaluation of any Bid and to establish the responsibility in terms of satisfactory experience and financial ability of the Bidder, and of any proposed subcontractors. **Department** may reject the Bid of any Bidder which it deems not to be responsible and may reject performance of Work by any Subcontractor which it deems is not responsible.

It is the intention of **Department** that the work will be awarded within 45 calendar days after the opening of bids to the lowest responsive, responsible Bidder whose bid conforms to the requirements of the Contract Documents. Bids may not be withdrawn, altered or revoked during this 45 day period. Even after the expiration of such 45 day period, **Department** may accept a Bid and award the work to any Bidder whose bid has not been unequivocally withdrawn or revoked prior to the mailing of written Notice of the Award to the successful Bidder. For purposes of the preceding sentence, withdrawal or revocation of a Bid shall not occur until **Department** receives an unequivocable written statement to that effect.

ARTICLE 18 - Time is of the Essence

Time is of the essence for the performance of Work required by the Contract Documents.

ARTICLE 19 - Applicability of Federal, State and Local Law

Any Bid and any contract awarded pursuant to a Bid shall be subject to and governed by applicable Law.

It is the responsibility of each Bidder to be informed of and comply with Federal, State and local Laws, affecting the cost, schedule, progress, performance or furnishing of the Work. This requirement includes, but is not limited to, applicable regulations concerning minimum wages, nondiscrimination in employment, affirmative action, protection of public and employee safety and health, environmental protection, fire protection and permits, and fees and licensing.

ARTICLE 20 - M/WBE and EEO Requirements

The selected Bidder shall be required to make good-faith efforts to subcontract at least the percentage stipulated in Section IV, "Supplementary Bidding Information and Requirements", of the contract price to NYS Certified Minority Business Enterprise(s) (MBE) and Women Business Enterprise(s) (WBE), respectively.

The M/WBE and EEO provisions of Appendix B are required provisions for this contract. The Bidder is required to comply with State regulations 9NYCRR Part 543 entitled, "Requirements and Procedures Regarding Business Participation Opportunities for Minorities and Women on State Contracts."

In accordance with Executive Law Article 15-A, **Department** is required to make available the NYS Directory of Certified Minority and Women Owned Business Enterprises. Empire State Development has put the Minority and Women's Business Development Directory on the Internet at **www.empire.state.ny.us.**

The new system will be available seven (7) days a week, 7:00 a.m. to 10:00 p.m. and the information will be updated daily. Support will be available from 9:00 a.m. to 5:00 p.m., Monday through Friday, except for NYS holidays. If assistance is needed call (518) 474-1979. For additional information and assistance regarding NYS Certified M/WBE's, please contact Vicente Alfonso at DEC's Procurement Bureau, M/WBE/EEO Unit at (518) 457-0749.

Pursuant to New York State Executive Law Article 15-A and the attending rules and regulations, an approvable M/WBE and EEO Workplan shall be required within two weeks of the award of a contract. The workplan is requested to state the M/WBE and EEO goals, the areas of work to be considered for solicitation of M/WBE

firms, and a listing of M/WBE firms to be used to supply identified subcontracting work/supplies. A Contractor Detailed EEO and M/WBE Workplan form is included and shall be incorporated into the contract.

Contractor shall be required to provide equal opportunities to minorities and women with regard to all jobs necessary for the performance of work or contracts required by the project. In doing so, **Contractor** agrees to make good-faith efforts to employ minorities and women for at least the percentage stipulated in Section IV, "Supplementary Bidding Information and Requirements" of the work force hours required for the completion of the project. Different occupational category work force participation goals may be used to meet these overall goals for work force participation. **Contractor** shall not discriminate against employees or applicants for employment because of race, creed, color, national origin, sex, age, disability, or marital status, and shall undertake or continue existing programs of affirmative action to ensure that minority group persons and women are afforded equal opportunity without discrimination. Such programs shall include, but not be limited to, recruitment, employment, job assignment, promotion, upgrading, demotion, transfer, layoff, termination, rates of pay or other forms of compensation, and selection for training or retraining, including apprenticeship and on-the-job training.

As required by **Department**, **Contractor** shall request of each employment agency, labor union, or authorized representative of workers with which it has a collective bargaining or other agreement or understanding and which is involved in the performance of the contract with the Agency to furnish a written statement that such employment agency, labor union, or representative shall not discriminate because of race, creed, color, national origin, sex, age, disability, or marital status, and that such union or representative will cooperate in the implementation of **Contractor's** obligations hereunder.

Contractor shall include the provisions of Appendix B (VII) in every subcontract or purchase order in such a manner that the subcontractor shall be required to comply with such provisions with respect to its work in conjunction with the contract with **Department**.

SECTION IV

Supplementary Bidding Information and Requirements

ARTICLE 1 - Location and Description of Project

The Site Number of this project is 7-38-033. The Project is located in Oswego County. Access to the site is from Mitchell Street.

> Directions to the Site: From the south, State Thruway Exit 34A to Route 481 north (from the north, Thruway Exit 39 to Route 690 north and Route 48), right on Route 104 going east, left on George Street, Right on East Seneca Street, left on Mitchell Street - Site immediately to right.

This Project includes the construction of a 36,000 square foot concrete slab, including the site preparation: excavation of 12" of material, placement and compaction of granular material to provide 4" subbase. Contaminated soil excavated from the yard area will be consolidated with contaminated sediment in the Cooling Water Pond, along with contaminated sediment from the wetland area adjacent to this pond.

ARTICLE 2 - Department Representatives

Mr. Michael J. O'Toole, Jr., Designated Representative, 50 Wolf Road, Room 260B, Albany, NY 12233-7010

Mr. George Harris, P.E., Bureau of Construction Services, 50 Wolf Road, Room 281, Albany, NY 12233-7010

Mr. Michael Cruden, P.E., Bureau of Construction Services, 50 Wolf Road, Room 281, Albany, NY 12233-7010

Mr. John May, NYSDEC Region 7, 615 Erie Blvd. West, Syracuse, NY 13204-2400

ARTICLE 3 - Pre-Bid Conference

A pre-Bid conference will be held on _____, at the Site, at _____ to view the Project area. The pre bid conference is held to discuss the requirements of the Bidding Documents, the protocols for performing the work and the conditions existing at the work site, and to provide for visual inspection of the Site by Bidders. Bidders will be required to sign an attendance sheet to document their presence at the mandatory pre-bid conference. **Department will accept Bids only from those bidders who attend this conference.**

ARTICLE 4 - Additional Bid Submittals

None.

ARTICLE 5 - Other Available Documents

The following items are available for contractor's review in preparing the Bid:

1.) Report: Remedial Investigation, Oswego Castings, Oswego, New York, Stearns and Wheler, Final Revision December 1995.

2.) Project Summary Report for Partial Remediation: West Gate and Loading Dock Areas, Oswego Castings, City of Oswego, Oswego County, Plumley Engineering, P.C., January 1997.

3.) Feasibility Study Report for the Oswego Castings Inactive Hazardous Waste Disposal Site, Site No. 7-38-033, Oswego, Oswego County, NY, NYSDEC, February 1997.

4.) Record of Decision, Oswego Castings Site, Oswego, Oswego County, NY, Site No. 7-38-033, NYSDEC, February 1997.

5.) Construction Certification Report, Oswego Castings Site, Site 7-38-033. January 1999. Prepared by NYSDEC Division of Environmental Remediation, Western Field Services Section.

6.) Results Summary, Oswego, Case #RA 099, SDG #0521, #0522. Prepared by Chemtech for NYSDEC. Received June 15, 1999.

7.) Remedial Investigation Report for the Oswego Castings Inactive Hazardous Waste Disposal Site, Operable Unit No. 2 - Yards/Buildings. January 2000. Prepared by the NYSDEC, Division of Environmental Remediation.

8.) Feasibility Study for the Oswego Castings Inactive Hazardous Waste Disposal Site, Operable Unit No. 2 - Yards/Buildings. January 2000. Prepared by the NYSDEC, Division of Environmental Remediation.

9.) Oswego Castings Site, Operable Unit No. 2 - Yards/Buildings, Proposed Remedial Action Plan. February 2000. Prepared by the NYSDEC, Division of Environmental Remediation.

10.) Oswego Castings Site, Operable Unit No. 2 - Yards/Buildings, Record of Decision. March 2000. Prepared by the NYSDEC, Division of Environmental Remediation.

These documents are available for review at the following locations:

NYSDEC Central Office
50 Wold Road
Albany, New York 12233-1070
Contact: Mr. William Ottaway
Phone: (518) 457-4343

NYSDEC Regional Headquarters
615 Erie Boulevard west
Syracuse, New York 13204-2400
Contact: Mr. Richard Brazell
Phone: (315) 426-7400

ARTICLE 6 - M/WBE-EEO Utilization Plan

a) The M/WBE-EEO Utilization Plan shall be sent directly to:

NYS Department of Environmental Conservation
Division of Management and Budget Services
Procurement Bureau, Room 686
Minority and Women's Business Programs Unit
50 Wolf Road
Albany, New York 12233-5027
ATTENTION: Vicente Alfonso

b) The selected bidder shall be required to make good faith efforts to subcontract at least 6 percent and 6 percent of the contract price to NYS Certified M/WBEs, respectively.

c) **Contractor** shall be required to provide equal opportunities to minorities and women with regard to all jobs necessary for the performance of work or contracts required by the project. In doing so, **Contractor** agrees to make good-faith efforts to employ minorities for at least 10 percent of, and women for at least 10 percent of, the work force hours required for the completion of the project.

ARTICLE 7 - Subcontracting

The maximum subcontracting allowed for this contract is **40 percent** unless a higher percentage is approved by **Department** in writing.

ARTICLE 8 - Type of Schedule

Contractor shall provide bar chart diagram type of schedule as described in Section X, Spec 00001 - Progress Schedule.

ARTICLE 9 - Wage Rates

The **Department** requires, for the work under this contract, that the **Contractor** and its subcontractor pay at least the prevailing wage rate and pay or provide the prevailing supplements, including premium rates for overtime pay, as issued by the State Labor Department. The current wage rates are included within the contract documents, Section XIII.

"The **Contractor** is responsible for any additional costs related to new determinations of the wage rates. The annual determination of the prevailing rates of wages and supplements are usually published on May 31st of each year and are in effect July 1st through June 20th. New determinations will supersede the original schedule or any prior issued annual determination. Any rate change from a previously issued determination becomes effective July 1st, regardless of whether the new determination has been received by the **Contractor**."

SECTION V

ARTICLE 1(a) - Contract Bid Form and Acknowledgment for Construction of

Oswego Casting OU2

Contract Number D004283, NYS Site Number 7-38-033

To The New York State Department of Environmental Conservation

The Bidder hereby declares that either personally or through authorized representative(s), Bidder has carefully examined all Bidding Documents and has personally or through authorized representative(s) inspected the actual location of the work, together with the local sources of supply; and understands all terms and conditions of Bidding Documents. Bidder further understands that in signing this Bid, the right to plead any misunderstanding regarding the same is waived.

Pursuant to and in compliance with the Bidding Documents, the Bidder hereby offers to furnish all labor, materials, supplies, equipment and other facilities and things necessary or proper for, or incidental to the construction and completion of this Contract, as required by and in strict compliance with the applicable provisions of all Contract Documents, for the following unit and/or lump sum prices.

The undersigned shall meet the required Submittal time periods listed in Article 5 - Required Bid Submittals of the Bidding Information and Requirements, Section III.

The undersigned hereby designates the following office as the office to which such Notice of Intent to Award and Notice of Award may be mailed, telegraphed or delivered:

_____

_____

_____

_____

_____

Fax Number ( )_____ - _____

Bid Form

New York State Department of Environmental Conservation
Oswego Castings Site Remediation
Contract Number: 2 , NYS Site Number 7-38-033

Payment Item Number	*Description*	*Estimated Quantity*	*Unit or Lump Sum Price*		*Total Amount ($)*
			Words	*Figures*	
1	Site Preparation	Lump Sum			
2	Site Services	120 Days			
3	Health and Safety	90 Days			
4A	Waterline Installation	165 LF			
4B	Sanitary Sewer Installation	155 LF			
4C	Storm Sewer Installation	125 LF			
5A	Excavation of Soil in Yard Area	1,340 CY			
5B	Excavation of Wetland Sediment	830 CY			
5C	Excavation of New Pond	1,300 CY			
6	Installing 8" concrete slab, including subgrade preparation, subbase installation, curing, finishing of concrete.	36,000 SF			

Bid Form (Cont.)

New York State Department of Environmental Conservation
Oswego Castings Site Remediation
Contract Number: 2 , NYS Site Number 7-38-033

Payment Item Number	*Description*	*Estimated Quantity*	*Unit or Lump Sum Price*		*Total Amount ($)*
			Words	*Figures*	
7A	Site Restoration (Grading, Seeding, etc.)	Lump Sum			
7B	Excavation, Former Landfill Area	1,000 CY			
7C	Geotextile	24,000 SF			
8	TCL PCB Sediment, Soil Samples	25 Samples			
9	Monitoring Well Installation	60 LF			
Grand Total Bid: $_____ ***(Price in figures)***					

New York State Department of Environmental Conservation
Oswego Castings Site Remediation
Contract Number: 2 , NYS Site Number 7-38-033

Item No.	*Item Description*	*Unit*	*Estimated Quantity*	*Unit or Lump Sum Price*		*Total Amount ($)*
				Words	*Figures*	
	Pollution Liability Insurance	LS	1			
	This item is not to be calculated in the base Bid for the project. **Contractor** is referred to Article 4 of the General Conditions in the Contract Documents. The limits for Pollution Liability Insurance will be the same as defined in Article 4 of the General Conditions. After opening of bids, **Department** will determine if it is in **Department's** best interest to have **Contractor** obtain an additional $4,000,000 Pollution Liability Insurance on a site specific basis, and if so, **Contractor** will be paid separately at the actual documented cost to obtain this additional insurance. The Bidder is required to fill in the above price if it can obtain site-specific Pollution Liability Insurance. This Bid amount will be the upper limit for payment of this item. The **Department** is to be listed on the Bidder's Company Policy as an additional insured at no additional cost to the **Department**. **Contract Authorized Representative** _____ **Contract Name** _____ **Date** _____					

The undersigned acknowledges the receipt of the following Addenda and agrees to be bound by all Addenda whether or not listed herein.

Addendum Number	*Date of Addendum*
_____	_____
_____	_____
_____	_____
_____	_____

Accompanying this proposal is bid security in the amount of $_____; said security is in the form of $_____ certified check or checks, and $_____ Bid Bond which shall become the property of the **Department** if this proposal shall be accepted by **Department**, and the undersigned shall fail to execute and return the contract in a timely manner or fail to comply with the requirements of the Bidding Documents.

Corporate Seal
(If no seal, write "No Seal" and sign)

_____
Legal Name of Person, Partnership or Corporation

By _____
Print Name

_____
Signature

Date _____

Please Complete Information Requested Below:

The P.O. address of the bidder is: _____

Federal Identification Number is: _____

If a Corporation

Name	*Address*
_____, President	_____
_____, Secretary	_____
_____, Treasurer	_____

If a Partnership

Name	*Address*
_____, President	_____
_____, Secretary	_____
_____, Treasurer	_____

CONTRACT NUMBER _____

(CORPORATE ACKNOWLEDGMENT WITH SEAL)

State of)
County of) s.s.:

On the ____ day of _____, 20 ____, before me personally came _____ to me known, who being duly sworn, did depose and say that (s)he resides in _____, New York; that (s)he is _____ *(title)* of _____ *(firm)* the corporation described in and which executed the above instrument; that (s)he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation and that (s)he signed his(her) name thereto by like order.

Seal

_____
Notary Public

(CORPORATE ACKNOWLEDGMENT WITHOUT SEAL)

State of)
County of) s.s.:

On the ____ day of _____, 20 ____, before me personally came _____, to me known, who being duly sworn, did depose and say that (s)he resides in _____, New York; that (s)he is an officer of _____ *(firm)* ; namely, the _____ *(title)* of _____ *(firm)*; that (s)he is authorized by the governing body of said corporation to sign contracts; and that (s)he did sign the foregoing instrument on behalf of, and with authority to bind said corporation.

_____
Notary Public

(CO-PARTNERSHIP ACKNOWLEDGMENT)

State of)
County of) s.s.:

On the ____ day of _____, 20 ____, before me personally came _____ to me known and known to me to be a member of _____, the firm described in and which executed the foregoing instrument, and (s)he acknowledged to me that (s)he subscribed the name of said firm thereto on behalf of said firm for the purpose therein mentioned.

Seal

_____
Notary Public

(INDIVIDUAL ACKNOWLEDGMENT)

State of)
County of) s.s.:

On the ____ day of _____, 20____, before me personally came _____ to me personally known, and known to me to be the individual described in, and who executed the foregoing instrument, and (s)he duly acknowledged to me that (s)he executed the same.

Seal

_____
Notary Public

Contract No. _____

Bidder's/Proposer's Certification

Non-Collusive Bidding and Nondiscrimination in Employment in Northern Ireland MacBride Fair Employment Principles and State Ethics Law Provision

BY SUBMISSION OF THIS BID AND BY SIGNING HEREUNDER THE Bidder, AND EACH PERSON SIGNING ON BEHALF OF SUCH PARTY CERTIFIES, AND IN THE CASE OF A JOINT Bid, EACH PARTY THERETO CERTIFIES AS TO ITS OWN ORGANIZATION, UNDER PENALTY OF PERJURY, THAT TO THE BEST OF HIS/HER KNOWLEDGE AND BELIEF:

A) Non-Collusion State Finance Law §139-d

1) The prices in this bid have been arrived at independently without collusion, consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor;

2) Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly, to any other bidder or to any competitor; and

3) No attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.

B) Macbride Fair Employment Principles State Finance Law §165(5)

1) It or any individual or legal entity in which the bidder holds a 10% or greater ownership interest, or any individual or legal entity that holds a 10% or greater ownership in the bidder, either: (answer yes or no to one or both of the following, as applicable).

2) Has business operations in Northern Ireland; Yes _____ or No_____ (check answer) **IF YES, COMPLETE #3**

3) Shall take lawful steps in good faith to conduct any business operations that it has in Northern Ireland in accordance with the MacBride Fair Employment Principles relating to nondiscrimination in employment and freedom of workplace opportunity regarding such operations in Northern Ireland, and shall permit independent monitoring of their compliance with such Principles.

Yes _____ or No _____ (check answer)

C) State Ethics Law Provision

By submittal of this bid, the undersigned hereby certifies, for and on behalf of the bidder, that he is familiar with the following provisions of the State Ethics Law provisions applicable to post employment restrictions affecting former state employees: POL §73(8)(a)(i) the two year bar, and §73(8)(a)(ii), the life-time bar, and that submittal of this bid is not in violation of either provision, and that no violation will occur by entering into a contract or in performance of the contractual services, and further that the bidder recognizes that the Department may rely upon this certification

Except as follows: (attach information if needed)

(Proposer is to make full disclosure of any circumstances which could affect its ability to perform in complete compliance with the cited laws. Any questions as to the applicability of these provisions should be addressed to the New York State Ethics Commission, 39 Columbia Street, Albany, N.Y. 12207: telephone #1-800-87-ETHICS.)

NOTE: All references to "bid" "bidder" shall be deemed to include "proposer" "proposal".

_____ Date

_____ Signature

_____ Print Name and Title

ARTICLE 1(d) - Page to Attach

Bid Security

If Bid Security is a Bid Bond, use Bid Bond form and provide certified power of attorney.

NYSDEC-DER Site Number_____

ARTICLE 1(e) - Bid Bond

Know all men by these presents, that we, the undersigned, _____, as Principal, and_____, as Surety, are hereby held and firmly bound unto New York State Department of Environmental Conservation in the penal sum of _____ for the payment of which, will and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns. Signed this _____ day of _____, 19____.

The condition of the above obligation is such that whereas the Principal has submitted to New York State Department of Environmental Conservation certain Bid, attached hereto and hereby made a part hereof to enter into a contract in writing, for the

_____

_____

_____

Now, Therefore

a) If said Bid shall be rejected, or in the alternate,

b) If said Bid shall be accepted and the principal shall execute and deliver a contract in the Form of Contract attached hereto (properly completed in accordance with said Bid) and shall furnish a bond for the faithful performance of said contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said Bid.

Then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligation of said Surety and its bond shall be in no way impaired or affected by any extension of the time within which the Owner may accept such Bids; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

(Seal)

_____
Principal

_____
Surety

By _____

CONTRACT NUMBER _____

(ACKNOWLEDGMENT BY SURETY COMPANY)

State of)
County of) s.s.:

On this _____ day of _____, 20____ before me personally came _____ to me known, who being by me duly sworn, did depose and say that he/she resides in _____, that he/she is the _____ *(title)* of the _____ *(firm)*, the corporation described in and which executed the within instrument; that he/she knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by the order of the Board of Directors of said corporation and the he/she signed his name thereto by like order; and that the liabilities of said company do not exceed its assets as ascertained in the manner provided by the laws of the State of New York.

Seal

_____
Notary Public

(CORPORATE ACKNOWLEDGMENT WITH SEAL)

State of)
County of) s.s.:

On the _____ day of _____, 20 ___, before me personally came _____ to me known, who being duly sworn, did depose and say that (s)he resides in _____, New York; that (s)he is _____ *(title)* of _____ *(firm)* the corporation described in and which executed the above instrument; that (s)he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation and that (s)he signed his(her) name thereto by like order.

Seal

_____
Notary Public

(CORPORATE ACKNOWLEDGMENT WITHOUT SEAL)

State of)
County of) s.s.:

On the _____ day of _____, 20 ____, before me personally came _____ to me known, who being duly sworn, did depose and say that (s)he resides in _____, New York; that (s)he is an officer of _____ *(firm)*; namely, the _____ *(title)* of _____ *(firm)*; that (s)he is authorized by the governing body of said corporation to sign contracts; and that (s)he did sign the foregoing instrument on behalf of, and with authority to bind said corporation.

Seal

_____
Notary Public

(CO-PARTNERSHIP ACKNOWLEDGMENT)

State of)
County of) s.s.:

On the _____ day of _____, 20____, before me personally came _____ to me known and known to me to be a member of _____, the firm described in and which executed the foregoing instrument, and (s)he acknowledged to me that (s)he subscribed the name of said firm thereto on behalf of said firm for the purpose therein mentioned.

Seal

_____
Notary Public

(INDIVIDUAL ACKNOWLEDGMENT)

State of)
County of) s.s.:

On the _____ day of _____, 20____, before me personally came _____ to me personally known, and known to me to be the individual described in, and who executed the foregoing instrument, and (s)he duly acknowledged to me that (s)he executed the same.

Seal

_____
Notary Public

ARTICLE 2(a) - Corporate Resolution and Certification

"This Article 2(a) is not applicable"

ARTICLE 2(b) - Statement of Surety's Intent

To: *New York State Department of Environmental Conservation*

We have reviewed the Bid of _____ (Contractor)

of _____ (Address)

for _____ (Project)

Contract Number _____

NYS Site Number _____

Bids for which will be received on _____ (insert Bid Opening Date) and wish to advise that should this Bid of Contractor be accepted and the Contract awarded to Contractor, it is our present intention to become surety on the Performance Bond and Labor and Material Payment Bond required by the Contract.

Any arrangement for the Bonds required by the Contract is a matter between Contractor and ourselves and we assume no liability to Department or third parties if for any reason we do not execute the requisite bonds.

We are duly licensed to do business in the State of New York.

Attest:

Corporate Seal
(If no seal, write "No Seal" and sign)

_____
Surety's Authorized Signature(s)

_____
Telephone Number for Bonding Company

_____
Telephone Number for Bonding Broker

Attach Power of Attorney

ARTICLE 2(c) - NYS Directory of Certified Minority and Women-Owned Business

The New York State Directory of Certified Minority and Women-Owned Business Enterprises has been developed to assist public and private purchases of goods and services in locating and using bonafide minority and women-owned business as defined in accordance with Article 15-A of the Executive Law and Article 4(a) of the Economic Development Law.

M/WBE Directory on the Internet

Empire State Development has put the Minority and Women's Business Development Directory on the Internet. The Internet address is **www.empire.state.ny.us,** just follow the links to the M/WBE Directory.

The new system will be available seven (7) days a week, 7:00 a.m. to 10:00 p.m. and the information will be updated daily. Support will be available from 9:00 a.m. to 5:00 p.m., Monday through Friday, except for NYS holidays. If assistance is needed call (518) 474-1979.

ARTICLE 2(d)

M/WBE-EEO Opportunity Program Workplan

Policy Statement

The _____ commits to carrying out the intent of the New York State
(Name of Municipality)
Executive Law, Article 15-A which assures the meaningful participation of minority and women's business enterprises in contracting and the meaningful participation of minorities and women in the workforce on activities financed by public funds.

Minority Business Officer

_____ is designated as the Minority Business Enterprise Officer
(Name of Designated officer)
responsible for administering the Minority and Women's Business-Equal Employment Opportunity (M/WBE-EEO) program.

M/WBE Contract Goals

_____% Minority Business Enterprise Participation

_____% Women's Business Enterprise Participation

EEO Contract Goals

10% Minority Labor Force Participation

10% Female Labor Force Participation

_____
(Authorized Representative)

Title: _____

Date: _____

M/WBE-EEO WORKPLAN
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Grantee			Project Number
Address	City		Zip Code
Authorized Representative		Authorized Signature	
Address	City	Zip Code	Phone No.
Minority Business Enterprise Officer			Fax No.

Project Description (list separate contracts & estimates)

Contract No.	Description	Estimate
_____	_____	_____
_____	_____	_____
_____	_____	_____

PROJECTED EEO AND M/WBE CONTRACT SUMMARY

	%	Amount		%	No./Employ
1. Total Project Dollar Value			6. Total Employees		
2. State Share			7. Total Minority Employees/Goal		
3. MBE Project Goal			8. Total Female Employees/Goal		
4. WBE Project Goal					
5. M/WBE Totals Combined			9. EEO Total Combined		

OFFICE OF MINORITY & WOMEN'S BUSINESS PROGRAMS USE ONLY

Proposed Goals		Date Approved	Date Disapproved	Initials
MBE (%)	EEO-Minorities (%)			
WBE (%)	EEO-Women (%)			

Number/Types of Contracts	Contract Breakdown	Amount

SAMPLE

Number/Types of contracts	Contract Breakdown	Amount
General Construct. (Contract No. 1)	Paving	$150,000
	Demolition	30,000
	Paining	200,000
	Masonry	260,000
	Miscellaneous Metals	50,000
	Glazing	3,000
	Excavation and Backfill	210,000
	Fencing	12,000
	Concrete Finishing	20,000
	Reinforcing Steel	240,000
	Roofing	658,000
	Waterproofing	30,000
		$1,273,000
Electrical (Contract No. 2)	Underground Duct Banks	110,000
	Equipment Supply	260,000
	Lightening Protection	20,000
		390,000
H.V.A.C. (Contract No. 3)	Electrical Wiring	10,000
	Ductwork	45,000
	Controls	25,000
	Equipment Supply	60,000
		140,000
Plumbing (Contract No. 4)	Underground Piping	20,000
	Equipment Supply	25,000
		45,000
Sewer Rehab (Contract No. 5)	Cleaning & TV Inspection	35,000
	Joint Testing & Sealing	45,000
	Chemical Root Treatment	4,000
	Manhole Rehabilitation	8,000
	Excavation & Backfill	6,000
	Pavement Replacement	12,000
	Material Supply	5,000
		115,000
Sewer Rehab. (Contract No. 6)	Cleaning & TV Inspection	58,000
	Joint Testing & Sealing	126,000
	Chemical Root Treatment	3,000
	Manhole Rehabilitation	15,000
	Excavation & Backfill	3,000
	Pavement Replacement	2,800
	Material Supply	1,000
		208,800
	Total	$2,171,000

ARTICLE 2(e) - NYS Uniform Contracting Questionnaire Instructions

The NYS Uniform Contracting Questionnaire, which is included in Section V, "Bid Forms and Attachments," must be completed and submitted to **Department** by the apparent low bidder. The complete questionnaire must be received by **Department** within three (3) business days after the apparent low bidder has been so notified. The completed questionnaire or the affidavit of no change (if appropriate) must be addressed to:

NYS Department of Environmental Conservation
Division of Management and Budget Services
Procurement Bureau, Room 686
50 Wolf Road
Albany, NY 12233-5027

The envelope should be clearly marked **"NYS Uniform Contracting Questionnaire."** Failure of the apparent low bidder to timely submit the complete, properly executed questionnaire may result in disqualification of the low bidder.

Before **Department** will consent to any subcontracts over $10,000, the proposed subcontractor must submit a complete, properly executed questionnaire through **Contractor**.

Any delay in the progression of work caused by the failure of a subcontractor to comply with these requirements will be attributable to **Contractor** and any additional costs will be **Contractor**'s responsibility.

CCA-1 (4/93)

FED. ID. NO.: _____

NEW YORK STATE
UNIFORM CONTRACTING QUESTIONNAIRE

INSTRUCTIONS

Submit this form as required by the contracting agency after being announced the low bidder for any competitively bid contract of $10,000 or more, or when proposed for subcontract work valued at $10,000 or more. If you submitted one within 12 months of the bid date with any contracting agency, as long as the information remains unchanged and accurate, you may submit a complete certified copy of that form, together with an Affidavit of No Change, to the agency with which you are bidding. A contracting agency may require additional information deemed necessary for its review. Whenever more space is needed to answer any question, or you wish to give further explanation complete by attaching extra pages. All questions must be answered.

NOTE: Please indicate whether you believe that any of the information supplied herein is confidential and should be exempt from disclosure under the Freedom of Information Law: ____ yes, ____ no. If you checked "yes" you must identify the information you feel is confidential by placing an asterisk in front of the appropriate question number(s) and you are requested to attach an additional sheet(s) upon which the basis for such claim(s) is explained.

GENERAL INFORMATION

1. NAME OF FIRM _____

   DBA NAME, IF ANY _____

   MAILING ADDRESS _____ FAX NO. ( ) _____

   ACTUAL LOCATION _____ PHONE NO. ( ) _____

   CITY _____ COUNTY _____ STATE _____ ZIP _____

2. TYPE OF FIRM (Check [☒] Only One) _____ CORPORATION _____ PARTNERSHIP _____ PROPRIETORSHIP _____ JOINT VENTRUE

3. HOW MANY YEARS HAS THE FIRM BEEN IN BUSINESS? _____ UNDER THE SAME NAME? _____

4. WHAT IS THE FIRM'S BONDING RANGE? _____ SINGLE PROJECT _____ AGGREGATE

5. ARE YOU CERTIFIED AS A DBE _____ MBE _____ IF SO, WITH WHOM. _____

OWNERSHIP, MANAGEMENT, AFFILIATION

6. Identify each person who is, or has been within the past five years, an owner of 5.0% or more of the firm's shares, a direction an officer, a partner or the proprietor. Joint ventures: provide information for all firms involved. Fill in name, % owned, office held; indicate by Y or N whether director, officer or partner.

FIRST NAME	MI	LAST NAME	DATE OF BIRTH	% OWNED	DIRECTOR (Y or N)	OFFICER (Y or N)	TITLE	PARTNER (Y or N)

FED. ID. NO.: _____

7. Does the firm own, or has the firm within the past five years owned, 5.0% or more of any other firm? _____ Yes, list below _____ No

FEDERAL ID NO.	% OWNED	COMPANY NAME	ADDRESS

8. Identify any affiliate not listed in your answered to questions 6 and 7. For purposes of this question your firm and another are affiliates when, either directly or indirectly, one controls or has the power to control the other, or a third party or parties controls or has the power to control both.

FEDERAL ID NO.	COMPANY NAME	ADDRESS

9. Identify any and all shareholders, directors, officers, partners, or proprietors in common between your firm and any firm listed in response to questions 6, 7 or 8:

FEDERAL ID NO.	FIRST NAME, MI & LAST NAME	OTHER FIRM

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FED. ID. NO.: _____

10. List the ten most recent contracts the firm has completed. If less than ten, include most recent subcontracts on projects up to that number:

AGENCY/OWNER, CONTACT PERSON & TELEPHONE NO.	CONTRACT NO.	PRIME OR SUB	DESIGN ARCHITECT AND/OR DESIGN ENGINEER	AWARD DATE	AMOUNT	DATE COMPLETED
1						
2						
3						
4						
5						
6						
7						

11. List all current uncompleted construction contracts:

AGENCY/OWNER, CONTACT PERSON & TELEPHONE NO.	CONTRACT NO.	PRIME OR SUB	DESIGN ARCHITECT AND/OR DESIGN ENGINEER	TOTAL $ AMOUNT OF FIRM'S CONTRACT (OR SUBCONTRACT)	$ AMOUNT SUBLET TO OTHERS	UNCOMPLETED $ AMOUNT OF FIRM'S CONTRACT (OR SUBCONTRACT)

12. Net Total Billings for Firm's Previous 3 Fiscal Years:

19 ____ $ _____

19 ____ $ _____

19 ____ $ _____

Average Backlog for Firm's Previous 3 Fiscal Years:
(Estimated total value of uncompleted work on outstanding contracts)

19 ____ $ _____

19 ____ $ _____

19 ____ $ _____

FED. ID. NO.: _____

13. Has the firm, or any firm listed in response to questions 6, 7 or 8, defaulted or been terminated on, or had its surety called upon to complete, any contract awarded within the past five years? If so, give date(s), agency(ies)/owner(s), project(s), contract numbers, and describe including the result: _____

14. For all contracts within the past give years: (a) list and describe all liens or claims over $25,000 filed against the firm and remaining undischarged or unsatisfied for more than 90 days; and (b) list and describe all liquidated damages assessed.

FINANCIAL INFORMATION

15. Complete the attached financial statement or attach a copy of the firm's most recent annual financial statement.

OTHER INFORMATION

16. Within the past five years has the firm, any affiliate, any predecessor company or entity, or any person identified in question number 6 above been the subject of any of the following: (respond to each question and describe in detail the circumstances of each affirmative answer: attach additional pages if necessary)

a)	a judgment of conviction for any business-related conduct constituting a crime under state or federal law?	no	_____	yes	_____
b)	a criminal investigation or indictment for any business-related conduct constituting a crime under state or federal law?	no	_____	yes	_____
c)	a grant of immunity for any business-related conduct constituting a crime under state or federal law?	no	_____	yes	_____
d)	a federal or state suspension or debarment?	no	_____	yes	_____
e)	a rejection of any bid for lack of qualifications, responsibility or because of the submission of an informal, non-responsive or incomplete bid?	no	_____	yes	_____
f)	a rejection of any proposed subcontract for lack of qualifications, responsibility or because of the submission of an information, non-responsive or incomplete bid?	no	_____	yes	_____
g)	a denial or revocation of prequalification?	no	_____	yes	_____
h)	a voluntary exclusion from bidding/contracting agreement?	no	_____	yes	_____
i)	any administrative proceeding or civil action seeking specific performance or restitution in connection with any public works contract except any disputed work proceeding?	no	_____	yes	_____
j)	an OSHA Citation and Notification of Penalty containing a violation classified as serious?	no	_____	yes	_____
k)	an OSHA Citation and Notification of Penalty containing a violation classified as willful?	no	_____	yes	_____
l)	a prevailing wage or supplement payment violation?	no	_____	yes	_____
m)	a State Labor Law violation deemed willful?	no	_____	yes	_____
n)	any other federal or state citations, Notices, violation orders, pending administrative hearings or proceedings or determinations of a violation of any labor law or regulation?	no	_____	yes	_____
o)	any criminal investigation, felony indictment or conviction concerning formation of, or any business association with, an allegedly false or fraudulent women's, minority or disadvantaged business enterprise?	no	_____	yes	_____
p)	any denial, decertification, revocation or forfeiture of Women's Business Enterprise, Minority Business Enterprise or Disadvantaged Business Enterprise status?	no	_____	yes	_____
q)	rejection of a low bid on a State contract for failure to meet statutory affirmative action or M/WBE requirements?	no	_____	yes	_____
r)	a consent order with the NYS Department of Environmental Conservation, or a federal, state or local government enforcement determination involving a violation of federal or state environmental laws?	no	_____	yes	_____
s)	any bankruptcy proceeding?	no	_____	yes	_____

FED. ID. NO.: _____

t) any suspension or revocation of any business or professional license? no _____ yes _____

u) any citations, Notices, violation orders, pending administrative hearings or proceedings or determinations for violations of: no _____ yes _____

- ⓘ federal, state or local health laws, rules or regulations
- ⓘ unemployment insurance or workers compensation coverage or claim requirements
- ⓘ ERISA (Employee Retirement Income Security Act)
- ⓘ federal, state or local human rights laws
- ⓘ federal or state security laws?

_____ None of the above

CERTIFICATION

The undersigned recognizes that this questionnaire is submitted for the express purpose of inducing the State of New York or its agencies and instrumentalties to award a contract; or approve a subcontract; acknowledges that the State or its agencies and instrumentalities may in its discretion, by means which it may choose, determine the truth and accuracy of all statements made herein; acknowledges that intentional submission of false or misleading information may constitute a felony under Penal Law §210.40 or a misdemeanor under Penal Law §210.35 or §210.45, and may also be punishable by a fine of up to $10,000 or imprisonment of up to five years under 18 U.S.C. §1001; and that the information submitted in this questionnaire and any attached pages is true, accurate and complete.

Sworn to before me this

_____ day of _____, _____.

_____

Signature of Officer

_____

Notary Public

_____

Title

CCA-1 (4/93)

As of _____
(Date)

ASSETS

1.	Current Assets		
2.	Cash		$
3.	Accounts receivable - less allowance for doubtful accounts		
	Retainers included in accounts receivable	$	
	Claims included in accounts receivable not yet approved or in litigation		
4.	Notes receivable - due within one year		
5.	Inventory - materials		
6.	Contract costs in excess of billings on uncompleted contracts		
7.	Accrued income receivable		
	Interest		
	Other (list) _____		
	_____		
	Total accrued income receivable		
8.	Deposits		
	Bid and plan _____		
	Other (list) _____		
	_____		
	Total deposits		
9.	Prepaid Expenses		
	Income Taxes		
	Insurance		
	Other (list) _____		
	_____		
	Total prepaid expenses		
10.	Other current Assets		
	(list) _____		
	_____		
	Total other current assets		
11.	Total current assets		
12.	Investments		
	Listed securities - present market value		
	Unlisted securities - present value		
13.	Total investments		
14.	Fixed Assets		
	Land		
	Building and improvements		
	Leasehold improvements		
	Machinery and equipment		
	Automotive equipment		
	Office furniture and fixtures		
	Other (list) _____		
	_____		
	Total		
	Less: accumulated depreciation		
15.	Total fixed assets - net		
16.	Other Assets		
	Loans receivable - officers		
	- employees		
	- shareholders		
	Cash surrender value of officer's life insurance		
	Organization expense - net of amortization		
	Notes receivable - due after one year		
	Other (list) _____		
	_____		
17.	Total other assets		
18.	TOTAL ASSETS		

LIABILITIES

19.	Current Liabilities			
20.	Accounts payable			$
21.	Loans from shareholders - due within one year			
22.	Notes payable - due within one year			
23.	Mortgage payable - due within one year			
24.	Other payables - due within one year			
	(list) _____		$	
	_____			
	Total other payables - due within one year			
25.	Billings in excess of costs and estimated earnings			
26.	Accrued expenses payable	- salaries and wages		
		- payroll taxes		
		- employees' benefits		
		- insurance		
		- other		
	Total accrued expenses payable			
27.	Dividends payable			
28.	Income taxes payable	- state		
		- federal		
		- other		
	Total income expenses payable			
	Total current liabilities			
29.	Deferred Income Taxes Payable	- state		
		- federal		
		- other		
	Total deferred income taxes			
30.	Long Term Liabilities			
	Loans from shareholders - due after one year			
	Notes payable - due after one year			
	Mortgage - due after one year			
	Other payables - due after one year			
	(list) _____			
	_____			
	Total long term liabilities			
31.	Other Liabilities			
	(list) _____			
	_____			
	Total other liabilities			
32.	Total Liabilities			

Net Worth

33.	Net Worth (if proprietorship or partnership)		$
34.	Stockholders' Equity		
	Common stock issued and outstanding		
	Preferred stock issued and outstanding		
	Retained earnings		
	Total		
	Less: Treasury stock		
	Total stockholders' equity		
35.	TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY		

NOTE: IF ADDITIONAL SPACE IS REQUIRED, PLEASE NOTE AND ATTACH SCHEDULE TO STATEMENT

36. Dated this _____ day of _____, 19 _____.

_____
Name of Organization

By: _____

Affidavit of No Change

State of)
County of) s.s.:

The undersigned, being duly sworn, deposes and says:

1) I am an officer/owner of _____ (hereinafter the "Contractor"), which is currently submitting a bid on a State Contract.

2) Contractor previously submitted a NYS Uniform Contracting Questionnaire within one year prior to the date hereof to _____ in connection with a bid on another State Contract.

3) Attached is an accurate and true copy of such previously submitted NYS Uniform Contracting Questionnaire.

4) I hereby certify that, with the exception of the information specified in questions 10 and 11, there has been no material change in the information pertaining to the Contractor specified on such attached Questionnaire, except as follows:

_____

_____

_____

_____

5) I hereby certify that there has been no change in the information pertaining to the uncompleted construction contracts of the Contractor specified in question 11 on the attached Questionnaire, except as follows:

_____

_____

_____

_____

On this _____ day of _____ 20____, before me personally came _____ to me known to be the person described herein, and who executed the foregoing instrument, and severally acknowledged that (s)he executed the same.

(Seal)

_____
Notary Public

ARTICLE 3(a) - Instructions for Certificate of Insurance

Use this form to certify insurance coverage and provide policy information.

Contractor must fill out Section 1 in its entirety before sending to the insurance agent.

Contractor is encouraged to send a copy of Section VIII, "General Conditions," Article 4, along with the Certificate of Insurance Form to its insurance agent in order that all required coverages and provisions are accounted for.

Insurance Agency

1) Complete Section 2 of the form.

2) Enter N/A if No Excess Umbrella (9) policy is in effect.

3) All insurance certificates must have a policy number entered otherwise it will result in rejection of the certificate.

4) Certificates must be signed by an authorized representative of the firm.

5) Specify policy if Other (10) is in effect, otherwise enter N/A.

Contractor

1) Complete Section 1 of the form.

2) At the top of the form, check "New" if you are submitting proof of coverage for a new contract. Check "Renewal" if you are submitting proof of renewals.

3) Submit original certificate and subsequent renewals to Division of Environmental Remediation, Room 267, New York State Department of Environmental Conservation, 50 Wolf Road, Albany, New York 12233-7010, **Attention:** "_____, Project Manager." (See Section IV, Article 2 for name of project manager).

ARTICLE 3(b)

Certificate of Insurance

New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Construction Services
50 Wolf Road, Albany, NY 12233-7010

NYSDEC-DER Site No. _____

Certificate of Insurance
_____**New** _____**Renewal**

SECTION 1

Name and Address of Insured Contractor
(for Coverages 1,2,3,4,6,7,8,9,10)

_____
_____
_____

Name of Insured or Additional Insured
(for Coverage 5,6,7 & 10)
State of New York & NYS Department of Environmental Conservatio

Location and Description of Work _____

SECTION 2

This is to certify that policies of insurance listed below have been issued to the contractor, named above, and are in force at this time.

Insurance	*Policy #*	*Name of Company Affording Coverage*	*Expir. Date*	*Limits of Liability (in thousands)*	
				Each Occurrence	*Aggregate*
1. Contractor's Liability					
2. Contractor's Protective Liability					
3. Complete Operations/Products					
4. Contractual Liability					
5. Owner's Protective Liability					
6. Automobile Liability					
7. Pollution Liability				$5 million per claim if possible	
8 Worker's Comp. Disability Benefits				Limits as required by Law Limits as required by Law	
9. Excess Umbrella					
10 Other					

Such insurance as is herein certified: 1) applies to all operations of said insured in connection with the work required by the provisions of the documen forming this contract, 2) applies whether or not the contract documents between the insured contractor and the State of New York Department Environmental Conservation have been executed, and 3) is written in accordance with the company's regular policies and endorsements, subject to th company's applicable manuals or rules and rates in effect as modified by this certificate and the insurance article of the contract.

No policy referred to herein shall be changed, cancelled or coverage terminated for any reason including expiration of the policy or non-payment premiums until thirty (30) days written notice has been received by the Division of Environmental Remediation, Room 267, NYS Dept. of Environment Conservation, 50 Wolf Road, Albany, NY 12233-7010. Such notice shall be mailed via certified or registered mail.

_____ By _____
Date Issued (Signature of Authorized Representative)

_____
Print Insurance Agency Name

Policy coverages must agree with coverages stated on the Certificate. False statements of coverage are punishable under Section 117 of the New York State Insurance Law.

ARTICLE 3(c) - Instruction for Performance Bond and Labor and Material Payment Bond

1) The performance bond and the labor and material payment bond are to be only submitted by the bidder who receives the Notice of Intent to Award letter from **Department**.

2) Use the forms that are included in the Contract Documents. **DO NOT RETYPE THE FORMS.**

3) Attach a SEPARATE certified power of attorney and surety financial statement to EACH bond (i.e., one set attached to performance bond and one set attached to labor and material payment bond).

ARTICLE 3(d) - Performance Bond

Date Bond Executed _____ **NYSDEC-DER Site Number** _____

Date Contract Executed By Principal _____

Principal (Name and Address) _____

Surety (Name and Address - Indicate State of incorporation and location of principal office) _____

_____

Full and Just Sum of Bond (Express in words) _____

(Express in figures) _____

Know all men by these presents, That we, the **Principal** and **Surety**, above named, are held and firmly bound unto the Department of Environmental Conservation for and on behalf of the People of the State of New York, hereinafter called the Department, in full and just sum of the amount stated above, good and lawful money of the United States of America, to the payment of which said sum, well and truly to be made, we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

Whereas, the **Principal** has entered into a certain written contract with the Department, covering the project and specification above;

Now, Therefore, the condition of this obligation is such, that if the **Principal** shall well, truly and faithfully comply with and perform all of the terms, covenants and conditions of said contract on their (his, its) part to be kept and performed, according to the true intent and meaning of said contract, and shall protect the Department and the People of the State of New York against, and pay any and all amounts, damages, costs and judgments which may or shall be recovered against the Department or the State of New York may be called upon to pay to any person or corporation by reason of any damages arising or growing out of the doing of said work, or the repair or maintenance thereof, or the manner of doing the same, or the neglect of the **Principal**, or their (its) agents or servants, or the improper performance of the work by the **Principal**, or their (its) agents or servants, or the infringement of any patent or patent rights by reason of the use of materials furnished or work done as aforesaid or otherwise, then this obligation shall be null and void, otherwise to remain in full force and virtue.

And the **Surety**, for value received, hereby stipulates and agrees, if requested to do so by the department to fully perform and complete the work mentioned and described in the contract and specifications, pursuant to the terms, conditions and covenants thereof, if for any cause, the **Principal** fails or neglects to so fully perform and complete the work; and the **Surety** further agrees to commence the work of completion within twenty days after notice thereof from the Department, and to complete the work with all due diligence.

And the **Surety**, for value received hereby stipulates and agrees that no change, extension, alteration or addition to the terms of this contract or specifications, accompanying the same, shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension, alteration or addition.

In Testimony Whereof, the **Principal** and the President and Secretary of the **Surety** have caused this instrument to be signed and sealed on the date shown above.

Signed, sealed and delivered in the presence of _____

Name of Corporation

Corporate Seal of Principal if a Corporation

By _____

Print Name

_____ L.S.

Signature

Date _____

Corporate Seal of Surety Company

_____

Corporation Surety

_____

Business Address

By (President) _____

Attest (Secretary) _____

Date _____

(CORPORATE ACKNOWLEDGMENT WITH SEAL)

State of)
County of) s.s.:

On the _____ day of _____, 20 ____, before me personally came _____ to me known, who being duly sworn, did depose and say that (s)he resides in _____, New York; that (s)he is _____ *(title)* of _____ *(firm)* the corporation described in and which executed the above instrument; that (s)he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation and that (s)he signed his(her) name thereto by like order.

Seal

_____

Notary Public

(CORPORATE ACKNOWLEDGMENT WITHOUT SEAL)

State of)
County of) s.s.:

On the _____ day of _____, 20 _____, before me personally came _____, to me known, who being duly sworn, did depose and say that (s)he resides in _____, New York; that (s)he is an officer of _____ *(firm)*; namely, the _____ *(title)* of _____ *(firm)*; that (s)he is authorized by the governing body of said corporation to sign contracts; and that (s)he did sign the foregoing instrument on behalf of, and with authority to bind said corporation.

_____

Notary Public

(CO-PARTNERSHIP ACKNOWLEDGMENT)

State of)
County of) s.s.:

On the _____ day of _____, 20 ____, before me personally came _____ to me known and known to me to be a member of _____, the firm described in and which executed the foregoing instrument, and (s)he acknowledged to me that (s)he subscribed the name of said firm thereto on behalf of said firm for the purpose therein mentioned.

Seal

_____
Notary Public

(INDIVIDUAL ACKNOWLEDGMENT)

State of)
County of) s.s.:

On the _____ day of _____, 20_____, before me personally came _____ to me personally known, and known to me to be the individual described in, and who executed the foregoing instrument, and (s)he duly acknowledged to me that (s)he executed the same.

Seal

_____
Notary Public

(ACKNOWLEDGMENT BY SURETY COMPANY)

State of)
County of) s.s.:

On this _____ day of _____, 20_____ before me personally came _____ to me known, who being by me duly sworn, did depose and say that he/she resides in _____, that he/she is the _____ *(title)* of the _____ *(firm)*, the corporation described in and which executed the within instrument; that he/she knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by the order of the Board of Directors of said corporation and the he/she signed his name thereto by like order; and that the liabilities of said company do not exceed its assets as ascertained in the manner provided by the laws of the State of New York.

Seal

_____
Notary Public

ARTICLE 3(e) - New York State Department of Environmental Conservation

Labor and Material Payment Bond

Date Bond Executed _____ **NYSDEC-DER Site Number** _____

Date Contract Executed By Principal _____

Principal (Name and Address) _____

Surety (Name and Address - Indicate State of incorporation and location of principal office) _____

_____

Full and Just Sum of Bond (Express in words) _____

(Express in figures) _____

Know all men by these presents, That We, the **Principal** and the **Surety** above named, are held and firmly bound unto the Department of Environmental Conservation for and on behalf of the People of the State of New York, in full and just sum of the amount stated above, good and lawful money of the United States of America, to the payment of which said sum, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

Whereas, the **Principal** has entered into a certain written contract with the Department of Environmental Conservation, covering the project and specification indicated above.

Now, Therefore, the condition of this obligation is such, that if the **Principal** shall promptly pay all moneys due to all persons furnishing labor and materials to him or his subcontractors in the prosecution of the work provided for in the contract, then this obligation shall be void, otherwise to remain in full force and effect:

Provided, however, that the Comptroller of the State of New York having required the **Principal** to furnish this bond in order to comply with the provisions of Section 137 of the State Finance Law, all rights and remedies on this bond shall inure solely to such persons and shall be determined in accordance with the provisions, conditions and limitations of said Section to the same extent as if they were copied at length herein: and

Further, provided, that the place of trial of any action on this bond shall be in the county in which the contract was to be performed, or if the contract was to be performed in more than one county, then in any such county, and not elsewhere.

In Testimony Whereof, the **Principal** and the President and Secretary of the **Surety** have caused this instrument to be signed and sealed on the date shown above.

Signed, sealed and delivered in the presence of _____

Name of Corporation

Corporate Seal of Principal
if a Corporation

By _____

Print Name

_____ L.S.

Signature

Date _____

Corporate Seal of Surety Company

_____
Corporation Surety

_____
Business Address

By (President)_____

Attest (Secretary)_____

Date _____

(CORPORATE ACKNOWLEDGMENT WITH SEAL)

State of)
County of) s.s.:

On the _____ day of _____, 20 ____, before me personally came _____, to me known, who being duly sworn, did depose and say that (s)he resides in _____, New York; that (s)he is _____ *(title)* of _____ *(firm)* the corporation described in and which executed the above instrument; that (s)he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation and that (s)he signed his(her) name thereto by like order.

Seal

_____
Notary Public

(CORPORATE ACKNOWLEDGMENT WITHOUT SEAL)

State of)
County of) s.s.:

On the _____ day of _____, 20 ____, before me personally came _____, to me known, who being duly sworn, did depose and say that (s)he resides in _____, New York; that (s)he is an officer of _____ *(firm)*; namely, the _____ *(title)* of _____ *(firm)*; that (s)he is authorized by the governing body of said corporation to sign contracts; and that (s)he did sign the foregoing instrument on behalf of, and with authority to bind said corporation.

_____
Notary Public

(CO-PARTNERSHIP ACKNOWLEDGMENT)

State of)
County of) s.s.:

On the _____ day of _____, 20 ____, before me personally came _____, to me known and known to me to be a member of _____, the firm described in and which executed the foregoing instrument, and (s)he acknowledged to me that (s)he subscribed the name of said firm thereto on behalf of said firm for the purpose therein mentioned.

Seal

_____
Notary Public

(INDIVIDUAL ACKNOWLEDGMENT)

State of)
County of) s.s.:

On the _____ day of _____, 20____, before me personally came _____, to me personally known, and known to me to be the individual described in, and who executed the foregoing instrument, and (s)he duly acknowledged to me that (s)he executed the same.

Seal

_____
Notary Public

(ACKNOWLEDGMENT BY SURETY COMPANY)

State of)
County of) s.s.:

On this _____ day of _____, 20 _____ before me personally came _____, to me known, who being by me duly sworn, did depose and say that he/she resides in _____, that he/she is the _____ *(title)* of the _____ *(firm)*, the corporation described in and which executed the within instrument; that he/she knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by the order of the Board of Directors of said corporation and the he/she signed his name thereto by like order; and that the liabilities of said company do not exceed its assets as ascertained in the manner provided by the laws of the State of New York.

Seal

_____
Notary Public

CONSULTANT/CONTRACTOR DETAILED M/WBE-EEO UTILIZATION PLAN
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
(THE M/WBE-EEO GOALS MUST BE PLACED ON THE ENTIRE PROJECT COST)

Consultant/Contractor Name:			
Contract Type/Number:		Contract Award Date:	
Address:	City:	State:	Zip Code:
Project Owner Name:		Project/Grant No.:	
Address:	City:	State:	Zip Code:
Authorized Representative:		Title:	
Authorized Signature:			

EEO AND MBE/WBE CONTRACT SUMMARY (MUNICIPAL FORCE ACCOUNT N/A)

M/WBE CONTRACT SUMMARY	%	Amount	EEO CONTRACT SUMMARY	%	No./Emp.	Wk./Hrs.
1. Total Dollar Value of the Project			6. Total for all Employees			
2. Total Dollar Value of the Prime Contract			7. Total Goal for Minority Employees			
3. MBE Goal/Amount			8. Total Goal for Female Employees			
4. WBE Goal/Amount			9. EEO Combined Totals			
5. MBE/WBE Combined Totals						

Office of Minority & Women's Business Programs Use Only

Proposed Goals		Date Approved	Date Disapproved	Initials
MBE (%)	EEO-Minorities (%)			
WBE (%)	EEO-Minorities (%)			

SECTION I - MBE INFORMATION

In order to achieve the MBE Goals, New York State Certified MINORITY-OWNED firms are expected to participate in the following manner:

MBE Firm	Projected MBE Contract Amount and Award Date	Description of Work MBE	Contract Schedule/Start Date(s)	Contract Payment Schedule	Project Completion Date
Name: Address: City: State/Zip Code: Telephone No.:	$_____ DATE: _____				
Name: Address: City: State/Zip Code: Telephone No.:	$_____ DATE: _____				
Name: Address: City: State/Zip Code: Telephone No.:	$_____ DATE: _____				

SECTION II - [illegible] INFORMATION In order to achieve the WBE Go[illegible] New York State Certified WOMEN-OWNED firms ar[illegible] ected to participate in the following manner:

WBE Firm	Projected WBE Contract Amount and Award Date	Description of Work WBE	Contract Schedule/Start Date(s)	Contract Payment Schedule	Project Completion Date
Name: Address: City: State/Zip Code: Telephone No.:	$_____ DATE: _____				
Name: Address: City: State/Zip Code: Telephone No.:	$_____ DATE: _____				
Name: Address: City: State/Zip Code: Telephone No.:	$_____ DATE: _____				

SECTION III - EEO INFORMATION In order to achieve the EEO Goals, Minorities and Females are expected to be employed in the following job categories for the specified amount of work hours:

		All Employees		Minority Employees			
Job Categories	**Total Work Hours of Contract**	**Male**	**Female**	**African-American**	**Asian/Pacific Islander**	**Native American**	**Hispanic**
Officials/ Managers							
Professionals							
Technicians							
Sales Workers							
Office/Clerical							
Craftsman							
Laborers							
Services/ Workers							
Totals							

CONSULTANT/ CONTRACTOR DETAILED M/WBE-EEO UTILIZATION PLAN

This Utilization Plan must be verified under oath in the following manner:

(A) if the enterprise is a sole proprietorship, by owner, or if the enterprise is a partnership, by partner; or

(B) if the enterprise is a corporation, by the principal officer designated by the Board of Directors. All Applicants/Contractors must read and review all items preceding the verification before signing. These items contain responsibilities of the Applicant, rights retained by the State of New York and penalties that may be applied for false statements.

FIRST, this Utilization Plan form, the supporting documents and any other information provided in support of the utilization plan are considered part of the Contract/Application. It is recognized and acknowledged that the information contained in this Utilization Plan is given under oath and that any misrepresentation made in this is subject to both the civil and criminal laws of the State of New York.

SECOND, by filing this Utilization Plan, the Contractor/Applicant consents to periodic examination of its books, records, and an interview of its principals and employees by the OMWBP for the purpose of determining the solicitation and utilization of certified Minority and Woman-Owned Business Enterprises.

THIRD, by filing this Utilization Plan , the Applicant/Contractor consents to inquiries that may be directed by the OMWBP to the Applicant's/Contractor's companies, banking institutions, credit agencies, and contractors for the purpose of ascertaining the Applicant's/Contractor's payments to subcontractors.

FOURTH, the Applicant/Contractor agrees to provide notice to the OMWBP of any material change in the information contained in the original application within fifteen (15) days of such change.

FIFTH, by filing this utilization plan, the Applicant/Contractor consents to the OMWBP's sharing reports, summaries, reviews, analyses, recommendations and determinations related to this Utilization Plan with other state agencies, which may request such information as a result of the Applicant/Contractor submitting this Utilization Plan.

I have read and acknowledge the foregoing.

_____

Signature of Owner/Applicant

ARTICLE 4(a)

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MANAGEMENT AND BUDGET

CONTRACTOR'S APPLICATION FOR PAYMENT
(UNIT PRICE CONTRACT)

Payee (Name and Address)	FOR INTERNAL USE ONLY	
	STATE COMPTROLLER'S PRE AUDIT CERTIFIED FOR PAYMENT IN THE SUM OF	Comptroller's Contract Number
	$_____	Certificate Number
	By: _____	Originating Agency
Work Period Ending 20____		Date Prepared

With Final Payment Attach Labor Affidavits for Payroll Period to Conform to New York State Labor Law Section 220.

SCHEDULE I — FINANCIAL STATEMENT

CONTRACT AND CHANGE ORDER AMOUNTS Line		WORK COMPLETED TO DATE Line	
1. Original Bid Price (Schedule V, Col. 1)	$	1. Contract Work Performed (Schedule V, Col. 2)	$
2. Change Order (Schedule VI, Col. 1)	$	2. Change Orders (Schedule VI, Col. 2)	$
3. Net Contract Amount	$	3. Value earned to Date	$
4. Maximum Retainage (5% of Line 3)	$	4. Less Retainage (5% up to Maximum)	$
		5. Value Earned to Date Less Retainage	$
		6. Less Prior Payments	$
		7. This Payment	$

SCHEDULE II — CERTIFICATION BY CONTRACTOR

I _____ (Name) do hereby certify that I am _____ (Title) of the Company/Corporation herein referenced and contractor for the work described in the foregoing application for payment. According to my knowledge and belief all items and amounts shown on the face of this application for payment are correct, all work has been performed and/or materials supplied, the foregoing is a true and correct statement of the contract account up to and including the last day of the period covered by this application.

Date _____ Signature _____

SCHEDULE III — CERTIFICATION OF INSPECTOR

I certify that I have checked and verified the above application for payment; that to the best of my knowledge and belief it is a true and correct statement of work performed and/or material supplied by the contractor; that all work/or material included in this application has been inspected by me and/or by my duly authorized representative or assistants and that the work has been performed and/or materials supplied in full accordance with requirements of the referenced contract; and that payment claimed and requested by the contractor is correctly computed on the basis of work performed and/or material supplied to date.

Date _____ Architect/Engineer _____

SCHEDULE IV — ENDORSED BY DEPARTMENT OF ENVIRONMENTAL CONSERVATION

EXAMINED AND APPROVED BY RESPONSIBLE DIVISION OR BUREAU

DATE _____ SIGNATURE _____

APPROVED FOR PAYMENT BY DIVISION OF FISCAL MANAGEMENT

DATE _____ SIGNATURE _____

EXPENDITURES								LIQUIDATION			
					Accum						
Dept	Cost Center	Var	Yr	Object	Dept	Statewide	Amount	Orig. Agency	PO/Contract	Line	F/P

Project:	Contract Number
	Work Period

SCHEDULE V — JOB PROGRESS

Itemized Proposal					Work Completed to Date		
Item No.	Unit Price	Estimated Quantity	Type of Work	COLUMN 1 Contract Amount	Actual Quantity	COLUMN 2 Amount	Code
				$		$	
			Totals	$		$	

SCHEDULE VI — APPROVED CHANGE ORDERS

COLUMN 1			WORK %		COLUMN 2	COLUMN 1			WORK %		COLUMN 2
No.	+ -	Additions - Deductions	Prior	New	Value Earned to Date	No.	+ -	Additions-Deductions	Prior	New	Value Earned to Date
		$			$			$	SUBTOTAL		$
(SUB) TOTAL		$			$	TOTAL		$			$

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MANAGEMENT AND BUDGET

CONTRACTOR'S APPLICATION FOR PAYMENT
(LUMP SUM CONTRACT)

Payee (Name and Address)	FOR INTERNAL USE ONLY	
	STATE COMPTROLLER'S PRE AUDIT CERTIFIED FOR PAYMENT IN THE SUM OF	Comptroller's Contract Number
	$ _____	Certificate Number
	By: _____	Originating Agency
Work Period Ending 20____		Date Prepared

With Final Payment Attach Labor Affidavits for Payroll Period to Conform to New York State Labor Law Section 220.

SCHEDULE I — FINANCIAL STATEMENT

CONTRACT AND CHANGE ORDER AMOUNTS Line		WORK COMPLETED TO DATE Line	
1. Original Bid Price (Schedule V, Col. 1)	$	1. Contract Work Performed (Schedule V, Col. 2)	$
2. Change Order (Schedule VI, Col. 1)	$	2. Change Orders (Schedule VI, Col. 2)	$
3. Net Contract Amount	$	3. Value earned to Date	$
4. Maximum Retainage (5% of Line 3)	$	4. Less Retainage (5% up to Maximum)	$
		5. Value Earned to Date Less Retainage	$
		6. Less Prior Payments	$
		7. This Payment	$

SCHEDULE II — CERTIFICATION BY CONTRACTOR

I _____ (Name) do hereby certify that I am _____ (Title) of the Company/Corporation herein referenced and contractor for the work described in the foregoing application for payment. According to my knowledge and belief all items and amounts shown on the face of this application for payment are correct, all work has been performed and/or materials supplied, the foregoing is a true and correct statement of the contract account up to and including the last day of the period covered by this application.

_____ Date _____ Signature

SCHEDULE III — CERTIFICATION OF INSPECTOR

I certify that I have checked and verified the above application for payment; that to the best of my knowledge and belief it is a true and correct statement of work performed and/or material supplied by the contractor; that all work/or material included in this application has been inspected by me and/or by my duly authorized representative or assistants and that the work has been performed and/or materials supplied in full accordance with requirements of the referenced contract; and that payment claimed and requested by the contractor is correctly computed on the basis of work performed and/or material supplied to date.

_____ Date _____ Architect/Engineer

SCHEDULE IV — ENDORSED BY DEPARTMENT OF ENVIRONMENTAL CONSERVATION

EXAMINED AND APPROVED BY RESPONSIBLE DIVISION OR BUREAU — APPROVED FOR PAYMENT BY DIVISION OF FISCAL MANAGEMENT

DATE _____ SIGNATURE _____ DATE _____ SIGNATURE _____

EXPENDITURES								LIQUIDATION			
					Accum						
Dept	Cost Center	Var	Yr	Object	Dept	Statewide	Amount	Orig. Agency	PO/Contract	Line	F/P

Project:	Contract Number
	Work Period

SCHEDULE V — **JOB PROGRESS**

Item	Type of Work	COLUMN 1 Detailed Estimate	Work %		COLUMN 2 Value Earned to Date	Code
			Prior	New		
	TOTALS	$			$	

SCHEDULE VI — **APPROVED CHANGE ORDERS**

COLUMN 1			WORK %		COLUMN 2	COLUMN 1			WORK %		COLUMN 2
No.	+ -	Additions - Deductions	Prior	New	Value Earned to Date	No.	+ -	Additions-Deductions	Prior	New	Value Earned to Date
		$			$			$	SUBTOTAL		$
(SUB) TOTAL		$			$	TOTAL		$			$

Final Payment Release

For and in consideration of the receipt of final payment on the contract hereinafter identified, and in order to induce the New York State Department of Environmental Conservation **(Department)** to make such payment, the **Contractor** hereby releases the **Department** for any and all claims, of any nature whatsoever, arising under or in connection with the contract, except for the following claims:

(List any exempted claims)

For and in consideration of the receipt of final payment on the contract hereinafter identified, and in order to induce the **Department** to make such payment, the **Contractor** hereby states that it has paid all moneys due subcontractors, subconsultants, suppliers, material, men or others due payment for work or services performed in furtherance of this contract, except as follows:

_____

_____

(List all subcontractors, subconsultants, suppliers, etc. who have outstanding claims for payment or who have not been paid in full. A complete explanation of the facts and circumstances should be set forth on a separate sheet and attached hereto)

The **Contractor** hereby indemnifies and holds the **Department** and the State of New York harmless from any losses from claims, demands, payments, suits, actions, liens, recoveries and judgments of every nature and description brought or recovered against it by reason of failure to make such payments.

Contract Number _____

_____
Firm

_____
Print Name

_____
Signature

_____
Date

(CORPORATE ACKNOWLEDGMENT WITH SEAL)

State of)
County of) s.s.:

On the ____ day of _____, 20 ____, before me personally came _____ to me known, who being duly sworn, did depose and say that (s)he resides in _____, New York; that (s)he is _____ *(title)* of _____ *(firm)* the corporation described in and which executed the above instrument; that (s)he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation and that (s)he signed his(her) name thereto by like order.

Seal :

_____
Notary Public

(CORPORATE ACKNOWLEDGMENT WITH SEAL)

State of)
County of) s.s.:

On the ____ day of _____, 20 ____, before me personally came _____ to me known, who being duly sworn, did depose and say that (s)he resides in _____, New York; that (s)he is _____ *(title)* of _____ *(firm)* the corporation described in and which executed the above instrument; that (s)he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation and that (s)he signed his(her) name thereto by like order.

Seal

_____
Notary Public

(CORPORATE ACKNOWLEDGMENT WITHOUT SEAL)

State of)
County of) s.s.:

On the _____ day of _____, 20 ____, before me personally came _____ to me known, who being duly sworn, did depose and say that (s)he resides in _____, New York; that (s)he is an officer of _____ *(firm)*; namely, the _____ *(title)* of _____ *(firm)*; that (s)he is authorized by the governing body of said corporation to sign contracts; and that (s)he did sign the foregoing instrument on behalf of, and with authority to bind said corporation.

Seal

_____
Notary Public

Payment Affidavit

This Article 4(c) is not applicable

Office of the State Comptroller
Division of Pre-Audit and Accounting Records
BUREAU OF STATE EXPENDITURES

New York State Labor Law, Section 220-a
Prime Contractor's Certification

1) That I am an officer of _____ and am duly authorized to make this affidavit on behalf of the prime contractor on public contract No. _____.

2) That I fully comprehend the terms and provisions of Section 220-a of the Labor Law.

3) That, except as herein stated, there are no amounts due and owing to or on behalf of laborers employed on the project by the contractor. (Set forth any unpaid wages and supplements, if none, so state).

Name **Amount**

_____

_____

4) That the contractor hereby files every verified statement(s) required to be obtained by the contractor from the subcontractor(s).

5) That, upon information and belief, except as stated herein, all laborers (exclusive of executive or supervisory employees) employed on the project have been paid and prevailing wages and supplements for their services through _____, (if more than on subcontractor list name and date separately) the last day worked on the project by their subcontractor(s), (Set forth any unpaid wages and supplements, if none, so state and utilize clause 5 (A)).

Name **Amount**

_____

_____

(5a) That the contractor has no knowledge of amounts owing to or on behalf of any laborers of its subcontractor(s).

6) In the event it is determined by the Commissioner of Labor that the wages or supplements or both of any such subcontractor(s) have not been paid or provided pursuant to the appropriate schedule of wages and supplants, then the contractor shall be responsible for payment of such wages and supplants pursuant to the provision of Section 223 of the Labor Law.

_____ _____ _____
Signature **Print Name** **Title**

Acknowledgment:

STATE OF _____)
) SS:
COUNTY OF _____)

On the _____ day of _____, 20____, before me personally came _____, to me known and known to me to be the person described in an executed for foregoing instrument and acknowledged to me that (s)he executed the same.

_____ _____
Notary Public **County**

If this affidavit is verified by an oath administered by a notary public in a foreign country other than Canada, it must be accompanied by a certificate authenticating the authority of the notary who administers the oath. (See CPLR § 2309(c); Real Property Law, § 311, 312).

Office of the State Comptroller
Division of Pre-Audit and Accounting Records
BUREAU OF STATE EXPENDITURES

New York State Labor Law, Section 220-a, Subcontractor's Certification

1) That I am an officer of _____ a subcontractor on public Contract Number _____ and I am duly authorized to make this affidavit on behalf of the firm.

2) That I make this affidavit in order to comply with the provisions of Section 220-a of the Labor Law.

3) That on _____ we received from _____ the prime contractor a copy of the initial/revised schedule of wages and supplements Prevailing Rate Schedule Case Number _____ (PRC) specified in the public improvement contract.

4) That I have reviewed such schedule(s), and agree to pay the applicable prevailing wages and to pay or provide the supplements specified therein.

_____
Signature

_____
Print Name

_____
Title

Acknowledgment

STATE OF_____)
) SS:
COUNTY OF_____)

On the _____ day of _____, 20____, before me personally came _____, to me known and known to me to be the person described in and who executed for foregoing instrument and acknowledged to me that (s)he executed the same.

_____
Notary Public

If this affidavit is verified by an oath administered by a notary public in a foreign country other than Canada, it must be accompanied by a certificate authenticating the authority of the notary who administers the oath. (See CPLR § 2309(c); Real Property Law, § 311, 312).

SECTION VI

Agreement

This Agreement by and between the **New York State Department of Environmental Conservation**, (hereinafter referred to as **Department**) having offices at 50 Wolf Road, Albany, New York 12233 and _____

____ a corporation organized and existing under the laws of the State of _____

____ a partnership, consisting of

____ an individual conducting business as

the location of whose principal office is _____hereinafter called **"Contractor."**

WITNESSETH

***Whereas*, Department** is empowered by law to obtain services; the performance of these services is essential to **Department**; and **Department**, after fully examining all of its internal capabilities and thoroughly investigating all possible alternative approaches, has determined that certain tasks can best be accomplished through a contract;

***Whereas*, Contractor** hereby represents that it is capable of providing the services which are the subject matter of this Contract;

***Now Therefore*, Department and Contractor**, in consideration of the mutual covenants hereinafter set forth agree as follows:

ARTICLE 1 - Defined Terms

Terms used in the Agreement which are defined in the Contract Documents have the intent and meanings assigned to them in the Contract Documents.

ARTICLE 2 - Work

As indicated or specified in the Contract Documents, **Contractor** shall complete in a timely and workmanlike manner, any and all obligations, duties and responsibilities, and provide any and all labor, materials, equipment, temporary facilities, and incidentals necessary to complete the construction generally identified and shown on the plans and Contract Documents entitled:

Oswego Castings Site
Oswego County, New York

ARTICLE 3 - Engineer

Department shall assume all duties and responsibilities of and have the rights and authority assigned to **Engineer** in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.

ARTICLE 4 - Contract Documents

The Documents which comprise the entire Contract between **Department** and **Contractor** concerning the Work consist of the following:

4.0 Appendices A and B
4.1 Rider to Appendix B
4.2 **Engineer's** written clarifications and interpretations
4.3 Change Orders
4.4 Administrative Agreements
4.5 Field Orders
4.6 Proposed Change Orders signed by **Department**
4.7 Approved Shop Drawings
4.8 Addenda
4.9 Agreement
4.10 Measurement for Payment
4.11 Bid Forms and Attachments Exclusive of Bonds and Insurance Certificates
4.12 Drawings, Plans
4.13 Supplementary Specifications
4.14 Supplementary Conditions
4.15 Standard Specifications
4.16 General Conditions
4.17 Supplementary Bidding Information and Requirements
4.18 Bidding Information and Requirements
4.19 Terms and Definitions
4.20 Advertisement
4.21 Bonds and Insurance Certificates

In the event of a conflict between the documents set forth above, they shall be entitled to priority according to the order in which they are listed.

ARTICLE 5 - Contractor's Representations

In order to induce **Department** to enter into this Agreement, **Contractor** makes the following representations:

5.1 **Contractor** has familiarized itself with the nature and extent of the Contract Documents, Work, site, locality, and all local conditions and applicable Laws that in any manner may affect cost, schedule, progress, performance or furnishing of the Work.

5.2 **Contractor** has studied carefully all reports of explorations and tests of subsurface conditions and drawings of physical conditions which are identified in Information to Bidders, as provided in the General Conditions, and accepts the determination set forth in said Section to the extent of the technical data contained in such reports and drawings upon which **Contractor** is entitled to reply.

5.3 **Contractor** has obtained and carefully studied all such examinations, investigations, explorations, tests, reports and studies which pertain to the subsurface or physical conditions at or contiguous to the site or otherwise may affect the cost, schedule, progress, performance or furnishing of the Work as **Contractor** considers necessary for the performance or furnishing of the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, including specifically the provisions of Article 3 of the General Conditions; and no additional examinations, investigations, explorations, tests, reports, studies or similar information or data are or will be required by **Contractor** for such purposes.

5.4 **Contractor** has reviewed and checked all information and data shown or indicated on the Contract Documents with respect to existing Underground Facilities. No additional examinations, investigations, explorations, tests, reports, studies or similar information or data in respect of said Underground Facilities are or will be required by **Contractor** in order to perform and furnish the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, including specifically the provisions of Article 3 of the General Conditions.

5.5 **Contractor** has correlated (or assumes responsibility for correlating) the results of all such observations, examinations, investigations, explorations, tests, reports and studies with the terms and conditions of the Contract Documents.

5.6 **Contractor** has given **Engineer** written notice of all conflicts, errors or discrepancies that he (she) has discovered in the Contract Documents and any written resolution thereof is acceptable to **Contractor**.

ARTICLE 6 - Contract Time

The number of days within which, or alternatively, the dates by which, the Work, or any specified part thereof, is to be completed (the Contract Times) are set forth as follows:

6.1 The Work will be Substantially Completed within one hundred and thirty five (135) days from the date established in the Notice to Proceed.

6.2 Separable parts of the Work, if specified in an Attachment A to this Agreement, will be Substantially Completed within the number of days stated in Attachment A from the date established in the Notice to Proceed.

6.3 The Work will be completed and ready for final payment in accordance with the General Conditions within two hundred and ten (195) days from the date established in the Notice to Proceed or within 60 days of substantial completion, whichever is sooner.

6.4 **Department** and **Contractor** recognize that the Contract Time(s) specified in paragraphs 6.1, 6.2, and 6.3 above are of the essence of this Agreement, and that **Department** may suffer financial loss if the Work is not completed within the Contract Time(s) specified above, plus any extensions thereof allowed in accordance with the General Conditions, as amended or supplemented in the Supplementary Conditions.

6.5 Accordingly, **Contractor** agrees to forfeit and pay **Department** as liquidated damages, and not as a penalty, the amount of five hundred dollars ($500) for each day that expires after the Contract Time specified in paragraph 6.1 above for Substantial Completion until the Work is Substantially Complete. **Contractor** further agrees to pay **Department** as liquidated damages, and not as a penalty, each of the amounts set forth in Attachment A to this agreement for each day that expires after each of the contract times specified in paragraph 6.2 above for substantial completion until the each of the separable parts of the work is substantially complete. After substantial completion of the work, if **Contractor** shall

neglect, refuse or fail to complete the remaining work within the contract time or any proper extension thereof granted by **Department**, **Contractor** shall pay **Department** as liquidated damages, and not as a penalty, the amount of two hundred and fifty dollars ($250) for each day that expires after the Contract Time specified in paragraph 6.3 above for completion and readiness for payment. These liquidated damages are additive and represent a reasonable estimate, in lieu of any such proof, of **Department's** extra expenses for Inspection, engineering services, administrative costs, and Interim excess operating costs for each day that expires after the associated Contract Time.

6.6 In addition to the liquidated damage amounts set forth in paragraph 6.5 above, **Contractor** agrees to pay **Department's** additional actual damages arising out of the types of expenses itemized below for each day that expires after each of the Contract Times specified in paragraph 6.1 above for Completion of each of the designated parts of the Work until each of the designated parts of the Work achieves the specified completion. These actual damages are additive and shall equal **Department's** expenditures for costs other than those itemized in paragraph 6.5, including, but not limited to, delay damage settlements or awards related to other separate contracts, delay penalties or fines imposed by regulatory agencies, contract damage and loss of use, excess financing costs, and professional fees and related expenses incurred thereto.

ARTICLE 7 - Alterations and Omissions

Department reserves the right, at any time during the progress of the work, to alter the plans or omit any portion of the work as it may deem reasonably necessary for the public interest; making allowances for additions and deductions with compensation made in accordance with the Contract Documents.

ARTICLE 8 - Determinations as to Variances

In case of any ambiguity in the Contract Documents, the matter must be immediately submitted to the Representative of **Department** designated in the Contract Documents, who shall adjust the same, and his (her) decision in relation thereto shall be final and conclusive upon the parties.

ARTICLE 9 - Payment Procedures

Contractor shall submit Applications for Payment on standard form in accordance with the General Conditions. Applications for Payment will be processed by **Engineer** as provided in the General Conditions, as amended or supplemented in the Supplementary Conditions and in accordance with Section 139-f of the State Finance Law.

9.1 **Progress Payments. Contractor** shall submit Applications for Payments to **Engineer** for review no more frequently than monthly in accordance with paragraph 13.2 of the General Conditions from the date when the Contract Time commences to run. **Department** shall make progress payments against the Contract Price on the basis of **Contractor's** Applications for Payment as recommended by **Engineer** as provided below. All progress payments will be calculated on the basis of the progress of the Work measured by the schedule of values established pursuant to paragraph 1.4.3 of the General Conditions. Progress payments will also be made for materials pertinent to the Contract in accordance with the General Conditions.

9.1.1 Prior to Substantial Completion of the Work, progress payments will be made less five percent (5%) the aggregate of payments previously made and less an amount necessary to satisfy any claims, liens, or judgments against **Contractor** which have not been suitably discharged.

9.2 **Payment upon substantial completion.** When the work or major portions thereof, as contemplated in the Contract Documents, is substantially completed, **Contractor** shall submit to **Department**, an Application for Payment in accordance with the General Conditions for the remaining amount of the contract balance or amount due for that major portion completed. **Department** will pay the remaining Contract balance, or amount due for that major portion completed, less two times the value of any remaining items to be completed and an amount necessary to satisfy any claims, liens, judgments against **Contractor** which have not been suitably discharged. Payment for remaining items will be made upon their completion.

9.3 **Final Payment.** Upon final completion of the physical Work and acceptance of the Work in accordance with the General Conditions, **Department** shall pay the remainder of the Contract Price as recommended by **Engineer.**

ARTICLE 10 - No Estimate on Contractor's Noncompliance

It is further agreed that so long as **Contractor** has not complied with any lawful or proper direction concerning the work or material given by **Department, Contractor** shall not be entitled to have any estimate made for the purpose of payment, nor shall any estimate be rendered on account of work done or material furnished until **Contractor** has fully and satisfactorily complied with such direction.

ARTICLE 11 - Delays, Inefficiencies, and Interference

Contractor agrees to make no claim for any consequential damages attributable to any delays, or act in the performance of this contract which are not directly occasioned by any act or omission to act by the State or any of its representatives. In the event **Contractor** completes the work prior to the contract completion date set forth in the proposal, **Contractor** hereby agrees to make no claim for extra costs due to delays, interferences or inefficiencies in the performance of the work.

1) **Contractor** further agrees that it has included in its bid prices for the various items of the contract any additional costs for delays, inefficiencies, or interferences affecting the performance or scheduling of contract work caused by, or attributable to, the following instances:

   a) The work or the presence on the Site of any third party, including but not limited to that of other contractors or personnel employed by the State, or by other public bodies, by railroad, transportation or utility companies or corporations, or by private enterprises, or any delay in progressing such work by any third party.

   b) The existence of any facility or appurtenance owned, operated, or maintained by any third party.

   c) The act, or failure to act, of any other public or governmental body, including, but not limited to, approvals, permits, restrictions, regulations or ordinances.

   d) Restraining orders, injunctions, or judgments issued by a court.

   e) Any labor boycott, strike, picketing or similar situation.

   f) Any shortages of supplies or materials required by the contract work.

   g) Any situation which was, or should have been within, the contemplation of the parties at the time of entering into the contract.

ARTICLE 12 - Postponement, Suspension or Termination

12.1 **Department** shall have the right to postpone, suspend or terminate this Contract in whole or in part for the convenience of **Department**. If, after termination for cause of **Contractor** it is determined that no cause existed for termination of **Contractor**, such termination shall be deemed to have been made for the convenience of **Department**.

12.2 If this Contract is terminated by **Department** for convenience or cause, **Department** shall make payment on an equitable basis for all work performed in accordance with the Contract Documents prior to termination in accordance with paragraphs 12.3 and 12.4 below.

12.3 If this contract is terminated for cause, no payment shall be made for anticipated profit on unperformed work or services. Additionally, **Department** may adjust any payment due to **Contractor** at the time of termination to account for any additional costs to **Department** because of **Contractor's** default.

12.4 If this contract is terminated for convenience, payment shall be made for any services rendered and expenses incurred prior to the termination, in addition to termination settlement costs reasonably incurred by **Contractor** which had become firm prior to the termination.

12.5 Upon termination of this Contract under this Agreement, **Department** may take over the work or may award or negotiate a contract with another party to complete work required by these Contract Documents.

ARTICLE 13 - Completion of Physical Work and Final Acceptance

The time within which **Department** may bring an action on the Contract against **Contractor** shall be computed from the date of completion of the physical Work. In accordance with Section 138-a of the State Finance Law, **Contractor** shall notify **Department** in writing that the physical Work has been completed. The date of completion must be no more than thirty days prior to the date of the notice. This notice must be delivered personally or by either registered or certified mail, return receipt requested to the exact address given below.

Mr. George Harris, P.E.
Bureau of Construction Services
50 Wolf Road, Room 281
Albany, NY 12233-7010

If **Department** disagrees with the date set forth in the notice, it will so advise **Contractor** in writing within 30 days of receipt of the notice. This notice will be delivered by either registered or certified mail, return receipt requested to **Contractor's** address as shown in this Agreement.

If **Department** accepts **Contractor's** date of completion of physical Work, **Department's** final acceptance of work shall be as of that date.

When, in the opinion of **Department**, **Contractor** has fully performed the physical Work under the Contract, **Department** shall notify **Contractor** in writing of final acceptance.

ARTICLE 14 - Final Payment

After the final acceptance of the work, **Engineer** shall prepare a final agreement of the work performed and the materials placed and shall compute the value of such work and materials under and according to the terms of the contract. This agreement shall be certified, as to its correctness, by **Engineer** and submitted for final approval to **Department**. The Representative of **Department** designated in the Contract Documents shall have

the right to reject the whole or any portion of the final agreement, should the said certificate of **Engineer** be found or known to be inconsistent with the terms of the agreement or otherwise improperly given and upon failure of **Contractor** to provide requested documentation including but not limited to that regarding payment of wages, suppliers or subcontractors. All certificates upon which partial payments may have been made being merely estimates, shall be subject to correction in the final certificate or final agreement.

ARTICLE 15 - Disposition of Documents and Data

Upon final acceptance of work under this Contract or termination of this Contract pursuant to this Agreement, or upon written demand of **Department**, **Contractor** shall promptly deliver or otherwise make available to **Department** all data, drawings, reports, estimates, and such other information and materials as may have been accumulated by **Contractor** in performing this Contract.

ARTICLE 16 - Applicable Law; Jurisdiction; Service of Legal Process

Contractor agrees:

16.1 That this Agreement is subject to and governed by all applicable federal and New York State law.

16.2 To procure all necessary licenses and permits.

16.3 To voluntarily and irrevocably submit to the jurisdiction of a New York State Court of competent jurisdiction, to resolve any dispute or controversy arising out of this Contract.

16.4 That the venue of any action at law or in equity commenced against **Department** arising out of a Project in one of **Department's** regions, shall be in the county in that Region where **Department** regional headquarters is located.

16.5 That the service of legal process or any notices in connection with a dispute or controversy arising out of this Contract, by United States registered mail, postage prepaid, addressed to the Designated representative of **Department** at the address stated in the Contract. Documents shall constitute good and valid service of process upon **Engineer**.

16.6 To waive any defense based on or alleging lack of jurisdiction, improper venue, or invalid service, if there is compliance with paragraphs 16.3 and 16.4 in this Article.

16.7 This Contract may be presented in court as conclusive evidence of the foregoing agreement.

ARTICLE 17 - Sales and Use Tax Exemption

Contractor represents that this project has been bid in such a manner that **Department** has full advantage of available exemptions from sales and compensating use taxes. Accordingly, **Contractor** agrees to make all payment requests in a manner which affords **Department** full advantage of such exemptions. Further, **Contractor** agrees to complete and to require all subcontractors and material men to complete a Contractor Exempt Purchase Certificate in the name of the New York State Department of Environmental Conservation, which shall be furnished to all persons, firms or corporations from whom they purchase materials, equipment or supplies which are tax exempt by reason of the fact that they will be sold to **Department**, or will be used as an integral component in the construction, rehabilitation, or improvement of any structure of building required by the Contract Documents.

Contractor agrees to maintain and keep, and to contractually require all subcontractors and material men to maintain and keep, records relating to the tax exemption of material, equipment and Supplies for a period of six years. The six year period shall commence to run as of the date of final payment.

ARTICLE 18 - Effective Date

This Contract shall take effect as of the date it is approved and filed by the Comptroller.

ARTICLE 19 - Contract Price

The maximum payment which **Department** shall pay to **Contractor**, and which **Contractor** agrees to accept as full payment for its work under this Contract, is the total of:

1)	Bid	$_____
2)	Bid Alternate (Pollution Liability Insurance)	$_____
	Total	$_____

Plus change order(s)

CONTRACT NUMBER _____

IN WITNESS WHEREOF, representatives of the Department and the Contractor have executed this Contract on the day and year written beneath their respective signatures. The signatory for the Department provides the following Agency Certification: "In addition to the acceptance of this contract, I also certify that original copies of this signature page will be attached to all other exact copies of this contract."

Recommended:

By: _____

Title: _____

Date: _____

FOR DEPARTMENT

By: _____

Title: _____

Date: _____

FOR CONTRACTOR

By: _____

Title: _____

Date: _____

Approved as to Form:

By: _____
For Attorney General

Date: _____

Approved:

By: _____
For State Comptroller

Date: _____

This contract is not effective until it is approved by the State Comptroller and filed in his office (Section 112, State Finance Law).

CONTRACT NUMBER _____

(CORPORATE ACKNOWLEDGMENT WITH SEAL)

State of)
County of) s.s.:

On the ____ day of _____, 19 ____, before me personally came _____ to me known, who being duly sworn, did depose and say that (s)he resides in _____, New York; that (s)he is _____ *(title)* of _____ *(firm)* the corporation described in and which executed the above instrument; that (s)he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation and that (s)he signed his(her) name thereto by like order.

Seal

_____
Notary Public

(CORPORATE ACKNOWLEDGMENT WITHOUT SEAL)

State of)
County of) s.s.:

On the ____ day of _____, 19 ____, before me personally came _____, to me known, who being duly sworn, did depose and say that (s)he resides in _____, New York; that (s)he is an officer of _____ *(firm)* ; namely, the _____ *(title)* of _____ *(firm)*; that (s)he is authorized by the governing body of said corporation to sign contracts; and that (s)he did sign the foregoing instrument on behalf of, and with authority to bind said corporation.

_____
Notary Public

(CO-PARTNERSHIP ACKNOWLEDGMENT)

State of)
County of) s.s.:

On the ____ day of _____, 19 ____, before me personally came _____ to me known and known to me to be a member of _____, the firm described in and which executed the foregoing instrument, and (s)he acknowledged to me that (s)he subscribed the name of said firm thereto on behalf of said firm for the purpose therein mentioned.

Seal

_____
Notary Public

(INDIVIDUAL ACKNOWLEDGMENT)

State of)
County of) s.s.:

On the ____ day of _____, 19____, before me personally came _____ to me personally known, and known to me to be the individual described in, and who executed the foregoing instrument, and (s)he duly acknowledged to me that (s)he executed the same.

Seal

_____
Notary Public

SECTION VII

APPENDIX A
STANDARD CLAUSES FOR ALL NEW YORK STATE CONTRACTS

The parties to the attached contract, license, lease, amendment or other agreement of any kind (hereinafter, "the contract" or "this contract") agree to be bound by the following clauses which are hereby made a part of the contract (the word "Contractor" herein refers to any party other than the State, whether a contractor, licenser, licensee, lessor, lessee or any other party):

1. EXECUTORY CLAUSE. In accordance with Section 41 of the State Finance Law, the State shall have no liability under this contract to the Contractor or to anyone else beyond funds appropriated and available for this contract.

2. NON-ASSIGNMENT CLAUSE. In accordance with Section 138 of the State Finance Law, this contract may not be assigned by the Contractor or its right, title or interest therein assigned, transferred conveyed, sublet or otherwise disposed of without the previous consent, in writing, of the State and any attempts to assign the contract without the State's written consent are null and void. The Contractor may, however, assign its right to receive payment without the State's prior written consent unless this contract concerns Certificates of Participation pursuant to Article 5-A of the State Finance law.

3. COMPTROLLER'S APPROVAL In accordance with Section 112 of the State Finance Law (or, if this contract is with the State University or City University of New York, Section 355 or Section 6218 of the Education Law), if this contract exceeds $10,000 (or the minimum thresholds agreed to by the Office of the State Comptroller for certain S.U.N.Y. and C.U.N.Y. contracts), or if this is an amendment for any amount to a contract which, as so amended, exceeds said statutory amount, or if, by this contract, the State agrees to give something other than money when the value or reasonably estimated value of such consideration exceeds $15,000, it shall not be valid, effective or binding upon the State until it has been approved by the State Comptroller and filed in his office.

4. WORKERS' COMPENSATION BENEFITS. In accordance with Section 142 of the State Finance Law, this contract shall be void and of no force and effect unless the Contractor shall provide and maintain coverage during the life of this contract for the benefit of such employees as are required to be covered by the provisions of the Workers' Compensation Law.

5. NON-DISCRIMINATION REQUIREMENTS. In accordance with Article 15 of the Executive Law (also known as the Human Rights Law) and all other State and Federal statutory and constitutional non-discrimination provisions, the Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, sex, national origin, age, disability or marital status. Furthermore, in accordance with Section 220-e of the Labor Law, if this is a contract for the construction, alteration or repair of any public building or public work or for the manufacture, sale or distribution of materials, equipment or supplies, and to the extent that this contract shall be performed within the State of New York, Contractor agrees that neither it nor its subcontractors shall, by reason of race, creed, color, disability, sex, or national origin: (a) discriminate in hiring against any New York State citizen who is qualified and available to perform the work; or (b) discriminate against or intimidate any employee hired for the performance of work under this contract. If this is a building service contract as defined in Section 230 of the Labor Law, then, in accordance with Section 239 thereof, Contractor agrees that neither it nor its subcontractors shall by reason of race, creed, color, national origin, age, sex, or disability: (a) discriminate in hiring against any New York State citizen who is qualified and available to perform the work; or (b) discriminate against or intimidate any employee hired for the performance of work under this contract. Contractor is subject to fines of $50.00 per person per day for any violation of Section 220-e or Section 239 as well as possible termination of this contract and forfeiture of all moneys due hereunder for a second or subsequent violation.

6. WAGE AND HOURS PROVISIONS. If this is a public work contract covered by Article 8 of the Labor Law or a building service contract covered by Article 9 thereof, neither Contractor's employees nor the employees of its subcontractors may be required or permitted to work more than the number of hours or days stated in said statutes, except as otherwise provided in the Labor law and as set forth in prevailing wage and supplement schedules issued by the State Labor Department. Furthermore, Contractor and its subcontractors must pay at least the prevailing wage rate and pay or provide the prevailing supplements, including the premium rates for overtime pay, as determined by the State Labor Department in accordance with the Labor Law.

7. NON-COLLUSIVE BIDDING REQUIREMENT. In accordance with Section 139-d of the State Finance Law, if this contract was awarded based upon the

submission of bids, Contractor warrants, under penalty of perjury, that its bid was arrived at independently and without collusion aimed at restricting competition. Contractor further warrants that, at the time Contractor submitted its bid, an authorized and responsible person executed and delivered to the State a non-collusive bidding certification on Contractor's behalf.

8. INTERNATIONAL BOYCOTT PROHIBITION. In accordance with Section 220-f of the Labor Law and Section 139-h of the State Finance Law, if this contract exceeds $5,000, the Contractor agrees, as a material condition of the contract, that neither the Contractor nor any substantially owned or affiliated person, firm, partnership or corporation has participated, is participating, or shall participate in an international boycott in violation of the Federal Export Administration Act of 1979 (50 USC App. Sections 2401 et seq.) or regulations thereunder. If such Contractor, or any of the aforesaid affiliates of Contractor, is convicted or is otherwise found to have violated said laws or regulations upon the final determination of the United States Commerce Department or any other appropriate agency of the United States subsequent to the contractors execution, such contract, amendment or modification thereto shall be rendered forfeit and void. The Contractor shall so notify the State Comptroller within five (5) business days of such conviction, determination or disposition of appeal (2NYCRR 105.4).

9. SET-OFF RIGHTS. The State shall have all of its common law, equitable and statutory rights of set-off. These rights shall include, but not be limited to, the State's option to withhold for the purposes of set-off any moneys due to the Contractor under this contract up to any amounts due and owing to the State with regard to this contract, any other contract with any State department or agency, including any contract for a term commencing prior to the term of this contract, plus any amounts due and owing to the State for any other reason including, without limitation, tax delinquencies, fee delinquencies or monetary penalties relative thereto. The State shall exercise its set-off rights in accordance with normal State practices including, in cases of set-off pursuant to an audit, the finalization of such audit by the State agency, its representatives, or the State Comptroller.

10. RECORDS. The Contractor shall establish and maintain complete and accurate books, records, documents, accounts and other evidence directly pertinent to performance under this contract (hereinafter, collectively, "the Records"). The Records must be kept for the balance of the calendar year in which they were made and for six (6) additional years thereafter. The State Comptroller, the Attorney General and any other person or entity authorized to conduct an examination, as well as the agency or agencies involved in this contract, shall have access to the Records during normal business hours at an office of the Contractor within the State of New York or, if no such office is available, at a mutually agreeable and reasonable venue within the State, for the term specified above for the purposes of inspection, auditing and copying. The State shall take reasonable steps to protect from public disclosure any of the Records which are exempt from disclosure under Section 87 of the Public Officers Law (the "Statute") provided that: (i) the Contractor shall timely inform an appropriate State official, in writing, that said records should not be disclosed; and (ii) said records shall be sufficiently identified; and (iii) designation of said records as exempt under the Statute is reasonable. Nothing contained herein shall diminish, or in any way adversely affect, the State's right to discovery in any pending or future litigation.

11. IDENTIFYING INFORMATION AND PRIVACY NOTIFICATION. (a) FEDERAL EMPLOYER IDENTIFICATION NUMBER and/or FEDERAL SOCIAL SECURITY NUMBER. All invoices or New York State standard vouchers submitted for payment for the sale of goods or services or the lease of real or personal property to a New York State agency must include the payee's identification number, i.e., the seller's or lessor's identification number. The number is either the payee's Federal employer identification number or Federal social security number, or both such numbers when the payee has both such numbers. Failure to include this number or numbers may delay payment. Where the payee does not have such number or numbers, the payee, on its invoice or New York State standard voucher, must give the reason or reasons why the payee does not have such number or numbers.

(B) PRIVACY NOTIFICATION. (1) The authority to request the above personal information from a seller of goods or services or a lessor of real or personal property, and the authority to maintain such information, is found in Section 5 of the State Tax Law. Disclosure of this information by the seller or lessor to the State is mandatory. The principal purpose for which the information is collected is to enable the State to identify individuals, businesses and others who have been delinquent in filing tax returns or may have understated their tax liabilities and to generally identify persons affected by the taxes administered by the Commissioner of Taxation and Finance. The information will be used for tax administration purpose and for any other purpose authorized by law.

(2) The personal information is requested by the purchasing unit of the agency contracting to purchase

the goods or services or lease "the real or personal property covered by this contract or lease. The information is maintained in New York State's Central Accounting System by the Director of Accounting Operations, Office of the State Comptroller, AESOB, Albany, New York 12236.

12. EQUAL EMPLOYMENT OPPORTUNITIES FOR MINORITIES AND WOMEN. In accordance with Section 312 of the Executive law, if this contract is: (i) a written agreement or purchase order instrument, providing for a total expenditure in excess of $25,000.00, whereby a contracting agency is committed to expend or does expend funds in return for labor, services, supplies, equipment, materials or any combination of the foregoing, to be performed for, or rendered or furnished to the contracting agency; or (ii) a written agreement in excess of $100,000.00 whereby a contracting agency is committed to expend or does expend funds for the acquisition, construction, demolition, replacement, major repair or renovation of real property and improvements thereon; or (iii) a written agreement in excess of $100,000.00 whereby the owner of a State assisted housing project is committed to expend or does expend funds for the acquisition, construction, demolition, replacement, major repair or renovation of real property and improvements thereon for such project, then: (a) The Contractor will not discriminate against employees or applicants for employment because of race, creed, color, national origin, sex, age, disability or marital status, and will undertake or continue existing programs of affirmative action to ensure that minority group members and women are afforded equal employment opportunities without discrimination. Affirmative action shall mean recruitment, employment, job assignment, promotion, upgradings, demotion, transfer, layoff, or termination and rates of pay or other forms of compensation;

(b) at the request of the contracting agency, the Contractor shall request each employment agency, labor union, or authorized representative of workers with which it has a collective bargaining or other agreement or understanding, to furnish a written statement that such employment agency, labor union or representative will not discriminate on the basis of race, creed, color, national origin, sex, age, disability or marital status and that such union or representative will affirmatively cooperate in the implementation of the contractor's obligations herein; and

(c) the Contractor shall state, in all solicitations or advertisements for employees, that, in the performance of the State contract, all qualified applicants will be afforded equal employment opportunities without discrimination because of race, creed, color, national origin, sex, age, disability or marital status.

Contractor will include the provisions of "a, "b", and "c" above, in every subcontract over $25,000.00 for the construction, demolition, replacement, major repair, renovation, planning or design of real property and improvements thereon (the Work) except where the Work is for the beneficial use of the Contractor. Section 312 does not apply to: (i) work, goods or services unrelated to this contract; or (ii) employment outside New York State; or (iii) banking services, insurance policies or the sale of securities. The State shall consider compliance by a contractor or subcontractor with the requirements of any federal law concerning equal employment opportunity which effectuates the purpose of this section. The contracting agency shall determine whether the imposition of the requirements of the provisions hereof duplicate or conflict with any such federal law and if such duplication or conflict exists, the contracting agency shall waive the applicability of Section 312 to the extent of such duplication or conflict. Contractor will comply with all duly promulgated and lawful rules and regulations of the Division of Minority and Women's Business Development pertaining hereto.

13. CONFLICTING TERMS. In the event of a conflict between the terms of the contract (including any and all attachments thereto and amendments thereof) and the
terms of this Appendix A, the terms of this Appendix A shall control.

14. GOVERNING LAW. This contract shall be governed by the laws of the State of New York except where the Federal supremacy clause requires otherwise.

15. LATE PAYMENT. Timeliness of payment and any interest to be paid to Contractor for late payment shall be governed by Article XI-A of the State Finance Law to the extent required by law.

16. NO ARBITRATION. Disputes involving this contract, including the breach or alleged breach thereof, may not be submitted to binding arbitration (except where statutorily authorized), but must, instead, be heard in a court of competent jurisdiction of the State of New York.

17. SERVICE OF PROCESS. In addition to the methods of service allowed by the State Civil Practice Law & Rules ("CPLR"), Contractor hereby consents to service of process upon it by registered or certified mail, return receipt requested. Service hereunder shall be complete upon Contractor's actual receipt of process or upon the State's receipt of the return thereof by the United States Postal Service as refused or

undeliverable. Contractor must promptly notify the State, in writing, of each and every change of address to which service of process can be made. Service by the State to the last known address shall be sufficient. Contractor will have thirty (30) calendar days after service hereunder is complete in which to respond.

18. PROHIBITION ON PURCHASE OF TROPICAL HARDWOODS. The Contractor certifies and warrants that all wood products to be used under this contract award will be in accordance with, but not limited to, the specifications and provisions of State Finance Law §165. (Use of Tropical Hardwoods) which prohibits purchase and use of tropical hardwoods, unless specifically exempted, by the State or any governmental agency or political subdivision or public benefit corporation. Qualification for an exemption under this law will be the responsibility of the contractor to establish to meet with the approval of the State.

In addition, when any portion of this contract involving the use of woods, whether supply or installation, is to be performed by any subcontractor, the prime Contractor will indicate and certify in the submitted bid proposal that the subcontractor has been informed and is in compliance with specifications and provisions regarding use of tropical hardwoods as detailed in §165 State Finance Law. Any such use must meet with the approval of the State, otherwise, the bid may not be considered responsive. Under bidder certifications, proof of qualification for exemption will be the responsibility of the Contractor to meet with the approval of the State.

19. MACBRIDE FAIR EMPLOYMENT PRINCIPLES. In accordance with the MacBride Fair Employment Principles (Chapter 807 of the Laws of 1992), the Contractor hereby stipulates that the Contractor either (a) has no business operations in Northern Ireland, or (b) shall take lawful steps in good faith to conduct any business operations in Northern Ireland in accordance with the MacBride Fair Employment Principles (as described in Section 165 of the New York State Finance Law), and shall permit independent monitoring of compliance with such principles.

20. OMNIBUS PROCUREMENT ACT OF 1992. It is the policy of New York State to maximize opportunities for the participation of New York State business enterprises, including minority and women-owned business enterprises as bidders, subcontractors and suppliers on its procurement contracts.

Information on the availability of New York State subcontractors and suppliers is available from:

Department of Economic Development
Division for Small Business
30 South Pearl Street
Albany, New York 12245
Tel. 518-292-5220

A directory of certified minority and women-owned business enterprises is available from:

Department of Economic Development
Minority and Women's Business Development Division
30 South Pearl Street
Albany, New York 12245
http://www.empire.state.ny.us

The Omnibus Procurement Act of 1992 requires that by signing this bid proposal or contract, as applicable, Contractors certify that whenever the total bid amount is greater than $1 million:

(a) The Contractor has made reasonable efforts to encourage the participation of New York State Business Enterprises as suppliers and subcontractors, including certified minority and women-owned business enterprises, on this project, and has retained the documentation of these efforts to be provided upon request to the State;

(b) The Contractor has complied with the Federal Equal Opportunity Act of 1972 (P.L. 92-261), as amended;

(c) The Contractor agrees to make reasonable efforts to provide notification to New York State residents of employment opportunities on this project through listing any such positions with the Job Service Division of the New York State Department of Labor, or providing such notification in such manner as is consistent with existing collective bargaining contracts or agreements. The Contractor agrees to document these efforts and to provide said documentation to the State upon request; and

(d) The Contractor acknowledges notice that the State may seek to obtain offset credits from foreign countries as a result of this contract and agrees to cooperate with the State in these efforts.

21. RECIPROCITY AND SANCTIONS PROVISIONS. Bidders are hereby notified that if their principal place of business is located in a country, nation, province, state or political subdivision that penalizes New York State vendors, and if the goods or services they offer will be substantially produced or performed outside New York State, the Omnibus Procurement Act 1994 and 2000 amendments (Chapter 684 and Chapter 383, respectively) require that they be

denied contracts which they would otherwise obtain. Contact the Department of Economic Development, Division for Small Business, 30 South Pearl Street; Albany New York 12245, for a current list of states subject to this provision.

Revised November 2000

APPENDIX B

Standard Clauses for All New York State Department of Environmental Conservation Contracts

The parties to the attached contract, license, lease, grant, amendment or other agreement of any kind (hereinafter "the contract" or "this contract") agree to be bound by the following clauses which are hereby made a part of the contract. The word "Contractor" herein refers to any party to the contract, other than the New York State Department of Environmental Conservation (hereinafter "Department").

I. **Postponement, suspension, abandonment or termination by the Department:** The Department shall have the right to postpone, suspend, abandon or terminate this contract, and such actions shall in no event be deemed a breach of contract. In the event of any termination, postponement, delay, suspension or abandonment, the Contractor shall immediately stop work, take steps to incur no additional obligations, and to limit further expenditures. Within 15 days of receipt of notice, the Contractor shall deliver to the Department all data, reports, plans, or other documentation related to the performance of this contract, including but not limited to source codes and specifications, guarantees, warranties, as-built plans and shop drawings. In any of these events, the Department shall make settlement with the Contractor upon an equitable basis as determined by the Department which shall fix the value of the work which was performed by the Contractor prior to the postponement, suspension, abandonment or termination of this contract. This clause shall not apply to this contract if the contract contains other provisions applicable to postponement, suspension or termination of the contract.

II. **Indemnification and Holdharmless** The Contractor agrees that it will indemnify and save harmless the Department and the State of New York from and against all losses from claims, demands, payments, suits, actions, recoveries and judgments of every nature and description brought or recovered against it by reason of any omission or tortious act of the Contractor, its agents, employees, suppliers or subcontractors in the performance of this contract. The Department and the State of New York may retain such monies from the amount due Contractor as may be necessary to satisfy any claim for damages, costs and the like, which is asserted against the Department and/or the State of New York.

III. **Conflict of Interest** (a) Organizational Conflict of Interest. To the best of the Contractor's knowledge and belief, the Contractor warrants that there are no relevant facts or circumstances which could give rise to an organizational conflict of interest, as herein defined, or that the Contractor has disclosed all such relevant information to the Department.

(1) An organizational conflict of interest exists when the nature of the work to be performed under this contract may, without some restriction on future activities, impair or appear to impair the Contractor's objectivity in performing the work for the Department.

(2) The Contractor agrees that if an actual, or potential organizational conflict of interest is discovered at any time after award, whether before or during performance, the Contractor will immediately make a full disclosure in writing to the Department. This disclosure shall include a description of actions which the Contractor has taken or proposes to take, after consultation with the Department, to avoid, mitigate, or minimize the actual or potential conflict.

(3) To the extent that the work under this contract requires access to personal, proprietary or confidential business or financial data of persons or other companies, and as long as such data remains proprietary or confidential, the Contractor shall protect such data from unauthorized use and disclosure and agrees not to use it to compete with such companies.

(b) Personal Conflict of Interest: The following provisions with regard to management or professional level employee personnel performing under this contract shall apply until the earlier of the termination date of the affected employee(s) or the duration of the contract.

(1) A personal conflict of interest is defined as a relationship of an employee, subcontractor employee, or consultant with an entity that may impair or appear to impair the objectivity of the employee, subcontractor employee, or consultant in performing the contract work. The Contractor agrees to notify the Department immediately of any actual, or potential personal conflict of interest with regard to any such person working on or having access to information regarding this contract, as soon as Contractor becomes aware of such conflict. The Department will notify the Contractor of the appropriate action to be taken.

(2) The Contractor agrees to advise all management

or professional level employees involved in the work of this contract, that they must report any personal conflicts of interest to the Contractor. The Contractor must then advise the Department which will advise the Contractor of the appropriate action to be taken.

(3) Unless waived by the Department, the Contractor shall certify annually that, to the best of the Contractor's knowledge and belief, all actual, apparent or potential conflicts of interest, both personal and organizational, as defined herein, have been reported to the Department. Such certification must be signed by a senior executive of the Contractor and submitted in accordance with instructions provided by the Department. Along with the annual certification, the Contractor shall also submit an update of any changes in any conflict of interest plan submitted with its proposal for this contract. The initial certification shall cover the one-year period from the date of contract award, and all subsequent certifications shall cover successive annual periods thereafter. The certification is to be submitted no later than 45 days after the close of the previous certification period covered.

(4) In performing this contract, the Contractor recognizes that its employees may have access to data, either provided by the Department or first generated during contract performance, of a sensitive nature which should not be released without Department approval. If this situation occurs, the Contractor agrees to obtain confidentiality agreements from all affected employees working on requirements under this contract including subcontractors and consultants. Such agreements shall contain provisions which stipulate that each employee agrees not to disclose, either in whole or in part, to any entity external to the Department, Department of Health or the New York State Department of Law, any information or data provided by the Department or first generated by the Contractor under this contract, any site-specific cost information, or any enforcement strategy without first obtaining the written permission of the Department. If a Contractor, through an employee or otherwise, is subpoenaed to testify or produce documents, which could result in such disclosure, the Contractor must provide immediate advance notification to the Department so that the Department can authorize such disclosure or have the opportunity to take action to prevent such disclosure. Such agreements shall be effective for the life of the contract and for a period of five (5) years after completion of the contract.

(c) Remedies - The Department may terminate this contract in whole or in part, if it deems such termination necessary to avoid an organizational or personal conflict of interest, or an unauthorized disclosure of information. If the Contractor fails to make required disclosures or misrepresents relevant information to the Department, the Department may terminate the contract, or pursue such other remedies as may be permitted by the terms of Clause I of this Appendix or other applicable provisions of this contract regarding termination.

(d) The Contractor will be ineligible to make a proposal or bid on a contract for which the Contractor has developed the statement of work or the solicitation package

(e) The Contractor agrees to insert in each subcontract or consultant agreement placed hereunder (except for subcontracts or consultant agreements for well drilling, fence erecting, plumbing, utility hookups, security guard services, or electrical services) provisions which shall conform substantially to the language of this clause, including this paragraph (e), unless otherwise authorized by the Department.

If this is a contract for work related to action at an inactive hazardous waste site, the following paragraph shall apply to those Contractors whose work requires the application of professional judgment: It does not apply to construction contracts.

(f) Due to the scope and nature of this contract, the Contractor shall observe the following restrictions on future hazardous waste site contracting for the duration of the contract.

(1) The Contractor, during the life of the work assignment and for a period of three (3) years after the completion of the work assignment, agrees not to enter into a contract with or to represent any party with respect to any work relating to remedial activities or work pertaining to a site where the Contractor previously performed work for the Department under this contract without the prior written approval of the Department.

(2) The Contractor agrees in advance that if any bids/proposals are submitted for any work for a third party that would require written approval of the Department prior to entering into a contract because of the restrictions of this clause, then the bids/proposals are submitted at the Contractor's own risk, and no claim shall be made against the Department to recover bid/proposal costs as a direct cost whether the request for authorization to enter into the contract is denied or approved.

IV. **Requests for Payment** All requests for payment by the Contractor must be submitted on forms supplied and approved by the Department. Each

payment request must contain such items of information and supporting documentation as are required by the Department, and shall be all-inclusive for the period of time covered by the payment request.

V. **Compliance with Federal requirements** To the extent that federal funds are provided to the Contractor or used in paying the Contractor under this contract, the Contractor agrees that it will comply with all applicable federal laws and regulations, including but not limited to those laws and regulations under which the Federal funds were authorized. The Contractor further agrees to insert in any subcontract hereunder, provisions which shall conform substantially to the language of this clause.

VI. **Independent Contractor** The Contractor shall have the status of an independent contractor. Accordingly, the Contractor agrees that it will conduct itself in a manner consistent with such status, and that it will neither hold itself out as, nor claim to be, an officer or employee of the Department by reason of this contract. It further agrees that it will not make any claim, demand or application to the Department for any right or privilege applicable to an officer or employee of the Department, including but not limited to worker's compensation coverage, unemployment insurance benefits, social security coverage, or retirement membership or credit.

VII. **Article 15-A Requirements** The terms contained in this clause shall have the definitions as given in, and shall be construed according to the intent of Article 15-A of the Executive Law, 5 NYCRR Part 140, et. seq., Article 52 of the Environmental Conservation Law and 6 NYCRR Part 615, et. seq., as applicable, and any goals established by this clause are subject to the intent of such laws and regulations.

(a) If the maximum contract price herein equals or exceeds $25,000, and this contract is for labor, services, supplies, equipment, or materials; or

(b) If the maximum contract price herein equals or exceeds $100,000 and this contract is for the acquisition, construction, demolition, replacement, major repair or renovation of real property and improvements thereon; then

(c) The affirmative action provisions and equal employment opportunity provisions contained in this paragraph and paragraphs (d) and (e) of this clause shall be applicable within the limitations established by Executive Law §§312 and 313 and the applicable regulations.

(1) The Contractor is required to make good faith efforts to subcontract at least 6 % of the dollar value of this contract to Minority Owned Business Enterprises (MBEs) and at least 6 % of such value to Women Owned Business Enterprises (WBEs).

(2) The Contractor is required to make good faith efforts to employ or contractually require any Subcontractor with whom it contracts to make good faith efforts to employ minority group members for at least 10 % of, and women for at least 10 % of, the workforce hours required to perform the work under this contract.

(3) The Contractor is required to make good faith efforts to solicit the meaningful participation by enterprises identified in the NYS Directory of Certified Businesses provided by:

Empire State Development Corp.
Div. Minority & Women's Business Development
30 South Pearl Street
Albany, New York 12245
Phone: (518) 292-5250
Fax: (518) 292-5803
and
Empire State Development Corp.
633 Third Avenue
New York, NY 10017
Phone: (212) 803-2414
Fax: (212) 803-3223
internet: www.empire.state.ny.us\esd.htm

(d) The Contractor agrees to include the provisions set forth in paragraphs (a), (b) and (c) above and paragraphs (a). (b), and (c) of clause 12 of Appendix A in every subcontract in such a manner that the provisions will be binding upon each Subcontractor as to work under such subcontract. For the purpose of this paragraph, a "subcontract" shall mean an agreement providing for a total expenditure in excess of $25,000 for the construction, demolition, replacement, major repair, renovation, planning or design of real property and improvements thereon in which a portion of the Contractor's obligation under a State contract is undertaken or assumed.

(e) The Contractor is required to make good faith efforts to utilize the MBE/WBEs identified in the utilization plan to the extent indicated in such plan, and otherwise to implement it according to its terms. The Contractor is requested to report on such implementation periodically as provided by the contract, or annually, whichever is more frequent.

VIII. **Compliance with applicable laws**

(a) Prior to the commencement of any work under this contract, the Contractor is required to meet all legal requirements necessary in the performance of the contract. This includes but is not limited to compliance with all applicable federal, state and local laws and regulations promulgated thereunder. It is the Contractor's responsibility to obtain any necessary permits, or other authorizations. By signing this contract, the Contractor affirmatively represents that it has complied with said laws, unless it advises the Department otherwise, in writing. The Department signs this contract in reliance upon this representation.

(b) During the term of this contract, and any extensions thereof, the Contractor must remain in compliance with said laws. A failure to notify the Department of noncompliance of which the Contractor was or should have been aware, may be considered a material breach of this contract.

IX. **Dispute Resolution** The parties agree to the following steps, or as many as are necessary to resolve disputes between the Department and the Contractor.

(a) The Contractor specifically agrees to submit, in the first instance, any dispute relating to this contract to the designated individual, who shall render a written decision and furnish a copy thereof to the Contractor.

(1) The Contractor must request such decision in writing no more than fifteen days after it knew or should have known of the facts which are the basis of the dispute.

(2) The decision of the designated individual shall be the final agency determination, unless the Contractor files a written appeal of that decision with the designated appeal individual ("DAI") within twenty days of receipt of that decision.

(b) Upon receipt of the written appeal the DAI, will review the record and decision. Following divisional procedures in effect at that time, the DAI will take one of the following actions, with written notice to the Contractor.

(1) Remand the matter to the program staff for further negotiation or information if it is determined that the matter is not ripe for review; or

(2) Determine that there is no need for further action, and that the determination of the designated individual is confirmed; or

(3) Make a determination on the record as it exists.

(c) The decision of the DAI shall be the final agency decision unless the Contractor files a written appeal of that decision with the Chair of the Contract Review Committee ("CRC") within twenty days of receipt of that decision.

The designated individual to hear disputes is:

Richard Koelling
Director, Bureau of Construction Services
50 Wolf Road, Room 267
Albany, NY 12233-7010
(518) 457-9280

The designated appeal individual to review decisions is:

Thomas Quinn
Assistant Director
Bureau of Environmental Remediation
50 Wolf Road, Room 260B
Albany, NY 12233-7010
(518) 457-0730

The Chair of the Contract Review Committee is:

Department of Environmental Conservation
Richard K. Randles, Chair
Contract Review Committee
50 Wolf Road, Room 674
Albany, NY 12233-5010
Telephone: (518) 457-1141

(d) Upon receipt of the written appeal, the Chair of the CRC, in consultation with the members of the CRC and the Office of General Counsel, will take one of the following actions, or a combination thereof, with written notice to the Contractor.

(1) Remand the matter to program staff for additional fact finding,negotiation, or other appropriate action; or

(2) Adopt the decision of the DAI; or

(3) Consider the matter for review by the CRC in accordance with its procedures.

(e) Following a decision to proceed pursuant to (d) 3. above, the Chair of the CRC shall convene a proceeding in accordance with the CRC's established contract dispute resolution guidelines. The proceeding will provide the Contractor with an opportunity to be heard.

(f) Following a decision pursuant to (d) 2 or (d) 3, the CRC shall make a written recommendation to the

Assistant Commissioner for Administration who shall render the final agency determination.

(g) At any time during the dispute resolution process, and upon mutual agreement of the parties, the Office of Hearings and Mediation Services (OHMS) may be requested to provide mediation services or other appropriate means to assist in resolving the dispute. Any findings or recommendations made by the OHMS will not be binding on either party.

(h) Final agency determinations shall be subject to review only pursuant to Article 78 of the Civil Practice Law and Rules.

(i) Pending final determination of a dispute hereunder, the Contractor shall proceed diligently with the performance of the Contract in accordance with the decision of the designated individual. Nothing in this Contract shall be construed as making final the decision of any administrative officer upon a question of law.

(j) (1) Notwithstanding the foregoing, at the option of the Contractor, the following shall be subject to review by the CRC: Disputes arising under Article 15-A of the Executive Law (Minority and Women Owned Business participation), the Department's determination with respect to the adequacy of the Contractor's Utilization Plan, or the Contractor's showing of good faith efforts to comply therewith. A request for a review before the CRC should be made, in writing, within twenty days of receipt of the Department's determination.

(2) The CRC will promptly convene a review in accordance with Article 15-A of the Executive Law and the regulations promulgated thereunder.

X. **Labor Law Provisions**

(a) When applicable, the Contractor shall post, in a location designated by the Department, a copy of the New York State Department of Labor schedules of prevailing wages and supplements for this project, a copy of all re-determinations of such schedules for the project, the Workers' Compensation Law Section 51 notice, all other notices required by law to be posted at the site, the Department of Labor notice that this project is a public work project on which each worker is entitled to receive the prevailing wages and supplements for their occupation, and all other notices which the Department directs the Contractor to post. The Contractor shall provide a surface for such notices which is satisfactory to the Department. The Contractor shall maintain such notices in a legible manner and shall replace any notice or schedule which is damaged, defaced, illegible or removed for any reason. Contractor shall post such notices before commencing any work on the site and shall maintain such notices until all work on the site is complete.

(b) When appropriate, contractor shall distribute to each worker for this Contract a notice, in a form provided by the Department, that this project is a public work project on which each worker is entitled to receive the prevailing wage and supplements for the occupation at which he or she is working. Worker includes employees of Contractor and all Subcontractors and all employees of suppliers entering the site. Such notice shall be distributed to each worker before they start performing any work of this contract. At the time of distribution, Contractor shall have each worker sign a statement, in a form provided by the Department, certifying that the worker has received the notice required by this section, which signed statement shall be maintained with the payroll records required by the following paragraph (c).

(c) Contractor shall maintain on the site the original certified payrolls or certified transcripts thereof which Contractor and all of its Subcontractors are required to maintain pursuant to the New York Labor Law Section 220. Contractor shall maintain with the payrolls or transcripts thereof, the statements signed by each worker pursuant to paragraph (b).

(d) Within thirty days of issuance of the first payroll, and every thirty days thereafter, the Contractor and every subcontractor must submit a transcript of the original payroll to the Department, which transcript must be subscribed and affirmed as true under penalty of perjury.

XI. **Offset** In accordance with State Law, the Department has the authority to administratively offset any monies due it from the Contractor, from payments due to the Contractor under this contract. The Department may also (a) assess interest or late payment charges, and collection fees, if applicable; (b) charge a fee for any dishonored check; (c) refuse to renew certain licenses and permits.

XII. **Tax Exemption** Pursuant to Tax Law Section 1116, the State is exempt from sales and use taxes. A standard state voucher is sufficient evidence thereof. For federal excise taxes, New York's registration Number 14740026K covers tax-free transactions under the Internal Revenue Code.

XIII. **Litigation Support** In the event that the Department becomes involved in litigation related

to the subject matter of this contract, the Contractor agrees to provide background support and other litigation support, including but not limited to depositions, appearances, and testimony. Compensation will be negotiated and based on rates established in the contract, or as may otherwise be provided in the contract.

XIV. **Equipment** Any equipment purchased with funds provided under this contract, shall remain the property of the Department, unless otherwise provided in the contract. The Contractor shall be liable for all costs for maintaining the property in good, usable condition. It shall be returned to the Department upon completion of the contract, in such condition, unless the Department elects to sell the equipment to the Contractor, upon mutually agreeable terms.

XV. **Inventions or Discoveries** Any invention or discovery first made in performance of this Contract shall be the property of the Department, unless otherwise provided in the contract. The Contractor agrees to provide the Department with any and all materials related to this property. At the Department's option, the Contractor may be granted a non-exclusive license.

XVI. **Patent and Copyright Protection**
If any patented or copyrighted material is involved in or results from the performance of this Contract, this Article shall apply.
(a) The Contractor shall, at its expense, defend any suit instituted against the Department and indemnify the Department against any award of damages and costs made against the Department by a final judgment of a court of last resort based on the claim that any of the products, services or consumable supplies furnished by the Contractor under this Contract infringes any patent, copyright or other proprietary right; provided the Department gives the Contractor:

(1) prompt written notice of any action, claim or threat of infringement suit, or other suit, and

(2) the opportunity to take over, settle or defend such action at the Contractor's sole expense, and

(3) all available information, assistance and authority necessary to the action, at the Contractor's sole expense.

The Contractor shall control the defense of any such suit, including appeals, and all negotiations to effect settlement, but shall keep the Department fully informed concerning the progress of the litigation.

(b) If the use of any item(s) or parts thereof is held to infringe a patent or copyright and its use is enjoined, or Contractor believes it will be enjoined, the Contractor shall have the right, at its election and expense to take action in the following order of precedence:

(1) procure for the Department the right to continue using the same item or parts thereof;

(2) modify the same so that it becomes non-infringing and of at least the same quality and performance;

(3) replace the item(s) or parts thereof with noninfringing items of at least the same quality and performance;

(4) if none of the above remedies are available, discontinue its use and eliminate any future charges or royalties pertaining thereto. The Contractor will buy back the infringing product(s) at the State's book value, or in the event of a lease, the parties shall terminate the lease. If discontinuation or elimination results in the Contractor not being able to perform the Contract, the Contract shall be terminated.

(c) In the event that an action at law or in equity is commenced against the Department arising out of a claim that the Department's use of any item or material pursuant to or resulting from this Contract infringes any patent, copyright or proprietary right, and such action is forwarded by the Department to the Contractor for defense and indemnification pursuant to this Article, the Department shall copy all pleadings and documents forwarded to the Contractor together with the forwarding correspondence and a copy of this Contract to the Office of the Attorney General of the State of New York. If upon receipt of such request for defense, or at any time thereafter, the Contractor is of the opinion that the allegations in such action, in whole or in part, are not covered by the indemnification set forth in this Article, the Contractor shall immediately notify the Department and the Office of the Attorney General of the State of New York in writing and shall specify to what extent the Contractor believes it is and is not obligated to defend and indemnify under the terms and conditions of this Contract. The Contractor shall in such event protect the interests of the Department and State of New York and secure a continuance to permit the State of New York to appear and defend its interests in cooperation with Contractor as is appropriate, including any jurisdictional defenses which the Department and State shall have.

(d) The Contractor shall, however, have no liability to

the Department under this Article if any infringement is based upon or arises out of: (1) compliance with designs, plans, or specifications furnished by or on behalf of the Department as to the items; (2) alterations of the items by the Department; (3) failure of the Department to use updated items provided by the Contractor for avoiding infringement; (4) use of items in combination with apparatus or devices not delivered by the Contractor; (5) use of items in a manner for which the same were neither designed nor contemplated; or (6) a patent or copyright in which the Department or any affiliate or subsidiary of the Department has any direct or indirect interest by license or otherwise.

(e) The foregoing states the Contractor's entire liability for, or resulting from, patent or copyright infringement or claim thereof.

XVII. **Force Majeure** The term Force Majeure shall include acts of God, work stoppages due to labor disputes or strikes, fires, explosions, epidemics, riots, war rebellion, sabotage or the like. If a failure of or delay in performance by either party results from the occurrence of a Force Majeure event, the delay shall be excused and the time for performance extended by a period equivalent to the time lost because of the Force majeure event, if and to the extent that:

(a) The delay or failure was beyond the control of the party affected and not due to its fault or negligence; and

(b) The delay or failure was not extended because of the affected party's failure to use all reasonable diligence to overcome the obstacle or to resume performance immediately after such obstacle was overcome; and

(c) The affected party provides notice within (5) days of the onset of the event, that it is invoking the protection of this provision.

XVIII. **Freedom of Information Requests** The Contractor agrees to provide the Department with any records which must be released in order to comply with a request pursuant to the Freedom of Information Law. The Department will provide the contractor with an opportunity to identify material which may be protected from release and to support its position.

XIX. **Precedence** In the event of a conflict between the terms of this Appendix B and the terms of the Contract (including any and all attachments thereto and amendments thereof, but not including Appendix A), the terms of this Appendix B shall control. In the event of a conflict between the terms of this Appendix B, and the terms of Appendix A, the terms of Appendix A shall control.

Rider to Appendix B

Standard Clauses for all NYS Department of Environmental Conservation Contracts

The parties to this contract hereby agree that clause II of this Appendix is hereby revised to read as follows:

II. The Contractor agrees that it will indemnify and save harmless the Department and the State of New York from and against all losses from claims, demands, payments, suits, actions, recoveries and judgements, of every nature and description brought or recovered against it by reason of any acts or omissions of the Contractor, its agents, employees, or Subcontractors in the performance of this contract which are shown to have been the result of negligence, gross negligence or reckless, wanton or intentional misconduct.

Department of Environmental Conservation

Dated: _____ By: _____
Director of Fiscal Management

Dated: _____ By: _____
Contractor

SECTION VIII

General Conditions

ARTICLE 1 - Preliminary Matters

Copies of Documents:

1.1 **Department** shall furnish to **Contractor** without charge up to ten copies of the Contract Documents. Additional copies of the Contract Documents will be furnished, upon request, at the cost of reproduction.

Preconstruction Conference:

1.2 No later than twenty days after the Effective Date of the Agreement, but before **Contractor** starts the Work, a conference will be held on a date and at a location set by **Department** to:

1.2.1 Review, item by item, the requirements of this Article;

1.2.2 Review the qualifications of **Contractor's** resident superintendent and the qualifications of any Subcontractors and Suppliers of **Contractor**;

1.2.3 Discuss **Contractor's** plans for complying with the requirements of Article 5 of the General Conditions;

1.2.4 Formalize procedures for processing of Administrative Agreements, Payment Applications, Shop Drawings and other submittals, Change Orders and Proposed Change Orders, and **Contractor** requests for clarifications and interpretation of Contract Documents;

1.2.5 Establish a working understanding among the parties as to the Work; and

1.2.6 Discuss any conflicts, errors or discrepancies that **Contractor** has discovered by review of the Contract Documents.

Commencement of Contract Time and Start of Work at Site:

1.3 Before starting, **Contractor** shall carefully study and compare the Contract Documents and check and verify pertinent figures shown thereon and all applicable field measurements. **Contractor** shall immediately report in writing to **Engineer** any conflict, error or discrepancy which **Contractor** may discover and shall obtain a written interpretation or clarification from **Engineer** before proceeding with any Work affected thereby.

1.4 Before a **Contractor** may commence Work on the site but no later than 10 days after Notice of Award, **Contractor** shall submit to **Engineer** for review and acceptance:

1.4.1 An interim progress schedule indicating **Contractor's** anticipated schedule for the Work for the first three months in detail and for the remainder of the Work in summary form. If **Contractor** doesn't intend to perform Work on the date when Contract Time commences, **Contractor** must notify **Department** as soon as possible in writing when work will

commence so inspection services can be scheduled to minimize cost to the **Department**. The interim progress schedule shall include the information specified in paragraphs 1.4.2 and 1.4.3.

1.4.2 An interim schedule of Shop Drawing, material, soil characteristic, sample collection and analytical test result submissions covering the various stages of Work detailed in the first three months of the interim Progress Schedule; and

1.4.3 An interim schedule of values on the form provided by **Engineer** covering the various stages of Work detailed in the first three months of the interim Progress Schedule. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work which will be confirmed in writing by **Contractor** at the time of submission.

1.5 **Contractor** shall start to perform the Work on the date specified in the Notice to Proceed in a manner consistent with the Contract Documents. No Work shall be done prior to the date specified in the Notice to Proceed unless written permission to do so is given by the **Department** to the **Contractor**.

Finalizing Interim Schedules:

1.6 **Contractor** shall submit a proposed progress schedule to finalize the interim schedules submitted in accordance with paragraph 1.4 and the requirements of the Progress Schedule Section of the Standard Specification no later than twenty days after starting work at the site. The progress schedule shall be acceptable to **Engineer** and **Department** as providing an orderly progression of the Work to completion within the Contract Time, but such acceptance will not relieve **Contractor** from full responsibility for the progress or scheduling of the Work. The schedule of Shop Drawing, material, soil characteristic, sample collection, and analytical test results submissions shall be acceptable to **Engineer** and **Department** as providing a workable arrangement for processing the submissions. The schedule of values shall be acceptable to **Engineer** and **Department** as to form and substance. The first Application for Payment shall not be processed unless **Contractor** has submitted acceptable schedules.

ARTICLE 2 - Contract Documents: Intent, Amending, Reuse

Intent:

2.1 The Contract Documents comprise the entire agreement between **Department** and **Contractor** concerning the Work. The Contract Documents are complementary; what is called for by one is as binding as if called for by all.

2.2 The Contract Documents describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any work, materials or equipment that may be necessary to satisfactorily complete the contract must be supplied whether or not specifically called for. When words which have a well-known technical or trade meaning are used to describe Work, materials or equipment, such words shall be interpreted in accordance with that meaning. Reference to standard specifications, manuals or codes of any technical society, organization or association, or to the Laws of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code or Laws in effect at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids), even though reference may be specifically made to an earlier standard. If there is any conflict or discrepancy between standard specifications, manuals, or codes of any technical society, organization or association, or between Laws, the **Engineer** shall determine which shall apply and shall be binding on **Contractor**. **Contractor** has a duty to comply with the latest standard specification, manual, code, or Laws in effect at the time of opening of bids.

without any increase in Contract Price or extension in Contract Time. Clarifications and interpretations of the Contract Documents shall be issued by **Engineer** as provided in paragraph 8.4. However, no provision of any referenced standard specification, manual or code (whether or not specifically incorporated by reference in the Contract Documents) shall be effective to change the duties and responsibilities of **Department**, **Contractor** or **Engineer** or any of their consultants, agents or employees from those set forth in the Contract Documents. If there is any conflict or discrepancy between the provisions of the Contract Documents and any such referenced standard specification, manual, or code of any technical society, organization or association, the provisions of the Contract Documents will take precedence.

2.3 If during the performance of the Work, **Contractor** finds a conflict, error or discrepancy in the Contract Documents, **Contractor** shall so report to **Engineer** in writing at once and before proceeding with the Work affected thereby, and shall obtain a written interpretation or clarification.

Engineer will promptly investigate the matter and respond to **Contractor**. Until such interpretation or clarification is obtained from **Engineer**, any Work done by **Contractor** after the discovery of such a conflict, error or discrepancy, which is directly or indirectly affected by same, will be at **Contractor's** own risk and **Contractor** shall bear all cost arising therefrom. In resolving such conflicts, errors or discrepancies, the Contract Documents shall be given preference in the following order:

2.3.1 First, in accordance with the order of preference stated in the conflicting parts of the Contract Documents as provided by Article 4 of the Agreement;

2.3.2 In all cases, figured dimensions shall govern over scaled dimensions, but Work not dimensioned shall be as directed, and Work not particularly shown, identified, sized, or located shall be the same as similar parts that are shown or specified. Detail Drawings shall govern over general Drawings, larger scale Drawings take precedence over smaller scale Drawings, Change Order or Proposed Change Order Drawings govern over Contract Drawings, and approved Shop Drawings govern over Contract Drawings. Specifications shall govern as to products, execution and workmanship, and Drawings shall govern as to locations, dimensions, or quantities to be furnished. Further, in all cases where specifications, notes or details in two or more Specifications, or in two or more Drawings, conflict, the requirement calling for the larger quantities, or higher quality product or workmanship shall prevail and be binding on **Contractor**, unless otherwise directed by **Engineer**.

Amending and Supplementing Contract Documents:

2.4 The Contract Documents may be amended to provide for additions, deletions and revisions in the Work or to modify the terms and conditions thereof in one or more of the following ways as defined in Section 2, "Terms and Definitions."

2.4.1 An Administrative Agreement,

2.4.2 A Change Order (pursuant to Article 9), or

2.4.3 A Proposed Change Order signed by **Department** (pursuant to Article 9).

Contract Price and Contract Time may only be changed by a Change Order.

2.5 In addition, the requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, not involving an adjustment in Contract Price or Contrac Time, in one or more of the following ways:

2.5.1 A Field Order (pursuant to Article 8.4),

2.5.2 **Engineer's** approval of a Shop Drawing or sample (pursuant to Article 5.23 thru 5.29), or

2.5.3 **Engineer's** written interpretation or clarification (pursuant to Article 8.3).

Reuse of Documents:

2.6 Neither **Contractor** nor any Subcontractor or Supplier or other person or organization shall have or acquire any title to or ownership rights in any of the Drawings, specifications or other documents (or copies of any thereof) prepared by or bearing the seal of **Engineer** or **Design Engineer** ; and they shall not reuse any of them on extensions of the Project or any other project without the written consent of **Engineer** or, and **Department**.

ARTICLE 3 - Availability of Lands; Physical Conditions; Reference Points

Availability of Lands:

3.1 As indicated in the Contract Documents, **Department** shall make available the lands upon which the Work is to be performed, rights-of-way and easements for access thereto, and such other lands as are designated for the use of **Contractor**. Easements or other authority for permanent structures or permanent changes in existing facilities will be obtained and paid for by **Department**, unless otherwise provided in the Contract Documents. If **Contractor** believes that any delay in **Department's** furnishing of these lands or easements entitles **Contractor** to an extension of the Contract Time, **Contractor** may make a request therefore as provided in Article 10 of the General Conditions. If **Department** and **Contractor** are unable to agree concerning such an extension, a claim may be made as provided in Articles 9, 10 and 11 of the General Conditions.

3.2 Any lands and easements for access not furnished by **Department** which **Contractor** deems necessary for the Work, including but not limited to requirements for temporary construction facilities, access and egress, or for storage of materials, shall be provided by **Contractor** at no increase in Contract Price nor extension in Contract Time. **Contractor** shall obtain all necessary permits and written approvals from the appropriate jurisdictional agencies and property owner(s) for use of premises not furnished by **Department** as described above, and for the use of all off-site areas needed for the Work including but not limited to off-site borrow pits, and waste and disposal areas. If permits and approvals do not specify the required treatment, if any, of said areas during and at the completion of the Work, the Progress Schedule must describe such treatment. Copies of all permits and approvals applicable to said areas shall be filed with the **Engineer** before utilization of any said areas. **Contractor** shall have sole responsibility for any property damage or personal injuries occasioned by an act or omission of **Contractor** in respect to all lands, and easements obtained pursuant to this paragraph.

3.3 Engineering survey horizontal and vertical control reference points for construction which are specified in the Contract Documents or which in **Engineer's** judgment are necessary to enable **Contractor** to proceed with the Work, will be provided by **Department**. **Contractor** shall be responsible for laying out the Work using such reference points, shall protect and preserve the established reference points; and shall make no changes or relocations without the prior written approval of **Engineer**. **Contractor** shall notify **Engineer** in writing whenever any reference point is lost or destroyed or requires relocation

because of necessary changes in grades or locations; and shall be responsible for the accurate replacement or relocation of such reference points by a professionally qualified surveyor at **Contractor's** expense.

Physical Conditions and Existing Structures:

3.4 **Explorations and Reports**: Reference is made to the Supplementary Bidding Information and Requirements for identification of those reports of explorations and tests of conditions at the site that have been utilized by **Design Engineer** in preparation of the Contract Documents; and for identification of those drawings of physical conditions in or relating to existing surface structures (except Underground Facilities referred to in paragraphs 3.6 and 3.7) which are at or contiguous to the site that have been utilized by **Design Engineer** in preparation of the Contract Documents. **Contractor** may rely upon the accuracy of the technical data contained in such reports, as to the location where and at the point in time when data was obtained, but not upon non-technical data, interpretations or opinions contained therein or for the completeness thereof for **Contractor's** purposes. Except as indicated in the Bidding Information and Requirements Section and in paragraphs 3.11 and 3.12, **Contractor** shall have full responsibility with respect to subsurface conditions which **Contractor** could reasonably expect or foresee by reason of the technical data and **Contractor's** inspection of the site, and with respect to physical conditions in or relating to such surface structures.

3.5 Intentionally left blank.

Physical Conditions - Underground Facilities Shown or Indicated:

3.6 The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the site is based on information and data furnished to the **Design Engineer** by the owners of such Underground Facilities or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

3.6.1 **Department** shall not be responsible for the accuracy or completeness of any such information or data; and,

3.6.2 **Contractor** shall have responsibility: a) for reviewing and checking all such information and data; b) for locating all Underground Facilities shown or indicated in the Contract Documents as to depth and alignment in advance of installations, backfilling or other work required by the Contract Documents; c) for coordination of the Work with the owners of such Underground Facilities during construction, d) for the safety and protection thereof, and e) for repairing any damage thereto resulting from the Work. The cost of and the time required to perform the responsibilities outlined in this paragraph will be considered as having been included in the Contract Price and in **Contractor's** schedule for the performance of the Work within the prescribed Contract Time(s) and **Contractor** shall not be entitled to additional payment therefor.

3.6.3 **Contractor** shall excavate and uncover all Underground Facilities to be crossed or paralleled by the proposed Work a sufficient time in advance to permit change in line and grade of the existing Underground Facility or the proposed Work if the location of the existing Underground Facility should interfere with the Work. Further, at a reasonable interval of time, up to thirty days, will be allowed to **Engineer** and **Department** in order to resolve issues relating to Underground Facilities shown or indicated which are determined to interfere with the Work. This interval of time will be considered as having been included in the Contract Price and in **Contractor's** schedule for the performance of the Work within the

Contract Time unless otherwise agreed to in writing by **Department**. If more than thirty days is consumed in resolving such issues, no claim will be allowed unless: 1) **Contractor** has given the notice required in paragraph 3.7 of the General Conditions, and 2) within fifteen days thereafter, **Contractor** has submitted to **Department** a written Proposed Change Order claim in accordance with the requirement of Article 9, 10 and 11 of the General Conditions and the Standard Specifications.

3.6.4 Where it is necessary for the Work to be close to or between other underground facilities or structures for short distances, **Contractor** shall shore, block, and protect the other underground facilities or structures to the satisfaction of the utility agency, state agency, municipality or private owner having ownership or jurisdiction over said underground facilities on structures.

3.6.5 Access to various municipal structures shall not be obstructed by **Contractor** to prevent use of hydrants, valves, manholes, fire alarms, etc. **Contractor** is to make no connections to existing water mains, or operate valves on existing mains, or otherwise interfere with the operation of the existing water distribution system, without first giving written notice to the owners of such municipal structures and securing their written approval of the proposed action.

Underground Facilities Not Shown or Indicated:

3.7 If an Underground Facility is uncovered or revealed at or contiguous to the site which was not shown or indicated in the Contract Documents and which **Contractor** could not reasonably have been expected to be aware of, **Contractor** shall promptly after learning thereof and before performing any Work affected thereby (except in an emergency as permitted by paragraph 5.22), identify the owner of such Underground Facility and give written notice of such uncovering to that owner and to **Engineer** and **Department**. **Engineer** and **Department** will promptly review the situation to determine the extent to which the Contract Documents should be modified to reflect and document the consequences of the existence of the Underground Facility, and take prompt action to amend the Contract Documents to the extent necessary. During such time, **Contractor** shall be responsible for the safety and protection of such Underground Facility as provided in paragraph 5.20.

3.7.1 **Contractor** shall schedule excavation and uncovering Work to begin a sufficient time in advance to allow **Engineer's** review and the possible amendment to the Contract Documents if unanticipated Underground Facilities are discovered as described in paragraph 3.7. Further, up to thirty days, will be allowed to **Engineer** and **Department** to resolve issues and problems related to a report of newly discovered Underground Facilities, not shown or indicated. This interval of time will be considered as having been included in the Contract Price and in **Contractor's** schedule for the performance of the Work within the Contract Time and **Contractor** shall not be entitled to any additional payment therefor.

3.7.2 No claim by **Contractor** under paragraph 3.7 of the General Conditions will be allowed unless more than thirty days has elapsed and 1) **Contractor** has given the notice required in paragraph 3.7 of the General Conditions, and 2) within fifteen days thereafter, **Contractor** has submitted to **Department** a written Proposed Change Order claim in accordance with the requirements of Articles 9, 10 and 11 of the General Conditions, and the Standard Specifications.

Report of Differing Site Conditions:

3.8 If **Contractor** believes that any subsurface or physical condition uncovered or revealed at the site renders materially inaccurate any information in the Contract Documents or technical data on which **Contractor** was entitled to rely as provided in paragraph 3.4 or 3.6, **Contractor** shall, immediately after becoming aware thereof and before performing any Work in connection therewith (except in an emergency as permitted by paragraph 5.22), notify **Department** and **Engineer** in writing about the inaccuracy or difference to allow **Department** and **Engineer** to make any necessary changes to minimize the cost of the Work.

3.9 **Engineer's** and **Department's Review: Engineer** and **Department** will promptly review the pertinent conditions, determine the necessity of obtaining additional explorations or tests with respect thereto, and notify **Contractor** in writing of findings and conclusions. Immediately thereafter, **Department** shall perform or cause to be performed any necessary or appropriate additional investigations and tests with respect to the newly discovered conditions and furnish copies to **Contractor**.

3.10 **Possible Document Change:** If **Engineer** concludes that there is a material error in the Contract Documents or that because of newly discovered conditions a change in the Contract Documents is required, a Proposed Change Order or a Change Order will be issued as provided in Article 9 to reflect and document the consequences of the inaccuracy or difference, provided **Department** has not exercised its right to suspend or terminate under Article 14 of Section 8, "General Conditions", Appendix B, or Article 12 of Section 6 "Agreement."

3.11 **Possible Contract Adjustment:** An increase or decrease in the cost of, or the time required to perform any part of the Work, whether or not affected by such differing conditions, and a corresponding adjustment in Contract Price or Contract Time in accordance with Articles 9, 10 and 11 of the General Conditions, or any combination thereof, may be allowable to the extent that they are attributable to any such inaccuracy or difference which **Contractor** could not reasonably have been expected to anticipate or be aware of. If **Department** and **Contractor** are unable to agree as to the adjustment in Contract Price or Contract Time, or if **Engineer** concludes that there is not a material error in the Contract Documents, or that the uncovered or revealed condition could reasonably have been anticipated by Contractor, and **Contractor** disagrees, a claim may be made therefor as provided in Articles 9, 10 and 11 of the General Conditions.

3.12 No claim by **Contractor** under paragraph 3.11 of the General Conditions will be allowed unless: 1) **Contractor** has given the notice required in paragraph 3.8 of the General Conditions, and 2) within fifteen days thereafter, **Contractor** has submitted to **Department** a written Proposed Change Order substantiating in detail **Contractor's** proposed adjustments in accordance with the requirements of Articles 9, 10 and 11 of the General Conditions, and the Standard Specifications.

3.13 **Responsibilities and Allowances: Contractor** shall schedule excavation and uncovering of Work to begin a sufficient time in advance to allow **Engineer's** review as described in paragraph 3.9, and **Department's** issuance of a Change Order or a Proposed Change Order as described in paragraph 3.10 in connection with a report of differing conditions. Further, a reasonable interval of time, not less than thirty days will be allowed to **Engineer** and **Department** for those functions required to resolve any report of differing conditions. This interval of time will be considered as having been included in the Contract Price and in **Contractor's** schedule for the performance of the Work within the Contract Time. If more than thirty days is used, no claim will be allowed unless (1) **Contractor** has given the notice required in paragraph 3.8 of the General Conditions, and (2) within fifteen days thereafter, **Contractor** has submitted to **Department** a written Proposed Change Order claim in accordance with the requirements of Articles 9, 10 and 11 of the General Conditions, and the Standard Specifications.

ARTICLE 4 - Bonds and Insurance

Performance and Other Bonds:

4.1 **Contractor** shall furnish performance, labor and material payment Bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all **Contractor's** obligations under the Contract Documents. These Bonds shall remain in effect until at least one year after the date when final payment is made, unless otherwise provided by Law or by the Contract Documents. **Contractor** shall also furnish such other Bonds as are required by the Supplementary Conditions. All Bonds shall: a) be in the form prescribed by the Contract Documents; and b) be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties or Federal Bonds and As Acceptable Reinsuring Companies" as published by the U.S. Treasury Department. Also the surety shall be licensed to do business in New York State. All Bonds signed by an agent must be accompanied by a certified true copy of the agent's power of attorney. **Contractor's** failure to submit and keep in effect a Bond or form of financial security acceptable to **Department** in the manner required by this paragraph shall be cause for termination. **Contractor** shall give written notice to **Department** and reference the site number and project name, if the surety on any Bond furnished by **Contractor** is declared bankrupt, becomes insolvent, its right to do business is involuntarily terminated by any state or federal agency, it ceases to meet the requirements of paragraph 4.1, **Contractor**, if required by **Department**, shall within fourteen days substitute another Bond or Surety, in an acceptable form of financial security. The top of all bonds shall have "NYSDEC-DER Site No."

If the provision of any bond requires that the surety be notified of any change in the Work, it shall be **Contractor's** responsibility to so notify the surety. **Contractor** shall furnish **Department** any modified bond.

Insurance - All Types:

4.2 **Contractor** shall purchase and maintain at its own expense the specific coverages and types of insurance set forth in this Article. 4.2 through 4.4.3 except as noted in 4.3.

4.2.1 **Contractor** shall not commence or continue to perform any work unless and until **Contractor** has in full force and effect all required insurance, and until **Contractor** has submitted true copies of all endorsements (i.e., amendments) and a copy of the Certificate of Insurance attached herein to **Department** evidencing the specific insurance coverage required. No payment for work performed shall become due and payable unless current certificates and endorsements have been received.

4.2.2 **Contractor** shall not permit any Subcontractor, Supplier or other person or organization to perform Work unless the following insurance requirements at a minimum have been complied with by such Subcontractor, Supplier or other person or organization and proof of the issuance of all policies of insurance has been delivered to **Contractor**.

4.2.2.1 Comprehensive general liability insurance providing coverage as herein required of **Contractor** including Contractors' Protective Liability Insurance, Completed Operations Insurance, Products Liability Insurance and Contractual Liability Insurance. Insurance must be project specific or contain an endorsement (i.e., amendment) in writing (including print or stamp) added to and made part of the insurance contract for the purpose of changing the original terms such that the

general aggregate limit applies separately to each of **Contractor's** projects away from premises owned by or rented to **Contractor**.

Commercial General liability insurance with a limit of not less than $1,000,000 each occurrence. Such liability shall be written on the Insurance Service Office's (ISO) liability arising from premises operations, independent contractors' operations, products-completed operations, broad form property damage, personal and advertising injury, cross liability coverage, liability assumed in a contract (including tort liability of another assumed in a contract) and explosion, collapse and underground coverage.

- Products and Completed Operations Coverage shall include a provision that coverage will extend for a period of at least twelve (12) months after the date of final completion and acceptance by the **Department** of all of **Contractor's** work.

4.2.2.2 Comprehensive Business automobile liability insurance with a limit of not less than $1,000,000 with **Department** listed as an additional insured.

4.2.2.3 Worker's Compensation, Employers Liability and Disability Benefits as required by State Law covering all employees doing work within New York State. If workers will be working on, or near navigable waters, US Longshore and Harbor Workers Compensation Act endorsement must be included. This contract shall be void and of no effect unless the contractor procures this policy and maintains it in effect until final acceptance of this work.

4.2.2.4 Owner's (**Department's**) and **Contractor's** Protective Liability Insurance issued to and in the name of The People of the State of New York, and the **Department** with limits not less than $1,000,000 per occurrence.

4.2.2.5 **Pollution Liability Insurance:** If the work involves abatement, removal, repair, replacement, enclosure, encapsulation and/or disposal of any hazardous material or substance, the **Contractor** shall maintain in full force and effect throughout the Term, pollution legal liability insurance with limits of not less than $1,000,000, providing coverage for bodily injury and property damage, including loss of use of damaged property or of property that has not been physically injured. Such policy shall provide coverage for actual, alleged or threatened emission, discharge, dispersal, seepage, release or escape of pollutants or in the investigation, settlement or defense of any claim, suit, or proceedings against the State of New York and/or the **Department**, arising from **Contractor's** work and list Department as an additional insured. Claims made policies shall have a one (1) year tail beyond the date **Department** determines physical completion.

- If coverage is written on claims-made policy, the **Contractor** warrants that any applicable retroactive date precedes the effective date of this Contract; and that continuous coverage will be maintained, or an extended discovery period exercised, for a period of not less than two years from the time work under this Contract is completed.

4.2.2.6 **Errors and Omissions:** If providing professional services, **Contractor** shall maintain, or if subcontracting professional services, shall certify that its subcontractor maintain errors and omissions liability insurance with a limit not less than $1,000,000 per loss.

- Such insurance shall apply to professional errors, acts or omissions arising out of the scope of services covered by this contract and may not exclude bodily injury, property damage, pollution or asbestos related claims, testing, monitoring, measuring or laboratory analyses.

- If coverage is written on a claims-made policy, the **Contractor** warrants that any applicable retroactive date precedes the effective date of this contract; and that continuous coverage will be maintained, or an extended discovery period exercised for a period not less than two years from the time the work under this contract is completed.

4.2.3 Insurance shall be issued by carriers licensed to do business in New York State. Each insurance carrier must be rated at least "A-" Class "VII" in the most recently published Best's Insurance Report. If during the term of the policy, a carrier's rating falls below "A-" Class VII, the insurance must be replaced no later than the renewal date of the policy, with an insurer acceptable to the **Department** and rated at least "A-" Class VII in the referenced report.

4.2.4 Acceptance by **Department** of the insurance provided by **Contractor** shall not relieve **Contractor** from liabilities, obligations, responsibilities or decrease the liabilities of **Contractor** hereunder. It is understood that **Department** does not in any way represent that the insurance or the limits of insurance specified in the Article is sufficient or adequate to protect **Contractor's** interests or liabilities, but are merely minima.

4.2.5 All insurance shall be maintained in full force and effect until the Contract has been fully and completely performed, as set forth in the Contract Documents. Completed operations insurance shall remain in effect until one year after the date of final acceptance of work under the contract, or one year after **Contractor** or any Subcontractor performs any work under the Contract, whichever is later. Should any coverage approach expiration during the period in which it must remain in full force and effect, it shall be renewed prior to its expiration , and a certificate again filed with **Department**. Also, any endorsements (i.e., amendments) which change insurance during the length of the contract shall also be submitted to **Department** for acceptance. All insurance policies shall require notice to **Department** 30 days prior to expiration, termination, or suspension of such policy, directed to the attention of **Department**. Expiration of any coverage shall be grounds for termination of contract for cause, at the option of **Department**. If any insurance provided hereunder contains an aggregate limit, the aggregate shall apply separately to this contract and shall not be less than $2,000,000. **Department** may suspend or terminate this contract unless Contractor maintains in full force and effect, the types and amounts of insurance required by this contract. No later than thirty (30) days prior to the expiration or renewal date of policy the **Contractor** should supply replacement certificates of insurance.

4.2.6 **Contractor** shall deliver, if requested by **Department**, duplicate originals of each policy required by Contract Documents, as well as insurance policies of Subcontractors, in such number as **Department** may require, and such alternate or additional proof of coverage as **Department** demands. **Contractor** shall provide prompt, written notice to the Department

and its insurer, of any claims made related to work done hereunder, in accordance with the insurance policy provisions.

4.2.7 Nothing contained in these insurance requirements shall be construed to limit the liability of **Contractor** or **Contractor's** insurance carriers.

4.3 **Additional Pollution Liability Insurance:** In addition, **Contractor** shall provide project specific Pollution Liability Insurance in an additional amount of not less than $4,000,000, for a total of $5,000,000, per claim if possible unless otherwise authorized in writing by the **Department**. If **Contractor** cannot obtain this additional level of coverage of $4,000,000, the following documentation is required: written confirmation by **Contractor** from at least three insurance carriers. The cost of this additional pollution liability insurance will be reimbursed by **Department**. **Department** will determine if it is in **Department's** best interest to have this additional insurance.

4.4 If required by the Supplementary Conditions or Law, **Contractor** shall purchase and maintain at its own expense insurance otherwise deemed necessary by **Department** with **Department** listed as an additional insured.

4.4.1 Where special or unusual hazards peculiar to this contract are foreseeable, **Contractor** shall take such steps as are necessary to insure itself against such hazards and be responsible for any damage, including water, which results from the occurrence of the hazards in connection with the performance of Work under the Contract.

4.4.2 **Contractor** shall purchase and maintain insurance which complies with the requirements of the Flood Disaster Protection Act.

4.4.3 **Contractor** shall maintain until the physical completion date builder's risk insurance on the Builder's Risk Completed Values Form with extended coverage, on the value of the work which shall be the contract amount. Whenever applicable, the Contractor's Interest Completed Value Form may be used. The extended coverage endorsement may include a loss deductible clause of $100.00. **Department** shall be listed as an additional insured. The Builder's Risk policy shall include the following endorsement. "It is made a condition of this insurance that occupancy of the premises shall not require consent of the insurance company nor rate of adjustment."

ARTICLE 5 - Contractor's Responsibilities

Supervision and Superintendence:

5.1 **Contractor** shall supervise and direct the Work required by the contract competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. **Contractor** shall be responsible for the means, methods, techniques, sequences and procedures of construction; except that **Contractor** shall not be responsible for the negligence of others in the design or selection of a specific means, method, technique, sequence or procedure of construction which is indicated in and required by the Contract Documents. **Contractor** shall be responsible to see that the finished Work conforms with the Contract Documents.

5.2 **Contractor** shall keep on the Site of the Work at all times during its progress, a competent and reliable resident superintendent, who shall not be replaced without written approval of **Department**. The superintendent will be **Contractor's** representative at the site and shall have authority to act on behalf

of **Contractor**. All communications given to the superintendent shall be as binding as if given to **Contractor**.

5.2.1 **Department** may require immediate replacement of the superintendent upon written notice for cause.

5.2.2 The superintendent and similar authorized representatives of any Subcontractors as requested by **Department** or **Engineer** shall attend all meetings pertaining to the Work.

5.2.3 Whenever the superintendent is not present for performance of a particular part of the Work and **Engineer** is not able to give to **Contractor**, through the superintendent, information relative to an interpretation of the Contract Documents, or relative to disapproval or rejection of materials or the performance of such work, **Engineer** may so inform the worker in charge of such Work. Information so given shall be binding as if given to superintendent.

5.2.4 **Contractor** shall issue all communications to **Department** through **Engineer** except as provided by Contract Documents. All written correspondence to **Engineer** shall be copied to **Department**

Labor, Working Hours, Materials and Equipment:

5.3 **Contractor** shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. **Contractor** shall, at all times, employ labor and equipment which shall be sufficient to prosecute the several classes of work to full completion in the manner and time specified. All workers must have sufficient skill, experience and Health and Safety training required to perform properly the work assigned them. All workers engaged on special or skilled work shall have had sufficient experience in such work to perform properly and satisfactorily including operation of any equipment involved. Any person employed by **Contractor** or Subcontractor whom the **Engineer** or **Department** may determine incompetent or unfit to perform the work shall be at once discharged or reassigned and not again be employed on Work in connection with this Contract. The **Contractor** may request review by **Department** regarding the discharge of such employee(s). **Contractor** shall at all times maintain good discipline and order at the site. Except in connection with the safety or protection of persons or the Work or property at the site or adjacent thereto, and except as otherwise indicated in the Contract Documents, all Work at the site shall be performed during normal working hours as defined in paragraph 5.3.1 below, and **Contractor** shall not permit overtime Work or the performance of Work during hours other than normal Working hours without: a) prior written notice to **Engineer**; b) **Department's** written consent; and c) written approval from the New York State Department of Labor as required by law.

5.3.1 Normal working hours shall be defined as a normal working schedule which a) does not exceed eight hours per working day, occurring between the hours set forth at the pre-construction conference, or if none are set forth, beginning no earlier than 7:00 a.m. and ending at no later than 5:00 p.m.; and b) does not exceed 40 hours per week, excluding overtime Work. Work on Saturdays, Sundays, and legal holidays (New Years, Memorial Day, Independence Day, Labor Day, Thanksgiving and Christmas). Work during other than normal working hours may be scheduled by **Contractor** by first obtaining written permission from **Department** and as provided in Section 5.3. **Department** shall be entitled to recover extra costs incurred in providing inspection related to Work done during other than normal working hours in accordance with paragraph 5.3.5 below.

5.3.2 If **Contractor**, for convenience, voluntarily chooses to schedule Work during hours other than normal working hours at no increase in Contract Price, **Contractor** shall submit details of such proposed schedule with the interim Progress Schedule described in paragraph 1.6 of the General Conditions. Any Progress Schedule calling for Work outside of normal working hours shall be reviewed for acceptance by **Engineer** and **Department** and must be in accordance with the requirements of the New York State Labor Law and Articles 1.6 and 5.3 of the General Conditions.

5.3.3 If at any time subsequent to the submission and approval of the Progress Schedule pursuant to the General Conditions and the Standard Specifications, an event or delay not meeting the requirements for extensions in Contract Time set forth in Articles 9, 10 and 11 of the General Conditions occurs, and requires **Contractor** to schedule Work during hours other than normal working hours for **Contractor's** convenience and at no increase in Contract Price, **Contractor** shall submit, at least ten working days in advance of the acceleration period, a proposed revised accelerated schedule for review by **Engineer** and **Department**. If **Department** accepts the revised accelerated Progress Schedule, **Department** will so notify **Contractor** in writing.

5.3.4 If the accelerated Progress Schedule pursuant to paragraph 5.3.2 or 5.3.3 is accepted by **Department**, **Contractor** shall reimburse **Department** for all extra costs incurred in providing inspection during hours other than normal working hours in accordance with paragraph 5.3.5 below. Acceptance by **Department** of the accelerated Progress Schedule shall not justify an increase in Contract Price; any increase in **Contractor's** cost to perform the Work, or any part thereof, whether or not affected by **Contractor's** initiated acceleration proposal, shall remain the responsibility of **Contractor**.

5.3.5 **Contractor** shall reimburse **Department** for the extra costs incurred in providing inspection during hours other than normal working hours when **Department** considers that the additional hours are due to **Contractor's** inefficiencies or delays. Reimbursement may include but may not be limited to costs for **Engineer**, Resident Project Representatives, administrative expenses and other related costs. Reimbursement for **Engineer's** charges shall be in amounts equal to **Engineer's** charges to **Department** for inspection during hours other than normal working hours under the terms of **Engineer's** agreement with **Department**. In the event **Contractor** fails to pay such costs within 30 days after receipt of an invoice from **Department**, a Change Order or Proposed Change Order may be issued incorporating the unpaid amounts, and **Department** shall be entitled to an appropriate decrease in Contract Price.

5.3.6 **Department** may direct **Contractor** to accelerate if the progress of Work indicates **Contractor** may not be able to complete the contract within the contract terms. **Contractor** shall be responsible for all increased costs due to the acceleration.

5.4 Unless otherwise specified in the Contract Documents, **Contractor** shall furnish and assume full responsibility for all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, storage areas, temporary facilities and all other facilities and incidentals necessary for the furnishing, performance, testing, start-up and completion of the Work.

5.4.1 All water for testing, flushing and construction shall be furnished by **Contractor**. If water is available from **Department** and **Department** agrees to its use, **Contractor** shall connect to **Department's** water system at a point approved by **Department**. **Department** will charge

Contractor for water used in performing the above functions in accordance with **Department's** established rate schedule. There shall be installed at each and every connection to any water supply: (a) a meter accepted by **Department** or Owner of water supply, and (b) a backflow preventer device accepted by the New York State Department of Health.

5.4.2 In the event that **Contractor** wishes to utilize water from **Department's** facilities as a substitute source of test water, **Contractor** shall submit sufficient information in accordance with paragraph 5.7.2 of the General Conditions to allow **Engineer** to evaluate the substitution. Such information shall in addition include a description of the necessary equipment and temporary facilities needed to implement the substitute and an estimate of the costs savings anticipated. In the event that the substitution is accepted by **Engineer** pursuant to the requirements of paragraph 5.7.3 of the General Conditions and allowed by **Department**, and the supply of water is inadequate in quantity or quality, **Contractor** shall be responsible for obtaining other sources of test water at no increase in Contract Price or extension in Contract Time.

5.4.3 **Contractor** shall light the parts of the Work performed during working hours in the manner required by law and as required by **Engineer** or **Department**.

5.5 Except as otherwise provided in the Contract Documents, all materials shall be of good quality, good condition and new, and all equipment shall be new, or should be in good working order and of good quality. As required by **Engineer**, **Contractor** shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable Supplier except as otherwise provided in the Contract Documents.

5.5.1 **Contractor** shall provide to **Department** for **Department's** benefit through **Engineer** all manufacturers' warranties for materials, and products incorporated into the Work, or required by the Contract Documents to be furnished by **Contractor**.

5.5.2 **Contractor** shall obtain from manufacturers of all materials and products complete information as to any special condition, or restriction to be applied in the use of these items. Should the manner or method of installation, specified performance or test results as set forth in the Specifications be contrary to the manufacturer's recommendations for installation and use of the product, the **Contractor** shall notify **Engineer** of same for appropriate action. Lack of such notification shall constitute a certification and guarantee by **Contractor** that Specification requirements will be met by such materials and products to be incorporated.

5.5.3 **Contractor** shall submit data on all products to be incorporated into the Work required by the Contract Documents, including but not limited to complete maintenance instructions (including preventive maintenance and operating requirement data) and parts lists in sufficient detail to facilitate ordering replacements, in accordance with the procedures set forth in the Special Supplementary Conditions, the Standard Specifications or the Supplementary Specifications.

Adjusting Progress Schedule:

5.6 **Contractor** shall report on the status of and revise the Progress Schedule to **Engineer** and **Department** by delivering Progress Schedule status and update submittals to **Engineer** in accordance with the Specifications and Article 1.6 of the General Conditions. If **Contractor** does not adequately update the

Schedule, **Department** may reject **Contractor's** requests for payment, provided that **Department** gives **Contractor** 10 days written notice of its intention to do so.

"Or-Equal" or Substitute Items:

5.7.1 Whenever materials or equipment are specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the naming of the item is intended to establish the type, function, quality, performance and design criteria required. Unless the name is followed by words indicating that no "or equal" or substitution is permitted, materials or equipment of other Suppliers may be accepted by **Engineer** if sufficient information is submitted by **Contractor** to allow **Engineer** to determine that the material or equipment proposed is equivalent or equal to that named. The procedure for review by **Engineer** will include the following as supplemented in the Contract Documents. Requests for review of "or equal" or substitute items of material and equipment will not be accepted by **Engineer** from anyone other than **Contractor**. If **Contractor** wishes to furnish or use an "or equal" or substitute item of material or equipment, **Contractor** shall make written application to **Engineer** for acceptance thereof, certifying that the proposed "or equal" or substitute shall perform the functions and achieve the results called for by the general design, be similar and of equal substance and quality to that specified and be suited to the same use as that specified.

5.7.1.1 The application shall state that the evaluation and acceptance by **Engineer** of the proposed "or equal" or substitute shall not prejudice completion of the Work, or any part thereof, within the Contract Time, or contract times (including **Contractor's** achievement of Substantial Completion on time), whether or not acceptance of the "or equal" or substitute for use in the Work would require a change in the Work, or any part thereof, or would require the **Department** or others having a contract with **Department** for Work on the Project to adapt the Contract Documents to the proposed "or equal" or substitute; and whether or not incorporation or use of the "or equal" or substitute in connection with the Work is subject to payment of any license fee or royalty. All variations of the proposed "or equal" or substitute from that specified shall be identified in the application and available maintenance, repair and replacement services shall be indicated. The application shall also contain an itemized estimate of all increases or decreases in the following costs: 1) the cost of, or the time required to perform any part of the Work, and the corresponding adjustments in Contract Price and Contract Time, resulting directly or indirectly from evaluation and acceptance of the proposed substitute, including, but not as a way of limitation, costs and delays associated with redesign, or claims of other contractors affected by the resulting "or equal" or substitute, and 2) increases or decreases in operating, maintenance, repair, replacement or spare part costs, all of which shall be considered by **Engineer** in evaluating the proposed "or equal" or substitute. In rendering a decision, **Department** and **Engineer** shall at a minimum, have access to any available Total Float in the approved Progress Schedule. **Engineer** may require **Contractor** to furnish at **Contractor's** expense additional data about the proposed "or equal" or substitute.

5.7.2 If a specific means, method, technique, sequence or procedure of construction is indicated in or required by the Contract Documents, **Contractor** may furnish or utilize a substitute only if first approved by **Engineer**. **Contractor** shall submit in writing sufficient information to allow **Engineer** to determine that the substitute proposed is equivalent to that indicated or

required by the Contract Documents. The procedures for review by **Engineer** established by paragraph 5.7.1, and as may be supplemented in the Contract Documents, will apply to reviews under this paragraph.

5.7.3 **Engineer** shall be allowed a reasonable time as determined by **Department** within which to evaluate each proposed "or equal" or substitute. **Engineer** and **Department** shall be the sole judge of acceptability, and no "or equal" or substitute shall be ordered, installed or utilized without **Engineer's** prior written acceptance which will be evidenced by either a Change Order or an approved Shop Drawing. **Department** may require **Contractor** to furnish at **Contractor's** expense a special performance guarantee or other financial security with respect to any substitute. **Engineer** will keep record of the time required by **Engineer** and **Engineer's** consultants in evaluating "or equals" or substitutions proposed by **Contractor** and in making changes in the Contract Documents occasioned thereby. Whether or not **Engineer** accepts an "or equal" or proposed substitute, **Department** shall be entitled to an offset against any payment due **Contractor** for the charges of **Engineer** and **Engineer's** consultants for evaluating each proposed "or equal" or substitute after the second submittal on such item. In the event that substitute materials or equipment are accepted and are less costly than the originally specified materials or equipment, then the net difference in cost shall benefit **Department**, and an appropriate Change Order or Proposed Change Order shall be executed to reflect the difference in cost. If **Engineer** or **Department** determine that the deduction proposed by **Contractor** does not reflect the net difference in cost, then this shall be adequate justification to reject the proposed substitute. Additional construction and/or engineering costs identified after **Department's** acceptance of the proposal and resulting from installation of an "or equal" or substitute shall be borne by **Contractor**.

Subcontractors, Suppliers and Others:

5.8.1 **Contractor** shall not employ nor award Work to Subcontractors in excess of the amount specified in Article 7 of the Supplementary Bidding Information and Requirements Section. Such percentage may be increased by an Administrative Agreement if, during performance of the Work, **Contractor** requests an increase and **Department** at its sole discretion determines that the increase would be to **Department's** advantage. **Contractor** shall submit to **Department** a statement stating the character and amount of the work to be subcontracted and the party to whom it is proposed to subcontract the work. **Contractor** shall not employ any Subcontractor, Supplier or other person or organization whether initially or as a substitute, unless first approved by **Department**.

5.8.2 Wherever Work to be performed by **Contractor** or by a Subcontractor is dependent upon Work of other Subcontractor(s) or the work of separate contractor(s), then **Contractor** shall require such Subcontractor(s) whose Work is so dependent to:

5.8.2.1 Provide necessary notices of delay, data or other requirement(s) for performance of dependent Work or work of separate contractor(s).

5.8.2.2 Supply and/or install items to be built into dependent Work or work of separate contractor(s).

5.8.2.3 Make provisions for dependent Work or work of separate contractor(s).

5.8.2.4 Examine previously placed dependent Work or work of separate contractor(s).

5.8.2.5 Check and verify dimensions of previously placed dependent Work or work of separate contractor(s),

5.8.2.6 Notify **Engineer** in writing immediately upon determining previously placed dependent Work or work of separate contractor(s), the dimensions of which are unsatisfactory or will prevent a satisfactory installation of Work,

5.8.2.7 Not proceed with Work until the unsatisfactory dependent conditions which prevent satisfactory installation of Work have been corrected.

Installation of Work by **Contractor** or by a Subcontractor in any given area shall constitute acceptance by **Contractor** or by such Subcontractor of all previously placed dependent Work or work of separate contractor(s) and after such acceptance **Contractor** shall not make any claims for additional costs based on alleged deficiencies in such Work.

5.8.3 Whenever other **Contractors** will perform portion(s) of the work that depend on the **Contractor's** portion of the Work; **Contractor** shall provide all of the notices and information listed in 5.8.2. to such other **Contractors** in a timely manner.

5.9 **Contractor** shall be fully responsible to **Department** and **Engineer** for **Contractor's** acts and omissions and all acts and omissions of the Subcontractors, Suppliers and other persons and organizations performing or furnishing any of the Work under a contract with any level of Subcontractor or Supplier. Nothing in the Contract Documents shall create any contractual relationship between **Department** or **Engineer** and any such Subcontractor, Supplier or other person or organization. **Department** or **Engineer** may furnish to any Subcontractor or Supplier, to the extent practicable, evidence of the payments made to **Contractor** on account of specific Work done.

5.10 The various sections, divisions and subdivisions of the Standard and Supplementary Specifications and the identifications of any Drawings shall not control **Contractor** in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade. The Standard Specifications, Supplementary Specifications, and Drawings are complementary to each other and are to be read as a whole. Anything mentioned or shown in a division of such Specifications, or Drawings or in a specific trade Drawing shall be effective as if shown in all divisions of such Specifications and in all Drawings. In addition to the requirements of paragraphs 5.23 through 5.29 of the General Conditions, shop drawings of a specific trade shall be compared to and coordinated with those from other trades by **Contractor** before submission to **Engineer**.

5.11 All Work performed for **Contractor** by a Subcontractor will be pursuant to an appropriate agreement between **Contractor** and the Subcontractor which specifically binds the Subcontractor to the applicable terms and conditions of the Contract Documents for the benefit of **Department**.

Patent Fees and Royalties:

5.12 **Contractor** shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, device or intellectual processes which is the subject of patent rights or copyrights held by others, both when a particular invention, design, process, product or device is specified in the Contract Documents for use in the performance of the Work and otherwise. It is the intent of the parties that whenever **Contractor** is required or desires to use any design, device, material or process covered by letters, patent, trademark or copyright, the right for such use shall be provided for by suitable legal agreements with the patentee or owner, and a copy of this agreement shall be filed with **Engineer**. However, whether or not such agreement is made or filed as noted, **Contractor** and **Contractor's** surety in all cases shall indemnify and hold harmless **Department** and **Engineer** and their employees as provided in paragraph 5.12.1 thereof and in Appendix B.

5.12.1 **Contractor** shall, at its expense, defend any suit instituted against **Department** and indemnify **Department** against any award of damages and costs made against **Department** by a final judgment of a court of last resort based on the claim that any of inventions, designs, processes, products, devices or intellectual processes furnished by or used in the performance or incorporated in the Work by **Contractor** or any Subcontractor or Supplier, infringes any patent or copyright of the United States; provided **Department** gives **Contractor** immediate notice in writing, permits **Contractor** to defend the suit and gives **Contractor** all available information, assistance and authority to do so. **Contractor** shall control the defense of any such suit, including appeals, and all negotiations to effect settlement. If any of such items in any such suit is held to so infringe and its use is enjoined, **Contractor** shall, at its election and expense: 1) procure for **Department** the right to continue using the same; or 2) replace or modify the same so that it becomes non-infringing; or 3) remove the same and eliminate any obligation to pay future charges or royalties pertaining thereto.

5.12.2 In the event that an action at law or in equity is commenced against **Department** or State arising out of a claim that its use of any invention, design, process, product, device or intellectual process as under this Agreement infringes on any patent, copyright or proprietary right, and such action is forwarded to **Contractor** for defense and indemnification pursuant to paragraph 5.12.1 and Appendix B. **Department** shall copy all pleadings and documents forwarded to **Contractor** together with the forwarding correspondence to the Office of the Attorney General of the State of New York together with a copy of the Contract Documents. If upon receipt of such request for defense, or at any time thereafter, **Contractor** is of the opinion that the allegations in such action, in whole or in part, are not covered by the indemnification set forth herein, **Contractor** shall immediately notify **Department** and the Office of the Attorney General of the State of New York in writing and shall specify to what extent **Contractor** believes it is and is not obligated to defend and indemnify under the terms and conditions of this Agreement. **Contractor** shall in such event protect the interests of the State of New York and secure a continuance to permit the State of New York to appear and defend its interests in cooperation with **Contractor** as is appropriate including any jurisdictional defenses which the State shall have.

5.12.3 **Contractor** shall, however, have no liability to the **Department** under this Article 5.12 if any infringement is based upon or arises out of: 1) Compliance with designs, plans, or specifications furnished by or on behalf of **Department** as to the items; 2) Alterations of the items by **Department**; 3) Failure of **Department** to use updated items provided by **Contractor** for avoiding infringement; 4) Use of items in combination with apparatus or devices not delivered by **Contractor**; 5) Use of items in a manner for which the same were

neither designed nor contemplated; or 6) A patent or copyright in which **Department** or any affiliate or subsidiary of the **Department** has any direct or indirect interest by license or otherwise.

5.12.4 The foregoing states **Contractor's** entire liability for, or resulting from, patent or copyright infringement or claim thereof.

Permits:

5.13 Unless otherwise provided in the Contract Documents, **Contractor** shall obtain and pay for any permits or licenses required for performance of Work. **Contractor** shall pay all governmental charges and inspection fees necessary for the prosecution of the Work, which are applicable at the time of opening of Bids, or if there are no Bids on the Effective Date of the Agreement. **Contractor** shall pay all charges for connections or disconnections required by the Work to Underground Facilities or utilities owned by third parties.

Laws and Regulations:

5.14.1 **Contractor** shall comply with all Laws applicable to performance of the Work. Except where otherwise expressly required by applicable Laws or Contract Documents, neither **Department** nor **Engineer** shall be responsible for monitoring **Contractor's** compliance with any Laws.

5.14.2 If **Contractor** observes that the Contract Documents are at variance with any applicable Laws, **Contractor** shall immediately give **Engineer** prompt written notice thereof, and any necessary changes will be authorized by one of the methods set forth in paragraph 2.4 and 2.5 of the General Conditions. If **Contractor** performs any Work knowing or having reason to know that it is contrary to such Laws, and without such notice to **Engineer**, **Contractor** shall bear all costs arising therefrom; however, it shall not be **Contractor's** primary responsibility to make certain that the Specifications and Drawings are in accordance with such Laws.

Taxes:

5.15 **Contractor** shall pay all sales, consumer, use and other similar taxes required to be paid by **Contractor** in accordance with the Laws of the State of New York which are applicable during the performance of the Work. Materials, supplies and equipment incorporated into the Work or sold to New York State are exempt from New York State sales tax.

Use of Premises:

5.16 **Contractor** shall confine the use and storage of construction equipment, the storage of materials and equipment and the operations of workers to the Project site and land and areas identified in and permitted by the Contract Documents and other land and areas permitted by applicable Laws, rights-of-way, permits and easements, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment. Unless otherwise provided in the Contract Documents, use of **Department's** facilities at or contiguous to the site by **Contractor** for storage of materials or equipment shall not be permitted. **Contractor** shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof or of any land or areas contiguous thereto, resulting from the acts or omissions of **Contractor**. Should any claim be made against **Department** or **Engineer** by any such owner or occupant because of the performance of the Work, **Contractor** shall promptly attempt to settle with such other party by agreement or otherwise resolve the claim by

arbitration or by Law. **Contractor** shall, to the fullest extent permitted by Laws, indemnify and hold **Department** harmless in accordance with the provisions of Appendix B.

5.16.1 Temporary buildings (e.g., storage sheds, trailers, shops, offices) and utilities may be erected by **Contractor** only with the approval of **Engineer** and shall be built without additional expense to **Department**. Such temporary buildings and utilities shall remain the property of **Contractor** and shall be decontaminated as necessary and removed by **Contractor** at his expense upon completion of the Work; the buildings and utilities may be abandoned and remain at the site with the written consent of **Department**.

5.16.2 When materials are transported for performance of the Work, vehicles shall not be loaded beyond the load ng capacity recommended by the manufacturer of the vehicle or prescribed by Federal, State, or local law or regulation. When it is necessary to cross curbs, sidewalks or work which is completed or underway on site, **Contractor** shall protect them from damage, and shall repair any damage caused.

5.16.3 Notwithstanding the designation of site boundaries or the indication of temporary fences or barricades, the provisions of the Contract Documents governing certain phases or portions of the Work may require that certain operations be carried out beyond the site boundaries. Trenching, utility Work, site development, landscaping, other Work, if required beyond such designated limits, shall be scheduled in such a manner as to cause or occasion a minimum of inconvenience or disturbance to or interference with the normal operation of **Department**, abutting owners and the public. **Contractor** shall obtain **Department's** prior approval and all necessary approvals from others, including but not limited to public authorities and utility companies for such operations, and shall conduct such operations expeditiously and restore the affected area to its original condition immediately upon completion of such operations, unless otherwise specified in the Contract Documents.

5.16.4 All existing walks, roadways, paved or landscaped areas on which temporary driveways or walks are rerouted shall be restored to their original condition, immediately upon completion of the phases or portions of the Work for which such features were disturbed unless otherwise specified in the Contract Documents.

5.16.5 Pumping, draining and control of surface and ground water will be carried out so as to avoid endangering the Work or any adjacent facility or property, or interrupting, restricting or otherwise infringing or interfering with the use thereof, or exceeding the limits allowed by Contract Documents, or applicable Law.

5.17 During the progress of the Work, **Contractor** shall keep the Site free from accumulations of waste materials, rubbish and other debris resulting from the Work. At the completion of the Work **Contractor** shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, appliances, construction equipment and machinery, and surplus materials, and shall leave the Site clean and ready for **Department**. **Contractor** shall restore all pavement, sidewalks, driveways, fences, shrubs, lawns, trees and any other public or private property damaged as a result of the Work under this Contract. All such replacement shall be done in accordance with the applicable specifications and no separate or extra payment will be made unless specifically provided for in the Payment Items. In all cases, said replacement shall be at least equal to the original conditions.

5.18 **Contractor** shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall **Contractor** subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

As-Built Documents:

5.19 **Contractor** shall maintain in a safe place at the Site one as-built document which shall consist of all Drawings, Specifications, Addenda, written amendments, Change Orders, Proposed Change Orders, field test records, construction photographs, Field Orders and written interpretations and clarifications (issued pursuant to paragraph 8.3) in good order and annotated to show all changes made during construction. **Contractor** will be required to review with **Engineer** the status of all as-built documents in connection with **Engineer's** evaluation of an Application for Payment. Pursuant to paragraph 13.2.1 of the General Conditions, failure to maintain a current file of such as-built documents up-to-date may be just cause to recommend withholding of payments for Work performed. These as-built documents together with all approved samples and a copy of all approved Shop Drawings shall be available to **Engineer** for reference at the Site. Upon completion of the Work, these as-built documents, samples and Shop Drawings shall be delivered to **Engineer** for **Department**. Failure by **Contractor** to produce acceptable as-built documents of the above listed items shall be cause for reduction of Contract Price in an amount equal to **Department's** cost of generating or producing the as-built documents.

Health, Safety and Protection:

5.20 **Contractor** shall be responsible for initiating, maintaining and supervising all health and safety precautions and programs in connection with the Work which include but are not limited by the Contract Documents and **Contractor's** Health and Safety Plan. **Contractor** shall take all necessary precautions for the health and safety of, and shall provide the necessary protection to prevent damage, injury or loss to all employees and other persons and organizations who may be affected thereby. **Contractor** shall comply with all applicable Laws of any public body having jurisdiction for the health and safety of persons or property in order to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such health, safety and protection. **Contractor** shall notify owners of Underground Facilities and utility owners when performance of the Work may affect them, and shall cooperate with them in the protection, removal, relocation and replacement of their property. In addition to any requirements imposed by Laws, **Contractor** shall shore up, brace, underpin, and protect as may be necessary, all foundations and other parts of all existing structures adjacent to and adjoining the site which are in any way affected by the excavations or other operations connected with performance of the Work under the Contract. All damage, injury or loss to any property referred to in this paragraph caused, directly or indirectly, in whole or in part, by **Contractor**, any Subcontractor, Supplier or any other person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or caused by anyone for whose acts any of them may be liable, shall be remedied by **Contractor**; provided that **Contractor** shall not be responsible for damage or loss attributable to defects in the Drawings or Specifications or to the acts or omissions of **Department** or **Engineer** or anyone employed by either of them or anyone for whose acts either of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of **Contractor**. **Contractor's** duties and responsibilities for the safety and protection of the Work shall continue until such time as all the Work is completed and **Engineer** has issued a written notice to **Department** and **Contractor** in accordance with paragraph 13.11 that the Work is acceptable, except as otherwise expressly provided in connection with Substantial Completion. **Department** has the right to suspend Work or terminate this contract for cause for **Contractor's** failure to comply with any health and safety plan required by the Contract Documents or Law.

5.21 **Contractor** shall designate a responsible representative at the site whose duty shall be the prevention of accidents. This person shall be **Contractor's** superintendent unless otherwise designated in writing by **Contractor** to **Department**.

Emergencies:

5.22 In emergencies affecting or threatening to affect the safety or protection of persons or the Work or property at the site or adjacent thereto when prompt action is required and there is no reasonable opportunity for prior consultation with **Engineer** or **Department**, **Contractor**, without special instruction or authorization from **Engineer** or **Department**, is obligated to act to prevent threatened damage, injury or loss. **Contractor** shall give **Engineer** prompt telephonic notice followed by written notice thereof, including any significant changes in the Work or variations from the Contract Documents which **Contractor** believes have been caused thereby. If **Engineer** determines that a change in the Contract Documents is required because of the action taken in response to an emergency, an Administrative Agreement, Field Order, Proposed Change Order or Change Order shall be issued to document the consequences of the changes or variations. **Contractor** shall give **Engineer** and **Department** name and number of contact for emergencies during non-Work hours.

Shop Drawings and Samples:

5.23 After checking and verifying all field measurements and after complying with applicable procedures specified in the Contract Documents, **Contractor** shall submit to **Engineer** for review and approval in accordance with the accepted schedule of Shop Drawing submissions (see paragraph 1.4. hereof) six copies of all Shop Drawings plus additional copies as required by **Contractor**, unless otherwise specified in the Contract Documents. All such Shop Drawings shall bear a stamp or other specific written indication that **Contractor** has satisfied the requirements of the Contract Documents with respect to the review of the submissions including but not limited to subparagraph 5.25 below. All submissions shall be identified as **Engineer** may require. The data shown on the Shop Drawings shall be complete with respect to quantities, dimensions, specified performance and design criteria, materials and similar data to enable **Engineer** to review the information as required.

5.24 **Contractor** shall also submit to **Engineer** for review and approval with such promptness as to cause no delay in Work, all samples required by the Contract Documents. **Contractor** shall check all samples, shall identify them clearly as to material, Supplier, pertinent data such as catalog numbers and the use for which intended, and shall submit with them a written certification that **Contractor** has satisfied the requirements of the Contract Documents with respect to the review of such submissions including but not limited to subparagraph 5.25 below.

5.25 Before submission of each Shop Drawing or sample, **Contractor** shall certify that all quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers and similar data with respect thereto have been reviewed or that each Shop Drawing or sample has been coordinated with other Shop Drawings and samples and with the requirements of the Work and the Contract Documents.

5.26 At the time of each such submission, **Contractor** shall give **Engineer** specific written notice of each variation that the Shop Drawings or samples may have from the requirements of the Contract Documents, and, in addition, shall cause a specific notation of each such variation to be made on each Shop Drawing submitted to **Engineer** for review and approval.

5.27 **Engineer** will review and approve or disapprove Shop Drawings and samples in 14 days. However, **Engineer's** review and approval of Shop Drawings will be only for conformance with the design concept of the Project and for compliance with the information given in the Contract Documents and shall not extend to the accuracy of other matters that may be contained in the submittals, including but not limited to such matters as dimensions, quantities, performance of equipment and systems proposed by **Contractor**, **Contractor's** means, methods, techniques, sequences or procedures of construction (except where a specific means, method, technique, sequences, and procedures of construction is indicated in or required by the Contract Documents) or to safety precautions or program incident

thereto, the correctness of which shall remain the sole responsibility of **Contractor**. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

5.27.1 When reviewed by **Engineer**, each submittal of Shop Drawings and samples will be returned to **Contractor** as either "Approved", "Approved as Noted", "Resubmit with Revisions", or "Disapproved." Submittals stamped as "Approved" or "Approved as Noted" will indicate **Engineer's** approval thereof, subject to the provisions of paragraph 5.27.

5.27.2 **Contractor** shall revise and correct Shop Drawings and samples and resubmit them to **Engineer** for **Engineer's** second review and return pursuant to paragraph 5.28. **Contractor** shall direct specific attention in writing to revisions other than the corrections called for by **Engineer** on previous submittals.

5.27.3 Costs associated with **Engineer's** review and return of a Shop Drawing or sample submission other than ones submitted pursuant to paragraph 5.7 of this Section shall be borne by **Contractor** after the **Engineer's** second review. **Department's** charges to **Contractor** for additional reviews will be equal to **Engineer's** charges to **Department** under the terms of **Engineer's** agreement with **Department**. In the event **Contractor** fails to pay such costs within 30 days after receipt of an invoice from **Department**, funds will be withheld from payment requests and at the completion of the Work, a Change Order or proposed Change Order will be issued incorporating the unpaid amount, and **Department** will be entitled to an appropriate decrease in Contract Price.

5.27.4 After the **Engineer's** second review, delays associated with **Contractor's** resubmittal and **Engineer's** review and return of a particular Shop Drawing or sample submission shall be the responsibility of **Contractor**. Such delays shall not justify an increase in Contract Price nor an extension in Contract Time.

5.28 **Engineer's** review and approval of Shop Drawings or samples shall not relieve **Contractor** from responsibility for any variation from the requirements of the Contract Documents unless **Contractor** has in writing called **Engineer's** attention to each such variation at the time of submission as required by paragraph 5.26 and **Engineer** has given written approval of each such variation by a specific written notation thereof incorporated in or accompanying the Shop Drawing or sample approval; nor will any approval by **Engineer** relieve **Contractor** from responsibility for errors or omissions in the Shop Drawings or from responsibility for complying with paragraph 5.25.

5.29 Where a Shop Drawing or sample is required by the Specifications, any related Work performed prior to **Engineer's** review and approval of the pertinent submission will be the sole expense and responsibility of **Contractor**.

Continuing the Work:

5.30 **Contractor** shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with **Department**. No work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by Article 14 of the General Conditions or as **Contractor** and **Department** may otherwise agree in writing.

Weather Protection:

5.31 **Contractor** shall be responsible for initiating, maintaining and supervising all weather protection precautions and programs in connection with the Work. Additional weather protection provisions, if applicable, are set forth in the Supplementary Conditions, Standard Specifications or Supplementary Specifications.

Cutting and Patching of Work:

5.32 **Contractor** shall be responsible for all cutting of masonry and other materials, and all fitting, drilling or patching which may be necessary to complete the Work or to make its several parts fit together properly, whether or not such Work is expressly specified in the Contract Documents.

5.33 **Contractor** shall not damage or endanger any portion of the Work or the work performed by **Department** or by any separate contractors by cutting, patching or otherwise altering any work, or by excavation. **Contractor** shall not cut or otherwise alter work performed by **Department** or any separate contractors except with the written consent of **Department** and of such separate contractor. **Contractor** shall not unreasonably withhold from **Department** or any separate contractor consent to cutting or otherwise altering the Work.

Quality Control:

5.34 Reference is made to the Supplementary Conditions, Standard Specifications and Supplementary Specifications for the identification of **Contractor's** quality control system requirements under the Contract.

Project Meetings:

5.35 **Contractor**, along with appropriate Subcontractors, suppliers and manufacturers, shall attend weekly project meetings at the site or as requested by **Department** or **Engineer**, for the purpose of discussing and resolving matters concerning the various elements of the Work.

Notification of Emergency Services:

5.36 **Contractor** shall notify all local Police, Fire Department and Ambulance Services at least twenty-four (24) hours in advance of construction across or adjacent to existing roadways in order that such services might be aware of any disrupted access.

Conflicts Between Contract Documents and Site:

5.37 **Contractor** shall notify **Engineer** and **Department** immediately upon discovering any conflicts, ambiguities, error or inconsistencies in the Contract Documents, between the Contract Documents and the actual Site Conditions, or between the Contract Documents and work being done by others. Failure to promptly notify the **Engineer** and **Department** may invalidate **Contractor's** request for an increase in Contract Price and/or Time.

ARTICLE 6 - Other Work

Related Work at Site:

6.1 **Department** may perform other work related to the Project at the site by **Department's** own forces, have other work performed by utility owners, or enter into other contracts for such other work.

6.2 **Contractor** shall afford each utility owner and other contractor who is a party to a direct contract with **Department** (or **Department**, if **Department** is performing the additional work with **Department's** employees) proper and safe access to the site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such work, and shall properly connect the Work with theirs. **Contractor** shall do all the Work that may be required to make its several parts come together properly and integrate with other work. **Contractor** shall only alter the work of others with the written consent of **Engineer** and notice to the other contractors whose work will be affected, and shall not endanger any work of others by altering their work. The duties and responsibilities of **Contractor** under this paragraph are for the benefit of such utility owners and other contractors.

6.3 If any part of **Contractor's** Work depends for proper execution or results upon the work of any such other contractor, utility owner or **Department**, **Contractor** shall inspect and promptly report to **Engineer** in writing any delays, defects or deficiencies in such work that render it unavailable or unsuitable for such proper execution and results. **Contractor's** failure so to report shall constitute an acceptance of the other work as fit and proper for integration with **Contractor's** Work except for latent or non-apparent defects and deficiencies in the other work.

ARTICLE 7 - Department's Responsibilities

7.1 **Department** may issue communications to **Contractor** through **Engineer**.

7.2 In case of termination of the employment of **Engineer**, **Department** shall appoint an engineer whose status under the Contract Documents shall be that of the former **Engineer**.

7.3 **Department** shall furnish the data required of **Department** under the Contract Documents promptly and shall make payments to **Contractor** promptly after they are due as provided in Article 13.

7.4 **Department** is represented by the Project Field Representative, the Project Manager and the Designated Representative whose duties and authority are set forth in the Contract Documents. **Department** is also represented by **Engineer**.

7.5 **Department** will not be responsible for **Contractor's** means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, unless the Contract Documents specifically impose such a duty on **Department**. **Department** will not be responsible for **Contractor's** failure to perform or furnish the Work in accordance with the Contract Documents.

7.6 **Department** will not be responsible for the acts or omissions of **Contractor** or of any Subcontractor, any Supplier, or of any other person or organization performing or furnishing any of the Work.

ARTICLE 8 - Engineer's Status During Construction

Project Representation:

8.1 The duties and responsibilities and the limitations of authority of **Engineer** during construction are set forth in the Contract Documents. **Engineer's** Resident Engineer will assist **Engineer** in inspecting the performance of the Work. The duties, and authorities of any Resident Engineer and Resident Project Representatives are set forth in the Contract Documents. Secondarily **Department** is represented as set forth in article 7.4 of the General Conditions.

Visits to Site:

8.2 **Engineer** shall make any on-site inspections necessary to check the quality or quantity of the Work and to determine if the Work is proceeding in accordance with the Contract Documents. **Engineer's** duty to visit the site shall in no way be construed to relieve **Contractor** of its duty to perform the Work in conformance with the Contract Documents.

Clarifications and Interpretations:

8.3 **Engineer** or **Department** shall issue with reasonable promptness and within 14 days maximum such written clarifications or interpretations of the requirements of the Contract Documents (in the form of Drawings or otherwise) as **Engineer** or **Department** may determine necessary, which shall be consistent with or reasonably inferable from the overall intent of the Contract Documents. If **Contractor** believes that a written clarification or interpretation justifies an increase in Contract Price or an extension in Contract Time, **Contractor** shall be required to deliver a written notice thereof to **Engineer** and **Department** in accordance with the provisions of Article 9 of the General Conditions. If **Department** and **Contractor** are unable to agree as to amount and extent thereof, a claim may be made pursuant to Articles 10, 11 and 15 of the General Conditions.

Authorized Variations in Work:

8.4 **Engineer** may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Time and are consistent with the overall intent of the Contract Documents. These may be accomplished by a Field Order and will be binding on **Contractor** who shall perform the Work involved promptly. If **Contractor** believes that a Field Order justifies an increase in Contract Price or an extension in Contract Time, **Contractor** shall be required to deliver a written notice thereof to **Engineer** in accordance with the provisions of Article 9 of the General Conditions. If **Department** and **Contractor** are unable to agree as to amount and extent thereof, a claim may be made pursuant to Articles 10 and 11 of the General Conditions.

Rejecting Defective Work:

8.5 **Engineer**, based on its inspections, reports of its Resident Engineer, other information available to it and its professional experience and training, or the direction of Department, may disapprove or reject Work at any time during the construction of the Work, which **Engineer** believes to be Defective Work. **Engineer** shall also have authority to require special inspection or testing of the Work as provided in paragraphs 12.4 through 12.10 of the General Conditions, whether or not the Work is fabricated, installed, or completed. When **Contractor** has been notified by **Engineer** of disapproval or rejection of Defective Work, **Contractor** shall take immediate action to correct same at no additional cost.

Shop Drawings, Change Orders and Payments:

8.6 **Engineer's** responsibilities regarding Shop Drawings and samples, are set forth in paragraphs 5.23 through 5.29 of the General Conditions. If **Contractor** believes that **Engineer's** approval of a Shop Drawing or sample justifies an increase in Contract Price or an extension in Contract Time, **Contractor** shall be required to deliver a written notice thereof to **Engineer** in accordance with the provisions of Article 9 of the General Conditions. If **Department** and **Contractor** are unable to agree as to amount and extent thereof, a claim may be made pursuant to Articles 10 and 11 of the General Conditions.

8.7 **Engineer's** duties regarding Change Orders are set forth in Articles 9, 10 and 11 of the General Conditions.

8.8 **Engineer's** duties regarding Applications for Payment, etc., are set forth in Article 13 of the General Conditions.

Determinations for Unit Prices:

8.9 **Engineer** will review and make preliminary determinations on the actual quantities and classifications of acceptable Unit Price Work performed by **Contractor**. **Engineer** will review such preliminary determinations with **Contractor**, before rendering a written decision thereon by recommendation of an Application for Payment or otherwise. **Department** shall review and approve **Engineer's** determinations. **Department's** decisions thereon shall be final unless within 15 days after the date of any such decision, **Contractor** delivers to **Department** and to **Engineer** written notice of intention to dispute such a decision.

Decisions on Disputes:

8.10 **Engineer** shall interpret the Contract Documents and determine the acceptability of the Work thereunder subject to **Department's** right to modify or overrule **Engineer's** determination after consultation with **Engineer** and **Contractor**. Disputes or other matters relating to the acceptability of the Work or the interpretation of the requirements of the Contract Documents pertaining to the performance and furnishing of the Work, and disputes under Articles 9, 10, 11 and 15 of the General Conditions in respect to changes in the Contract Price or Contract Time will be referred to **Engineer** in writing with a request for a formal determination in accordance with this paragraph. **Engineer** shall render such determination in writing within a reasonable time. Written notice of each such claim, dispute or other matter shall be delivered by **Contractor** to **Engineer** and **Department** within fifteen days after the occurrence of the event giving rise thereto. Written data supporting such dispute or other matters shall be submitted to **Department** within forty-five days after such occurrence, unless **Department** allows an extension of time to submit additional information.

Limitations on Engineer's Responsibilities:

8.11 Whenever in the Contract Documents the terms "as ordered," "as directed," "as required," "as allowed," "as approved," or terms of like effect or import are used, or the adjectives "unreasonable," "unsuitable," "acceptable," "proper," or "satisfactory," or adjectives of like effect or import are used to describe a requirement, direction, review or judgment of **Engineer** as to the Work, it is intended that such requirement, direction, review or judgment will be solely to evaluate the Work for compliance with the Contract Documents unless there is a specific statement indicating otherwise. The use of any such term or adjective shall not be effective to assign to **Engineer** any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraph 8.12 or 8.13.

8.12 **Engineer** will not be responsible and **Contractor** remains responsible for **Contractor's** means, methods, techniques, sequences and procedures of construction, and the safety precautions and programs incident thereto, unless Contract Documents specifically impose such a duty on **Engineer**. **Engineer** will not be responsible for **Contractor's** failure to perform or furnish the Work in accordance with the Contract Documents.

8.13 **Engineer** will not be responsible for the acts or omissions of **Contractor** or of any Subcontractor, any Supplier, or of any other person or organization performing or furnishing any of the Work.

ARTICLE 9 - Changes in the Work

9.1 Without invalidating the Agreement, **Department** may, at any time or from time to time and without notice to any surety, order additions, deletions or revisions in the Work or other requirements, which the performance of, or compliance with, is established in the provisions of the Contract Documents. These changes will be initiated by Proposed Change Orders, in Administrative Orders and authorized by Change Orders. Upon receipt of an Administrative Order, or Proposed Change Order, the Contractor shall proceed with the Work Involved. All such Work Involved shall be performed in accordance with the applicable conditions of the Contract Documents. If an Administrative Order or Proposed Change Order causes an increase or decrease in the Contract Price or an extension or shortening of the Contract Time, an equitable adjustment will be made in a duly executed Change Order. The value of any work covered by a Proposed Change Order or a Change Order for an increase or decrease in the Contract Price or the Contract Time, hereafter called the "Work Involved", shall be determined by one of the following methods:

9.2 **Department** may order minor changes in the Work which do not involve an adjustment in the Contract Price or in the Contract Time and are consistent with the overall intent and purpose of the Contract Documents. Such minor changes will be authorized by a Field Order which shall be binding on **Department** and **Contractor** who shall perform such changes promptly. If **Contractor** believes that a Field Order justifies an increase in the Contract Price or the Contract Time, **Contractor** shall make written notification within 3 days and provide documentation within 15 days in a Proposed Change Order to **Engineer**.

9.3 Additional work performed without authorization of a Proposed Change Order will not entitle **Contractor** to an increase in the Contract Price or an extension in the Contract Time, except in the case of emergency work as provided in paragraph 5.22 of the General Conditions and except in the case of uncovering Work as provided in paragraph 12.9 and 12.10 of the General Conditions.

9.4 When changes in the Work, involving adjustments to the Contract Price or Contract Time are contemplated by **Department**, pursuant to paragraph 9.1, **Contractor** may be requested to submit a cost proposal prior to being authorized to proceed with the change. If **Department** and **Contractor** are unable to agree and **Department** orders the change, or if **Department** pursuant to **Engineer's** review and decision concludes that the written direction, instruction, interpretation or clarification, approval, decision or determination does not require an increase in Contract Price or extension in Contract Time, **Contractor** will be required to carry on with the Work involved and adhere to the Progress Schedule. **Contractor** proposals substantiating the amount and extent of any proposed adjustment in Contract Price or Contract Time shall become due within three days of receipt (or issuance) of a Proposed Change Order initiated by **Department** (or **Contractor**), and shall be submitted in accordance with Articles 9, 10 and 11 of the General Conditions. Any delays in the submittal of **Contractor** proposals relative to adjustments in Contract Price or Contract Time will not justify a delay or constitute basis for an increase in Contract Price or an extension in Contract Time. Unless **Contractor** gives written notice of intent to appeal **Department's** determination or to file a claim in accordance with Article 15 of the General Conditions, within said thirty days of the issuance of a Proposed Change Order or the rejection of a Proposed Change Order, **Department's** determination shall be final and binding upon **Contractor**.

9.5 Upon receipt of a cost proposal from **Contractor**, pursuant to paragraph 9.4 above, and if **Department** agrees with the increase or decrease in the Contract Price or Contract Time, **Department** shall authorize the change in the Work by issuing a Proposed Change Order and shall begin preparation of a Change Order covering the Work Involved.

9.5.1 A Change Order shall also be any other written order, including direction, instruction, interpretation, determination, or decision embodied in a Field Order, or in a response to a request for clarification or interpretation of the requirements of the Contract Documents, or in an approval of a Shop Drawing or sample, or in a decision relating to a report or differing or unforeseen conditions or the acceptability of Work or Admistrative Order which causes any change, provided that **Contractor** gives **Engineer** and **Department** a dated written notice identifying the written order and stating circumstances and other information required in this Article and in Articles 9, 10 and 11 of the General Conditions indicating that **Contractor** considers the written order a Proposed Change Order.

9.5.2 **Contractor** quotations substantiating the amount or extent of any proposed adjustment in Contract Price or Contract Time shall cover all known amounts or extents to which **Contractor** is entitled as a result of the proposed change. Pursuant to this requirement of the Contract Documents, **Contractor** acknowledges and agrees to the following waivers when executing Change Orders or Proposed Change Orders authorized in accordance with paragraph 9.4 of the General Conditions:

9.5.2.1 **Contractor** acknowledges and agrees that the adjustments in Contract Price and Contract Time stipulated in this Change Order represent full compensation for all increases or decreases in the cost of, or the time required to perform the entire Work under the Contract, arising directly or indirectly from this Change Order, including this and all previous Change Orders. Acceptance of this waiver constitutes an agreement between **Department** and **Contractor** that the Change Order represents an all inclusive, mutually agreed upon adjustment to the Contract for all direct, indirect and consequential costs and delays, and that **Contractor** shall waive all rights to file a claim on this Proposed Change Order after it is properly executed.

9.5.2.2 Acceptance by **Contractor** is evidence of mutual accord and satisfaction for those adjustments in Contract Price and Contract Time stipulated in this Proposed Change Order, that **Contractor** shall submit detailed supporting data within fifteen days in accordance with Articles 10 and 11 of the General Conditions to allow negotiation of outstanding issues, and that the changes ordered and documented by this Proposed Change Order will be incorporated into a future Change Order subsequent to agreement on all outstanding issues.

9.6 If the provision of any bond requires that the surety be notified of any change in the Work, it shall be **Contractor's** responsibility to so notify the surety and the amount of each applicable bond shall be adjusted accordingly. **Contractor** shall furnish proof to **Department** of such adjustment.

9.7 No claim by **Contractor** for an adjustment under this Article of the General Conditions shall be allowed if asserted after the date of final payment under this Contract.

ARTICLE 10 - Change of Contract Price or Time

10.1 The Contract Price constitutes the total compensation, subject to authorized adjustments, payable to **Contractor** for performing the Work. All duties, responsibilities and obligations assigned to or undertaken by **Contractor** shall be at its own expense without any change in the Contract Price or the Contract Time.

10.2 The Contract Price and the Contract Time may only be changed by a duly executed Change Order.

10.3 The value of the Work involved shall be determined by one of the following methods:

10.3.1 Where the Work involved is covered by unit prices contained in the Contract Documents, those unit prices shall be used to determine the cost of the Work Involved.

10.3.2 Where the Work involved is not covered by unit prices contained in the Contract Documents, by application of mutually agreed upon unit prices to the quantities of the items of Work Involved.

10.3.3 By mutual acceptance of a lump sum.

10.3.4 On the basis of the cost of the Work involved as provided in paragraph 10.4 of this Article plus a **Contractor's** fee for overhead and profit as provided in paragraph 10.7 of this Article.

10.3.5 Where the **Department** and **Contractor** cannot agree on any of the methods described above, and **Department** directs **Contractor** to proceed with the Work involved as provided in Article 10 of the General Conditions.

10.4 The Cost of the Work involved shall include the following items and shall not include any of the costs disallowed under this Article 10 of the General Conditions:

10.4.1 Payroll costs of employees in the direct employ of the **Contractor** in the performance of the Work involved in job classifications agreed upon by **Department** and **Contractor**. Payroll costs shall include, but shall not be limited to, salaries and wages plus the cost of fringe benefits which shall include social security contributions, unemployment, excise and payroll taxes, workers or workmen's compensation, health and retirement benefits, and sick leave applicable thereto. Such employees may include foremen at the site but shall not include employees in the job classifications itemized in paragraphs 10.6.1. The costs of performing the Work involved during other than normal working hours, as defined in paragraph 5.3.1, shall be included in the above to the extent authorized by **Department** and as required by Law.

10.4.2 Cost of all materials and equipment furnished and incorporated into the Work involved, including costs of transportation and storage thereof, and suppliers' field services connected therewith. All cash discounts shall accrue to **Contractor** unless **Department** deposits funds with **Contractor** with which to make payments, in which case, the cash discounts shall accrue to **Department**. All trade discounts, rebates and refunds, and all returns from sale of surplus materials and equipment shall accrue to **Department**, and **Contractor** shall make provisions so that they may be obtained.

10.4.3 Payments made by **Contractor** to subcontractors who perform a part of the Work involved. If required by **Department**, Contractor shall obtain competitive bids from prospective subcontractors acceptable to **Contractor** and shall deliver such bids to **Department** who will then determine which bids will be accepted. If a subcontract provides that the subcontractor is to be paid on the basis of cost plus a fee, the subcontractor's cost shall be determined in the same manner as **Contractor's** cost of the Work involved. All subcontracts shall be subject to the provisions of the Contract Documents, insofar as applicable.

10.4.4 Costs of special consultants, including but not limited to engineers, architects, testing laboratories, surveyors, attorneys and accountants, employed for services specifically related to the Work involved to the extent authorized in writing by **Department**.

10.4.5 Costs of **Contractor** owned equipment - **Contractor** shall be reimbursed for his ownership and operating costs for self owned equipment employed on the Work involved. The rates of reimbursement shall be as listed in most recent published edition of the Rental Rate Blue Book published by Dataquest, Inc. in effect on the date of issuance of the applicable Change Order or Proposed Change Order, or prior to performing the Work in a claim for an increase or decrease in the Contract Price and applied in the following manner.

10.4.5.1 Ownership costs - The equipment rates for ownership costs include depreciation on the original purchase, insurance, applicable taxes, interest on investment, storage, repairs, mobilization to and demobilization from the site of the Work Involved, and profit reimbursement will be made for the hours on the Work Involved. In no event shall the equipment rate billed to **Department** be at rates exceeding those described below.

10.4.5.2 Less than 8 hours of actual use or necessary for availability as approved by Engineer: The daily rate or the product of the hours of actual use multiplied by the hourly rate, whichever is less.

10.4.5.3 Between 8 hours and 40 hours of actual use: The weekly rate or the product of the hours of actual use used divided by 8 and multiplied by the daily rate, whichever is less.

10.4.5.4 Between 40 hours and 176 hours of actual use: The monthly rate or the product of the hours of actual use divided by 40 multiplied by the weekly rate, whichever is less.

10.4.5.5 Over 176 hours of actual use: The product of the hours of actual use divided by 176 multiplied by the monthly rate.

10.4.5.6 Operating costs including fuel, lubricants, other operating expendables, and preventive and field maintenance. Operating costs do not include the operator's wages. **Contractor** shall be reimbursed the product of the hours of actual use multiplied by the estimated operating cost per hour.

10.4.5.7 The geographic area adjustment factor and the Rate adjustment tables for federal aid projects shall be applied to the equipment ownership rates.

10.4.5.8 The rates used shall be those in effect at the time the Work involved is to be done as listed in the then current Rental Rate Blue Book.

10.4.5.9 In the event that a rate is not established in the Rental Rate Blue Book for a particular piece of equipment, **Department** will establish rates for ownership and operating costs.

10.4.5.10 Equipment to be used by **Contractor** shall be specifically described by manufacturer and model number and be of suitable size and capacity to accomplish the Work involved. In the event **Contractor** elects to use equipment of a higher rental rate than equipment suitable for the Work involved, payment will be made at the rate applicable to the suitable equipment. **Department** and **Engineer** shall determine the suitability of the equipment. If there is a differential in the rate of pay of the operator of oversized or higher rate

equipment, the rate paid for the operator will likewise be related to the suitable equipment.

10.4.5.11 Transportation, loading and unloading, installation, dismantling and removal costs shall be included only if such construction equipment and machinery is imported to the site solely to perform the Work involved in the Change Order Proposed Change Order, or Claim. All equipment costs shall cease when the use thereof is no longer necessary to perform the Work involved or the equipment cannot be used to perform the Work involved due to contractor actions or inactions. Payroll costs for employees operating the equipment shall be in accordance with paragraph 10.4.1 of the General Conditions.

10.4.5.12 Actual equipment use time documented by **Engineer** shall be on the basis that the equipment was on and used at the site. In addition to the leasing rate, equipment operational costs shall not exceed the estimated hourly operation rate as set forth in the Blue Book. Daily records listing the equipment units and their respective operators, identification code, and actual usage and certified at the end of each day by **Engineer** shall be the record upon which actual equipment use shall be based. For multiple shift work sequences the allowable equipment rate for second or third shifts shall not exceed 50 percent of the base rate. Idle equipment at the site and necessary to perform the Work involved but not in actual use shall be paid at the rate determined above. Idle time shall include a reasonable time allowance to and from the site, and be as documented by **Engineer**.

10.4.6 Costs of **Contractor** rented equipment.

10.4.6.1 In the event **Contractor** must rent a specific piece of equipment, payment will be the actual rental rate for the piece of equipment for the time that is is used on the Work involved or required by **Department** to be present, not to exceed the rental rate in the Rental Rate Blue Book, plus the reasonable cost of moving the equipment onto and away from the site of the Work Involved.

10.4.6.2 **Contractor** shall also be reimbursed for the operating cost of the rented equipment if that cost is not included in the rental cost. The operating cost shall be determined in the same manner as specified for **Contractor** owned equipment above. If contractor owned equipment is available on site to complete the work, **Contractor** shall be reimbursed only at the rate for owned equipment and there shall not be any reimbursement for transportation of equipment to or from site.

10.4.6.3 In the event area practice dictates the rental of fully manned or fueled and maintained equipment, payment will be made on the basis of an invoice for the rental of the fully manned, fueled and/or maintained equipment, including all costs incidenta to its use, plus costs of moving to and from the site of the Work Involved, provided the rate is substantiated by area practice.

10.4.6.4 Transportation loading and unloading, installation, dismantling and removal costs shall be included only if such construction equipment and machinery is imported to the site solely to perform the Work involved in the Change Order, Proposed Change Order, or Claim. All equipment costs shall cease when the use thereof is no longer necessary to perform the Work involved or the equipment

cannot be used to perform the Work involved due to **Contractor** actions or inactions. Payroll costs for employees operating the equipment shall be in accordance with paragraph 10.4.1 of the General Conditions.

10.4.7 The maximum amount of reimbursement for the ownership costs of **Contractor** owned equipment or for the rental costs of rented equipment shall be limited to the original purchase price of the equipment as listed in the Green Guide for Construction Equipment published by the Equipment Guide Book Company. In the specific event where the reimbursement is limited by the original purchase price, **Contractor** shall be reimbursed for the operating cost per hour for each hour of actual use.

10.4.8 Supplemental costs due solely in connection with the Work involved to include the following:

10.4.8.1 The necessary transportation, travel and subsistence expenses of **Contractor's** employees who are solely employed in the Work involved.

10.4.8.2 Costs, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office and temporary facilities at the site required, but excluding hand tools, protective clothing and other consumables which are used or consumed in connection with the Work involved and are individually valued at less than $100.00.

10.4.8.3 Sales, consumer use, or similar taxes for which **Contractor** is liable, exclusive of New York State and local sales taxes for materials, supplies and equipment incorporated into the Work.

10.4.8.4 Royalty payments and fees for licenses and permits.

10.4.8.5 Costs of utilities at the site including but not limited to electricity, telephone, fuel, heat, water, property rental and sanitary facilities.

10.5 The amount of credit to be allowed by **Contractor** to **Department** for any individual change in the Work which results in a net decrease in cost shall be the amount of the actual net decrease plus a deduction in **Contractor's** fee equal to one half of the fee derived from the application of paragraphs 10.7.2.1, 10.7.2.2 and 10.7.2.3 of this Article.

10.5.1 When more than one individual change is covered by one Proposed Change Order or Change Order, the adjustment in **Contractor's** fee shall be the sum of the individual fees computed on each individual change in accordance with paragraphs 10.7.2.1 through 10.7.2.4.

10.6 The cost of the Work involved shall not include any of the following, all of which are to be considered general and overhead costs covered by the **Contractor's** fee:

10.6.1 Payroll costs and other compensation of **Contractor's** executives, principals (of partnership and sole proprietorships), general managers, engineers, architects, estimators, attorneys, superintendents, administrators, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks and other personnel employed by **Contractor**, at the site or not, for general administration of the Work including any Change Orders, and who are not specifically included in the agreed upon schedule of job classifications referred to in paragraph 10.4.1 of this Article.

10.6.2 Expenses of **Contractor's** principal and branch offices other than **Contractor's** office at the site. Costs derived from the computation of an extended or unabsorbed home office overhead rate by application of the Eichleay, Allegheny, Burden Fluctuation, or other similar methods.

10.6.3 Any part of **Contractor's** capital expenses, including interest on **Contractor's** capital employed for the Work involved and charges against **Contractor** for delinquent payments.

10.6.4 Cost of premiums for all bonds and insurance whether or not **Contractor** is required by the Contract Documents to purchase and maintain the same.

10.6.5 Costs incurred in the preparation of Proposed Change Orders or Change Orders or in preparation or filing of claims.

10.6.6 Expenses of **Contractor** associated with anticipated lost profits or lost revenues, lost income or earnings, lost interest on earnings or unpaid retainage.

10.6.7 Small tools used or consumed in the performance of the Work involved having an individual value of less than $100.

10.6.8 Costs due to negligence of **Contractor** or any subcontractor anyone directly or indirectly employed by them for whose acts any of them may be liable, including, but not limited to correction of defective work, disposal of equipment or material wrongly supplied and repairing any damage to property.

10.6.9 Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in paragraph 10.4 of this Article, all of which are to be considered general and overhead costs covered by the **Contractor's** fee.

Contractor's Fee:

10.7 The **Contractor's** fee for general and administrative overhead costs (whether at the site or in **Contractor's** principal or branch offices), small tools and profit on the Work involved shall be determined by negotiations in accordance with this paragraph.

10.7.1 **Contractor** shall negotiate with **Department** for reasonable overhead rates and fair and reasonable profit based on assumptions of risk, exposure to weather, size of the change, labor to material ratio, equipment requirements, and time of performance.

10.7.2 In no case shall the **Contractor's** fee exceed the following percentages of the various percentages of the Cost of the Work involved.

10.7.2.1 For costs incurred under paragraph 10.4.1 (Payroll Costs) of this Article, the **Contractor's** fee shall not exceed fifteen percent (15%).

10.7.2.2 For costs incurred under paragraph 10.4.2 (Costs of Materials and Equipment) of this Article, the **Contractor's** fee shall not exceed ten percent (10%).

10.7.2.3 For costs incurred under paragraph 10.4.3 (Cost of Subcontracts) of this Article, the **Contractor's** fee shall not exceed five percent (5%) and the subcontractor's fee shall not exceed ten percent (10%).

10.7.2.4 For costs incurred under paragraph 10.4.3 of this Article, for work performed by a subcontractor's subcontractor, the **Contractor's** and the first subcontractor's fees shall not exceed five percent (5%) each and the second subcontractor's fee shall not exceed ten percent (10%).

10.7.2.5 No fee shall be paid on the costs itemized under paragraphs 10.4.4 and 10.4.5 nor on subcontractors' fees derived in accordance with paragraphs 10.7.2.3 and 10.7.2.4.

10.7.3 No fee shall be paid on premium portion of wages nor on increased wages due to delays.

10.8 Changes in the Contract Price due to changes in the Contract Time.

10.8.1 An increase in the Contract Price due solely to delays causing extensions in the Contract Time will be allowed only if the delays to the Work, or parts thereof, arise from acts or omissions of **Department** or **Engineer** which are longer than the time period(s) provided for review(s) or decision(s) as provided for in the Contract Documents, and provided further that the delays arise from changes in the Work covered by Proposed Change Orders or Change Orders prepared pursuant to Article 9 of the General Conditions or from suspensions of Work pursuant to paragraph 14.1 of the General Conditions. However no adjustment in the Contract Price shall be made under this paragraph for the following reasons:

10.8.1.1 For any extensions granted in the Contract Time to the extent that performance would have been so extended by any other cause including fault or negligence of **Contractor** or subcontractors, suppliers or other persons or organizations.

10.8.1.2 For any acceleration alternative in lieu of an extension proposed by **Contractor**, to the extent that the acceleration costs exceed those in connection with the alternative extension in Contract Time.

10.8.1.3 For which a Contract Price is provided or excluded under any other provision of the Contract Documents.

10.8.1.4 For delays which are covered by or which could be covered by relocating the Total Float or a portion of it.

10.8.2 Recovery of damages for delay on account of extensions in **Contractor's** Progress Schedule or in connection with acceleration alternatives thereof will be allowed only when said delays extend the Work, or a part thereof, beyond the applicable Contract Time(s).

10.8.3 It is further expressly agreed and understood that **Contractor** will not be entitled to any compensation or damages on account of delays which meet the requirements of paragraph 10.12.3 of the General Conditions for time extensions but which can or could have been avoided by reallocating portions of the Total Float. Under this requirement, it is further understood and agreed that the only remedies for delays which are figured to cause an extension in the Contract Time or form the basis for a proposal for an acceleration alternative thereof solely due to the use of Total Float will consist of an increase in Contract Time only and shall exclude **Contractor's** right to recover any delay damages or compensation from Department.

10.9 In submitting proposals or asserting claims for changes under this Article, **Contractor** acknowledges and agrees that no adjustment shall be made: 1) for any escalation costs for any part of the Work which is not delayed beyond the applicable latest possible dates specified in the approved Progress Schedule, or 2) for any acceleration costs incurred without prior authorization from **Department**, or 3) for which an adjustment has been provided for, limited as to extent, or excluded under any other provision of the Contract Documents.

10.10 **Contractor** quotations substantiating the amount or extent of any proposed adjustment in Contract Price or Contract Time shall cover all known amounts or extents (direct, indirect and overhead) to which **Contractor** is entitled as a result of the proposed change. Pursuant to this requirement, **Contractor** acknowledges and agrees to the following waivers when executing Proposed Change Orders and Change Orders authorized in accordance with Article 9:

10.10.1 **Contractor** acknowledges and agrees that the adjustments in Contract Price and Contract Time stipulated in the Change Order represent full compensation for all increases or decreases in the cost of, or the time required to perform, the entire Work under the Contract arising directly or indirectly from the Change Order. Acceptance of this waiver constitutes an agreement between **Contractor** and **Department** that the Change Order represents an all inclusive, mutually agreed upon, adjustment to the Contract for all direct, indirect and consequential costs and delays, and that **Contractor** will waive all rights to file a claim on the Change Order after it is duly executed.

10.10.2 Acceptance by **Contractor** is evidence of mutual accord and satisfaction for those adjustments in the Contract Price and Contract Time stipulated in the Proposed Change Order, that **Contractor** will submit detailed supporting data within fifteen days in accordance with Articles 10 and 11 of the General Conditions to allow negotiation of outstanding issues, and that the changes ordered and documented by the Proposed Change Order will be incorporated into a future Change Order subsequent to agreement on all outstanding issues.

10.11 Additional costs incurred due to acceleration or additional work performed by **Contractor** without an agreed upon Proposed Change Order will not entitle **Contractor** to an increase in Contract Price or Contract Time, except in the case of emergency work as provided in paragraph 5.22 of the General Conditions or in the case of uncovering Work as provided in paragraph 12.9 of the General Conditions.

10.12 The Contract Time may be changed only by a duly executed Change order. Any proposal for an extension or shortening of the Contract Time shall be based on a Proposed Change Order in accordance with the provisions of this Article.

10.12.1 **Contractor** requests substantiating the extent of increase in the Contract Time shall be delivered to **Engineer** within fifteen days of the event causing the proposed need for the extension in the Contract Time unless **Department**, in writing, allows an additional period of time. **Contractor** shall prove that the delays have materialized or will materialize despite reasonable, prudent, and diligent efforts to prevent such delays and meet the criteria set forth in this Article. Any delays by **Contractor** in submittal of proposals will not justify a delay or be basis for an extension of the Contract Time.

10.12.2 Extensions in Contract Time due to delays to parts of the Work will not be granted until all Total Float available for those parts of the Work has been used.

10.12.3 An extension in the Contract Time will not be granted unless **Contractor** can demonstrate, through an analysis of the Progress Schedule approved in accordance with the applicable

provisions of the Standard Specifications, that the delay in completing the applicable parts of the Work within the applicable Contract Time(s) arises from unforeseeable causes beyond the control and without the fault or negligence of **Contractor** or its Subcontractors, Suppliers or other persons or organizations, and which **Contractor** could not have guarded against, and that such causes do or will cause extension of the schedule for that part of the Work beyond the applicable Contract Time. Examples of such causes include 1) acts of God or of the public enemy, 2) fires, floods, epidemics, quarantine restrictions, 3) strikes, freight embargoes, 4) unusually severe weather, 5) delays of Subcontractors or Suppliers at any tier arising from unforeseeable causes beyond the control and without fault or negligence of both **Contractor** and the Subcontractors, Suppliers or other persons organizations.

10.12.4 All time limits stated in the Contract Documents are of the essence. They have been developed by taking into account:

10.12.4.1 The scope of the Work under the Contract Documents;

10.12.4.2 Reasonable time for performance of the Work, or parts thereof, as a whole; and

10.12.4.3 The perceived sensitivity of the Work, or parts thereof, as a whole, to the potential delaying effect of causes meeting the requirements of paragraph 10.12.3.

10.12.4.4 Therefore, and as long as delays meeting the requirements of paragraph 10.12.3 are not to be considered by **Contractor** in the initial development of the Progress Schedule pursuant to paragraph 1.6 of the General Conditions and the Progress Schedule Section of the Standard Specifications, the initial Progress Schedule developed by **Contractor** could show Total Float with respect to the Contract Time, or contract Times. Pursuant to the Float sharing requirements of the Contract Documents (as set forth in the provisions of Progress Schedule Section of the Standard Specifications) any such Total Float materializing between **Contractor's** completion of the Work, or part thereof, as anticipated by **Contractor's** approved progress Schedule, and the corresponding Contract Time(s) will be available to **Department, Engineer, Contractor** and others to absorb delays that cannot be mitigated by any other means.

10.12.5 The provisions of Section 10.11 of this Article shall govern and be applicable to the following:

10.12.5.1 Changes in Contract Time initiated by **Department** or **Contractor** due to delays which meet the requirements of paragraph 10.12.4.

10.12.5.2 **Contractor** proposals to accelerate the Progress Schedule, in lieu of the alternate extension of Contract Time, due to delays meeting the requirements of paragraph 10.12.3.

10.12.6 The provisions of paragraphs 10.11, 10.12.2, and 10.12.3 shall exclude recovery for damages arising out of an acceleration alternative to an extension in Contract Time on account of delays not meeting the requirements for extensions in Contract Time set forth in this Article.

10.12.7 The provisions of this Article 10 shall not exclude recovery for damages (including compensation for additional professional services and court costs) for delay by either party,

except as otherwise specifically disallowed in this Article and in other provisions of the Contract Documents.

10.13 Failure, refusal or neglect by **Contractor** to comply with the time requirements for delivery of written Proposed Change Orders or notice of a claim shall be considered to be a waiver by **Contractor** of any request or claiming for extension in Contract Time.

10.13.1 **Contractor** proposals (or claims) substantiating **Contractor's** proposed adjustment in Contract Price shall be delivered within the time period stipulated in paragraph 9.3 (9.4), unless **Department** in writing, allows an additional period of time to ascertain accurate cost data. **Contractor** shall prove that additional costs were necessarily incurred, despite **Contractor's** reasonable, prudent, and diligent efforts to prevent such costs and which meet the criteria set forth in this Article. Any delays in the submittal of **Contractor** proposals relative to adjustments in Contract Price will not justify a delay or constitute basis for an increase in Contract Price or an extension in Contract Time.

10.13.2 **Contractor** proposals (or claims) shall be submitted on forms required by Contract Documents, and shall remain firm for a period of at least 60 days from delivery of the proposal (or claim). Proposals (or claims) shall include itemized estimates of all costs and schedule adjustments that will result directly or indirectly from the changes described. Unless otherwise specified, itemized estimates shall be in accordance with the requirements of this Article of the General Conditions and in sufficient detail to reasonably permit an analysis by **Engineer** and **Department** of all quantities involved, labor and payroll costs, productivity rates, material costs, Subcontractor and Supplier costs, supplemental costs as described in paragraph 10.4.8, special consultant costs as described in paragraph 10.4.4, equipment costs, general and administrative overhead costs, field office overhead costs, and profit and shall cover all aspects of the Work involved in the change, whether such was deleted, added, changed, or impacted. Any amount claimed for Subcontractors, Suppliers or other persons or organizations shall be similarly supported. Itemized schedule adjustments shall be sufficiently detailed to permit an analysis of effects on the Progress Schedule as required in the Standard Specifications.

ARTICLE 11 - Unit Price Work and Cash Allowances

Cash Allowances:

11.1 Contractor shall include in the Contract Price all cash allowances named in the Contract Documents and all Work covered by those cash allowances shall be performed for an amount not to exceed those allowances without prior approval in writing by **Engineer**.

11.1.1 The allowances include the cost to **Contractor** (less any applicable trade discounts) of materials labor and equipment required by the allowances to be delivered at the site, and all applicable taxes; and the cost documentation requirements of Articles 9, 10, 11 apply to cash allowances.

11.1.2 Prior to final payment, an appropriate Change Order will be issued as recommended by **Engineer** to reflect actual amounts due **Contractor** on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

Unit Price Work:

11.2 Where the Contract Documents provide that all or part of the Work to be performed on the basis of Unit Prices, the following shall apply:

11.2.1 The original Contract Price shall include the sum of the bid unit prices for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated on the Contract Bid Form.

11.2.2 Unless otherwise provided by the Contract Documents, the estimated quantities of Unit Price Work are not guaranteed and are solely for the purpose of comparing Bids and determining the initial Contract Price.

11.2.3 **Engineer** shall determine the actual quantities and classifications of Unit Price Work performed by **Contractor** and will review with **Contractor** preliminary determinations before recommending an Application for Payment for those items.

11.2.4 **Contractor** shall have included overhead and profit in the price of each separately stated unit price item bid.

11.2.5 The Unit price of an item of Unit Price Work shall be subject to re-evaluation, negotiation, and possible adjustment under the following conditions:

11.2.5.1 If the total cost of a particular item of Unit Price Work change by $30,000 or 5% or more of the total Contract Price, whichever is less, and the variation in the quantity of that particular item of Unit Price Work performed by **Contractor** differs by more than 15% from the estimated quantity of such item indicated in the Agreement; and

11.2.5.2 If **Contractor** justifies and adequately documents to the **Department's** satisfaction additional expenses have been incurred as a result thereof, or

11.2.5.3 If **Department** believes that the quantity variation entitles **Department** to an adjustment in the Unit Price, either **Department** or **Contractor** may make a request for an adjustment in the Contract Price in accordance with the Contract Documents. If the parties are unable to agree as to the effect of any such variations in the quantity of Unit Price Work performed, a claim may be made.

11.2.6 The negotiated Unit Price shall be applicable only to the variation in quantities above 115% or below 85% of the quantities estimated or indicated.

11.2.7 If **Department** or **Contractor** believes that the quantity variation requires an extension or shortening in Contract Time, either party shall within seven working days of knowledge of the variation in quantities, submit a written Proposed Change Order to the other party and to **Engineer**, and substantiate the request within fifteen days thereafter in accordance with the analysis and documentation provisions of the Standard and Supplementary Specifications.

ARTICLE 12 - Warranty and Guarantee; Tests and Inspections; Correction, Removal or Acceptance of Defective Work

Warranty and Guarantee:

12.1 **Contractor** warrants and guarantees to **Department** that all Work shall be in accordance with the Contract Documents and shall not be defective. Immediate notice of all defects shall be given to **Contractor** by **Engineer**. All defective Work, whether or not in place, may be rejected, corrected or accepted as provided in this Article.

12.1.1 The obligations of **Contractor** under this paragraph 12.1 shall be in addition to and not in limitation of any obligation imposed upon it by special guarantees required by the Contract Documents or by Law.

12.1.2 Notwithstanding anything in these Contract Documents to the contrary, when a particular item of equipment or part of the Work reaches Substantial Completion upon successful performance of Pre-operational Testing, and a) is not placed in continuous service until the commencement of the Correction Period, or b) is placed in continuous service upon reaching Substantial Completion (as a segment of a completed Project) but use will be limited until all segments of the Project reach substantial completion thereby commencing the Correction Period, and notwithstanding anything in the Contract Documents to the contrary, **Contractor** shall maintain the particular item of equipment or part of the Work in good order and in proper working condition during the period between the particular Substantial Completion date and the commencement of the Correction Period, and for such maintenance **Contractor** shall receive no adjustment in Contract Price. Also **Contractor** shall maintain the warrantees and guarantees required under paragraph 12.1 of the General Conditions in full force and effect during the period between the particular item's Substantial Completion date and the commencement of the Correction Period, and for such warranties and guarantees **Contractor** shall receive no adjustment in Contract Price.

12.1.3 The warrantees and guarantees provided by **Contractor** under paragraph 12.1 of the General Conditions shall remain in full force and effect from the date of Substantial Completion of the Work, or part thereof, until one year after the date of commencement of the Correction Period or such a longer period as may be prescribed by Law or the terms of any applicable specific warranty or guarantee required by the Contract Documents or by any specific provision of the Contract Documents.

One Year Correction Period:

12.2 If within the period from the date of Substantial Completion of a particular item of equipment or a designated part of the Work to one year after the commencement of the Correction Period, or such longer period as may be prescribed by Federal or New York State Law or by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents, the particular item of equipment or designated part of the Work is found to be defective, **Contractor** shall promptly, without an adjustment in Contract Price and in accordance with **Department**'s or **Engineer**'s written instructions, either correct such Defective Work, or if it has been rejected by **Department** or **Engineer**, remove it from the site and replace it with Work which conforms to the requirements of the Contract Documents. **Department** or **Engineer** may direct the correction or removal and replacement of Defective or rejected Work. In addition to any other remedies which **Department** may have, **Contractor** shall pay the indirect and consequential costs of such correction

or removal and replacement, including but not limited to fees and charges of engineers, architects, attorneys and other professionals, any additional expenses incurred by **Department** due to delays to others performing work under a separate contract with **Department**, and other contractual obligations, if the Defective Work is not corrected or the rejected Work is not removed and replaced within 30 days of the **Department's** or **Engineer's** written rejection or request for rejection of Work unless otherwise provided for in writing. In the event that **Contractor** fails to pay such costs within thirty days after receipt of an invoice from **Department**, a Change Order or Proposed Change Order may be issued incorporating the unpaid amount, and **Department** shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, a claim may be made therefore as provided in Articles 9 and 10 and 15 of the General Conditions.

12.2.1 At the date of Substantial Completion of the Work, the parties have agreed on the date for commencement of the Correction Period. However, **Department** may at its sole option advance or delay the date for commencement of the Correction Period, and **Contractor's** obligations to extend warranties and guarantees in accordance with paragraphs 12.1.2 and 12.1.3 or to maintain the Work in accordance with paragraph 12.1.2 and 12.1.3 until then shall remain absolute. Applicable Change Orders or Proposed Change Orders shall be executed by the parties to adjust the Contract Price, as appropriate, on the basis of the unit prices declared in **Contractor's** Bid for extended warranty and extended maintenance requirements.

12.2.2 No later than 30 days before the date for commencement of the Correction Period, **Engineer** shall notify **Contractor** in writing of the date upon which the Correction Period is expected to commence, and **Contractor** shall ensure that the parts of the Work which reached Substantial Completion upon successful performance of Pre-operational Testing but were not placed in continuous service, are ready in their entirety by such date for use by **Department** as contemplated in the Contract Documents. In addition to any other damages payable by **Contractor** under these Contract Documents, **Contractor** shall also be liable for any damages suffered by **Department** on account of the parts of the Work which reached Substantial Completion upon successful performance of Pre-operational Testing but were not placed in continuous service at the beginning of the Correction Period because they were not ready for continuous utilization for the purposes for which they are intended.

12.2.3 Each month during the period between the date of Substantial Completion of parts of the Work which reached Substantial Completion upon successful performance of Pre-operational Testing and the date of commencement of the Correction Period, **Contractor** shall certify to **Engineer** in writing that the said parts of the Work are being properly maintained and will be ready for use by **Department** upon commencement of the Correction Period.

12.2.4 During the period described in Section 12.2.3 until commencement of the Correction Period, **Contractor** shall bear all risks of injury, loss, or damage to any part of the Work arising from the elements or from any other cause. **Contractor** shall rebuild, repair, restore, and make good at no cost to **Department** all injuries, losses, or damage to any portion of the Work occasioned by any cause and shall at no expense to **Department** provide suitable drainage and erect such temporary structures and take all other actions as are necessary for the protection of the Work. Suspension of the Work or the granting of an extension in Contract Time for any cause shall not relieve **Contractor** of its responsibility for the Work as herein specified.

12.2.5 **Contractor's** responsibilities under this Paragraph 12.2 are in addition to, not in lieu of, all other obligations imposed by these Contract Documents.

Access to Work:

12.3 Representatives of **Department, Engineer,** and representatives of testing agencies and governmental agencies with jurisdictional interests will have access to the Work at all times for observation, inspection and testing. **Contractor** shall provide proper and safe conditions for such access. Inspections, tests or observations by **Engineer, Department** or third parties may be performed to provide information to **Department** on the progress of the Work, however, this provision is not intended to create any duty or obligation to **Contractor** by **Department** or **Engineer,** nor is the information provided intended to fulfill **Contractor's** obligations under the Contract.

Tests and Inspections:

12.4 **Contractor** shall give **Engineer** timely notice of readiness of the Work for all required inspections, tests or approvals.

12.5 If a Law specifically requires any Work (or part thereof) to be inspected, tested or approved, **Contractor** shall assume full responsibility therefor, pay all costs in connection therewith and furnish to **Engineer** the required certificates of inspection, testing or approval. Except as provided in Article 5, **Contractor** shall be responsible for and shall pay all costs in connection with any inspection or testing required in connection with **Department's** or **Engineer's** acceptance of materials or equipment proposed or submitted to **Department** and **Engineer** for approval prior or subsequent to **Contractor's** purchase thereof for incorporation in the work. The cost of all inspections, tests and approvals in addition to the above which are required by the contract documents shall be paid by **Contractor.**

12.6 All inspections, tests or approvals other than those required by Law to be performed or given by public body having jurisdiction over the Work or any part thereof, shall be performed by organizations acceptable to **Department** and **Engineer. Contractor** shall perform sufficient inspection and testing of the Work to support the warranty and guarantee requirements of paragraph 12.1 and 12.2 of the General Conditions. Reference is made to the Supplementary Conditions, Standard Specifications and Supplementary Specifications for provisions applicable to the procurement of an independent testing laboratory.

12.7 If any Work, including the work of others, that is to be inspected, tested or approved is covered without written concurrence of **Engineer,** it must, if requested by **Engineer,** be uncovered for inspection. Such uncovering shall be at **Contractor's** expense unless **Contractor** has given **Engineer** timely notice of **Contractor's** intention to cover the same and **Engineer** has not acted with reasonable promptness in response to such notice.

12.8 Neither inspections by **Engineer** nor inspections, tests or approvals by others shall relieve **Contractor** from **Contractor's** obligations to perform the Work in accordance with the Contract Documents.

Uncovering Work:

12.9 If any work is covered contrary to the written request of **Engineer,** it must, if requested by **Engineer,** be uncovered for **Engineer's** inspection and replaced at **Contractor's** expense.

12.10 If **Engineer** considers it necessary or advisable that covered Work be inspected by **Engineer** or inspected or tested by others, **Contractor,** at **Engineer's** request, shall uncover, expose or otherwise make available for observation, inspection or testing as **Engineer** may require, that portion of the Work in question, furnishing all necessary labor, material and equipment.

12.10.1 If it is found that such Work is Defective, **Contractor** shall bear all direct, indirect and consequential costs of such uncovering, exposure, observation, inspection and testing, and of satisfactory reconstruction, including but not limited to fees and charges of engineers, architects, attorneys and other professionals, any additional expenses incurred by **Department** due to delays to others performing work under a separate contract with **Department**, and other contractual obligations, **Contractor** shall further bear the responsibility for keeping the Work on schedule and shall not be entitled to any extension of Contract Time or recovery of any delay damages due to the uncovering.

12.10.2 If, however, such Work is not found to be Defective, **Contractor** shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction pursuant to Articles 9, 10 and 11.

12.10.3 When covered Work is uncovered and found to be Defective, all direct, indirect and consequential costs as established in paragraph 12.10.1 shall be paid by **Contractor**. In the event that **Contractor** fails to pay such costs within thirty days after receipt of an invoice from **Department**, a Change Order or Proposed Change Order may be issued incorporating the unpaid amount as an appropriate reduction in the Contract Price, and if the parties are unable to agree as to the amount thereof, the **Contractor** may make a claim therefore as provided in Articles 9 and 10 of the General Conditions.

Department May Stop the Work:

12.11 If the Work is defective, or **Contractor** fails to supply sufficient skilled workers or suitable materials or equipment, or fails to f urnish or perform the Work in such a way that the completed Work will conform to the Contract Documents, **Department** may order **Contractor** to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of **Department** to stop the Work shall not give rise to any duty on the part of **Department** to exercise this right for the benefit of **Contractor** or any other party.

12.11.1 **Contractor** shall bear all direct, indirect and consequential costs of such order to **Contractor** to stop Work including but not limited to fees and charges of engineers, architects, attorneys and other professionals, any additional expenses incurred by **Department** due to delays to others performing work under a separate contract with **Department**, and other contractual obligations, and **Contractor** shall further bear the responsibility for maintaining schedule and shall not be entitled to any extension of contract time or recovery of any delay damages due to the order to stop Work.

12.11.2 In the event that **Contractor** fails to pay such costs within thirty days after receipt of an invoice from **Department**, a Change Order or Proposed Change Order may be issued incorporating the unpaid amount as an appropriate reduction in the Contract Price. If the parties are unable to agree as to the amount thereof, the **Contractor** may make a claim therefore as provided in Articles 9, 10, 11 and 15 of the General Conditions.

Correction or Removal of Defective Work:

12.12 If required by **Engineer**, **Contractor** shall promptly, as directed, either correct all defective Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by **Engineer**, remove it from the site and replace it with non-defective Work that conforms with the Contract

Documents. **Contractor** shall bear all direct, indirect and consequential costs of such correction or removal including but not limited to fees and charges of engineers, architects, attorneys and other professionals, any additional expenses incurred by **Department** due to delays to others performing work under a separate contract with **Department**, and other contractual obligations. **Contractor** shall further bear the responsibility for keeping the Work on schedule and shall not be entitled to any extension in Contract Time or recovery of any delay damages due to the correction or removal. In the event that **Contractor** fails to pay such costs within thirty days after receipt of an invoice from **Department**, a Change Order or Proposed Change Order may be issued incorporating the unpaid amount, as an appropriate reduction in the Contract Price. If the parties are unable to agree as to the amount thereof, the **Contractor** may make a claim therefore as provided in Articles 9, 10, 11 and 15 of the General Conditions.

Acceptance of Defective Work:

12.13 If, instead of requiring correction or removal and replacement of defective Work, **Department** prefers to accept it, **Department** may do so. **Contractor** shall bear all direct, indirect and consequential costs attributable to **Department's** evaluation and determination to accept such Defective Work, such costs to include but not be limited to fees and charges of engineers, architects, attorneys and other professionals, any additional expenses incurred by **Department** due to delays to others performing work under a separate contract with **Department**, and other contractual obligations. **Contractor** shall further bear the responsibility for keeping the Work on schedule and shall not be entitled to any extension in Contract Time or recovery of any delay or acceleration damages due to **Department's** evaluation and determination to accept such Defective Work. If any such acceptance occurs prior to **Engineer's** recommendation of final payment, a Change Order may be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and **Department** shall be entitled to an appropriate reduction in the Contract Price. In the event that **Contractor** fails to pay such costs within thirty days after receipt of an invoice from **Department**, or if the parties are unable to agree as to the amount thereof, **Contractor** may make a claim therefore as provided in Articles 9, 10, 11 and 15 of the General Conditions. If the acceptance occurs after final payment, an appropriate amount will be refunded by **Contractor** to **Department**.

Department May Correct Defective Work:

12.14 If **Contractor** fails within a reasonable time after written notice of **Engineer** to proceed to correct and to correct Defective Work or to remove and replace rejected Work as required by **Engineer**, or if **Contractor** fails to perform the Work in accordance with the Contract Documents, or if **Contractor** fails to comply with any other provision of the Contract Documents, **Department** may, after seven days' written notice to **Contractor**, correct and remedy any such deficiency. To the extent necessary to complete corrective and remedial action, **Department** may exclude **Contractor** from all or part of the site, take possession of all or part of the work and suspend or terminate **Contractor's** services related thereto, take possession of **Contractor's** tools, appliances, construction equipment and machinery at the site and incorporate in the Work all materials and equipment stored at the site or for which **Department** has paid **Contractor** but which are stored elsewhere. **Contractor** shall allow **Department**, and **Department's** representatives, agents and employees such access to the site as may be necessary to enable **Department** to exercise the rights and remedies provided by this paragraph and the Contract Documents. All direct, indirect and consequential costs of **Department** in exercising such rights and remedies will be charged against **Contractor** in an amount approved as to reasonableness by **Engineer**, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and **Department** shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, **Contractor** may make

a claim therefore as provided in Article 9, 10, 11 and 15. Such direct, indirect and consequential costs shall include but not be limited to fees and charges of engineers, architects, attorneys and other professionals, all costs of delay and all costs of repair and replacement of work of others destroyed or damaged by correction, removal or replacement of **Contractor's** Defective Work. **Contractor** shall not be allowed an extension of the Contract Time because of any delay in performance of the Work attributable to the exercise by **Department** of **Department's** rights and remedies hereunder.

ARTICLE 13 - Payments to Contractor and Completion

Schedule of Values:

13.1 The schedule of values established as provided in paragraph 1.4 and 1.6 of the General Conditions shall serve as the basis for progress payments. Progress payments for Unit Price Work shall be based on the number of units completed. **Department** will furnish Application for Payment forms.

Application for Progress Payment:

13.2 At least fourteen days before each progress payment is scheduled to be submitted to the Department, **Contractor** shall submit to **Engineer** for review an Application for Payment on forms furnished by **Department** filled out and signed by **Contractor** covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the site or at another location agreed to in writing, the Application for Payment shall also be accompanied by bills of sale, invoices or other documentation supporting the cost, together with documents warranting that **Department** has received the materials and equipment free and clear of all liens, charges, security interests and encumbrances (each and all of these terms are hereinafter referred to as "Liens"). Each Application for Payment shall contain a certification by **Contractor** that progress payments received from **Department** on account of the Work have been applied by **Contractor** and its Subcontractors to discharge in full all of **Contractor's** and its Subcontractors' obligations stated in the prior Application for Payment, and that **Contractor** has verified the accuracy of the progress reported to have been completed by **Contractor** or its Subcontractors in the Application for Payment. Notwithstanding any other provisions of the Contract Documents to the contrary, neither **Department** nor **Engineer** are under any duty or obligation whatsoever to any Subcontractor or Supplier to insure that payments due and owing by **Contractor** to any of them are or will be made. Such parties shall rely only on **Contractor's** surety bonds for remedy of nonpayment by **Contractor**. The amount of retainage with respect to progress payments will be as provided for by the laws of New York State.

13.2.1 An Application for Payment a) will not be approved if the as-built documents, including but not limited to Drawings legibly marked in accordance with Contract Documents to record actual construction, are not kept current, and b) will not be approved until the completed as-built documents, showing all variations between the Work as actually constructed and as originally shown on the Drawings and other Contract Documents, have been inspected by **Engineer**. For the purpose of this paragraph, the as-built documents will be considered current if they include all of the documents itemized in paragraph 5.19 together with any other information that supplements or changes the original Contract Documents which has been delivered or otherwise made known to **Contractor** prior to the time when Application for Payment is to be reviewed by **Engineer**.

13.2.2 An Application for Payment will not be approved until **Contractor** has submitted and **Engineer** has reviewed the Progress Schedule and submittals required in Contract Documents which are due prior to that Application for Payment.

Contractor's Warranty of Title:

13.3 **Contractor** warrants and guarantees that title to all Work, materials and equipment covered by any Application for Payment, whether or not incorporated in the Project, shall pass to **Department** no later than the time of payment free and clear of all Liens.

Review of Applications for Progress Payment:

13.4 **Engineer** shall, within five days after receipt of each Application for Payment, either recommend payment in writing and present the Application to **Department** or return the Application to **Contractor** indicating in writing **Engineer's** reasons for refusing to recommend payment. In the latter case, **Contractor** may make the necessary corrections and resubmit the application. After presentation of the application for payment with **Engineer's** recommendation, the amount recommended shall be paid in accordance with New York State Law upon approval of the **Department**.

13.5 **Department** may refuse to make payment of the full amount recommended by **Engineer** for one or more of the following reasons: claims have been made against **Department** on account of **Contractor's** performance, or furnishing of the Work, Liens have been filed in connection with the Work, there are other facts or circumstances entitling **Department** to a set-off against the amount recommended, or **Department** has determined that Work performed by **Contractor** does not conform to Contract Documents including, but not limited to, moneys payable by **Contractor** to **Department** pursuant to the requirements of Articles 5 and 12 of the General Conditions. In the event of such refusal to pay the full recommended amount, **Department** must give **Contractor** prompt written notice (with a copy to **Engineer**) stating the reasons for such action.

Substantial Completion:

13.6 When Contractor considers all or part of the Work ready for its intended use, **Contractor** shall notify **Department** and **Engineer** in writing that the Work, or specified part thereof, is substantially complete except for items specifically listed by **Contractor** as incomplete, and request that **Engineer** issue a certificate of Substantial Completion for the Work, or such specified part thereof. Within a reasonable time thereafter, not to exceed 30 days, **Department, Contractor** and **Engineer** shall make an inspection of the Work, or specified part thereof, to determine the status of completion. If **Engineer** or **Department** does not consider the Work, or specified part thereof, substantially complete, **Engineer** shall notify **Contractor** in writing giving the reasons therefor, after consultation with the **Department**. If **Engineer** considers the Work, or part thereof, substantially complete, **Engineer** shall prepare and deliver to **Department** a tentative certificate of Substantial Completion for the Work, or part thereof which shall fix the date of Substantial Completion. There shall be attached to the certificate a list of items to be completed or corrected before final payment, and **Engineer's** written recommendation as to a division of responsibilities between **Department** and **Contractor** pending final payment including but not limited to security, operation, safety, maintenance, heat, utilities, insurance and warranties. **Department** shall have seven days after receipt of the tentative certificate with attachments during which to make written objection to **Engineer** as to any provisions of the referenced submittals and to direct a revision of the tentative certificate. Unless **Department** and **Contractor** agree otherwise in writing and so inform **Engineer** or **Department** directs the revision of the certificate of Substantial

Completion for the Work, or specified part thereof, **Engineer's** recommendation will be binding on **Contractor** until final payment.

13.7 **Department** shall have the right to exclude **Contractor** from the Work, or part thereof, after the date of Substantial Completion for the Work, but **Department** shall allow **Contractor** reasonable access to complete or correct items on the tentative list.

Partial Utilization:

13.8 **Department** may use any finished part of the Work which has specifically been identified in the Contract Documents, or which **Department, Engineer,** and **Contractor** agree constitutes a separately functioning and usable part of the Work that can be used by **Department** without significant interference with **Contractor's** performance of the remainder of the Work, may be accomplished prior to Substantial Completion of all the Work subject to the following:

13.8.1 **Department** at any time may direct **Contractor** in writing to permit **Department** to use any such part of the Work which **Department** believes to be ready for its intended use and substantially complete. **Contractor** may certify to **Department** and **Engineer** that said part of the Work is substantially complete and request **Engineer** to issue certificate of Substantial Completion for that part of the Work. Within a reasonable time after such direction, **Department, Contractor** and **Engineer** shall make an inspection of that part of the Work to determine its status of completion. If **Engineer** does not determine that part of the Work to be substantially complete, **Engineer** will notify **Department** and **Contractor** in writing giving the reasons therefor. The provisions of paragraphs 13.6 and 13.7 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

13.8.2 **Department** may at any time direct **Contractor** in writing to permit **Department** to take over operation of any such part of the Work although it is not substantially complete. A copy of such request will be sent to **Engineer** and within a reasonable time thereafter **Department, Contractor** and **Engineer** shall make an inspection of that part of the Work to determine its status of completion and will prepare a list of the items remaining to be completed or corrected thereon before final payment. If **Contractor** does not object in writing to **Department** and **Engineer** that such part of the Work is not ready for separate operation by **Department, Engineer** shall submit to **Department** a list of items to be completed or corrected together with a written recommendation as to a division of responsibilities between **Department** and **Contractor,** including but not limited to security, operation, safety, maintenance, utilities, insurance and warranties pending final payment for such Work. **Department** shall have seven days to make written objection to **Engineer's** list and recommended division of responsibilities to direct a revision thereof. Such directed revision or otherwise objected list and recommended division of responsibilities, shall become binding upon **Department** and **Contractor** at the time when **Department** takes over such operation unless they shall have agreed otherwise in writing. During such operation and prior to Substantial Completion of such part of the Work, **Department** shall allow **Contractor** reasonable access to complete or correct items on said list and to complete other related Work.

Final Inspection:

13.9 Upon written notice from **Contractor** that the entire Work or an agreed portion thereof is complete, **Engineer** will make a final inspection with **Department** and **Contractor** and will notify **Contractor** in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. **Contractor** shall immediately take such measures as are necessary to remedy such deficiencies.

Final Application for Payment:

13.10 After **Contractor** has completed all corrections to the satisfaction of **Engineer** and **Department** and delivered all maintenance and operating instructions, schedules, guarantees, Bonds, certificates of inspection, marked-up record documents (as provided in paragraph 5.19) and other documents - all as required by the Contract Documents, and after **Engineer** has indicated that the Work is acceptable (subject to the provisions of paragraph 13.12), **Contractor** may make application for final payment following the procedures for progress payments. The final Application for Payment shall be accompanied by all documentation called for in the Contract Documents, together with complete and legally effective releases or waivers satisfactory to **Department** of all Liens arising out of or filed in connection with the Work In lieu thereof and as provided for by the laws of New York State and approved by **Department**, **Contractor** may furnish receipts or releases in full and an affidavit of **Contractor** that such receipts and releases include all labor, services, material and equipment for which a Lien could be filed, and that all payrolls, material and equipment bills, and other indebtedness connected with the Work for which **Department** or **Department's** property might in any way be responsible, have been paid or otherwise satisfied; and consent of the surety, if any, to final payment. If any Subcontractor or Supplier fails to furnish a release or receipt in full, **Contractor** may furnish a Bond or other collateral satisfactory to **Department** to indemnify **Department** against any Lien.

Final Payment and Acceptance:

13.11 If, on the basis of **Engineer's** inspection of the work during construction and final inspection, and **Engineer's** review of the final application for payment and accompanying documentation, **Engineer** has determined that the work has been completed in substantial conformance with the contract documents and **Contractor's** other obligations under the contract documents have been fulfilled, **Engineer** will, within ten days after receipt of the final application for payment, indicate in writing **Engineer's** recommendation of payment and present the application to **Department** for payment along with a certificate that the work was completed in substantial conformance with the contract documents. Thereupon **Engineer** will give written notice to **Department** and **Contractor** that the work is acceptable subject to the provisions of paragraph 13.13. Otherwise, **Engineer** will return the application to **Contractor**, indicating in writing the reasons for refusing to recommend final payment, in which case **Contractor** shall make the necessary corrections and resubmit the Application. After presentation to **Department** of the application and accompanying documentation, in appropriate form and substance, and with **Engineer's** recommendation and certification of substantial conformance with the Contract Documents, final payment will be paid by **Department** to **Contractor** in accordance with New York State Law. If **Department** believes deficiencies exist, it will so notify **Engineer** and **Contractor** in writing.

13.12 If, through no fault of **Contractor**, final completion of the Work is significantly delayed and if **Engineer** so confirms, **Department** shall, upon receipt of **Contractor's** final Application for Payment and recommendation of **Engineer**, and without terminating the Agreement, make payment of the balance due for that portion of the Work fully completed and accepted.

Waiver of Claims:

13.13 The making and acceptance of final payment will constitute:

13.13.1 A waiver of all claims by **Department** against **Contractor**, except claims arising from unsettled Liens, from Defective Work appearing after final inspection pursuant to paragraph 13.11 or from failure to comply with the Contract Documents or the terms of any special guarantees specified therein; however, it will not constitute a waiver by **Department** of any claims or rights with respect to **Contractor's** continuing obligations under the Contract Documents; and

13.13.2 A waiver of all claims by **Contractor** against **Department** other than those previously made in writing and still unsettled.

ARTICLE 14 - Suspension of Work and Termination

Department May Suspend Work:

14.1 **Department** may for its convenience, order **Contractor** in writing at any time to suspend the Work or any portion thereof for such a period of time as **Department** may determine to be appropriate. A suspension of Work order will fix the date on which the Work, or portion thereof, will be resumed. **Contractor** shall resume the Work, or portion thereof, on the date so fixed.

14.1.1 If the performance of the Work or portion thereof is suspended for a period of time which exceeds the Total Float available in the approved Progress Schedule for the portion or portions controlling the Work affected by a suspension of Work order pursuant to paragraph 14.1, or by an act of **Department** or **Engineer** in the administration of the Contract, or by **Department's** or **Engineer's** failure to act within the applicable latest dates substantiated in the approved Progress Schedule, **Contractor** will be allowed an increase in Contract Price or an extension in Contract Time, or both, necessarily caused by such suspension which extends the applicable latest dates in the approved Progress Schedule. However, no adjustment will be made under this paragraph of the General Conditions for any suspension to the extent: 1) that performance would have been so suspended by any other cause, including the fault and negligence of **Contractor**, or 2) for which an adjustment is provided, limited as to extent, or excluded under any other provision of the Contract Documents.

14.1.2 **Contractor** shall deliver to **Engineer** a written Proposed Change Order including at a minimum, justification for the request within seven days or earlier if so required elsewhere in the Contract Documents, of the act or failure to act which **Contractor** believes gives rise to an adjustment in Contract Price or Contract Time pursuant to paragraph 14.1.1. Failure by **Contractor** to comply with the time requirements for delivery of written Proposed Change Orders will be considered to be a waiver by **Contractor** of any request for adjustment or claim for an increase in Contract Price or Contract Time for the period of time during which the Proposed Change Order has not been submitted.

14.1.3 **Contractor's** proposal with all supporting data shall be delivered within 15 days of such notice or within twenty-two days of such occurrence, whichever is later, unless **Department** allows an additional period of time to obtain more accurate data. **Contractor** shall prove that additional costs and delays were necessarily incurred which meet the criteria set forth in

Articles 9, 10 and 11 of the General Conditions, despite **Contractor's** reasonable, prudent, and diligent efforts to prevent such costs or delays.

14.2 In addition to the provisions of Appendix B, if **Department** stops Work in accordance with Article 12.10 of the General Conditions or suspends **Contractor's** services in accordance with article 12.11, or suspends the work or any portion thereof because of **Contractor's** failure to prosecute the work and to protect persons and property, **Contractor** shall not be entitled to an extension of Contract Time or an increase in Contract Price.

Department May Terminate:

14.3 **Department** may terminate for cause upon the occurrence of any one or more of the following events:

14.3.1 If **Contractor** commences a voluntary case under any chapter of the Bankruptcy Code, as now or hereafter in effect, or if **Contractor** takes any equivalent or similar action by filing a petition or otherwise under any other federal or state law in effect at such time relating to the bankruptcy or insolvency;

14.3.2 If a petition is filed against **Contractor** under any chapter of the Bankruptcy Code as now or hereafter in effect at the time of filing, or if a petition is filed seeking any such equivalent or similar relief against **Contractor** under any other federal or state law in effect at the time relating to bankruptcy or insolvency;

14.3.3 If **Contractor** makes a general assignment for the benefit of creditors;

14.3.4 If a trustee, receiver, custodian or agent of **Contractor** is appointed under applicable law or under contract, whose appointment or authority to take charge of property of **Contractor** is for the purpose of enforcing a lien against such property or for the purpose of general administration of such property for the benefit of **Contractor's** creditors;

14.3.5 If **Contractor** admits in writing an inability to pay its debts generally as they become due;

14.3.6 If **Contractor** fails to perform the Work in accordance with the Contract Documents, including, but not limited to, failure to supply sufficient skilled workers, or suitable materials or equipment, or failure to adhere to the progress schedule established under paragraph 1.6 as revised from time to time or failure to submit an updated schedule as required by paragraph 5.6;

14.3.7 If **Contractor** disregards Laws or Regulations of any public body having jurisdiction;

14.3.8 If **Contractor** disregards the authority of **Engineer**; or

14.3.9 If **Contractor** otherwise violates in any substantial way any provision of the Contract Documents;

Department may, after giving **Contractor** and its surety seven days written notice and to the extent permitted by Federal and New York State Law, terminate the services of **Contractor**, exclude **Contractor** from the site and take possession of the Work and of all **Contractor's** tools, appliances, construction equipment and machinery at the site and use the same to the full extent they could be used by **Contractor** without liability to **Contractor** for trespass or conversion, incorporate in the work all materials and equipment stored at the site or for which

Department has paid **Contractor** but which are stored elsewhere, and finish the Work as **Department** may deem expedient. In such case **Contractor** shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds the direct, indirect and consequential costs of completing the Work including but not limited to fees and charges of engineers, architects, attorneys and other professionals and court costs, such excess will be paid to **Contractor**. If such costs exceed such unpaid balance, **Contractor** shall pay the difference to **Department**. Such costs incurred by **Department** will be approved as to reasonableness by **Engineer** and incorporated in a Change Order or Proposed Change Order.

14.4 Where **Contractor's** services have been so terminated by **Department**, the termination shall not affect any rights or remedies of **Department** against **Contractor** then existing or which may thereafter accrue. Any retention or payment or moneys due **Contractor** by **Department** will not release **Contractor** from liability.

14.5 Upon seven days written notice to **Contractor** and **Engineer**, **Department** may, without cause and without prejudice to any other right or remedy, elect to abandon the Work and terminate the Agreement. In such case, **Contractor** shall be paid for all Work accepted by **Department**.

Contractor May Stop Work or Terminate:

14.6 If, through no act or fault of **Contractor**, **Engineer** fails to act on any Application for Payment within thirty days after it is submitted, or **Department** fails for one hundred and twenty days to pay **Contractor** any sum finally determined to be due by **Department**, then **Contractor** may, upon seven days' written notice to **Department** and **Engineer**, terminate the Agreement and recover from **Department** payment for all Work accepted by **Department**. In lieu of terminating the Agreement, if **Engineer** has failed to act on an Application for Payment or **Department** has failed to make any payment as aforesaid, **Contractor** may upon seven days' written notice to **Department** and **Engineer** stop the Work until payment of all amounts then due. The provisions of this paragraph shall not relieve **Contractor** of the obligations under paragraph 5.30 to carry on the Work in accordance with the progress schedule and without delay during disputes and disagreements with **Department**.

ARTICLE 15 - Disputes

Giving Notice:

15.1 All claims, counterclaims, disputes and other matters in question between **Department** and **Contractor**, arising out of or relating to the Contract Documents or the breach thereof (hereafter referred to claims) except for claims which have been waived by the making or acceptance of final payment as provided in paragraph 13.11, shall be resolved under this Article.

15.1.1 A voucher, invoice, or other routine request for payment that is not in dispute when submitted is not a claim under this Article. Such a submission may be converted to a claim under this Article by complying with the requirements of this Article, if it is disputed either as to liability or amount or is not acted upon in a reasonable time.

15.2 A claim by **Contractor** shall be made in writing and submitted to **Department** for evaluation with a copy to **Engineer**.

15.3 A written demand or written assertion by **Contractor** seeking the payment of money exceeding $10,000 is not a claim under this Article until certified as required below. For claims exceeding $10,000 **Contractor** shall submit with the claim a certification that:

15.3.1 The claim is made in good faith,

15.3.2 Supporting Cost and Pricing Data are current, accurate, and complete to the best of the **Contractor's** knowledge and belief, and

15.3.3 The amount of the claim accurately reflects the adjustments in Contract Price or Contract Time which **Department** has agreed to or for which **Contractor** believes **Department** is liable.

15.4 The **Contractor's** certification shall be executed by **Contractor's** Authorized Representative specified in the Contract Documents.

15.5 For claims of $10,000 or less, **Department** shall render a decision if requested in writing by **Contractor**. For **Contractor** certified claims over $10,000, **Department** shall decide the claim or notify **Contractor** of the date by which the decision will be made.

15.6 **Department's** decision shall be final unless **Contractor** initiates legal action within 120 days of **Department's** final decision.

15.7 **Contractor** shall proceed diligently with performance of Work under this Contract, and comply with any decision of **Engineer** or **Department** pending final resolution of any request for relief, claim, appeal, or action arising under the Contract.

15.8 **Contractor** agrees that all claims shall be subject to resolution pursuant to **Department** procedures as described in the Disputes article of the Agreement.

ARTICLE 16 - Miscellaneous

Notice and Service:

16.1 All notices, demands, requests, instructions, approvals and claims shall be in writing.

16.1.1 Any notice to or demand upon **Contractor** shall be deemed sufficient if delivered to **Contractor's** representative at the site or if delivered to the individual proprietor if **Contractor** is an individual, to a partner if **Contractor** is a partnership or to an officer of the corporation if **Contractor** is a corporation, at the office of **Contractor** specified in the Contract Documents, or if deposited in the United States mail in a sealed, postage prepaid envelope, addressed to the principal office of **Contractor** listed in the Agreement, or if delivered with charges prepaid to any telegraph company for transmission, in each case addressed to the office of **Contractor** specified in the Contract Documents or faxed to the number provided in the Contract Documents and followed by written notice.

16.1.2 All notices or other papers required to be delivered by **Contractor** to **Department**, or to any of its representatives shall, unless otherwise specified in writing to **Contractor**, be delivered to **Department** at the office specified in the Contract Documents. Any other notice or demand upon **Department** shall be deemed sufficient if delivered to such office, or if

deposited in the United States mail in a sealed, postage prepaid envelope, or if delivered, with the charges prepaid to any telegraph company for transmission, in each case addressed to such office or to such other representative of **Department** or to such other address as **Department** may subsequently specify in writing to **Contractor** for such purpose, or faxed to the number provided in the Contract Documents and followed by written notice.

16.1.3 Any written notice or other communication to **Contractor's** Surety or Sureties shall be delivered or mailed to the home office of the Surety or Sureties, or to the agent or agents who executed the Bonds on behalf of the Surety or Sureties.

16.1.4 Any such notice or demand shall be deemed to have been given or made as of the time of actual delivery, or, in the case of mailing or of telegrams, at the time of actual receipt thereof.

Computation of Time:

16.2 When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last calendar day of such period. If the last calendar day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the State of New York, such day will be omitted from the computation. This does not apply to contract completion time as set forth in Article 6 of the Agreement.

General:

16.3 Should **Department** or **Contractor** suffer injury or damage to person or property because of an act or omission to act of the other party, its employees or agents or others for whose acts the other party is legally liable, a Claim may be made therefore, in writing to the other party within a reasonable time of the first observance of such injury or damage. The provisions of this paragraph shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitations or repose.

16.4 The duties and obligations imposed by these General Conditions and the rights and remedies available to the parties hereunder, including but not limited to the warranties, guarantees and obligations imposed upon **Contractor** by Contract Documents and all of the rights and remedies available to **Department** thereunder, are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by New York State Laws, by special warranty or guarantee or by other provisions of the Contract Documents. The provisions of this paragraph shall be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right and remedy. All representations, warranties and guarantees made in the Contract Documents shall survive final payment and termination or completion of the Agreement.

16.5 The obligation of **Contractor** to maintain the Work, or any part thereof, until the completion of the Correction Period shall survive final payment and termination or completion of the Agreement.

No Waiver of Legal Rights:

16.6.1 Inspection by **Engineer** or by any of its duly authorized representatives, any measurement or report by **Engineer**, any order by **Department** for the payment of money, any payment for or acceptance or possession of any Work or any extension in Contract Time or any possession taken by **Department** shall not operate as a waiver of any provision of the Contract Documents, or any power therein preserved to **Department**, or of any right to damages

representatives shall have the right to examine and audit all books, ledgers, records, and documents pertinent to all Cost and Pricing data available and relied upon by **Contractor** including but not limited to that used by **Contractor** in the determination of its Bid for the Work, in order to evaluate the accuracy, completeness, and currency of the Cost or Pricing data.

16.10.2 **Contractor** shall make available at **Contractor's** office at all reasonable times the materials described in paragraph 16.10.1 above, for examination, audit, or reproduction, until 6 years after final payment under this Contract.

16.10.2.1 If this Contract is completely or partially terminated, the records relating to the Work terminated shall be made available for 6 years after any resulting final termination settlement.

16.10.2.2 Records pertaining to appeals under Article 15 of Section 8, "General Conditions," to litigation or the settlement of claims arising under or relating to the performance of this Contract shall be made available until disposition of such appeals, litigation, or claims.

16.10.3 A provision stating that all the requirements of this Article of Section 8, "General Conditions" are applicable to Subcontracts under this Contract exceeding $50,000 in value shall be inserted by **Contractor** in all such subcontracts.

Price Reduction for Defective Cost or Pricing Data:

16.11.1 This provision shall become operative only for any Change Order, or Proposed Change Order or claim settlement under this Contract involving aggregate increases and/or decreases in costs, plus applicable profits, of more than $10,000; except that this provision shall not apply to any amendment to the Contract for which the price of the Work involved in the amendment is:

16.11.1.1 Based on adequate price competition;

16.11.1.2 Based on established catalog or market prices of commercial items sold in substantial quantities to the general public, or

16.11.1.3 Set by New York State law.

16.11.2 If any price, including profit, negotiated in connection with any Change Order, Proposed Change Order or claim settlement under this provision, was increased because: 1) **Contractor** or a Subcontractor, Supplier, other person or organization furnished Cost and Pricing Data that were not complete, accurate, and current as certified in its Certificate of Current Cost or Pricing Data; 2) a designated or prospective Subcontractor, Supplier, other person or organization furnished **Contractor** Cost and Pricing Data that were not complete, accurate, and current as certified in the **Contractor's** Certificate of Current Cost and Pricing Data; or 3) any of these parties furnished data of any description that were not accurate, the price shall be changed accordingly and the Contract shall be adjusted to reflect the change. This right to a change in Contract Price is limited to that resulting from defects in data relating to amendments to the Contract for which this provision becomes operative under paragraph 16.11.1 above.

16.13.2 In addition to the other remedies available, **Department** may demand repayment for any excess payment, plus interest thereon, for failure of **Contractor** to comply with paragraph 16.13.1.

Unlawful Provisions Deemed Stricken:

16.14.1 If the Contract Documents contain any unlawful provisions, such unlawful provisions shall be of no effect. Any provision determined to be unlawful by a court of competent jurisdiction, shall be deemed stricken from the Contract Documents without affecting the validity of the remaining provisions of the Contract Documents.

All legal Provisions Included:

16.15.1 All provisions of Law required to be included in the Contract Documents shall be and are inserted herein. If through mistake, neglect, oversight or otherwise, any such provision has not been included or included in improper form, upon the application of either party, the Contract Documents shall be amended in writing at no increase in Contract Price nor extension in Contract Time, so as to comply with the Law.

No Estoppel:

16.16 **Department** or any officer, employee, servant or agent thereof, shall not be estopped, bound or precluded by any determination, return, decision, approval, order, letter, payment or certificate made or given by **Engineer** or any other officer, employee, servant or agent of **Department**, at any time, either before or after final completion and acceptance of the Work and payment therefor:

16.16.1 From showing the true and correct amount, classification, quality, and character of the Work completed and materials furnished by **Contractor** or any other person under the Contract, or from showing at any time that any determination, return, decision, approval, order, letter, payment, or certificate is untrue and incorrect, or improperly made in any particular, or that the Work or the materials or any part thereof, do not in fact conform to the Contract Documents; or,

16.16.2 From demanding the recovery of any overpayments made to **Contractor**, or such damages as **Department** may sustain by reason of failure to perform each and every term, provision or condition of the Contract in accordance with its terms.

Prohibited Interests:

16.17 No official of **Department** who is authorized in such capacity on behalf of **Department** to negotiate, make, accept or approve or to take part in the negotiating, making or approving any architectural, engineering, inspection, construction or material supply contract or any Subcontractor in connection with the Work or the Project of which the Work is a part, shall be knowingly permitted by **Contractor** to become directly or indirectly interested personally in this Contract or in any part thereof. No officer, employee, architect, attorney, engineer or project representative of or for **Department** who is authorized in such capacity and in behalf of **Department** to exercise any executive, supervisory or other similar function in connection with the Work or the Project of which the Work is a part shall be knowingly permitted by **Contractor** to become directly interested personally in this Contract or in any part thereof.

SECTION IX

Supplementary Conditions

These Supplementary Conditions modify the General Conditions in section VIII.

1. Article 5, Paragraph 5.35

   The department will require "biweekly" (once every two weeks) project meetings, rather than "weekly" project meetings.

SECTION X

Standard Specifications

SPEC 00001

Progress Schedule

1) *Terms and Definitions*

The terms listed below (or pronouns in place of them) have the following intent and meanings which are applicable to both the singular and plural thereof.

a) *Activity* - A part of the Work identified in the Progress Schedule, assigned a description, duration, certain codes, and other related Shop Drawing data, and Cost and Pricing data, and evaluated to start and finish in accordance with Early and Late Schedules.

b) *Activity, Critical* - An Activity is considered to be Critical when it is evaluated to have the minimum value of Total Float Time available in the Progress Schedule.

c) *Activity, Value* - That portion of the contract Price which represents a fair value for the part of the Work identified by that Activity.

d) *As-Built Schedule* - Term used to denote record schedule drawings and data substantiating how the Work was performed as to timing, sequencing and rate of progress.

e) *Bar Chart Diagram* - A graphical representation of how the Work is to be performed as shown by timing each activity between a single choice of anticipated start and finish dates.

f) *Critical Path* - The sequence of Critical Activities from the Date for Commencement of the Contract Time, or Contract Times, to Substantial Completion of the Work, or part thereof.

g) *Critical Path Method Diagram* - A graphical representation of how the Work is to be performed as represented by the sequencing and timing of the Activities. A CPM Diagram shall either follow an "arrow" (I-J) format, wherein the start of an Activity is dependent upon the finish of preceding Activities, or a "precedence" format, wherein either the start or finish of an Activity is dependent upon either the start or finish of preceding Activities.

h) *Dummy restraints* - Activities not identifying a part of the Work, and used to preserve proper logic sequencing, avoid duplicate Activity numbering, to enforce Work Sequences indicated in or required by the Contract Documents, or to achieve other preferential sequencing chosen by Contractor.

i) *Duration (Activity)* - Estimated or required time of performance for the part of the Work represented by that Activity.

j) *Free Float* - Working days by which an Activity may be delayed from its Early Schedule, without delaying any other Activities from their Early Schedules.

k) *Contract Float* - Working days between the date(s) for Substantial Completion shown for the Work, or part thereof, in Contractor's anticipated Early Schedule, and the corresponding Contract Time or Contract Times.

terms described hereafter and those standards of the industry for CPM scheduling which are not in conflict with this Specification.

b) CPM Diagrams shall show in detail the priority, sequencing and interdependence of Activities, and the sequence in which the Work is to be accomplished to: a) to comply with the Contract Time(s), named allowances, and those sequences of Work indicated in or required by the Contract Documents; b) to anticipate foreseeable events that may in any manner affect cost, progress, schedule, performance, and furnishing of the Work; and c) to reflect the means, methods, techniques, sequences, and procedures of construction anticipated by **Contractor**, subject to the limitations on Float sequestering set forth by this Specification.

c) Total Float and contract Float are not for the exclusive benefit of **Owner, Engineer, Contractor,** OR OTHERS, but is time available to all parties as needed for the Contract as a whole. Such Float Times shall be shared between **Owner, Engineer, Contractor** and others to absorb delays which could not be mitigated by any other reasonable means. Use of Float Time shown in the approved progress Schedule for interim milestones or Contract Times will be available to **Owner**, if required to effect proper interfacing between work performed.

d) Use of float suppression techniques such as preferential sequencing, special lead/lag logic restraints, extended Activity times, imposed Acitivity dates, scheduling items of Work required for Final Completion as though they were prerequisites to Substantial Completion, and others, and 2) use of Float time disclosed or implied by the use of alternate Float suppression techniques will be allowed, provided: a) that **Contractor** not engage in Float maniuplations which have the net effect of "sequestering" Float, that is to reduce unilaterally otherwise available Float Time by more than 50 percent; and b) that **Contractor** agrees that in order to mitigate the impact of delays to the Work, or parts thereof, adjustment or removal of such Float suppression techniques will be a prerequisite to consideration of any requests for compensation for delay or acceleration or for extensions in Contract Time.

e) The finalized Schedule of Values will be acceptable to **Engineer** as to form and substance, and will serve as the basis for progress payments.

f) The finalized Schedule of Shop Drawing submissions will be acceptable to **Engineer** as providing a workable arrangement for processing the submissions.

5) *Progress Schedule Submittals for CPM Schedules*

a) All CPM Diagrams, Schedule of Values, Schedule of Shop Drawing submissions, associated computer reports, and narratives submitted by **Contractor** shall be consistent with the requirements of this Specification.

b) The "Preliminary" submittal set shall consist of:

1) A CPM Diagram and associated Schedule of Values and a supporting narrative.

2) A User Manual for the scheduling software to be used by **Contractor** for the purposes of computation of the Progress Schedule.

c) The "Interim" submittals shall consists of the interim CPM Diagram and associated Schedule of Values and Schedule of Shop Drawings submissions and a supporting narrative.

d) The "Detailed" submittal set shall consist of:

6) Work associated with installation, erection and other field construction activities.

7) Items of Work required to work around existing physical conditions and Underground Facilities which are at or contiguous to the site including the time for permanent or temporary relocation of such existing physical conditions and/or underground facilities.

8) Items of interface which relate to the responsibilities of **Owner**, **Engineer** or other contractors performing work under separate contracts with **Owner**.

9) Work required to implement cut-offs or closures, power shutdowns or temporary or permanent take-down or interruptions to existing facilities or affecting the operations of **Owner**, utilities or similarly involved third-parties. Specific dates when such cut-offs, etc. are to take place shall be shown as milestone dates on the appropriate Activities.

10) All items of Work related to shop and field testing, associated trimout activities and specified manufacturer or supplier training required prior to placing the facilities in service, including but not limited to manufacturer or supplier installation checks; leak, disinfection and pressure tests; removal or erection of temporary components; tie-ins; flushing and chemical/mechanical cleaning operations; specified performance tests; and other necessary non-operating tasks adjustments, cold-alignment checks, corrections, housekeeping and spare parts stocking required of **Contractor** to conform to the Pre-operational testing requirements of the Contract Documents.

11) All items of Work associated with the performance of the Start-Up Testing requirements of the Contract Documents, including, but not limited to, trial operation tests and operator training, performance tests under simulated and design operating conditions, emission testing, final acceptance or guarantee tests.

12) Work related to the tentative list of items to be completed or corrected before and subsequent to Pre-operational, Startup Testing and Final Testing.

d) The following limitations shall also apply to the selection and scoping of Activities for CPM schedules only:

1) Activity Durations shall be in working days and represent **Contractor's** best estimate of the time required for completion based on the Work included and the resources planned for that Activity. The computation of the Activity dates shall be based on a calendar recognizing the applicable holidays and the limitations on Work during hours other than the normal working hours set forth in the General Conditions and the Supplementary Conditions.

2) Unless otherwise provided in the Special Progress Schedule Requirements, all Activities, except those identifying Work related to Shop Drawings and deliveries, shall span twenty working days or less, and their Values shall not exceed $45,000. Duration requirements for Activities identifying Work related to **Engineer's** review of Shop Drawing or sample submissions are prescribed in the Special progress Schedule Requirements.

3) Installation Activities shall not combine Work located in separate structures, buildings or facilities, nor Work corresponding to different Divisions of the Specifications. Submittal and associated delivery Activities shall identify each submittal required by the Sections of the specifications. Activities identifying Work in connection with Pre-Operational or Start-up Testing shall not combine Work pertaining to the different Division within the specifications.

4) Reference is made to Article 1.11 of this specification for the identification of allowances and their incorporation into the Progress Schedule.

Proposed Change Order authorizing appropriate changes to the impacted Contract Time(s) is agreed upon between **Owner** and **Contractor**.

g) When reviewed by **Engineer** and **Owner**, each progress schedule submittal will be returned stamped as either "approved," "approved as noted," "resubmit with revisions," or "disapproved." Submittals stamped as "approved" or "approved as noted" will indicate approval thereof, subject to the limitations set forth, and will be considered to represent the approved progress schedule as of the date in the approval stamp until an updated progress schedule is submitted by **Contractor** and approved by **Owner** and **Engineer**.

h) If **Contractor** believes that **Engineer's** approval of a progress schedule justifies an increase or decrease in contract price or an extension or shortening in contract time, **Contractor** shall be required to deliver a proposed change order thereof to **Engineer** in accordance with the provisions of article 9 of the general conditions. If **Owner** and **Contractor** are unable to agree as to amount and extent thereof, a claim maybe made pursuant to Articles 10 and 11 of the General Conditions.

i) Costs associated with **Engineer's** and **Owner's** review and return of a progress schedule submission after the **Engineer's** second time review shall be borne by **Contractor**. **Owner's** charges to **Contractor** for additional reviews will be equal to **Engineer's** charges to **Owner** under the terms of **Engineer's** agreement with **Owner**. In the event **Contractor** fails to pay such costs within 30 days after receipt of an invoice from **Owner**, a change order or proposed change order will be issued incorporating the unpaid amount, and **Owner** will be entitled to an appropriate decrease in Contract Price.

j) No partial submittals will be reviewed. Submittals not complete will be returned to **Contractor** for resubmittal.

9) *Delays and Recovery*

a) Reference is made to the General Conditions and the Supplementary Conditions for Contract requirements related to delays, conditions warranting extensions in Contract Time(s), and conditions applicable to reimbursement for delay costs.

b) Whenever **Contractor** fails to complete an activity within its late date on the approved progress schedule, **Contractor** shall, within five days or with the next application for payment, whichever comes earlier, submit a written statement to **Engineer** describing the cause for the slippage in the Activity and the actions being considered by **Contractor** to recover the time lost and to prevent or mitigate any derived slippage beyond the applicable Contract Time(s).

c) A written schedule recovery statement shall include, but not be limited to, such actions as overlapping of dependent Activities, sequencing changes to accommodate increased Activity concurrency, assignment of additional labor or equipment, shift or overtime Work, expediting of submittals or deliveries, or any combination of the foregoing.

d) If **Contractor** refuses, fails or neglects to submit a required written schedule recovery statement, **Owner** may, at its option, withhold additional retainage pursuant to the Contract Documents and/or initiate default termination proceedings in accordance with Contract Documents or request **Engineer** to identify and to order alternate recovery actions on the basis of the information in the current Progress Schedule. If **Contractor** believes that a written order to recover schedule from **Engineer** justifies an increase in Contract Price or an extension in Contract Time, **Contractor** shall be required to deliver a written request thereof in accordance with the provisions of Article 9 of the General Conditions. If **Owner** and **Contractor** are unable to agree as to responsibility for the

Work and not in the allowance for the Scheduling Subcontractor. No demand for additional payment on account of any costs thereof will be valid.

12) *Time Allowance Requirements for Document Review and Other Activities*

a) **Contractor** shall make allowances for time required for a) document review and approval of submittals of Shop Drawings and samples specified in this Specification, b) the requirements for anticipated repeat submissions for particular items of materials or equipment, and c) the requirements for anticipated or required time intervals for the performance of specific parts of the Work by **Contractor.**

b) **Contractor** shall make allowances for time required by a) those other activities indicated in or required by the contract Documents which are the responsibility of **Owner** or **Engineer,** b) the potential time requirements of **Owner** and **Engineer** to investigate instances of potential differing site conditions, and c) those other named time allowances required by the Contract Documents.

c) It is understood that **Contractor** has included in the Contract Price the effect of accommodating all of these time allowances and requirements in the planning, scheduling and execution of the Work; that **Contractor's** Progress Schedule will incorporate Activities and sequences contemplated by the time allowances based on the information indicated in or required by the Contract Documents; and that **Contractor** shall cause the Work or requirements covered by such time allowances to be done within the limits of the Contract Time(s).

13) *Measurement and Payments*

a) All costs in connection with these requirements, including the Work to be performed by the Scheduling Subcontractor, shall be borne by **Contractor.** Payments made to **Contractor** under the allowance for the Scheduling Subcontractor provided for in paragraph 11.A shall be disbursed in their entirety to the Scheduling Subcontractor.

b) Payments for Work performed under this Section of the Specifications will be made pursuant to Article 9 of the Agreement. Payment for Work performed shall be in accordance with the schedule of payments in the Special Progress Schedule Requirements.

14) *Compliance*

a) If **Contractor** refuses, fails or neglects to provide the required Progress Schedules or related schedule, Pricing and cost data, Shop Drawing data, or schedule recovery data, he will be deemed not to have provided sufficient information to **Engineer** upon which progress can be evaluated, and **Engineer** may refuse to recommend the whole or part of any outstanding payment if, in the **Engineer's** opinion, it would be incorrect to make such representations to **Owner.** Further, and pursuant to the Article 14 of the General Conditions, **Owner** may refuse to make payment of those amounts recommended by **Engineer** because of **Contractor's** failure or refusal to provide the required Progress Schedule and related submittal data.

15) *Acceptable CPM Diagrams*

a) Interim and Detailed CPM Diagrams shall be based on an arrow or precedence diagram format, and sequenced by the separate structures, facilities, buildings or site areas.

b) CPM Diagrams shall be alotted on a time-scaled calendar and expressly identify: 1) the Contract Times, 2) the approach taken to comply with the Work Sequence conditions, 3) the Critical Path(s),

and 4) all Activities. Activities shall be shown on their Early Schedule, and their total Float Times noted beside them.

c) CPM Diagrams shall include title blocks identifying the name and location of the Project, Contract designation, names of **Owner**, **Engineer**, **Contractor** and Scheduling Subcontractor, Progress Schedule issue number and date, and sheet title. Diagram sheets shall be dimensioned as the full-size Contract Drawings, be neat and legible and submitted on a medium suitable for reproduction. Connections between Activities on different sheets shall be shown on the different sheets of the CPM Diagrams to allow a complete schedule document.

16) *Acceptable Activity Schedule Data for CPM Diagrams*

a) Activity schedule information shall, at a minimum, include the following data:

1) Activity identified, i.e., I-J numbers in arrow format, or alphanumeric numbers in precedence format, such that not more than one Activity, dummy, or restraint may have the same identifier.

2) Activity Description for each Activity, dummy or preferential restraint shall fully convey the scope of the Work included.

3) Special Activity codes designating: a) location of the Work, e.g., site areas, elevations, etc., b) Work breakdown, e.g., process, trade, performing organization, c) responsibility, e.g., **Contractor**, **Owner**, Subcontractors, etc., d) as-awarded from amended (added or deleted by a Change Order or Proposed Change Order) items of Work.

4) Activity labor requirements, based on a proportionate share of the (direct) labor manhours and quantities in the associated items from the Contract Price Breakdown developed pursuant to the requirements of the Supplementary Conditions.

5) The use of start or finish restraint dates must be annotated as to the basis for the chosen restraints.

17) *Acceptable Activity Value and Shop Drawing Data*

a) Activity data pertaining to the Schedule of Values shall at a minimum include the following for each Activity:

1) Activity code and description as on the CPM Diagram.

2) Activity representative quantities, Activity Value, Activity Percent Complete data, Activity Value of Work performed, and the applicable Value of significant subcomponents. The sum of all Activity Values shall equal the corresponding Contract Price for the Work. The sum of all Activity Values for Work performed divided by the Contract Price shall equal the Percent Complete for the Work.

3) Activity Values shall breakdown Value for anticipated stored materials from Value for Work installed, as applicable.

4) Cost of equipment or materials to be incorporated in the Work shall be assigned to the appropriate fabrication and delivery Activities.

b) Activity data pertaining to the Schedule of Shop Drawing submissions shall at a minimum include the following for each Activity:

1) Activity code and description as on the CPM Diagram.

2) A list of specific submissions, Specification Section, Contract Drawing sheet numbers, and applicable submission dates.

c) The Schedule of Values and the Schedule of Shop Drawing submissions shall be provided on forms acceptable to **Engineer**.

18) ***Acceptable Scheduling Software***

a) **Contractor's** evaluation of the CPM Diagrams shall be based on scheduling software meeting the data management, computational, and reporting requirements of this Specification. Activity reports provided by the scheduling software selected shall, at a minimum, display the following data for each Activity, dummy, or restraint:

1) Activity identifier, activity description, activity duration, activity man-days, computed or restrained Early Start date, computed Early Finish date, computed Late Start date, computed or restrained Late Finish date, Total Float and Free Float, Activity Value, Percent Complete, Activity Value for Work performed, and associated Activity list items (e.g., Shop Drawing submissions).

2) Dates shall be in calendar form. Contract Times representing Substantial Completion requirements shall be set as restrained Late Finish Dates where applicable; Contract Times representing Commencement of Work conditions shall be shown as restrained Early Start Dates as applicable. Contract Float times shall be computed and shown pursuant to the definition in Attachment A.

b) If the CPM Diagram is based on the precedence format, an additional computer report tabulating the sequences on the Diagram shall be provided showing: a) each Activity together with a listing of all of its preceding and succeeding Activities, and b) the relationship type, lead/lag types, and lead/lag times between each Activity and each of its preceding and succeeding Activities.

c) The scheduling software shall have the capability of sorting out computer reports by the special Activity codes designated in 17(a) above.

d) The scheduling software shall have the capability of sequencing computer reports by:

1) Activity identifier, in order of ascending I-J number.

2) Activity identifier, in order of descending J-I number.

3) Total Float, in order of ascending Total Float values, and by ascending Early Start Dates, or by ascending I-J numbers, or by descending J-I numbers, within the same Total Float values.

4) Early Start dates in chronological order of Early Start dates, and by ascending I-J numbers within the same Early Start Dates.

5) Late Finish dates, in chronological order of Late Finish Dates and by descending J-I numbers within the same Late Finish Dates.

6) Change Order or Proposed Change Order No.

e) In addition to the ability to process the required Activity data, the scheduling software shall offer the following features: a) the capability of accepting and processing schedules with actual start and actual finish dates for the Activities; b) processing of CPM schedules with negative Total Float values; c) printing or plotting of rate of progress data, such as labor utilization and payment curves; d) the ability of drawing CPM Diagrams using plottergraphics.

19) *Acceptable Progress Schedule Narratives*

a) A narrative shall include sufficient information to substantiate the basis of the data used to develop that Progress Schedule submittal, and detail:

1) The status of the Progress Schedule in terms of number of days ahead or behind the Contract Time, or Contract Times.

2) The progress status (i.e., progress achieved vs. that forecasted) for a) Activities designating accomplishment of Substantial Completion, b) Critical and other significant Activities, c) Work related to achieving milestones set forth by the Work Sequences indicated in or required by the Contract Documents, d) long-lead delivery items of material or equipment.

3) The assumptions made in incorporating Work related to pending or authorized Change Orders and Proposed Change Orders.

4) Actual or potential delays, including causes, the steps taken or anticipated to mitigate their impact, and the anticipated effect on the Progress Schedule as a whole.

5) Schedule recovery statement describing actions under consideration by **Contractor** to recover from a negative float or overrun in Late Finish Date condition.

6) Any significant changes in Progress Schedule sequences, and their basis thereof. Significant sequencing changes shall be those affecting Critical Activities, or causing a substantial reduction or increase in the Total Float Times available.

7) **Owner** and **Engineer** Activities which become due over the next two months on account of **Contractor's** requirements for performing Work which follows such **Owner** and **Engineer** Activities.

8) Rate of progress or "momentum" curves showing: a) the anticipated levels of labor utilization, e.g., man-days per week, and b) the anticipated level of payments for Work to be performed, all in accordance with the Activity timeframes supported by the Early and Late Dates in the Progress Schedule.

9) Other information relevant to or of concern in the planning, scheduling and execution of Work over the next two months.

10) **Contractor's** responses to **Engineer's** comments raised in the review of the previous Progress Schedule submittal.

11) Actions taken to address schedule noncompliance issues which have negated **Engineer's** approval of a previous Progress Schedule submittal.

20) *Acceptable Contractor's Cost Data*

a) Cost data for inclusion in the **Contractor's** Cost reports required with each Progress Schedule Update submittal shall detail Contract financial and budget data available to and customarily relied upon by **Contractor** to monitor financial and cost performance.

b) Acceptable financial and cost data for each cost account used by **Contractor** to approportion the contract Price to separable parts of the Work shall include:

1) Account number and description.

2) Account estimate data, identifying labor, material and equipment, and Subcontract costs for that account is included in the **Contractor's** Bid estimate, together with the sum increase or decrease in associated authorized Change Orders or Proposed Change Orders, and those sums anticipated by proposed Change Orders in negotiation or claims pending resolution.

3) Current labor, material and equipment, and Subcontract cost data for the account; percent complete for the Work designated by that account; and **Contractor's** current forecast of the cost to complete Work designated by the account.

Concrete

1) *General*

1.1 Scope of Work

a) The Contractor shall furnish all labor, materials, equipment, and incidentals needed for the cast-in-place and/or precast concrete required by the Contract Documents and as herein specified.

1.2 Submittals

a) Cast-in-place concrete.

1) Name and location of batch plant.

2) Design mix.

3) Shop drawings indicating placement of all reinforcing inserts, location of joints, sealing of joints, etc.

4) Submittal on grating and frame.

b) Precast concrete

1) Name and location of precaster.

2) Submittals of precast units.

3) Certifications of design for loading.

4) Submittal on manhole frame and cover.

1.3 Quality Assurance

a) Codes and Standards

1) Comply with the provisions of the following codes and standards, except as otherwise shown or specified:

a) ACI 301 - "Specifications for Structural Concrete for Buildings."

b) ACI 318 - "Building Code Requirements for Reinforced Concrete."

c) CRSI - "Manual of Standard Practice."

d) ACI 305 - "Recommended Practice for Hot Weather Concreting."

2) Where provisions of the above codes and standards are in conflict with the building code in force for the project, the more stringent code shall apply.

2) *Products*

2.1 **Cast-In-Place Concrete**

a) Portland Cement - ASTM C 150, Type III.

b) Aggregates - ASTM C 33

1) Fine aggregates - clean, sharp, natural sand free of dune sand, bank run sand, manufactured sand, loam, clay, etc.

2) Coarse aggregate - clean processed natural limestone free of all foreign matter.

c) Water - clean, fresh, free of all oils, acids organics, etc.

d) Admixtures.

1) Air-Entraining - ASTM C 260.

2) Water-Reducing - ASTM C 494.

3) Floor sealer - Sonoglaze is manufactured by Sonneborn Building Products or similar product by Master Builders.

e) Concrete Qualifiers.

1) Concrete mix shall be DOT Class E.

2) Strength - 4,000 psi at twenty-eight (28) days with maximum water-cement ratio of 0.45.

3) Air content - 6 percent.

4) Slump limits - 3-4 inch.

f) Reinforcing

1) Bars - ASTM A615, Grade 40.

2) Welded Wire Fabric - ASTM A185.

g) Frame and Grating - (Reteculine)

1) The frames, gratings, and appurtenances shall be fabricated from steel conforming to ASTM A36.

2) All parts shall be galvanized according to the requirements of the NYSDOT 719-01 type 1.

3) Grating shall be provided with lock down bolt anchors.

h) Waterstops

1) Waterstops to be 6" PVC dumbbell style, made of virgin raw materials.

2) Waterstops shall be #74" as manufactured by Greenstreak, #8046 as manufactured by Vulcan Metal Products, Inc., or equal.

2.2 Precast Concrete Units

a) Precast concrete units shall be of sizes shown and built in accordance with ASTM standards C913-89. Units to be designated to withstand H-20 loading.

b) Manhole cover and frame shall conform to NYSDOT Standard 715-05, Class No. 30. Units shall be supplied with lock down device.

3) *Execution*

3.1 Concrete Placement

a) General - Place concrete in compliance with the practices and recommendations of ACI-304, and herein specified.

b) Deposit and consolidate concrete slabs in a continuous operation, within the limits of construction joints, until the placing of a panel or section is complete. In the event that the slab is placed in two sections, the sections shall have continuous waterstops.

c) Consolidate concrete during placing operations using mechanical vibrating equipment, so that concrete is thoroughly worked around reinforcing and other embedded items and into corners.

d) Bring slab surfaces to the correct level with a straight edge strike off. Use bull floats or darbies to smooth the surface, leaving it free of humps or hollows.

3.2 Cold Weather Placing

a) Protect all concrete work from physical damage or reduced strength which could be caused by frost, freezing actions, or low temperatures.

b) When air temperature has fallen to or is expected to fall below 40° F, uniformly heat all water and aggregate before mixing, to obtain a mixture temperature of not less than 50° F and not more than 80° F at point of placement.

c) Do not use calcium chloride, salt, and other materials containing antifreeze agents or chemical accelerators.

3.3 Monolithic Slab Finish

a) Begin float finishing when surface water has disappeared or when concrete has stiffened sufficiently to permit the operation of a power-driven float. Check surface plane to a tolerance not to exceed 1/4 inch in 10 feet, with uniform slopes to drains.

b) Begin the final troweling when the surface produces a ringing sound as the trowel is moved over the surface.

3.4 Concrete Curing and Protection

a) Protect freshly placed concrete from premature drying and excessive cold or hot temperatures.

b) Weather permitting, keep placed concrete continuously moist for not less than 72 hours.

3.5 Concrete Floor Sealer

a) Concrete slab shall be fully cured, cleaned, and etched.

b) Apply sealer as recommended by manufacturer or as specified in the contract documents.

SECTION XI

Supplementary Specifications

SECTION 01010
SUMMARY OF WORK

1. GENERAL SPECIFICATION

1.1 SITE LOCATION AND DESCRIPTION

The Oswego Castings Site, Site No. 7-38-033, is located on Mitchell Street in the City of Oswego, Oswego County, New York. The Site occupies approximately 4.2 acres of the 23 acres formerly owned by B&K Metals, Inc. The Site includes three former manufacturing buildings: a 29,110 square foot main foundry building, and two smaller outbuildings. In addition, a new saw mill has recently been constructed in a portion of the main building. The area that remains contaminated is directly behind (north of) the foundry building, including the yard area between the outbuildings and the area beneath the newly constructed sawmill in the main building. Also requiring remediation is the facility's former cooling water pond, located west of the buildings. Beyond the areas described above, approximately 13 acres of the Site are wooded, and have no history of manufacturing or disposal activity. The remaining lands, approximately 8.5 acres of the former landfill area were addressed during earlier remediation activities as Operable Unit No. 1 of the Site and by the voluntary cleanup agreement. These areas are identified on Figure 1.

The area surrounding the Site is sparsely populated. Residential properties are located to the south across Mitchell Street. NYSDEC regulated wetlands are located north and west of the Site. Lake Ontario is located approximately one half mile north of the site. In addition, the Pollution Abatement Services (PAS) site, a class 2 inactive hazardous waste disposal site (Site No. 7-38-001) and the Niagara Mohawk Fire Training School site (Site No. 7-38-030) are both located southwest of the Site on East Seneca Street.

1.2 SELECTED REMEDY

A. Demolition:

Prior to the slab construction, the storage building in the middle of the yard area will be removed by others prior to the start of construction.

B. Utilities:

Prior to construction of the concrete slab, existing sewer and water lines will be extended to terminate a minimum of 10' north of the slab, as described in the specifications and shown on the plans.

C. Wetlands Sediment

Portions of the wetland adjacent to the cooling water pond contain PCBs in excess of action levels. These sediments are underlain by a layer of heavy clay. Sediment shall be tested prior to excavation to determine the areal extent of PCB contamination. A temporary dam shall be installed, isolating the pond area containing contaminated sediments. The contaminated material will be removed as described in section 02221 - Sediment Excavation.

This sediment will be consolidated with contaminated sediment in the cooling water pond.

D. Slab Construction:

An 8" thick concrete slab will be constructed to contain the contaminated soils in the yard area. The slab will be constructed in 3 phases to allow Great Lakes Veneer (GLV) to continue operating during the construction process to the fullest extent possible. The area identified as Section A on contract drawings must be available for GLV's use prior to the start of work in Section B. The CONTRACTOR may utilize rapid cure concrete, temporary plating or other reasonable equipment and procedures to minimize downtime between the end of the construction of Section A and the Beginning of Section B. The CONTRACTOR should identify the areas of Section A which will be needed by GLV and install these areas as early as possible to allow maximum curing time.

1. Site Preparation:

A minimum of 12" of soil must be removed from the yard area to make room for the slab. Areas of "known clean" or "nearly clean" (<10 ppm PCBs) material are identified in each of the 3 sections of the yard in Figure 2 - "Yard Excavation." These areas will be excavated to a depth of approximately 3.5 feet. Excavated material will be disposed of on-site as described below. The excavated area will then be backfilled with approximately 2.5' of material from the remainder of that section. Backfill will be installed in 6" lifts and compacted to match adjacent soil conditions to provide uniform support for the slab.

During this excavation process, the CONTRACTOR will ensure that the subsoil on which the slab will be constructed will be uniformly compacted and will consist of relatively uniform material. Any material that would provide a significantly different level of support must be excavated and replaced with material similar in composition and compaction to surrounding material. Examples of material that would have to be removed includes any material with high organic content, clay, and

cobbles or other stones. Soft spots shall be corrected to the satisfaction of the ENGINEER. After compaction, final grading will provide a surface no more than 1/4" above or below true grade for the coarse at any location.

2. Disposal of Excavated Material:

All excavated materials are to be consolidated with the contaminated sediment in the cooling water pond. If the initial survey shows that the cooling water pond is less than 8' deep (on average), not all of the excavated material will fit in the pond. If this is the case, materials in the yard area previously placed during Operating Unit One, which can be assumed to be clean, can be disposed of in the northeast corner of the Great Lakes Veneer property.

3. Subbase Preparation

Before any concrete may be placed, a 4" granular subbase provided (compacted thickness). The subbase will be fine graded to be within 1/4" of true grade. High areas shall be trimmed, and low areas shall be filled with an approved granular material. Subbase will be firmly compacted. The subbase shall be uniformly moist when the concrete is placed. During concrete paving, a roller weighing not less than 5 tons, shall be maintained in readiness to recompact the subbase course if the surface has become, for any reason, uneven, or defective. Soft spots in the subbase shall be corrected to the satisfaction of the ENGINEER.

4. Concrete Installation

An eight inch (8") thick concrete slab will be constructed in sections no greater than 15' by 15'. Sections are to be maintained as close to square as practical. Each 15'x15' section will be separated from the rest of the slab by a doweled contraction joint. The slab will be reinforced with two layers of 10 gauge wire mesh at 6" centers, installed 3" from the top and 3" from the bottom of the slab. Reinforcement shall not extend through the contraction joints. A non-extruding, preformed compressible material 3/4 to 1" thick will be placed between the slab and buildings. Expansion joints will be sealed with a durable elastomeric sealant, Sikaflex -2c, SL or approved equal.

Forms are to be constructed to be rigid and secure to adequately support the concrete. Forms are to be wetted. In each 15'x15' section, the subbase must remain moist so it doesn't absorb water from the concrete mix. Concrete must be placed in a continuous pour. Work shall not stop for more than 30 minutes.

Forms must remain in place until the concrete has hardened to the satisfaction of the engineer.

E. Cooling Water Pond

The cooling water pond will be filled with on-site material to isolate contaminated sediments. The pond will be dewatered to within 12 inches of the bottom. Water will be discharged to the Downstream Pond area or the New Pond area. Water will not be discharged off-site or allowed to flow off-site after being discharged. Treatment with particle filters will be provided to ensure a discharge with no visible sediment and a turbidity of <50 NTU. All soil shall be placed in 6" lifts, and compacted using vibratory or sheepsfoot rollers, or other methods approved by the engineer. Water content in this soil must be conducive to optimal compaction.

F. Drainage

The concrete slab will be installed to allow sheet drainage to the north of the slab. The area north of the slab will be graded to direct the drainage away from the slab and into the new pond, as shown on the plans.

G. Restoration

All surfaces, pavements, vegetation, culverts and other features removed disturbed, damaged or destroyed during the remediation shall be restored and maintained. Any crushed stone in the regraded portions of former landfill area will be scraped off and stockpiled on site, to be replaced after regrading. Disturbed wetland areas will be graded to original elevations or lower, and will be seeded with a mix of sages and rushes.

H. Monitoring Well Installation

Four (4) ground water monitoring wells will be installed, as shown on the plans. Wells will be located as shown on the attached plans. Casings shall extend approximately 36" above finished grade, and provided with a locking cap. In areas where vehicular traffic can be reasonably be expected, appropriate bollards will be provided to protect the wells.

1.3 SUMMARY OF WORK

The **CONTRACTOR** shall provide all necessary personnel, equipment, supplies, and materials to perform the services as described in the Contract Documents. The **CONTRACTOR** shall:

A. Provide an acceptable Work Plan, including sections on waste handling and sample collection, Health and Safety Plan (HASP) including Contingency Plan, and Quality Assurance Project Plan (QAPjP). Procedures must be consistent with the requirements of the Contract Documents and must describe in detail all waste handling, site work, sample collection, and Quality Assurance/Quality Control (QA/QC) protocols for this project. QA/QC protocols must be consistent with general sampling practices and the site-specific QAPjP. The Work Plan must include, but is not limited to, the following items:

1. Procedures for adequate and safe excavation of contaminated soils and materials. A contingency plan shall include methods the **CONTRACTOR** shall take at no extra cost to the **DEPARTMENT** to prevent, contain, and recover spills and fugitive dust during the work.

2. Procedures for adequate and safe placement of contaminated soils, sediments and materials on-site in the area of consolidation.

3. Procedures for adequate and safe installation of a concrete slab, including subbase preparation, reinforcing placement, joint preparation, concrete installation, curing and sealing.

4. Describe equipment to be used on site with the appropriate safety devices needed to undertake the remediation of the site.

5. Identification of any permits required to conduct the work.

6. Provide a work site layout showing at a minimum, the equipment/ material staging areas, trailers, and decontamination station. Staging procedures shall be written and a shop drawing submitted for approval prior to start of work.

7. Identification of proposed temporary on-site hauling routes for excavated materials.

8. Provisions for the completion of the wetlands sediment removal, including all related silt/turbidity barriers, pumping, excavating, regrading, restoration and maintenance of the remediation area.

9. Procedures for handling of all soils, sediments and debris.

10. Procedures for the pumping and handling of groundwater and surface water encountered during remediation.

11. Provisions for the control of fugitive emissions to the air, including dust control.

12. A detailed work schedule for all tasks required to fulfill the Contract.

13. Any other requirements necessary to provide adequate security, staging, sampling, testing, removal, and disposal of wastes.

14. Provisions for decontamination of equipment before it leaves the site.

15. Proposed methods and operations of construction work to be completed including a detailed sequence of construction work.

16. Provisions for the installation of monitoring wells at the site.

17. Provisions for the safe backfilling and compaction of all excavations and final site restoration.

18. Provisions for the installation of water and sewer lines including trenching, testing, and backfilling.

19. Provisions for accommodating the ongoing operation of Great Lakes Veneer's facility during construction.

B. Remove and properly dispose on site of approximately 1,300 cubic yards of soil from the Yard Area containing PCBs up to 10 ppm. This quantity is only an estimate. Payment will be based on the Bid prices if actual quantities are different as detailed in the Contract Documents. Soil will be consolidated with the contaminated sediment in the cooling water pond.

C. Remove and properly dispose of on site approximately 160 cubic yards of contaminated sediment from a 4,400 square foot wetland area adjacent to the cooling water pond. This quantity is only an estimate. Payment will be based on the Bid prices if actual quantities are different as detailed in the Contract Documents. Sediment will be consolidated with the contaminated sediment in the cooling water pond.

D. Cover contaminated material consolidated in the cooling water pond with a minimum of twenty-four inches (24") of clean fill excavated from the "new pond" area delineated on the plans. Grade to promote run-off from former cooling pond area.

E. Construct an 8" thick concrete slab in the yard area as shown on the plans and as described in these specifications.

F. Provide a HASP with Contingency Plan that complies with Health and Safety guidelines and applicable federal and state guidelines and applicable federal and state law including OSHA and NIOSH regulations. These plans must be prepared and signed by a certified industrial hygienist or certified safety professional experienced in hazardous materials handling procedures. The plans must address both on-site and off-site health and safety practices necessary for

proper protection of on-site personnel and the local community. The plan must be acceptable to the **DEPARTMENT** prior to the award of the Contract. The **DEPARTMENT** will review the plan only to determine that it is adequate to protect its personnel. The New York State Department of Health (NYSDOH) will review the plan only to determine if it provides adequate protection for the local community.

G. The following information must be included and adequately addressed in the project-specific QAPjP prior to receiving QA approval from the **ENGINEER**.

1. The plan shall include an organizational chart and have a designated, qualified QA Officer. Include a copy of the QA Officer's resume and signature page for the QA Officer. The plan and all revisions shall be signed by the QA Officer prior to submission to the **ENGINEER**. The QA Officer will be within the same geographical area as the Project Manager and independent of the analytical laboratory.

2. The plan shall state the data quality objectives for the site and identify data uses.

3. The plan shall include a chart reflecting the approximate number of samples to be collected, matrices, holding times, analytical protocols to be used, and anticipated QA/QC samples to be collected or analyzed.

4. All sample collection techniques shall be described and must be site specific.

5. The plan shall indicate what analytical protocols will be followed. The acronym "CLP" is insufficient. The **CONTRACTOR** shall designate by method number what protocol contained in the NYSDEC Analytical Services Protocol (ASP) shall be used.

6. The plan shall indicate the specific limits of concern for each of the analytes listed in each of the matrices to be sampled.

7. The plan shall indicate the matrix-specific method detection limit that must be obtained for each of the analytes and matrices listed. This value should be in the range of 1/5 the site-specific limit of concern (remedial objective), unless otherwise determined by the **ENGINEER**.

8. All samples shall be delivered to the laboratory 24 to 48 hours from day of collection, preserved as appropriate.

9. The plan shall indicate what analytical laboratory will be used. The analytical laboratory must be acceptable to the **ENGINEER** and maintain NYSDOH Environmental Laboratory Approval Program (ELAP) certification for all sub-categories of solid and hazardous waste.

Certification is also necessary for CLP-metals because this category is part of the ELAP program.

10. Acetone is an unacceptable solvent for decontamination of sampling equipment. Steam cleaning or detergent/distilled water wash is allowable.

11. The **CONTRACTOR** must address the Category B presentation of the reporting and deliverables package as designated in Vol. I of the NYSDEC ASP.

12. The plan shall describe the analytical protocols for using the onsite immunoassay field test kits to determine the presence of PCBs.

13. The plan must state that prior to any deviations from the agreed protocols, the **ENGINEER's** QA/QC officer must be notified.

14. Training requirements for new employees and/or refresher training requirements for current employees must be provided.

15. The plan will explain sampling equipment and maintenance.

16. The plan will explain criteria for laboratory selection and audit format.

17. The plan will explain field audit criteria.

18. The plan will describe record maintenance and archive methods, e.g., field notebooks, audit reports.

19. Work plan/report checking and review procedures will be included.

20. Materials handling and regulatory compliance procedures will be delineated.

H. Maintain an acceptable air monitoring program as part of the Health and Safety Plan. The air monitoring program must include provisions for continuous dust monitoring. At a minimum, the **CONTRACTOR** shall provide continuous dust monitoring during: excavation, consolidation, stockpiling, and removal, with a minimum of one real-time meter per work area. Additionally, the air monitoring program must include documentation monitoring as set forth in Section 01120.

J. Great Lakes Veneer, Corp. currently has operations at the Oswego Castings Site. The **CONTRACTOR** is responsible for minimizing interruption or interference with the Great Lakes Veneer's day to day operations.

K. It is anticipated work on the project will be continuous from start to finish. The **CONTRACTOR** is responsible for including all costs necessary to operate

through the winter as determined by the **CONTRACTOR**.

1.5 Pre-construction Conference

A. A Pre-Construction Conference will be held between the **DEPARTMENT**, **CONTRACTOR** and **ENGINEER**. Attendance by the **CONTRACTOR's** superintendent, quality control personnel, key safety including the Safety Officer, and any major subcontractor's superintendent will be required.

B. At the Conference, the **CONTRACTOR** shall submit to the **ENGINEER** six copies of the documents listed in Items 1.2 and 1.3 of Section 01011 including a project schedule. These documents shall include any comments or clarifications provided by the **ENGINEER** and department or other reviewers, which were approved and/or accepted by the **DEPARTMENT** to award the Contract.

C. The **CONTRACTOR** shall submit a complete list of proposed subcontractors (including any disposal facilities) identifying the name, address, telephone number, personal contact, type of work to be subcontracted, dollar amount and M/WBE status. Subcontractors (except disposal facilities) in excess of $10,000 must submit a complete, properly executed Uniform Contracting Questionnaire. No subcontractors can begin work without the written approval of the **DEPARTMENT**.

D. The **ENGINEER** will take minutes of the Conference and distribute copies to all participants.

2. PRODUCTS - NOT APPLICABLE

3. EXECUTION

3.1 General

A. Under this Contract the **CONTRACTOR** shall furnish all labor, equipment, and materials and shall do all work as shown on the Plans, as specified, and as directed by the **ENGINEER**, in accordance with the obvious and expressed intent of the Contract to secure a complete remediation. In general, the work to be performed under this Contract and each Bid Item is described, but not limited to, the following sections.

B. The quality of workmanship and materials entering into the work under this Contract shall conform to the requirements of the pertinent sections, clauses, paragraphs, and sentences, both directly and indirectly applicable thereto, in these Specifications, whether or not direct reference to such occurs in the Bid Items.

C. No payment shall be made for work performed by the **CONTRACTOR** to replace defective work, work which is not shown in the Contract Documents,

work outside the limits of the Contract, and additional work necessary due to the actions of the **CONTRACTOR**, unless approved in writing by the **ENGINEER**.

D. The attention of the **CONTRACTOR** is called to the provisions of the Section 01520 regarding temporary light, power, water and heating, and sanitary regulations.

E. Items hereinafter listed may be described in detail in other sections of these Specifications.

F. The attention of the **CONTRACTOR** is called to the fact that methods of execution must be selected to prevent any hazard or deterioration to existing structures or site features.

G. Sampling will be performed by the **CONTRACTOR** in areas and amounts as required or specified in the Bid Items and as directed by the **ENGINEER.**

H. All samples collected during the remediation, other than field test kit samples, will be analyzed by a laboratory approved by the **ENGINEER.** The laboratory will be NYSDOH ELAP certified for the analytical work to be performed under this contract.

I. All materials associated with the remediation work will be properly classified and disposed of in accordance with State and Federal regulations.

4. BID ITEM DESCRIPTIONS

4.1 Bid Item 1 - Site Preparation

4.1.1 Scope of Work

A. Description

1. The **CONTRACTOR** shall furnish/supply and install all materials, equipment, incidentals, and labor necessary to mobilize to the site and completely and properly prepare the site to remediate soils and sediments and miscellaneous debris, install monitoring wells, and manage and collect groundwater and aqueous waste, which shall include but may not be limited to the items described below.

2. At the completion of the work, the **CONTRACTOR** shall demobilize which shall include the removal of all access roads, decontamination station, decontamination pad, utilities, staging areas, and the temporary facilities and properly restore the site as approved by **ENGINEER,** unless otherwise directed by the **ENGINEER. CONTRACTOR** is responsible for properly characterizing materials used in construction of access roads, staging areas and decontamination pad and dispose of such

in accordance with State and Federal regulations.

B. Clearing and Grubbing

The **CONTRACTOR** shall clear and grub all areas necessary under this Contract as specified herein and as directed by the **ENGINEER** for the installation of Contractor-provided facilities and for the execution of soil and sediment excavation. Clearing and grubbing shall be performed in accordance with Section 02110 of these specifications.

C. Decontamination Station

The **CONTRACTOR** shall provide a decontamination station as specified in Section 01120 of this Specification. The **CONTRACTOR** shall decontaminate, clean, and remove the decontamination station at the end of the work. The **CONTRACTOR** shall also dismantle and properly transport and dispose of the station splash walls and/or curtains when the decontamination station is no longer required, or as directed by the **ENGINEER**. The decontamination station shall be removed and disposed of off site at the end of the work by the **CONTRACTOR**.

D. Staging Areas

The **CONTRACTOR** may construct and use staging areas as specified in Section 01520 - Temporary Facilities and Controls. These staging areas shall be lined on the bottom with a sealed liner of appropriate thickness and covered at all times with a second sealed liner to prevent contaminated runoff. All staging areas shall be constructed to prevent the spread of any contamination to surrounding uncontaminated soils, surface, and/or groundwater. The **CONTRACTOR** is responsible for cleanup of any spread of contamination and decontamination of pads after use as necessary.

E. Temporary Utilities

The **CONTRACTOR** shall provide all necessary utilities to the site for proper execution and satisfactory completion of this Contract as specified in Section 01520, Temporary Facilities and Controls, and as directed by the **ENGINEER**. Adequate power shall be provided to all areas requiring electrical connections by the **CONTRACTOR**.

F. Decontamination Trailer and Personal Hygiene Facility

The **CONTRACTOR** shall provide a separate decontamination trailer and personal hygiene facility as specified in Section 01520, Temporary Facilities and Controls, and as directed by the **ENGINEER**.

G. Field Offices and Support Areas

The **CONTRACTOR** shall provide field offices for the **ENGINEER** in addition to any offices that the **CONTRACTOR** provides for his/her own use. The field office for the **ENGINEER** shall be as specified in Section 01590, Field Offices. The **DEPARTMENT**'s field office shall be equipped with various items as specified in Section 01590.

H. Project Signs

The **CONTRACTOR** shall provide a project sign as specified in Section 01580, Project Identification and Signs, of these specifications.

I. Control, Layout and As-built Surveys

The **CONTRACTOR** shall perform site surveys and provide an initial topographical map prior to site disturbance, intermediate topographical maps showing excavation limits and an as-built survey map as described in Section 01050.

J. Erosion and Surface Water Controls

The **CONTRACTOR** shall provide effective surface water control for the entire site, and specifically for the wetland included in the scope of remediation, as necessary for a complete and proper remediation and as specified in Sections 01560 - Erosion and Surface Water Control and 02220 - Excavation.

K. Meteorological Station

The **CONTRACTOR** shall furnish and maintain a portable meteorological station for the continuous observation and recording of wind speed, wind direction, ambient air temperature, atmospheric pressure, humidity and precipitation. The station shall include a continuous readout temperature gauge and a rainfall gauge. The station shall be positioned by the safety officer to provide representative data on the overall atmospheric conditions at the site. The calibration, audit, data reduction and document control shall be specified by the **CONTRACTOR**.

4.2 Bid Item 2 - Site Services

4.2.1 Scope of Work

A. Description

This Bid Item shall include the daily cost of operating and maintaining the work site during the length of the Contract. This includes operating and maintaining the items described under Bid Item 1, Site Preparation, except for the decontamination station and personal hygiene facility, which shall be operated and maintained as per Bid Item 3, Health and Safety. The **CONTRACTOR**

deposited in the United States mail in a sealed, postage prepaid envelope, or if delivered, with the charges prepaid to any telegraph company for transmission, in each case addressed to such office or to such other representative of **Department** or to such other address as **Department** may subsequently specify in writing to **Contractor** for such purpose, or faxed to the number provided in the Contract Documents and followed by written notice.

16.1.3 Any written notice or other communication to **Contractor's** Surety or Sureties shall be delivered or mailed to the home office of the Surety or Sureties, or to the agent or agents who executed the Bonds on behalf of the Surety or Sureties.

16.1.4 Any such notice or demand shall be deemed to have been given or made as of the time of actual delivery, or, in the case of mailing or of telegrams, at the time of actual receipt thereof.

Computation of Time:

16.2 When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last calendar day of such period. If the last calendar day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the State of New York, such day will be omitted from the computation. This does not apply to contract completion time as set forth in Article 6 of the Agreement.

General:

16.3 Should **Department** or **Contractor** suffer injury or damage to person or property because of an act or omission to act of the other party, its employees or agents or others for whose acts the other party is legally liable, a Claim may be made therefore, in writing to the other party within a reasonable time of the first observance of such injury or damage. The provisions of this paragraph shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitations or repose.

16.4 The duties and obligations imposed by these General Conditions and the rights and remedies available to the parties hereunder, including but not limited to the warranties, guarantees and obligations imposed upon **Contractor** by Contract Documents and all of the rights and remedies available to **Department** thereunder, are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by New York State Laws, by special warranty or guarantee or by other provisions of the Contract Documents. The provisions of this paragraph shall be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right and remedy. All representations, warranties and guarantees made in the Contract Documents shall survive final payment and termination or completion of the Agreement.

16.5 The obligation of **Contractor** to maintain the Work, or any part thereof, until the completion of the Correction Period shall survive final payment and termination or completion of the Agreement.

No Waiver of Legal Rights:

16.6.1 Inspection by **Engineer** or by any of its duly authorized representatives, any measurement or report by **Engineer**, any order by **Department** for the payment of money, any payment for or acceptance or possession of any Work or any extension in Contract Time or any possession taken by **Department** shall not operate as a waiver of any provision of the Contract Documents, or any power therein preserved to **Department**, or of any right to damages

therein provided. Any Waiver of any breach of this Contract shall not be held to be a waiver of any other or subsequent breach.

16.6.2 **Department** reserves the right to correct any error that may be discovered in any estimate that may have been paid, and to adjust the same to meet the requirements of the Contract Documents. **Department** further reserves the right, should proof of Defective Work on the part of **Contractor** be discovered after the final payment has been made, to claim, and recover by process of law, such sums as may be sufficient to correct the error, or make good the defects in the Work.

16.6.3 Any waiver of any provision of the Contract Documents shall be specific, shall apply only to the particular item or matter concerned and shall not apply to other similar or dissimilar items or matters.

Affidavit and Release of Lien:

16.7.1 When the Work has been completed, **Contractor** shall execute a final release of Lien and an Affidavit declaring that all bills have been paid in full, and that the requirements of the New York State Labor Law have been complied with.

16.7.2 These documents will be furnished to **Department** on the forms included with the Contract Documents.

16.7.3 **Contractor** shall be responsible for obtaining and submitting these forms to **Department** for all subcontractors involved in the Work.

Recovery Rights Subsequent to Final Payment:

16.8 **Department** reserves the right, should an error be discovered in an Application for Payment or should proof of Defective Work or materials used by or on the part of **Contractor** be discovered after the final payment has been made, to claim and recover from **Contractor** or his Surety, or both, by process of law, such sums as may be sufficient to correct the error or make good the defects in the Work and materials.

General Guarantee:

16.9 Neither the final acceptance, nor final payment by **Department**, nor any provision of the Contract Documents, nor partial or entire use of the Work by **Department**, shall constitute an acceptance of Work not done in accordance with the Contract Documents or relieve **Contractor** of liability in respect to any express warranties or responsibility for faulty materials or workmanship. **Contractor** guarantees the remedy of all Defective Work and payment for all damage to other Work, persons or property resulting therefrom which shall occur within one year from the date of final acceptance unless a longer period is required by Contract Documents, by Law, or by standard practice. **Department** will give notice of observed Defective Work with reasonable promptness. **Contractor** shall ensure that its Surety shall be bound with and for **Contractor** in the faithful observance of this General Guarantee.

Audit; Access to Records:

16.10.1 In addition to the rights of access set forth in Appendix A, if **Contractor** has submitted Cost and Pricing Data in connection with the pricing of any Change Order, Proposed Change Order or Claim related to this Contract, **Department** and **Engineer** or any of their duly authorized

representatives shall have the right to examine and audit all books, ledgers, records, and documents pertinent to all Cost and Pricing data available and relied upon by **Contractor** including but not limited to that used by **Contractor** in the determination of its Bid for the Work, in order to evaluate the accuracy, completeness, and currency of the Cost or Pricing data.

16.10.2 **Contractor** shall make available at **Contractor's** office at all reasonable times the materials described in paragraph 16.10.1 above, for examination, audit, or reproduction, until 6 years after final payment under this Contract.

16.10.2.1 If this Contract is completely or partially terminated, the records relating to the Work terminated shall be made available for 6 years after any resulting final termination settlement.

16.10.2.2 Records pertaining to appeals under Article 15 of Section 8, "General Conditions," to litigation or the settlement of claims arising under or relating to the performance of this Contract shall be made available until disposition of such appeals, litigation, or claims.

16.10.3 A provision stating that all the requirements of this Article of Section 8, "General Conditions" are applicable to Subcontracts under this Contract exceeding $50,000 in value shall be inserted by **Contractor** in all such subcontracts.

Price Reduction for Defective Cost or Pricing Data:

16.11.1 This provision shall become operative only for any Change Order, or Proposed Change Order or claim settlement under this Contract involving aggregate increases and/or decreases in costs, plus applicable profits, of more than $10,000; except that this provision shall not apply to any amendment to the Contract for which the price of the Work involved in the amendment is:

16.11.1.1 Based on adequate price competition;

16.11.1.2 Based on established catalog or market prices of commercial items sold in substantial quantities to the general public, or

16.11.1.3 Set by New York State law.

16.11.2 If any price, including profit, negotiated in connection with any Change Order, Proposed Change Order or claim settlement under this provision, was increased because: 1) **Contractor** or a Subcontractor, Supplier, other person or organization furnished Cost and Pricing Data that were not complete, accurate, and current as certified in its Certificate of Current Cost or Pricing Data; 2) a designated or prospective Subcontractor, Supplier, other person or organization furnished **Contractor** Cost and Pricing Data that were not complete, accurate, and current as certified in the **Contractor's** Certificate of Current Cost and Pricing Data; or 3) any of these parties furnished data of any description that were not accurate, the price shall be changed accordingly and the Contract shall be adjusted to reflect the change. This right to a change in Contract Price is limited to that resulting from defects in data relating to amendments to the Contract for which this provision becomes operative under paragraph 16.11.1 above.

16.11.3 Any decrease in Contract Price under paragraph 16.11.2 above due to defective data from a designated or prospective Subcontractor, Supplier, other person or organization that was not subsequently awarded the Subcontract or purchase order shall be limited to the amount, plus applicable overhead and profit markup, by which 1) the actual Subcontract or purchase order or 2) the actual cost to **Contractor**, if there was no Subcontract or purchase order, was less than the prospective Subcontract or purchase order, cost estimate submitted by **Contractor**; provided, that the actual Subcontract or purchase order price was not itself affected by defective cost or Pricing data.

16.11.4 Before awarding any Subcontract or purchase order which exceeds or can be reasonably expected to exceed $150,000 when entered into, or pricing any Change Order or Proposed Change Order or claim settlement involving a pricing adjustment expected to exceed $10,000, **Contractor** shall require the Subcontractor, Supplier, other person or organization to submit Cost or Pricing data (actually or by specific identification in writing), unless the price is:

16.11.4.1 Based on adequate price competition;

16.11.4.2 Based on established catalog or market prices of commercial items sold in substantial quantities to the general public; or

16.11.4.3 Set by New York State law.

16.11.5 **Contractor** shall require such Subcontractor, Supplier, other person or organization to certify in the form prescribed in the Contract Documents, that to best of its knowledge and belief, the data submitted under paragraph 16.11.4 is accurate, complete, and current as of the date of agreement on the negotiated price of the Subcontract, purchase order, Change Order, Proposed Change Order, or claim settlement affecting the Subcontract.

16.11.6 **Contractor** shall make the provisions of this Article applicable to all Subcontracts or purchase orders that exceed or can be reasonably expected to exceed $150,000.

No Waiver:

16.12.1 The rights and remedies set forth in the Contract Documents are not exclusive and are in addition to any other rights and remedies provided by law or equity. The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by New York State law.

16.12.2 No act or omission by **Department** or **Contractor** shall constitute a waiver of any right or duty afforded any of them under the Contract Documents, nor shall any such act or omission constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

Comparable or Equivalent Terms:

16.13.1 **Contractor** warrants, represents and guarantees that all of the prices, terms, warranties and benefits granted to **Department** under the Contract are comparable to or better than the equivalent terms, prices, warranties and benefits offered to any other existing customer for similar Work.

16.13.2 In addition to the other remedies available, **Department** may demand repayment for any excess payment, plus interest thereon, for failure of **Contractor** to comply with paragraph 16.13.1.

Unlawful Provisions Deemed Stricken:

16.14.1 If the Contract Documents contain any unlawful provisions, such unlawful provisions shall be of no effect. Any provision determined to be unlawful by a court of competent jurisdiction, shall be deemed stricken from the Contract Documents without affecting the validity of the remaining provisions of the Contract Documents.

All legal Provisions Included:

16.15.1 All provisions of Law required to be included in the Contract Documents shall be and are inserted herein. If through mistake, neglect, oversight or otherwise, any such provision has not been included or included in improper form, upon the application of either party, the Contract Documents shall be amended in writing at no increase in Contract Price nor extension in Contract Time, so as to comply with the Law.

No Estoppel:

16.16 **Department** or any officer, employee, servant or agent thereof, shall not be estopped, bound or precluded by any determination, return, decision, approval, order, letter, payment or certificate made or given by **Engineer** or any other officer, employee, servant or agent of **Department**, at any time, either before or after final completion and acceptance of the Work and payment therefor:

16.16.1 From showing the true and correct amount, classification, quality, and character of the Work completed and materials furnished by **Contractor** or any other person under the Contract, or from showing at any time that any determination, return, decision, approval, order, letter, payment, or certificate is untrue and incorrect, or improperly made in any particular, or that the Work or the materials or any part thereof, do not in fact conform to the Contract Documents; or,

16.16.2 From demanding the recovery of any overpayments made to **Contractor**, or such damages as **Department** may sustain by reason of failure to perform each and every term, provision or condition of the Contract in accordance with its terms.

Prohibited Interests:

16.17 No official of **Department** who is authorized in such capacity on behalf of **Department** to negotiate, make, accept or approve or to take part in the negotiating, making or approving any architectural, engineering, inspection, construction or material supply contract or any Subcontractor in connection with the Work or the Project of which the Work is a part, shall be knowingly permitted by **Contractor** to become directly or indirectly interested personally in this Contract or in any part thereof. No officer, employee, architect, attorney, engineer or project representative of or for **Department** who is authorized in such capacity and in behalf of **Department** to exercise any executive, supervisory or other similar function in connection with the Work or the Project of which the Work is a part shall be knowingly permitted by **Contractor** to become directly interested personally in this Contract or in any part thereof.

SECTION IX

Supplementary Conditions

These Supplementary Conditions modify the General Conditions in section VIII.

1. Article 5, Paragraph 5.35

   The department will require "biweekly" (once every two weeks) project meetings, rather than "weekly" project meetings.

SECTION X

Standard Specifications

SPEC 00001

Progress Schedule

1) *Terms and Definitions*

The terms listed below (or pronouns in place of them) have the following intent and meanings which are applicable to both the singular and plural thereof.

a) *Activity* - A part of the Work identified in the Progress Schedule, assigned a description, duration, certain codes, and other related Shop Drawing data, and Cost and Pricing data, and evaluated to start and finish in accordance with Early and Late Schedules.

b) *Activity, Critical* - An Activity is considered to be Critical when it is evaluated to have the minimum value of Total Float Time available in the Progress Schedule.

c) *Activity, Value* - That portion of the contract Price which represents a fair value for the part of the Work identified by that Activity.

d) *As-Built Schedule* - Term used to denote record schedule drawings and data substantiating how the Work was performed as to timing, sequencing and rate of progress.

e) *Bar Chart Diagram* - A graphical representation of how the Work is to be performed as shown by timing each activity between a single choice of anticipated start and finish dates.

f) *Critical Path* - The sequence of Critical Activities from the Date for Commencement of the Contract Time, or Contract Times, to Substantial Completion of the Work, or part thereof.

g) *Critical Path Method Diagram* - A graphical representation of how the Work is to be performed as represented by the sequencing and timing of the Activities. A CPM Diagram shall either follow an "arrow" (I-J) format, wherein the start of an Activity is dependent upon the finish of preceding Activities, or a "precedence" format, wherein either the start or finish of an Activity is dependent upon either the start or finish of preceding Activities.

h) *Dummy restraints* - Activities not identifying a part of the Work, and used to preserve proper logic sequencing, avoid duplicate Activity numbering, to enforce Work Sequences indicated in or required by the Contract Documents, or to achieve other preferential sequencing chosen by Contractor.

i) *Duration (Activity)* - Estimated or required time of performance for the part of the Work represented by that Activity.

j) *Free Float* - Working days by which an Activity may be delayed from its Early Schedule, without delaying any other Activities from their Early Schedules.

k) *Contract Float* - Working days between the date(s) for Substantial Completion shown for the Work, or part thereof, in **Contractor's** anticipated Early Schedule, and the corresponding Contract Time or Contract Times.

l) *Total Float* - Working days between the Early Schedule and the Late Schedule for an Activity by which that Activity may be delayed without necessarily extending the Contract time, or Contract Times.

m) *Early Schedule (Late Schedule)* - The proposed Early Dates (Late Dates) of performance for the parts of the Work represented by the Activities. The Early dates are predicated on proceeding with the Work, or part thereof, exactly on the date when the Contract Time, or applicable Contract Time, commences to run; and the Late dates are based on achieving Substantial Completion of the Work, or part thereof, exactly on the Contract Time, or applicable Contract Times.

n) *Percent Complete* - That portion of an Activity which when multiplied by the Activity Value will yield a fair proportion of the Contract Price for that part of the Work completed.

o) *Preferential Logic* - **Contractor's** approach to sequencing of the Work over and above those sequences indicated in or required by the Contract Documents. Examples include equipment restraints, crew movements, form reuse, special logic (lead/lag) restraints, etc. factored into the Progress Schedule instead of disclosing the associated Float Times.

2) *Requirements Included*

a) Pursuant to the requirements of the Contract Documents, **Contractor** shall prepare and submit, finalize, and periodically adjust the Progress Schedule as required herein.

b) This Section of the Specifications requires **Contractor** to plan, manage, schedule and execute the Work in accordance with a Progress Schedule meeting the requirements of the Contract Documents; that **Contractor's** Progress Schedule stay current with **Contractor's** approach to performing Work remaining; that the Progress Schedule, when approved, be jointly used by **Owner**, **Engineer** and **Contractor** to substantiate or mitigate the impact of delays and Change Orders; and that **Contractor** prepare record schedule drawings and data showing how the Work is being performed as to sequencing, timing, and rate of progress.

3) *Bar Chart Description*

a) A Bar Chart Diagram does not show express logic ties, nor does it compute Early or Late Dates as defined above. Although a Bar Chart Diagram may show Contract Float time, it does not disclose Activity Total Float values.

b) Total Float and Contract Float are not for the exclusive benefit of **Owner**, **Engineer**, **Contractor**, or others, but is time available to all parties as needed for the Contract as a whole. Such Float times shall be shared between **Owner**, **Engineer**, **Contractor** and others to absorb delays which could not be mitigated by any other reasonable means.

c) Activity representative quantities, Activity Value, Activity Percent Complete data, Activity Value of Work performed, and the applicable Value of significant subcomponents. The sum of all Activity Values shall equal the corresponding Contract Price for the Work. The sum of all Activity Values for Work performed divided by the Contract Price shall equal the Percent Complete for the Work.

4) *Critical Path Method (CPM) Description*

a) The Progress Schedule shall be based on the Critical Path Method (CPM) of planning and scheduling, and prepared, finalized, and revised in accordance with the principles, definitions and

terms described hereafter and those standards of the industry for CPM scheduling which are not in conflict with this Specification.

b) CPM Diagrams shall show in detail the priority, sequencing and interdependence of Activities, and the sequence in which the Work is to be accomplished to: a) to comply with the Contract Time(s), named allowances, and those sequences of Work indicated in or required by the Contract Documents; b) to anticipate foreseeable events that may in any manner affect cost, progress, schedule, performance, and furnishing of the Work; and c) to reflect the means, methods, techniques, sequences, and procedures of construction anticipated by **Contractor**, subject to the limitations on Float sequestering set forth by this Specification.

c) Total Float and contract Float are not for the exclusive benefit of **Owner, Engineer, Contractor,** OR OTHERS, but is time available to all parties as needed for the Contract as a whole. Such Float Times shall be shared between **Owner, Engineer, Contractor** and others to absorb delays which could not be mitigated by any other reasonable means. Use of Float Time shown in the approved progress Schedule for interim milestones or Contract Times will be available to **Owner**, if required to effect proper interfacing between work performed.

d) Use of float suppression techniques such as preferential sequencing, special lead/lag logic restraints, extended Activity times, imposed Acitivity dates, scheduling items of Work required for Final Completion as though they were prerequisites to Substantial Completion, and others, and 2) use of Float time disclosed or implied by the use of alternate Float suppression techniques will be allowed, provided: a) that **Contractor** not engage in Float maniuplations which have the net effect of "sequestering" Float, that is to reduce unilaterally otherwise available Float Time by more than 50 percent; and b) that **Contractor** agrees that in order to mitigate the impact of delays to the Work, or parts thereof, adjustment or removal of such Float suppression techniques will be a prerequisite to consideration of any requests for compensation for delay or acceleration or for extensions in Contract Time.

e) The finalized Schedule of Values will be acceptable to **Engineer** as to form and substance, and will serve as the basis for progress payments.

f) The finalized Schedule of Shop Drawing submissions will be acceptable to **Engineer** as providing a workable arrangement for processing the submissions.

5) *Progress Schedule Submittals for CPM Schedules*

a) All CPM Diagrams, Schedule of Values, Schedule of Shop Drawing submissions, associated computer reports, and narratives submitted by **Contractor** shall be consistent with the requirements of this Specification.

b) The "Preliminary" submittal set shall consist of:

1) A CPM Diagram and associated Schedule of Values and a supporting narrative.

2) A User Manual for the scheduling software to be used by **Contractor** for the purposes of computation of the Progress Schedule.

c) The "Interim" submittals shall consists of the interim CPM Diagram and associated Schedule of Values and Schedule of Shop Drawings submissions and a supporting narrative.

d) The "Detailed" submittal set shall consist of:

1) The Detailed CPM Diagram, and the reports associated with the Schedule of Values, and Schedule of Shop Drawing submissions, and a supporting narrative.

2) The five associated Activity reports described in paragraph 18.A sorted by each of the first four sequencing criteria described in paragraph 18.D.

e) "Status" submittal sets shall consist of "mark-up" versions of the current Detailed CPM Diagram, Schedule of Values, and Schedule of Shop Drawings, together with a supporting narrative.

f) "Update" submittal sets shall consist of revised Detailed CPM Diagrams, Schedule of Values and Schedule of Shop Drawings, the six associated computer reports, a detailed **Contractor's** Cost report, and a supporting narrative.

g) The "Contract Completion" submittal set shall consist of the Detailed Contract Completion Schedule, and associated computer reports.

h) The "As-Built" submittal set shall consist of the As-Built CPM Diagram, and a "Schedule Reconciliation" report.

6) ***Quality Assurance of Progress Schedule***

a) **Engineer** will review and if acceptable, approve the Progress Schedule.

b) In preparing a version of the Progress Schedule, pursuant to paragraph 1.6 of the General and Supplementary Conditions, it is the responsibility of **Contractor** 1) to inspect the preaward "Preliminary Progress Schedule" submitted in compliance with Article 11 of Section III of the Contract Documents, 2) to verify site conditions that may in any manner affect cost, scheduling, progress, performance and furnishing of the Work, 3) to work with each major Subcontractor, Supplier, or other relevant person or organization to obtain information on Activities, sequencing, and Activity Durations for incorporation into the Progress Schedule, and 4) to request and obtain written interpretations from **Engineer** as needed.

c) The Detailed Progress Schedule shall break down the Work into Activities in sufficient detail to identify clearly all individual parts of the Work and those factors which may in any manner affect the cost, schedule, progress, performance, and furnishing of the Work. At a minimum, the break down of the Work in the detailed Progress Schedule submittal for CPM schedules only, shall delineate the following:

1) Those Activities designating the date for commencement of the Contract Time, or Contract Times; those Activities leading to Substantial Completion of the Work, or parts thereof; and those Activities identifying parts of the Work to be performed or furnished leading from Substantial Completion to Final Completion.

2) All special Work sequences, schedule milestones, intermediate Contract Times, and named allowances set forth in the Contract Documents.

3) Items pertaining to securing prerequisite permits and approvals from those agencies with jurisdiction over Work to be performed under the Contract.

4) All items of Work involved in the preparation, submittal, review and approval of Shop Drawings and samples required by the Specifications.

5) Appropriate times required for the fabrication, delivery, receipt and inspection, and storage of items of materials and equipment.

6) Work associated with installation, erection and other field construction activities.

7) Items of Work required to work around existing physical conditions and Underground Facilities which are at or contiguous to the site including the time for permanent or temporary relocation of such existing physical conditions and/or underground facilities.

8) Items of interface which relate to the responsibilities of **Owner**, **Engineer** or other contractors performing work under separate contracts with **Owner**.

9) Work required to implement cut-offs or closures, power shutdowns or temporary or permanent take-down or interruptions to existing facilities or affecting the operations of **Owner**, utilities or similarly involved third-parties. Specific dates when such cut-offs, etc. are to take place shall be shown as milestone dates on the appropriate Activities.

10) All items of Work related to shop and field testing, associated trimout activities and specified manufacturer or supplier training required prior to placing the facilities in service, including but not limited to manufacturer or supplier installation checks; leak, disinfection and pressure tests; removal or erection of temporary components; tie-ins; flushing and chemical/mechanical cleaning operations; specified performance tests; and other necessary non-operating tasks adjustments, cold-alignment checks, corrections, housekeeping and spare parts stocking required of **Contractor** to conform to the Pre-operational testing requirements of the Contract Documents.

11) All items of Work associated with the performance of the Start-Up Testing requirements of the Contract Documents, including, but not limited to, trial operation tests and operator training, performance tests under simulated and design operating conditions, emission testing, final acceptance or guarantee tests.

12) Work related to the tentative list of items to be completed or corrected before and subsequent to Pre-operational, Startup Testing and Final Testing.

d) The following limitations shall also apply to the selection and scoping of Activities for CPM schedules only:

1) Activity Durations shall be in working days and represent **Contractor's** best estimate of the time required for completion based on the Work included and the resources planned for that Activity. The computation of the Activity dates shall be based on a calendar recognizing the applicable holidays and the limitations on Work during hours other than the normal working hours set forth in the General Conditions and the Supplementary Conditions.

2) Unless otherwise provided in the Special Progress Schedule Requirements, all Activities, except those identifying Work related to Shop Drawings and deliveries, shall span twenty working days or less, and their Values shall not exceed $45,000. Duration requirements for Activities identifying Work related to **Engineer's** review of Shop Drawing or sample submissions are prescribed in the Special progress Schedule Requirements.

3) Installation Activities shall not combine Work located in separate structures, buildings or facilities, nor Work corresponding to different Divisions of the Specifications. Submittal and associated delivery Activities shall identify each submittal required by the Sections of the specifications. Activities identifying Work in connection with Pre-Operational or Start-up Testing shall not combine Work pertaining to the different Division within the specifications.

4) Reference is made to Article 1.11 of this specification for the identification of allowances and their incorporation into the Progress Schedule.

5) Items that qualify as (a) on-site stored materials, fixtures and equipment and (b) undelivered equipment, shall be separately identified on the Progress Schedule.

7) ***References for CPM Schedules***

a) The text "Precedence and Arrow Networking Techniques for Construction," by R.B. Harris (Wiley, 1978), provides principles, definitions and terms common to CPM arrow and precedence diagrams, and schedule computations therefrom.

b) The provisions of this Section are binding on **Contractor** in the event of a conflict between the Standard Specifications and this Specification.

8) ***Review of Progress Schedule Submittals***

a) **Engineer's** and **Owner's** review of **Contractor's** Progress Schedule submittals will be only for conformance with the Contract Time(s), those sequences of Work indicated in or required by the Contract Documents, the Float sharing concepts established in the Contract Documents, and for compliance with the requirements of this Specification and the information given in the Contract Documents. **Engineer's** and **Owner's** review, comments and exceptions taken, if any, shall not extend to, nor constitute directions nor approval of, the means, methods, techniques, sequences, or procedures of construction or safety precautions, the correctness of which shall be the sole responsibility of **Contractor**.

b) **Engineer's** and **Owner's** review of progress schedule submittals will be predicated on a **Contractor's** stamp of approval, signed off by **Contractor**. **Contractor's** stamp of approval on Progress Schedule submittals shall constitute a representation to **Owner** that **Contractor** has either determined or verified all data on the Progress Schedule submittal, or assumes full responsibility for doing so, and that **Contractor** and his Subcontractors, Suppliers or other persons or organizations have reviewed and coordinated the sequences shown in the Progress Schedule with the requirements of the Work under the Contract Documents.

c) Engineer's and Owner's review will not be intended to be for the purpose of determining the accuracy of other matters that may be contained in the submittals. When the review of a Progress Schedule results in a number of comments or exceptions taken, **Engineer** and **Owner** does not warrant that these comments are inclusive of all variations, as it shall remain the responsibility of **Contractor** to meet the requirements of the contract documents and to identify expressly any proposed variations.

d) **Engineer's** and **Owner's** review of progress schedule submittals shall not relieve **contractor** from responsibility for any variations from the requirements of the Contract Documents unless **Contractor** has in writing, by means of a specific notice, called **Engineer's** attention to each variation, and **Engineer** has given written approval of each such variation by a specific written notation thereof incorporated in or accompanying the Progress Schedule submittal.

e) Engineer's approval of Progress Schedule submittals will not relieve **Contractor** from responsibility for errors and omissions in the submittals or from responsibility for having complied with the provisions of paragraph 1.08.D above. Approval of a Progress Schedule with undisclosed variations or errors such as omitted Work or erroneous sequences will not relieve **Contractor** from completing the omitted or impacted Work within the applicable Contract Time(s).

f) Progress Schedules that include Activities with negative Float Times, or Activities scheduled beyond the applicable Contract Time(s), will not be approved until a specific Change Order or

Proposed Change Order authorizing appropriate changes to the impacted Contract Time(s) is agreed upon between **Owner** and **Contractor**.

g) When reviewed by **Engineer** and **Owner**, each progress schedule submittal will be returned stamped as either "approved," "approved as noted," "resubmit with revisions," or "disapproved." Submittals stamped as "approved" or "approved as noted" will indicate approval thereof, subject to the limitations set forth, and will be considered to represent the approved progress schedule as of the date in the approval stamp until an updated progress schedule is submitted by **Contractor** and approved by **Owner** and **Engineer**.

h) If **Contractor** believes that **Engineer's** approval of a progress schedule justifies an increase or decrease in contract price or an extension or shortening in contract time, **Contractor** shall be required to deliver a proposed change order thereof to **Engineer** in accordance with the provisions of article 9 of the general conditions. If **Owner** and **Contractor** are unable to agree as to amount and extent thereof, a claim maybe made pursuant to Articles 10 and 11 of the General Conditions.

i) Costs associated with **Engineer's** and **Owner's** review and return of a progress schedule submission after the **Engineer's** second time review shall be borne by **Contractor**. **Owner's** charges to **Contractor** for additional reviews will be equal to **Engineer's** charges to **Owner** under the terms of **Engineer's** agreement with **Owner**. In the event **Contractor** fails to pay such costs within 30 days after receipt of an invoice from **Owner**, a change order or proposed change order will be issued incorporating the unpaid amount, and **Owner** will be entitled to an appropriate decrease in Contract Price.

j) No partial submittals will be reviewed. Submittals not complete will be returned to **Contractor** for resubmittal.

9) *Delays and Recovery*

a) Reference is made to the General Conditions and the Supplementary Conditions for Contract requirements related to delays, conditions warranting extensions in Contract Time(s), and conditions applicable to reimbursement for delay costs.

b) Whenever **Contractor** fails to complete an activity within its late date on the approved progress schedule, **Contractor** shall, within five days or with the next application for payment, whichever comes earlier, submit a written statement to **Engineer** describing the cause for the slippage in the Activity and the actions being considered by **Contractor** to recover the time lost and to prevent or mitigate any derived slippage beyond the applicable Contract Time(s).

c) A written schedule recovery statement shall include, but not be limited to, such actions as overlapping of dependent Activities, sequencing changes to accommodate increased Activity concurrency, assignment of additional labor or equipment, shift or overtime Work, expediting of submittals or deliveries, or any combination of the foregoing.

d) If **Contractor** refuses, fails or neglects to submit a required written schedule recovery statement, **Owner** may, at its option, withhold additional retainage pursuant to the Contract Documents and/or initiate default termination proceedings in accordance with Contract Documents or request **Engineer** to identify and to order alternate recovery actions on the basis of the information in the current Progress Schedule. If **Contractor** believes that a written order to recover schedule from Engineer justifies an increase in Contract Price or an extension in Contract Time, **Contractor** shall be required to deliver a written request thereof in accordance with the provisions of Article 9 of the General Conditions. If **Owner** and **Contractor** are unable to agree as to responsibility for the

slippage in the schedule or the amount and extent thereof, a claim may be made pursuant to Articles 10 and 11 of the General Conditions.

10) *Early-Completion Progress Schedules*

a) Progress Schedules anticipating achievement of Substantial Completion ahead of the corresponding Contract Time(s), and disclosing appropriate Contract Float Time(s) for the Work, or parts thereof, shall be considered equivalent or equal to Progress Schedules anticipating Substantial Completion exactly on the Contract Time(s). In accordance with requirements of the Contract Documents, the contract Float Time in these equivalent or equal Progress Schedules will be available to **Owner**, **Engineer**, **Contractor** and others to absorb delays to the Work as a whole which cannot be mitigated by any other means.

b) Progress Schedules anticipating achievement of Substantial Completion ahead of the corresponding Contract Time(s), but with zero Contract Float as opposed to positive Contract Float, will be returned as either "Approved as Noted," "Resubmit with Revisions," or "Disapproved." Submittals stamped as "Approved as Noted" will indicate **Engineer's** approval thereof, subject to the limitations set forth, including **Engineer's** computation of the appropriate Contract Float implied by the anticipated early completion.

c) If upon approval (or approval as noted) by **Engineer** of a Progress Schedule with disclosed or implied Contract Float Time, **Contractor** disputes the availability of Contract Float and proposes that compensation for delay shall be measured from the anticipated early completion date(s) as opposed to the corresponding Contract Time(s), **Contractor** agrees and understands that said proposal will represent a request to **Owner** that the approved Progress Schedule be evaluated as a substitute Progress Schedule for the purposes of changing the Contract Time(s) to those supported by the **Contractor's** early-completion Progress Schedule. Evaluation of that substitution will be in accordance with the requirements of paragraphs 5.7.1, 5.7.2 and 5.7.3 of the General conditions, and will require additional supporting data that explains and substantiates the basis of the anticipated Early Schedules. Such supporting data shall consist of: 1) notice of any scheduled Work during hours other than normal work hours, 2) information related to rates of production including pertinent quantities, crew sizes, man-day requirements, major items of equipment, etc., for Critical and other significant Activities, 3) express or implied contingency allowances figured in for Activities for such factors as weather, delays, activities of **Owner** AND **Engineer** to respond to reports of differing site conditions, and other relevant factors. Acceptance of that substitution will be evidenced by a Change Order shortening the Contract Time, or Contract Times accordingly, but maintaining the Contract Price and the provisions for liquidated and actual damages set forth in the Agreement.

11) *Cash Allowance - Scheduling Subcontractor*

a) It is understood that **Contractor** has included in the Contract Price the allowance stipulated in the Bid Form so named in the Contract Documents and shall cause the Work so covered to be done by the Scheduling Subcontractor and for such sums within the allowance as maybe acceptable to **Owner** and **Engineer**.

b) It is also understood that **Contractor** has included in the Contract Price sufficient funds to cover all costs in excess of the allowance in connection with Work to be done by the Scheduling Subcontractor.

c) **Contractor's** costs for administering the performance of Work by the Scheduling Subcontractor, for participating in the preparation of the required progress Schedule submittals, for overhead, profit and other expenses contemplated for the allowance have been included in the Contract Price for the

shall submit a separate bid breakdown (see Section V, article 1a.) for this item showing the individual cost per month for providing these items in the scope of work for this Bid Item.

B. Site Security

The **CONTRACTOR** shall be responsible for maintaining day and night security within the project site area throughout the contract period as specified in Section 01540.

C. Fencing

The **CONTRACTOR** shall maintain all site fencing including temporary fencing around the exclusion zones and provide all necessary repair in an expeditious manner.

D. Field Offices

The **CONTRACTOR** shall maintain the field offices provided for the **DEPARTMENT** and the **ENGINEER**, as described in Bid Item 1 Section I, in good working order.

E. Temporary Utilities

The **CONTRACTOR** shall maintain temporary utilities provided in Bid Item 1 in working order for the duration of the project.

F. Erosion and Surface Water Controls

The **CONTRACTOR** shall maintain effective erosion and surface water controls as necessary, as specified in Sections 01560 and 02220.

G. Disposal of Contractor-Generated Waste

The CONTRACTOR shall provide for periodic disposal of generated wastes.

H. Meteorological Station

The **CONTRACTOR** shall maintain the portable meteorological station provided under Bid Item 1 for the continuous observation and recording of wind speed, wind direction, ambient air temperature, atmospheric pressure, humidity and precipitation.

I. Survey Controls

The **CONTRACTOR** shall maintain survey controls and verify grades and elevations.

J. Staging Areas

The **CONTRACTOR** shall maintain staging areas as described in section 01520 - Temporary Facilities as necessary and as indicated by the **ENGINEER**.

4.3 Bid Item 3 - Health and Safety

4.3.1 Scope of Work

A. General

1. The **CONTRACTOR** shall develop and implement a Health and Safety Plan to protect all site personnel including those of the **DEPARTMENT**, all site visitors, and the community. Compliance shall be strictly adhered to and enforced by the **CONTRACTOR.** Section 01120 describes the minimum requirements for the Health and Safety Plan and is to be used by the **CONTRACTOR** to develop the site-specific HASP. These plans must be prepared and signed by a certified industrial hygienist or certified safety professional experienced in hazardous materials handling procedures. The **CONTRACTOR** shall include all those costs associated with meeting these requirements, the OSHA requirements, and federal and state laws not provided for elsewhere.

B. Health and Safety Officer

1. The **CONTRACTOR** shall provide a full-time Health and Safety Officer (HSO) at the site. The HSO shall know and understand health and safety requirements of the site-specific HASP, OSHA, and the EPA health and safety guidelines. The HSO should be a registered Emergency Medical Technician (EMT), and shall know and understand hazardous waste handling procedures and health and safety requirements. If the HSO is not an EMT, then a separate EMT must be available to respond to all emergencies at the site. The HSO shall know and understand air monitoring techniques and shall provide for all necessary air monitoring required at the Site. The HSO will be on site at all times during work until Contract completion and shall not be assigned other responsibilities. The HSO shall work under the direction and guidance of the certified industrial hygienist or certified safety professional that prepared and signed the HASP. A HSO must be present on site at all times during site remediation.

C. Decontamination Station

1. High pressure, low volume cleaning shall be used at the decontamination station. Steam cleaning shall be required on all heavy equipment prior

to leaving the site. At a minimum, two laborers with adequate protection as required in the HASP shall be in the decontamination area during decontamination of equipment. All equipment leaving the site must be decontaminated. The Station shall be cleaned as necessary but at least once per working day. No ice, snow, or soil is to be allowed to build up on the station. The holding tank shall be pumped as necessary to prevent overflow. All penetrations into the decontamination station which might cause leakage through the decontamination station including cracks shall be repaired immediately.

2. The removal and proper disposal of the decontamination water shall be to a permitted Treatment, Storage, and Disposal Facility (TSDF), Solid Waste Management Facility (SWMF), Publicly Owned Treatment Works (POTW), Waste Water Treatment Plant (WWTP) or Sewage Treatment Plant (STP), as appropriate. The cost for disposal of decontamination water shall be included in the unit price bid for this Item. Final disposal will be subject to relevant TSCA and RCRA regulations and specific requirements of the disposal facility. The **CONTRACTOR** shall be responsible for obtaining and meeting the specific requirements of the disposal facility for proper disposal.

3. Decontamination of equipment shall be in accordance with acceptable cleaning practices as described in the **CONTRACTOR's** Work Plan and the HASP. Decontamination of heavy equipment shall be performed with steam in such a manner as to confine the spray to the decontamination station.

D. Health and Safety Equipment

1. The **CONTRACTOR** shall maintain all health and safety equipment in perfect working order or replace the item immediately. The **CONTRACTOR** shall provide health and safety equipment for up to four **ENGINEER** personnel. Respirators are not included; however, the appropriate cartridges are.

E. Decontamination Trailer and Personal Hygiene Facility

1. The decontamination trailer and personal hygiene facility shall be kept clean at all times during the Contract. The O&M shall be in accordance with the HASP. The trailer and facility shall have adequate size for the number of **CONTRACTOR** and **ENGINEER'S** personnel using them.

F. Dust Control

1. Provide fugitive dust control in accordance with TAGM 4031 - "Fugitive Dust Suppression and Particulate Monitoring Program at

Inactive Hazardous Waste Sites."

G. Sampling, Analyses, Handling and Disposal of Personal Protective Equipment (PPE) and Decontamination Wastes not specifically included in other Bid Items.

4.4 Bid Items 4A, 4B, and 4C - Utility Installation

4.4.1 Scope of Work

A. The **CONTRACTOR** shall furnish/supply and install all materials, equipment, incidentals, and labor necessary to install water and sewer lines as shown on the plans in the yard area, which shall include, but may not be limited to the following:

4A. Water Line Installation

Install approximately 165 LF of water line as per section 02600 including trenching, testing, and backfilling. A shutoff valve will be provided prior to the slab, and the line will be extended 10' past the slab and capped.

4B. Sewer Line Installation

Install approximately 155 LF of sewer line as per section 02500 and one sewer manhole as per Section 02606 including trenching, testing, and backfilling. The sewer is to run from the existing manhole in the yard area to a point 10' north of the slab, where it will terminate in a manhole.

4C. Storm Sewer Installation

Install approximately 125 LF of 12" HDPE storm sewer line across the cooling water pond to connect the roof drain to existing storm water piping. Alignment will be as shown on contract drawings including trenching, and backfilling.

4.5 Bid Items 5A - Soil Removal from Yard Area, on-site disposal.

4.5.1 Scope of Work

A. The **CONTRACTOR** shall furnish/supply and install all materials, equipment, incidentals, and labor necessary to completely and properly handle and dispose of demolition materials, and soils in the yard area, as shown on the plans, which shall include, but may not be limited to the following:

1. Soil, asphalt, and concrete excavation and on-site disposal;

2. The use of airborne-dust control methods;

3. All soils as shown on the contract drawings and approved by the **ENGINEER** for excavation and consolidation shall be paid for under these bid items. All unapproved excavations (i.e. beyond the approved excavation limits) shall be properly backfilled by the **CONTRACTOR**. The **CONTRACTOR** shall not be reimbursed for excavation, consolidation or backfilling of unapproved excavations;

4. Securing all necessary and applicable permits, certificates, approvals, and payment of associated fees required for this work;

5. Any and all other items, including support facilities, required to complete the scope of work as specified and directed herein.

6. Any and all dewatering necessary to remove soils from the yard area and place them appropriately.

4.6 Bid Items 5B - Sediment Removal

4.6.1 Scope of Work

A. The **CONTRACTOR** shall furnish/supply and install all materials, equipment, incidentals, and labor necessary to completely and properly excavate sediments as shown on the plans, which shall include, but may not be limited to the following:

1. Characterization Sampling

   The **CONTRACTOR** shall sample the sediment in the downstream pond as described in sections 02221 - Sediment Excavation and 01425 - Characterization and Verification Sampling.

2. Sediment excavation and on-site disposal;

3. All sediments as shown on the contract drawings and approved by the **ENGINEER** for excavation and consolidation shall be paid for under these bid items. All unapproved excavations (i.e. beyond the approved excavation limits) shall be properly backfilled by the **CONTRACTOR**. The **CONTRACTOR** shall not be reimbursed for excavation, consolidation or backfilling of unapproved excavations;

4. Any and all dewatering necessary to remove the indicated sediments and place them appropriately.

5. Securing all necessary and applicable permits, certificates, approvals,

and payment of associated fees required for this work;

6. Any and all other items, including support facilities, required to complete the scope of work as specified and directed herein.

4.7 Bid Item 5C - Excavation of New Pond

4.7.1 Scope of Work

A. The **CONTRACTOR** shall furnish/supply and install all materials, equipment, incidentals, and labor necessary to completely and properly handle and dispose of demolition materials, and soils in the yard area, as shown on the plans, which shall include, but may not be limited to the following:

1. Soil and sediment excavation and on-site backfill and compaction;

2. The use of airborne-dust control methods;

3. All soils as shown on the contract drawings and approved by the **ENGINEER** for excavation and consolidation shall be paid for under these bid items. All unapproved excavations (i.e. beyond the approved excavation limits) shall be properly backfilled by the **CONTRACTOR**. The **CONTRACTOR** shall not be reimbursed for excavation, consolidation or backfilling of unapproved excavations;

4. Securing all necessary and applicable permits, certificates, approvals, and payment of associated fees required for this work;

5. Any and all other items, including support facilities, required to complete the scope of work as specified and directed herein.

6. Any and all dewatering necessary to remove soils from the new pond area and place them appropriately.

4.8 Bid Item 6 - Concrete Slab Construction

4.8.1 Scope of Work

A. The **CONTRACTOR** shall furnish/supply and install all materials, equipment, incidentals, and labor necessary to completely and properly prepare the yard area and construct an 8" thick concrete slab with a 4" granular subbase, which shall include, but may not be limited to the following:

1. Grading and compaction of subgrade material.

2. Place, grade and compact 4" granular subbase.

3. Construct concrete forms.

4. Placement of reinforcement mesh.

5. Shipping and delivery of concrete.

6. Forming and sealing of construction joints and isolation joints.

7. Provide for the proper curing of the concrete, including any required environmental controls.

8. Finishing and sealing of the completed slab.

9. Any and all other items, including support facilities, required to complete the scope of work as specified and directed herein.

4.9 Bid Items 7A, 7B and C - Site Restoration

4.9.1 Scope of Work

A. The **CONTRACTOR** shall furnish/supply and install all materials, equipment, incidentals, and labor necessary to completely and properly place geotextile stabilization fabric in the landfill area and seed the excavation areas as directed by the **ENGINEER** so as to establish an acceptable vegetative or stable cover which shall include, but may not be limited to the following:

1. Fertilizing the areas to be seeded as specified.

2. Seeding and mulching the excavation areas as specified.

3. Excavation of approximately 600 CY of soil in the former landfill area to provide positive drainage away from the yard area.

4. Installation of geotextile in the disturbed area of the former landfill, and replacement of existing crushed stone cover.

4. The **CONTRACTOR** shall guarantee the establishment of the vegetative cover, as specified in Section 02900 - Restoration.

4.10 Bid Items 8 -Sampling

4.10.1 Scope of Work

A. The **CONTRACTOR** shall furnish/supply all materials, equipment, incidentals, and labor necessary to completely and properly conduct confirmatory sampling which shall include, but may not be limited to the following:

1. Collection of characterization samples to delineate the areal extent of contaminated wetland sediment, and proper delivery of samples to a laboratory approved by the **ENGINEER** for analysis. Analysis of the samples as specified.

2. Providing proper QA/QC documentation.

3. Provide final written sample result documentation as specified herein.

4. Turn around times shall be 48 hours on all lab analytical samples.

4.11 Bid Items 9 - Monitoring Well Installation

4.11.1 Scope of Work

A. The **CONTRACTOR** shall furnish/supply and install all labor, tools, materials, equipment, and incidentals to provide all work necessary to install and develop four (4) shallow overburden monitoring wells, as described in section 02670 and shown on the contract drawings.

*** END OF SECTION ***

SECTION 01011

PROJECT SUBMITTALS

1. General

1.1 Description

The Contractor shall prepare and submit plans and drawings as listed below and as scheduled for **DEPARTMENT's** review.

1.2 Project Plans

The contractor shall submit the following plans for the Work:

A. Health and Safety Plan (Refer to Section 01120).

1. Health and Safety.
2. Decontamination of Equipment and Personnel.
3. Contingency Measures.
4. Community Air Monitoring.

B. Work Plan (Refer to Section 01010).

1. Quality Control.
2. Sequencing of Work.
3. Soil Erosion and Sedimentation Control Measures.
4. Site Security.
5. Miscellaneous Requirements.

C. Sampling and Analysis Plan (Refer to Section 01425).

1. Sampling Procedures.
2. Analytical Methods.
3. Quality Assurance Project Plan.

1.3 Shop Drawings

A. The following shop drawings are to be submitted:

1. Electrical Supply and Lighting.
2. Water Supply and Use Requirements.
3. Temporary Site Facilities.
4. Concrete: Shop drawings indicating placement of all reinforcing, location of joints, sealing of joints, etc.
5. Concrete Sanitary Sewer Manhole Detail
6. Other drawings as requested by the Engineer.

1.4. Other Submittals

A. Major submittal requirements identified in other sections of the Specifications are listed below, however, this list is not inclusive of all submittal required elsewhere:

1. Progress Schedule Submittal.
2. Erosion control plan.
3. Sediment removal plan.
4. Grading plan to provide drainage away from the slab through the landfill area.
5. Meteorological monitoring results.
6. Identification of subbase suppliers.
7. Samples and grain size analyses of subbase materials.
8. Daily air monitoring logs and results.
9. Laboratory results of documentation monitoring.
10. Dust control and roadway maintenance plan.
11. Name and location of concrete batch plant.
12. Concrete design mix.
13. Seed mix
14. Immunoassay field test kit
15. Sediment analytical results
16. Slump, air content and compressive strength test results
17. Sheeting and Bracing
18. Water line valves and appurtenances, Pipe(s) and joint(s)
19. Subcontractors
20. Security logs and watchman's clock tapes
21. All other submittal as required by the section(s) of these Specifications applicable to the Work being performed or as requested by the Engineer.

1.5 Submittals on Survey

A. Drawings

1. Initial topographic map
2. Intermediate topographic maps
3. As-built topographic maps

B. Records

1. AutoCad Version 14 higher compatible electronic files of all surveys.
2. Field Data

3. Coordinate List
4. Volume Quantity Calculations

1.6 Final Submittals

A. The following Project record documents shall be submitted to the Department prior to submission of the final Application for Payment.

1. One (1) set of all Site drawings, sketches and Specifications marked up by Contractor to show "as-built" conditions and key dimensions.

2. AutoCad Version 14 or higher compatible electronic files of all "as-built" drawings.

3. Updated submittal register and listings of all plans, product data, catalog cuts, shop drawings, samples, test results and other information submitted to the Engineer during the course of the Project.

4. Original laboratory test data including log books, instrument outputs, and calculations.

5. Notarized copies of all warranties and guarantees.

* END OF SECTION *

SECTION 01040

COORDINATION

1. GENERAL

1.1 Description

A. The **CONTRACTOR** shall be solely responsible for the coordination of schedules for any and all of his subcontractors. The **ENGINEER** shall approve all schedules and the **CONTRACTOR** shall coordinate all time schedules to be used for construction.

B. The **CONTRACTOR** shall promptly furnish the **ENGINEER** with such data as may be requested in accordance with **ENGINEER's** review of the project schedule and incorporate required revisions. Updated detailed project schedules will be required biweekly.

C. It shall be the duty of the **CONTRACTOR** to conform to the specified schedule and to arrange his work in such a manner that it will be completed within the time limits indicated.

D. The **CONTRACTOR** shall coordinate his letting of subcontracts (if any), material purchases, delivery of materials, sequence of operations, etc., to conform to the schedule and shall furnish proof of same as required by the **ENGINEER**.

E. The **CONTRACTOR** is required to consult with and fully cooperate with the **ENGINEER** in regard to any changes to the schedule that may be required.

F. Prior to a proposed subcontractor in excess of $10,000 (except disposal facilities) working on the project, the subcontractor must submit the complete, properly executed New York State Uniform Contracting Questionnaire, as appropriate and acceptable to the **DEPARTMENT** (see Section V - Article 2(e), page V-27). The **DEPARTMENT** requires a minimum of two (2) weeks to review.

G. The **CONTRACTOR** shall submit a complete list of proposed subcontractors (including disposal facilities) identifying name, address, telephone number, contact, type of work to be subcontracted, dollar amount and M/WBE status. No subcontractors can begin work without the written approval of the **DEPARTMENT**.

2. PRODUCTS

Not applicable.

3. EXECUTION

Not applicable.

* END OF SECTION *

SECTION 01050

SURVEYS

1. GENERAL

1.1 References

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION - NYSDOT Spec., Standard Specifications --- Construction and Materials (Latest Edition)

1.2 Related Sections

Section 02220, Excavation
Section 02110, Site Clearing
Section 02900, Restoration

1.3 Submittals

Submit the following in accordance with Section VIII, Article 5.23 - 5.29, "Shop Drawings and Samples." The submittals described below are minimum requirements for surveying. Additional surveys needed to document quantities for payment will also be performed as directed by the ENGINEER.

1.3.1 Drawings

A. Initial topographic map

Provide topographic maps of project site which refers to the yard area, cooling pond area, pond and other areas where site activities will be conducted, and utilities all prior to site disturbance. Elevations will be provided for all control points in the yard (all building corners, doorways, manholes, etc.) and for the floor of the cooling water pond.

B. Intermediate drawings

Provide an intermediate survey drawing delineating the area and depth of all excavations prior to backfilling and the location of all confirmatory soil and sediment sample points. Also show all installed utilities (water sanitary sewer and storm sewer), including inverts at all changes in vertical alignment.

C. As-built topographic maps

Upon completion of the slab, excavation of the wetland and "new pond," filling of the pond, and restoration of all disturbed surfaces.

1.3.2 Records

A. AutoCad Version 14 or higher compatible electronic files of all surveys provide data in electronic format.

B. Field Data

Original final survey book (hard bound) upon completion of each phase of survey work Include all field notes, notations, and descriptions used and compiled during the field survey. Photocopies or carbon copies are not acceptable.

C. Coordinate List

Final coordinate list of all survey points with specific coordinates and elevations.

D. Volume Quantity Calculations

All calculations required to support requests for payments and verifications of volumes and areas involved.

2. PRODUCTS

Not applicable.

3. EXECUTION

3.1 General

A. The following surveys must be conducted during the project, and will form the basis of measurement for payment of most cubic yard, linear foot, and square foot pay items:

1. An initial site survey to establish and verify existing site conditions, and to properly lay out the work as shown on the Drawings.

2. Spot elevations and locations shall be established and surveyed as necessary to ensure that work is installed to the grades shown on the Drawings, including spot elevations of any drainage structures.

3. Following soil and sediment excavations, the limits shall be surveyed to document the volumes of material that have been removed, as a base survey for measurement of materials. This survey shall include the locations and elevations of all final verification samples which were the basis of limiting further excavations.

4. During construction of the concrete slab, the subbase will be surveyed before installation of the concrete, and the concrete surface will be surveyed.

5. Well locations and there corresponding elevations of the top of casing shall be surveyed in as specified in Section 02670.

B. All work in this section shall be performed by a licensed professional land surveyor registered to practice in the State of New York.

3.1 Horizontal and Vertical Control

Horizontal and vertical control points shall be referenced to the permanent site control monuments to an accuracy of one part in ten thousand. Provide control points at each location of work using closed traverse and leveling and fill limits to document the areas remediated.

3.2 As-built Topographic Maps

Reproducible base map at a scale of 1 inch = 60 feet, maximum with 1-foot elevation contours upon which the **CONTRACTOR** shall plot the required survey information for each required submittal.

Mapping shall conform to the National Map Accuracy Specifications and shall bear the seal of a licensed land surveyor registered in New York. Map shall contain a title block with the name and address of the **CONTRACTOR** and the seal and signature of the registered surveyor. As-built drawings shall include labeled contour lines, property line locations, horizontal grid systems, cross-sections and details modified to show "as-built" conditions, details and cross-sections not on original drawings, and any field changes of elevations, dimensions, and details.

Indicate locations of physical features on the yard area, old pond area, new pond area, and other areas which were used for site activities including: utilities, roadways, culverts, manholes, utility poles, drainage ditches, monitoring wells, and bench marks.

Indicate on a separate drawing: excavation limits and verification sampling points.

3.4 Coordinate List

Compute the coordinates of each surveyed point on the New York State Plane Coordinate System using the 1983 North American Datum. The elevations shall be on the National Geodetic Vertical Datum.

3.5 Site Control

Provide one permanent site control monument with elevations referenced to a National Geodetic Vertical Datum (NGVD) benchmark and coordinates referenced to the New York State Plane (NAD 83) Datum. The monument locations and elevations shall meet the Federal Geodetic Control Committee Standard for second order (horizontal and vertical). Final locations will be reviewed by the **ENGINEER** for acceptability.

3.6 Survey Notes

Record all field work in a clear, legible, and complete manner. The Field Notes shall contain a complete description of the nature and location of the new and existing points. The record shall also include a sketch of the point locations, and the monument witness points.

*** END OF SECTION ***

SECTION 01100

DECONTAMINATION STATION

1. GENERAL

1.1 General Requirements

The **CONTRACTOR** shall construct and place a decontamination pad. Each decontamination pad will be equipped with a drain system and holding tank on a properly graded area that has no deleterious material. The **CONTRACTOR** shall obtain and analyze one soil sample at the area where the decontamination pad is to be built and one soil sample after the pad has been dismantled, as directed by the **ENGINEER**. The cost associated with the samples shall be included in the site preparation cost.

1.2 Related Sections

A. All Plans and provisions of the Agreement, including Amendments and Specific Conditions and other Division 1 sections, apply to the work of this section.

B. Other related sections include:

1. Section 01120 Minimum Requirements for Health and Safety.

2. Section 01520 Temporary Facilities and Controls.

3. Section 02223 Transportation and Disposal.

1.3 Submittals

Shop drawings of the decontamination pad shall be submitted to the **ENGINEER** for approval.

2. PRODUCTS

See related Sections.

3. EXECUTION

A. The **CONTRACTOR** shall be responsible for the provision of an adequately equipped decontamination pad which shall meet the following requirements:

1. Adequate dimensions to contain wash water and debris from the largest sized vehicles to be utilized in this contract. All vehicles and construction equipment leaving a contaminated zone shall be decontaminated.
2. Perimeter to be curbed and provided with splash guards.

3. A 40 mil impervious HDPE membrane is required to prevent seepage into the ground.

4. Sumps, pumping facilities, and temporary storage facilities to be adequate for anticipated use.

5. Temporary storage facility may be mobile tankers or suitable fixed tanks. Fixed tanks shall be located within secondary containment areas capable of containing 100% of the tank capacity, or 110% of the largest tank where the secondary containment area holds more than one tank. The secondary containment area shall have a permeability of not more than 1.0×10^{-7} cm/sec.

6. The decontamination pad is to be located at the exit of each contaminated zone such that previously non-contaminated areas are not contaminated during remedial activities. This may require the construction and use of multiple decontamination pads.

7. The CONTRACTOR shall place a minimum of six (6) inches of sand under the decontamination pad.

8. There shall be side wall panels, six (6) feet high minimum on two sides to prevent over spray.

C. The CONTRACTOR shall clean the decontamination pad after daily use. No contamination shall be left behind. The CONTRACTOR will be required to dismantle, remove and properly dispose of the pad at their own expense.

* END OF SECTION *

SECTION 01120

MINIMUM REQUIREMENTS FOR HEALTH AND SAFETY

1. GENERAL

1.1 Description

The **CONTRACTOR** is responsible and liable for the health and safety of all on-site personnel and any off-site community potentially impacted by the remediation.

This section describes the minimum health and safety requirements for this project including the requirements for the development of a written Health and Safety Plan (HASP). All on-site workers must comply with the requirements of the HASP. The **CONTRACTOR's** HASP must comply with all applicable federal and state regulations protecting human health and the environment from the hazards posed by activities during this site remediation. The HASP is a required deliverable for this project. The HASP will be reviewed by the **ENGINEER**. The **CONTRACTOR** will resubmit the HASP, addressing all review comments from the **ENGINEER**. The **CONTRACTOR** shall not initiate on-site work in contaminated areas until an approved HASP addressing all comments has been issued.

Consistent disregard for the provision of these health and safety specifications shall be deemed just and sufficient cause for immediate stoppage of work and/or termination of the Contract or any Subcontract without compromise or prejudice to the rights of the **DEPARTMENT** or the **ENGINEER**.

Any discrepancies between this HASP and the specifications shall be resolved in favor of the more stringent requirements as determined by the **ENGINEER**.

1.2 Basis

The Occupational Safety and Health Administration (OSHA) Standards and Regulations contained in Title 29, Code of Federal Regulations, Parts 1910 and 1926 (20 CFR 1910 and 1926) and subsequent additions and/or modifications, the New York State Labor Law Section 876 (Right-to-Know Law), the Standard Operating Safety Guidelines by the United States Environmental Protection Agency (EPA), Office of Emergency and Remedial Response and the Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities (NIOSH, OSHA, USCG, and EPA) provide the basis for the safety and health program. Additional specifications within this section are in addition to OSHA regulations and reflect the positions of both the EPA and the National Institute for Occupation Safety and Health (NIOSH) regarding procedures required to ensure safe operations at abandoned hazardous waste disposal sites.

The safety and health of the public and project personnel and the protection of the environment will take precedence over cost and schedule considerations for all project work. Any additional costs will be considered only after the cause for suspension of operations is addressed and work is resumed. The **ENGINEER's** on-site representative and the **CONTRACTOR's** Superintendent will be kept appraised, by the Safety Officer, of conditions which may adversely affect the safety and

health of project personnel and the community. The **ENGINEER** may stop work for health and safety reasons. If work is suspended for health and/or safety reasons, it shall not resume until approval is obtained from the **ENGINEER**. The cost of work stoppage due to health and safety is the responsibility of the **CONTRACTOR** under this Contract.

1.3 Health and Safety Definitions

The following definitions shall apply to the work of this Contract:

A. Project Personnel: Project personnel include the **ENGINEER**, the **ENGINEER's** On-site Representatives, **CONTRACTOR**, Subcontractors, and Federal and State Representatives, working or having official business at the Project Site.

B. Authorized Visitor: Authorized visitors who work for the State of New York shall receive approval to enter the site from the **DEPARTMENT**. The Safety Officer has primary responsibility on determining who is qualified and may enter the site. The Site Safety Officer will only allow authorized visitors with written proof that they have been medically certified and trained in accordance with 29 CFR 1910.120 to enter the contamination reduction zone and/or exclusion area.

C. Health and Safety Coordinator (HSC): The HSC shall be a Certified Industrial Hygienist (CIH) or Certified Safety Professional (CSP) retained by the **CONTRACTOR**. The HSC will be responsible for the development and implementation of the HASP.

D. Safety Officer (SO): The SO will be the **CONTRACTOR's** on-site person who will be responsible for the day-to-day implementation and enforcement of the HASP.

E. Health and Safety Technicians (HST): The HST(s) will be the **CONTRACTOR's** on-site personnel who will assist the SO in the implementations of the HASP, in particular, with air monitoring in active work areas and maintenance of safety equipment.

F. Medical Consultant (MC): The MC is a physician retained by the **CONTRACTOR** who will be responsible for conducting physical exams as specified under the Medical Monitoring Programs in this section.

G. Project Site: The area designated on the Site Sketch, which includes the Contractor Work Area.

H. Contractor Work Area: An area of the project site including the Support Zone, access road, staging area, and Exclusion Zone.

I. Contractor Support Zone: An area of the Contractor Work Area outside the Exclusion Zone, accessible for deliveries and visitors. No persons, vehicles, or equipment may enter these areas from the Exclusion Zone without having gone

through specified decontamination procedures in the adjacent Contamination Reduction Zone.

J. Staging Areas: Areas within the Exclusion Zone for the temporary staging of contaminated soil and debris.

K. Exclusion Zone: The innermost area within the Contractor Work Area that encloses the area of contamination. Protective clothing and breathing apparatus as specified in the health and safety requirements and in the **CONTRACTOR's** approved HASP must be worn.

L. Contamination Reduction Zone: An area at the Exit Point of the Exclusion Zone through which all personnel, vehicles, and equipment must enter and exit. All decontamination of vehicles and equipment and removal of personal protective clothing and breathing apparatus must take place at the boundary between the Exclusion Zone and the Contamination Reduction Zone.

M. **ENGINEER's** on-site representative: The **ENGINEER's** representative assigned responsibility and authority by the **ENGINEER** for day-to-day field surveillance duties.

N. Work: Work includes all labor, materials, and other items that are shown, described, or implied in the Contract and includes all extra and additional work and material that may be ordered by the **ENGINEER**.

O. Monitoring: The use of direct reading field instrumentation to provide information regarding the levels of gases and/or vapor, which are present during remedial action. Monitoring shall be conducted to evaluate employee exposures to toxic materials and hazardous conditions.

1.4 Responsibilities

The **ENGINEER** will be responsible for the following:

A. Reviewing the HASP for the acceptability for its personnel and the impact on the site and human health.

B. Reviewing modifications to the HASP.

The **CONTRACTOR** will be responsible for the following:

The **CONTRACTOR** will perform all work required by the Contract Documents in a safe and environmentally acceptable manner. The **CONTRACTOR** will provide for the safety of all project personnel and the community for the duration of the Contract.

The **CONTRACTOR** shall:

A. Employ an SO who shall be assigned full-time responsibility for all tasks herein described under this HASP. In the event the SO cannot meet his responsibilities, the **CONTRACTOR** shall be responsible for obtaining the services of an "alternate" SO meeting the minimum requirements and qualifications contained herein. No work will proceed on this project in the absence of an approved SO.

B. Ensure that all project personnel have obtained the required physical examination prior to and at the termination of work covered by the contract.

C. Be responsible for the pre-job indoctrination of all project personnel with regard to the HASP and other safety requirements to be observed during work, including but not limited to (a) potential hazards, (b) personal hygiene principles, (c) personal protection equipment, (d) respiratory protection equipment usage and fit testing, and (e) emergency procedures dealing with fire and medical situations.

D. Be responsible for the implementation of this HASP, and the Emergency Contingency and Response Plan.

E. Provide and ensure that all project personnel are properly clothed and equipped and that all equipment is kept clean and properly maintained in accordance with the manufacturer's recommendations or replaced as necessary.

F. Alert appropriate emergency services before starting any hazardous work and provide a copy of the Emergency Contingency Plan to the respective emergency services.

G. Have sole and complete responsibility of safety conditions for the project, including safety of all persons (including employees).

H. Be responsible for protecting the project personnel and the general public from hazards due to the exposure, handling, and transport of contaminated materials. Barricades, lanterns, roped-off areas, and proper signs shall be furnished in sufficient amounts and locations to safeguard the project personnel and public at all times.

I. Ensure all OSHA health and safety requirements are met.

J. Maintain a chronological log of all persons entering the project site. It will include organization, date, and time of entry and exit. Each person must sign in and out.

1.5 Health and Safety Plan

The HASP is a deliverable product of this project. The **ENGINEER** will review and comment on the **CONTRACTOR**'s HASP. Agreed upon responses to all comments will be incorporated into the final copy of the HASP. The HASP shall govern all work performed for this contract. The HASP shall address, at a minimum, the following items in accordance with 29 CFR 1910.120(I)(2):

A. Health and Safety Organization.

B. Site Description and Hazard Assessment.

C. Training.

D. Medical Surveillance.

E. Work Areas.

F. Standard Operating Safety Procedures and Engineering Controls.

G. Personal Protective Equipment (PPE).

H. Personnel Hygiene and Decontamination.

I. Equipment Decontamination.

J. Air Monitoring.

K. Emergency Equipment/First Aid Requirements.

L. Emergency Response and Contingency Plan.

M. Confined-Space Entry Procedures.

N. Spill Containment Plan.

O. Heat & Cold Stress.

P. Record Keeping.

Q. Community Protection Plan.

The following sections will describe the requirements of each of the above-listed elements of the HASP.

1.6 HEALTH AND SAFETY ORGANIZATION

The **CONTRACTOR** shall list in the HASP a safety organization with specific names and responsibilities. At a minimum, the **CONTRACTOR** shall provide the services of a Health and Safety Coordinator, SO, Health and Safety Technician, and a Medical Consultant.

Health and Safety Coordinator: The **CONTRACTOR** must retain the services of a Health and Safety Coordinator (HSC). The HSC must be an American Board of Industrial Hygiene (ABIH) Certified Industrial Hygienist (CIH) or a Certified Safety Professional (CSP). The HSC must have a minimum of two years experience in hazardous waste site remediations or related industries and have a working knowledge of federal and state occupational health and safety regulations. The HSC must be familiar with air monitoring techniques and the development of health and safety programs for personnel working in potentially toxic atmospheres.

In addition to meeting the above requirements the HSC will have the following responsibilities:

A. Responsibility for the overall development and implementation of the HASP.

B. Responsibility for the initial training of on-site workers with respect to the contents of the HASP.

C. Availability during normal business hours for consultation by the Safety Officer.

D. Availability to assist the Safety Officer in follow-up training and if changes in site conditions occur.

Safety Officer: The designated SO must have, at a minimum, two years of experience in the remediation of hazardous waste sites or related field experience. The SO must have formal training in health and safety and be conversant with federal and state regulations governing occupational health and safety. The SO must be certified in CPR and first aid and have experience and training in the implementation of personal protection and air monitoring programs. The SO must have "hands-on" experience with the operation and maintenance of real-time air monitoring equipment. The SO must be thoroughly knowledgeable of the operation and maintenance of air-purifying respirators (APR) and supplied-air respirators (SAR) including SCBA and airline respirators.

In addition to meeting the above qualifications, the SO will be responsible for the following minimum requirements:

A. Responsibility for the implementation, enforcement, and monitoring of the health and safety plan.

B. Responsibility for the pre-construction indoctrination and periodic training of all on-site personnel with regard to this safety plan and other safety requirements to be observed during construction, including:

1. Potential hazards.

2. Personal hygiene principles.

3. PPE.

4. Respiratory protection equipment usage and fit testing.

5. Emergency procedures dealing with fire and medical situations.

6. Conduct daily update meetings in regard to health and safety.

C. Responsibility for alerting the **ENGINEER**'s on-site representative prior to the **CONTRACTOR** starting any particular hazardous work.

D. Responsibility for informing project personnel of the New York State Labor Law Section 876 (Right-to-Know Law).

E. Responsibility for the maintenance of separation of Exclusion Zone (Dirty) from the Support Zone (Clean) areas as described hereafter.

Health and Safety Technicians: The Health and Safety Technician (HST) must have one year of hazardous waste site or related experience and be knowledgeable of applicable occupational health and safety regulations. The HST must be certified in CPR and first aid. The HST will be under direct supervision of the SO during on-site work. The HST must be familiar with the operations, maintenance and calibration of monitoring equipment used in this remediation. An HST will be assigned to each work crew or task in potentially hazardous areas.

Medical Consultant: The **CONTRACTOR** is required to retain a Medical Consultant (MC) who is a physician, certified in occupational medicine. The physician shall have experience in the occupational health area and shall be familiar with potential site hazards of remedial action projects. The MC will also be available to provide annual physicals and to provide additional medical evaluations of personnel when necessary.

1.7 SITE DESCRIPTION AND HAZARD ASSESSMENT

The **CONTRACTOR** shall perform a hazard assessment to provide information to assist in selection of PPE and establish air monitoring guidelines to protect on-site personnel, the environment, and the public. The **CONTRACTOR** shall provide a general description of the site, its location, past history, previous environmental sampling results, and general background on the conditions present at the site.

A. Chemical Hazards: A qualitative evaluation of chemical hazards shall be based on the following:

- Nature of potential contaminants;
- Location of potential contaminants at the project site;
- Potential for exposure during site activities; and
- Effects of potential contaminants on human health.

B. Biological Hazards: A qualitative evaluation of biological hazards consisting of the elements listed for chemical hazards.

C. Physical Hazards: The **CONTRACTOR** shall assess the potential for physical hazards affecting personnel during the performance of on-site work.

The **CONTRACTOR** shall develop a hazard assessment for each site task and operation established in the HASP.

1.8 TRAINING

OSHA Training

The **CONTRACTOR** is responsible to ensure that all project personnel have been trained in accordance with OSHA 1910.120 regulations.

The **CONTRACTOR** shall ensure that all employees are informed of the potential hazards of toxic chemicals to the unborn child and of the risks associated with working at the project site.

The **CONTRACTOR** shall be responsible for, and guarantee that, personnel not successfully completing the required training are not permitted to enter the project site to perform work.

Safety Meetings

The SO will conduct daily safety meetings for each working shift that will be mandatory for all project personnel. The meetings will provide refresher courses for existing equipment and protocols, and will examine new site conditions as they are encountered.

Additional safety meetings will be held on an as-required basis.

Should any unforeseen or site-specific safety-related factor, hazard, or condition become evident during the performance of work at this site, the **CONTRACTOR** will bring such to the attention of the SO in writing as quickly as possible for resolution. In the interim, the **CONTRACTOR** will take prudent action to establish and maintain safe working conditions and to safeguard employees, the public, and the environment.

1.9 MEDICAL SURVEILLANCE

The **CONTRACTOR** shall utilize the services of a Physician to provide the minimum medical examinations and surveillance specified herein. The name of the Physician and evidence of examination of all **CONTRACTOR** and Subcontractor on-site personnel shall be kept by the SO.

CONTRACTOR and Subcontractor project personnel involved in this project shall be provided with medical surveillance prior to onset of work. Immediately at the conclusion of this project, and at any time there is suspected excessive exposure to substances that would be medically detectable, all project personnel will be medically monitored. The costs for these medical exams, including state field representatives, (four maximum) are to be borne by the **CONTRACTOR**.

Physical examinations are required for:

A. Any and all personnel entering hazardous or transition zones or performing work that required respiratory protection.

B. All **CONTRACTOR** personnel on site who are dedicated or may be used for emergency response purposes in the Exclusion Zone.

C. **CONTRACTOR** supervisors entering hazardous or transition zones, or on site for more than 16 hours during the length of the contract.

Physical examinations are not required for people making periodic deliveries provided they do not enter hazardous or transition zones.

In accordance with good medical practice, the examining Physician or other appropriate representative of the Physician shall discuss the results of such medical examination with the individual examined. Such discussion shall include an explanation of any medical condition that the Physician believes required further evaluation or treatment and any medical condition which the Physician believes would be adversely affected by such individual's employment at the project site. A written report of such examination shall be transmitted to the individual's private physician upon written request by the individual.

The examining Physician or Physician group shall notify the SO in writing that the individual has received a medical examination and shall advise the SO as to any specific limitations upon such individual's ability to work at the project site that were identified as a result of the examination. Appropriate action shall be taken in light of the advice given pursuant to this subparagraph.

The physical examination shall also include but not be limited to the following minimum requirements:

A. Complete blood profile;

B. Blood chemistry to include: chloride, CO_2, potassium, sodium, BUN, glucose, globulin, total protein, albumin, calcium, cholesterol, alkaline phosphatase, triglycerides, uric acid, creatinine, total bilirubin, phosphorous, lactic dehydrogenase, SGPT, SGOT;

C. Urine analysis;

D. "Hands on" physical examination to include a complete evaluation of all organ systems including any follow-up appointments deemed necessary in the clinical judgement of the examining physician to monitor any chronic conditions or abnormalities;

E. Electrocardiogram;

F. Chest X-ray (if recommended by examining physician in accordance with good medical practice);

G. Pulmonary function;

H. Audiometry - To be performed by a certified technician, audiologist, or physician. The range of 500 to 8,000 hertz should be assessed.

I. Vision screening - Use a battery (TITMUS) instrument to screen the individual's ability to see test targets well at 13 to 16 inches and at 20 feet. Tests should include

an assessment of muscle balance, eye coordination, depth perception, peripheral vision, color discrimination, and tonometry.

J. Tetanus booster shot (if no inoculation has been received within the last five years); and

K. Complete medical history.

1.10 Site Control

Security

Security shall be provided and maintained by the **CONTRACTOR** as specified in Section 01540.

Security identification, specific to the project site, shall be provided by the **CONTRACTOR** for all project personnel entering the project site. The **CONTRACTOR** shall be responsible for and ensure that such identification shall be worn by each individual, visible at all times, while the individual is on the site. Vehicular access to the site, other than to designated parking areas, shall be restricted to authorized vehicles only.

Use of on-site designated parking areas shall be restricted to vehicles of the **ENGINEER**, **ENGINEER**'s on-site representative, **CONTRACTOR**, subcontractor, and service personnel assigned to the site and actually on duty but may also be used on short-term basis for authorized visitors.

The **CONTRACTOR** shall be responsible for maintaining a log of security incidents and visitor access granted.

The **CONTRACTOR** shall require all personnel having access to the project site to sign-in and sign-out, and shall keep a record of all site access.

All approved visitors to the site shall be briefed by the SO on safety and security, provided with temporary identification and safety equipment, and escorted throughout their visit.

Site visitors shall not be permitted to enter the hazardous work zone unless approved by the **DEPARTMENT** with appropriate site access agreement.

Project sites shall be posted, "Warning Hazardous Work Area, Do Not Enter Unless Authorized," and access restricted by the use of a snow fence or equal at a minimum. Warning signs shall be posted at a minimum of every 500 feet.

Site Control

The **CONTRACTOR** shall provide the following site control procedures as a minimum:

- A site map;
- A map showing site work zones;
- The use of a "buddy system"; and

- Standard operating procedures or safe work practices.

Work Areas

The **CONTRACTOR** will clearly lay out and identify work areas in the field and will limit equipment, operations and personnel in the areas as defined below:

A. Exclusion Zone (EZ) - This will include all areas where potential environmental monitoring has shown or it is suspected that a potential hazard may exist to workers. The level of PPE required in these areas will be determined by the SO after air monitoring and on-site inspection has been conducted. The area will be clearly delineated from the decontamination area. As work within the hazardous zone proceeds, the delineating boundary will be relocated as necessary to prevent the accidental contamination of nearby people and equipment. The Exclusion Zone will be delineated by fencing (e.g., chain link, snow fencing, or orange plastic fencing).

B. Contamination Reduction Zone - This zone will occur at the interface of "Hazardous" and "Clean" areas and will provide for the transfer of equipment and materials from the Support Zone to the Exclusion Zone, the decontamination of personnel and clothing prior to entering the "Clean" area, and for the physical segregation of the "Clean" and "Hazardous" areas. This area will contain all required emergency equipment, etc. This area will be clearly delineated by fencing (e.g., chain link, snow fencing, or orange plastic fencing). It shall also delineate an area that although not contaminated at a particular time may become so at a later date.

C. Support Zone - This area is the remainder of the work site and project site. The Support Zone will be clearly delineated and procedures implemented to prevent active or passive contamination from the work site. The function of the Support Zone includes:

1. An entry area for personnel, material and equipment to the Exclusion Zone of site operations through the Contamination Reduction Zone;

2. An exit for decontamination personnel, materials and equipment from the "Decontamination" area of site operations;

3. The housing of site special services; and

4. A storage area for clean, safety, and work equipment.

1.11 Standard Operating Safety Procedures, Engineering Controls

GENERAL SOP

A. The **CONTRACTOR** will ensure that all safety equipment and protective clothing is kept clean and well maintained.

B. All prescription eyeglasses in use on this project will be safety glasses and will be compatible with respirators. No contact lenses shall be allowed on site.

C. All disposable or reusable gloves worn on the site will be approved by the SO.

D. During periods of prolonged respirator usage in contaminated areas, respirator filters will be changed upon breakthrough. Respirator filters will always be changed daily.

E. Footwear used on site will be covered by rubber overboots or booties when entering or working in the Exclusion Zone area or Contamination Reduction Zone. Boots or booties will be washed with water and detergents to remove dirt and contaminated sediment before leaving the Exclusion Zone or Contamination Reduction Zone.

F. All PPE used on site will be decontaminated or disposed of at the end of the work day. The SO will be responsible for ensuring decontamination of PPE before reuse.

G. All respirators will be individually assigned and not interchanged between workers without cleaning and sanitizing.

H. **CONTRACTOR**, subcontractor and service personnel unable to pass a fit test as a result of facial hair or facial configuration shall not enter or work in an area that requires respiratory protection.

I. The **CONTRACTOR** will ensure that all project personnel shall have vision or corrected vision to at least 20/40 in one eye.

J. On-site personnel found to be disregarding any provision of this plan will, at the request of the SO, be barred from the project.

K. Used disposable outerwear such as coveralls, gloves, and boots shall not be reused. Used disposable outerwear will be removed upon leaving the hazardous work zone and will be placed inside disposable containers provided for that purpose. These containers will be stored at the site at the designated staging area and the **CONTRACTOR** will be responsible for proper disposal of these materials at the completion of the project. This cost shall be borne by the **CONTRACTOR**.

L. Protective coveralls that become torn or badly soiled will be replaced immediately.

M. Eating, drinking, chewing gum or tobacco, smoking, etc., will be prohibited in the hazardous work zones and neutral zones.

N. All personnel will thoroughly cleanse their hands, face, and forearms and other exposed areas prior to eating, smoking or drinking.

O. Workers who have worked in a hazardous work zone will shower at the completion of the work day.

P. All personnel will wash their hands, face, and forearms before using toilet facilities.

Q. No alcohol, firearms or drugs (without prescriptions) will be allowed on site at any time.

R. All personnel who are on medication should report it to the SO who will make a determination whether or not the individual will be allowed to work and in what capacity. The SO may require a letter from the individual's personal physician stating what limitations (if any) the medication may impose on the individual.

Engineering Controls - Air Emissions

The **CONTRACTOR** shall provide all equipment and personnel necessary to monitor and control air emissions.

1.12 Personal Protective Equipment

General

The **CONTRACTOR** shall provide all project personnel with the necessary safety equipment and protective clothing, taking into consideration the chemical wastes at the site. The **CONTRACTOR** shall supply the **ENGINEER's** on-site personnel (average two people for the project duration) with PPE as specified. The **ENGINEER** will require specific manufacturers and styles of PPE, which are detailed in the Safety Equipment Specifications portion of this section. At a minimum, the **CONTRACTOR** shall supply all project personnel with the following:

A. Two (2) sets of cotton work clothing to include underwear, socks, work shirts, and work pants. Leather steel-toed work boots, and such other clothing and outer garments as required by weather conditions (e.g., insulated coveralls and winter jacket);

B. Sufficient disposable coveralls;

C. One pair splash goggles;

D. Chemical-resistant outer and inner gloves;

E. Rubber overshoes (to be washed daily);

F. Hard hat;

G. One full-face mask with appropriate canisters. The **ENGINEER** and the **DEPARTMENT** will supply their own full-face mask. The **CONTRACTOR** will supply the appropriate canisters to all on-site project personnel including the

ENGINEER and the **DEPARTMENT**. The **CONTRACTOR** shall supply MSA canisters; and

H. For all project personnel involved with Level B protection, a positive-pressure SCBA or in-line air. A 5-minute escape bottle must be included with the in-line air apparatus.

Levels of Protection

It is planned that Levels C and D PPE will be required in this remediation. Although Levels A and B are not planned, site conditions may be encountered that require their use. The following sections described the requirements of each level of protection.

A. Level A Protection

1. PPE:

   a. Supplied-air respirator approved by the Mine Safety and Health Administration (MSHA) and NIOSH. Respirators may be:

      - Positive-pressure SCBA; or
      - Positive-pressure airline respirator (with escape bottle for Immediately Dangerous to Life and Health [IDLH] or potential for IDLH atmosphere).

   b. Fully encapsulating chemical-resistant suit.

   c. Coveralls.

   d. Cotton long underwear.*

   e. Gloves (inner), chemical-resistant.

   f. Boots, chemical-resistant, steel toe and shank. (Depending on suit construction, worn over or under suit boot.)

   g. Hard hat (under suit).*

   h. Disposal gloves and boot covers (worn over fully encapsulating suit).

   I. Cooling unit.*

j. Two-way radio communications (inherently safe).*

* Optional

2. Criteria for Selection:

Meeting any of these criteria warrants use of Level A protection:

a. The chemical substance has been identified and requires the highest level of protection for skin, eyes, and the respiratory system based on:

- Measures (or potential for) high concentration of atmospheric vapors, gases, or particulates, or
- Site operations and work functions involves high potential for splash, immersion, or exposure to unexpected vapors, gases, or particulates of materials highly toxic to the skin.

b. Substances with a high degree of hazard to the skin are known or suspected to be present, and skin contact is possible.

c. Operations must be conducted in confined, poorly ventilated areas until the absence of substances requiring Level A protection is determined.

d. Direct readings on field Flame Ionization Detectors (FID) or Photoionization Detectors (PID) and similar instruments indicate high levels of unidentified vapors and gases in the air.

3. Guidance on Selection:

a. Fully encapsulating suits are primarily designed to provide a gas- or vapor-tight barrier between the wearer and atmospheric contaminants. Therefore, Level A is generally worn when high concentrations of airborne substances could severely effect the skin. Since Level A requires the use of SCBA, the eyes and respiratory system are also more protected.

Until air surveillance data become available to assist in the selection of the appropriate level of protection, the use of Level A may have to be based on indirect evidence of the potential for atmospheric contamination or other means of skin contact with severe skin affecting substances.

Conditions that may require Level A protection include:

- Confined spaces: Enclosed, confined, or poorly ventilated areas are conducive to the buildup of toxic vapors, gases, or particulates. (Explosive or oxygen-deficient atmospheres are also more probable in confined spaces). Confined-space entry does not automatically warrant wearing Level A protection, but should serve as a cue to carefully consider and to justify a lower level of protection.

- Suspected/known highly toxic substances: Various substances that are highly toxic, especially skin absorption, for example, fuming corrosives, cyanide compounds, concentrated pesticides, **DEPARTMENT** of Transportation Poison "A" materials, suspected carcinogens, and infectious substances may be known or suspected to be involved. Field instruments may not be available to detect or quantify air concentrations of these materials. Until these substances are identified and concentrations measured, maximum protection may be necessary.

- Visible emissions: Visible air emissions from leaking containers or railroad/vehicular tank cars, as well as smoke from chemical fires and others, indicate high potential for concentrations of substances that could be extreme respiratory or skin hazards.

- Job Functions: Initial site entries are generally walk-throughs, in which instruments and visual observations are used to make a preliminary evaluation of the hazards.

In initial site entries, Level A should be worn when:

- There is a probability for exposure to high concentrations of vapors, gases, or particulates; and

- Substances are known or suspected of being extremely toxic directly to the skin or by being absorbed.

Subsequent entries are to conduct the many activities needed to reduce the environmental impact of the incident. Levels of protection for later operations are based not only on data obtained from the initial and subsequent environmental monitoring, but also on the probability of contamination and ease of decontamination.

Examples of situations where Level A has been worn are:

- Excavating of soil to sample buried drums suspected of containing high concentrations of dioxin;
- Entering a cloud of chlorine to repair a valve broken in a railroad accident;
- Handling and moving drums known to contain oleum; and
- Responding to accidents involving cyanide, arsenic, and undiluted pesticides.

b. The fully encapsulating suit provides the highest degree of protection to skin, eyes, and respiratory system if the suit material resists chemicals during the time the suit is worn. While Level A provides maximum protection, all suit material may be rapidly permeated and degraded by certain chemicals from extremely high air concentrations, splashes, or immersion of boots or gloves in concentrated liquids or sludges. These limitations should be recognized when specifying the type of fully encapsulating suit. Whenever possible, the suit material should be matched with the substance it is used to protect against.

B. Level B Protection

1. PPE:

a. Positive-pressure SCBA (MSHA/NIOSH approved); or

b. Positive-pressure air line respirator (with escape bottle for IDLH or potential for IDLH atmosphere) MSHA/NIOSH approved;

c. Chemical-resistant clothing (overalls and long-sleeved jacket; coveralls or hooded, one- or two-piece chemical-splash suit; disposable chemical-resistant, one-piece suits);

d. Cotton long underwear;*

e. Coveralls;

f. Gloves (outer), chemical-resistant;

g. Gloves (inner), chemical-resistant;

h. Boots (inner), leather work shoe with steel toe and shank;

I. Boots (outer), chemical-resistant, (disposable);

j. Hard hat (face shield*);

k. 2-way radio communication;* and

l. Taping between suit and gloves, and suit and boots.

*Optional

2. Criteria for Selection:

Any one of the following conditions warrants use of Level B Protection:

a. The type and atmospheric concentration of toxic substances have been identified and require a high level of respiratory protection, but less skin protection than Level A. These atmospheres would:

- Have IDLH concentrations; or
- Exceed limits of protection afforded by an air-purifying mask; or
- Contain substances for which air-purifying canisters do not exist or have low removal efficiency; or
- Contain substances requiring air-supplied equipment, but substances and/or concentrations do not represent a serious skin hazard.

b. The atmosphere contains less than 19.5% oxygen.

c. Site operations make it highly unlikely that the work being done will generate high concentrations of vapors, gases or particulates, or splashes of material that will affect the skin of personal wearing Level B protection.

d. Working in confined spaces.

e. Total atmospheric concentrations, sustained in the breathing zone, of unidentified vapors or gases range from 5 ppm above background to 500 ppm above background as measured by direct reading instruments such as the FID or PID or similar instruments, but vapors and gases are not suspected of containing high levels of chemicals toxic to skin.

3. Guidance on Selection Criteria:

Level B equipment provides a reasonable degree of protection against splashes and to lower air contaminant concentrations, but a somewhat

lower level of protection to skin than Level A. The chemical-resistant clothing required in Level B is available in a wide variety of styles, materials, construction detail, permeability, etc. Taping joints between the gloves, boots and suit, and between hood and respirator reduces the possibility for splash and vapor or gas penetration. These factors all affect the degree of protection afforded. Therefore, the SO should select the most effective chemical-resistant clothing based on the known or anticipated hazards and/or job function. (It is anticipated that Level B protection will not be required under this contract.)

Level B does provide a high level of protection to the respiratory tract. Generally, if SCBA is required, Level B clothing rather than a fully encapsulating suit (Level A) is selected based on needing less protection against known or anticipated substances affecting the skin. Level B skin protection is selected by:

a. Comparing the concentrations of known or identified substances in air with skin toxicity data;

b. Determining the presence of substances that are destructive to or readily absorbed through the skin by liquid splashes, unexpected high levels of gases, vapor or particulates, or other means of direct contact; and

c. Assessing the effect of the substance (at its measured air concentrations or splash potential) on the small area of the head and neck left unprotected by chemical-resistant clothing.

For initial site entry at an open site, Level B protection should protect site personnel, providing the conditions described in selecting Level A are known or judged to be absent.

C. **Level C Protection**

1. PPE

a. Full-face, air-purifying, cartridge- or canister-equipped respirator (MSHA/NIOSH approved) with cartridges appropriate for the respiratory hazards;

b. Chemical-resistant clothing (coveralls, hooded, one-piece or two-piece chemical splash suit; chemical-resistant hood and apron; disposable chemical-resistant coveralls);

c. Coveralls;

d. Cotton long underwear;*

e. Gloves (outer), chemical-resistant;

f. Gloves (inner), chemical-resistant;

g. Boots (inner), leather work shoes with steel toe and shank;

h. Boots (outer), chemical-resistant (disposable);*

I. Hard hat (face shield);*

j. Escape SCBA of at least 5-minute duration;

k. 2-way radio communications (inherently safe);* and

l. Taping between suit and boots, and suit and gloves.

* Optional

2. Criteria for Selection

Meeting all of these criteria permits use of Level C protection:

a. Measured air concentrations of identified substances will be reduced by the respirator to, at or below, the substance's Threshold Limit Value (TLV) or appropriate occupational exposure limit and the concentration is within the service limit of the canister.

b. Atmospheric contaminant concentrations do not exceed IDLH levels.

c. Atmospheric contaminants, liquid splashes, or other direct contact will not adversely affect the small area of the skin left unprotected by chemical-resistant clothing.

d. Job functions do not require SCBA.

e. Total readings register between background and 5 ppm above background as measured by instruments such as the FID or PID.

f. Oxygen concentrations are not less than 19.5% by volume.

g. Air will be monitored continuously.

3. Guidance on Selection Criteria

Level C protection is distinguished from Level B by the equipment used to protect the respiratory system, assuming the same type of chemical-resistant clothing is used. The main selection criterion for Level

C is that conditions permit wearing air-purifying devices. The air-purifying device must be a full-face mask (MSHA/NIOSH approved) equipped with a cartridge suspended from the chin or on a harness. Cartridges must be able to remove the substances encountered.

A full-face, air-purifying mask can be used only if:

a. Oxygen content of the atmosphere is at least 19.5% by volume;

b. Substance(s) is identified and its concentrations(s) measured;

c. Substance(s) has adequate warning properties;

d. Individual passes a qualitative fit-test for the mask; and

e. Appropriate cartridge is used, and its service limits concentration is not exceeded.

An air monitoring program is part of all response operations when atmospheric contamination is known or suspected. It is particularly important that the air be monitored thoroughly when personnel are wearing air-purifying respirators (Level C). Continual surveillance using direct-reading instruments and air sampling is needed to detect any changes in air quality necessitating a higher level of respiratory protection. Total unidentified vapor/gas concentrations exceeding 5 ppm above background require Level B.

D. Level D Protection

1. PPE:

a. Coveralls, chemical resistant;

b. Gloves (outer), chemical resistant;

c. Gloves (inner), chemical resistant;*

d. Boots (inner), leather work shoes with steel toe and shank;

e. Boots (outer), chemical resistant (disposable);*

f. Hard hat;

g. Face shield;*

h. Safety glasses with side shields or chemical splash goggles;* and

I. Taping between suit and boots, and suit and gloves.

* Optional

2. Criteria for Selection:

   a. No atmospheric contaminant is present.

   b. Direct reading instruments do not indicate any readings above background.

   c. Job functions have been determined not to require respirator protection.

3. Guidance on Selection Criteria:

   Level D protection is distinguished from Level C protection in the requirement for respiratory protection. Level D is used for non-intrusive activities or intrusive activities with continuous air monitoring. It can be worn only in areas where there is no possibility of contact with contamination.

E. Anticipated Levels of Protection

It is anticipated that most of the work shall be performed in Level D. A respirator shall be immediately available in the event that air monitoring indicates an upgrade to Level C is required. The determination of the proper level of protection for each task shall be the responsibility of the **CONTRACTOR**. These task specific levels of protection shall be stated in the **CONTRACTOR's** HASP.

Safety Equipment Specifications

Note: Prior to purchasing any equipment or supplies required by this HASP, the **CONTRACTOR** shall notify the **ENGINEER** of the type, model and manufacturer/supplier of that particular safety equipment he is proposing to use or purchase for use on this project. The specifications for PPE that the **CONTRACTOR** is to supply to the **ENGINEER** and which differ from the minimum requirements shown below are provided at the end of this section.

Self-Contained Breathing Apparatus

The **CONTRACTOR** shall provide positive-pressure SCBA for possible upgrades in respiratory protection. The **CONTRACTOR** shall further supply all the SCBA for all field personnel for the duration of normal work activities. The units must be a MSHA/NIOSH-approved pressure-demand type with a 30-minute service life, manufactured/supplied by Scott, MSA, or other appropriate manufacturers. The **CONTRACTOR** shall inspect and maintain respirators in accordance with OSHA regulations (29 CFR 1910.13-4) and as recommended by the manufacturer.

Disposable Coveralls

The **CONTRACTOR** shall provide, as necessary, protective coveralls for all project personnel each day with extra sets provided for authorized visitors. The coveralls shall be of the disposable type made of Tyvek or equivalent material, and shall be manufactured/supplied by Durafab, Koppler, or other appropriate manufacturers. To protect project personnel from exposure to liquids, splash-resistant suits (Saranex suits, from appropriate manufacturers) shall be provided. Ripped suits will be immediately replaced after all necessary decontamination has been completed to the satisfaction of the SO.

Hard Hat

The **CONTRACTOR** shall provide and maintain one hard hat per person on site (authorized visitors included). The hard hats shall comply with OSHA Health and Safety Standards (29 CFR 1910.135).

Face Shields

The **CONTRACTOR** shall provide and maintain one face shield per person on site. The face shields shall be of the full face type meeting OSHA Health and Safety Standards (29 CFR 1910.133) and shall have brackets for mounting on hard hats. Hard hats and face shields shall be from the same manufacturer to ensure proper fit and shall be manufactured/supplied by Bullard, Norton, or other appropriate manufacturers.

Work Clothing

The **CONTRACTOR** shall provide a minimum of two sets of work clothing per personnel to allow for changing if contaminated. The work clothing shall include a minimum of underwear, socks, work shirts, work pants, and other clothing as weather conditions dictate. All work clothes shall be put on clean, before entering the site and shall not be kept in same lockers as the workers street clothes. All project personnel shall shower and change to street clothing prior to leaving the site. All contaminated work clothing shall be laundered on site with wash water drained to the decontamination water holding tank.

Escape-Type Respirator

The **CONTRACTOR** shall provide and maintain one self-contained breathing escape-type respirator per person working on site. The small self-contained device shall be capable of providing oxygen to the worker while protecting an escaping worker from toxic gases. The respirator shall be made by Scott, MSA, or other appropriate manufacturer. The **CONTRACTOR** shall inspect and ensure all devices are in working order before issuing to personnel. Employees must be trained to use equipment prior to being allowed to work on site and carry the escape-type respirator with them. An escape-type respirator must be provided if positive-pressure SCBA are not part of the ensemble worn by each person on site.

Full Face Organic Vapor Respirator

The **CONTRACTOR** shall provide and maintain a dedicated air-purifying organic vapor respirator per person working in hazardous work and neutral work zones. The respirator shall be of the full-face canister type with cartridges appropriate for the respiratory hazards. Respirators and cartridges shall be MSHA/NIOSH approved, manufactured/supplied by MSA, Scott, or other appropriate manufacturers. The **CONTRACTOR** shall inspect and maintain respirators and canisters in accordance with OSHA regulations (29 CFR 1910.134) and in accordance with manufacturer's instructions. The **CONTRACTOR** shall ensure that proper fit testing training and medical surveillance of respirator users is in accordance with OSHA regulations (29 CFR 1910.134).

Gloves (outer)

The **CONTRACTOR** shall supply a minimum of one pair of gloves per workman in areas where skin contact with hazardous material is possible. Work gloves shall consist of nitrile (NCR) or Neoprene material. Other gloves may be selected if required based on the potential chemical present. Cotton liners will be provided by the **CONTRACTOR** during cold weather.

Gloves (inner)

The **CONTRACTOR** shall supply latex or equivalent surgical gloves to be worn inside the outer gloves.

Boots (inner)

The **CONTRACTOR** shall supply one pair of safety shoes or boots per workman and shall be of the safety-toe type meeting the requirements of 29 CFR 1910.136.

Boots (outer)

The **CONTRACTOR** shall provide and maintain one pair of overshoes for the on-site person entering a hazardous work area. The overshoes shall be constructed of rubber and shall be 12 inches high minimum.

PERSONAL PROTECTIVE EQUIPMENT SPECIFICATIONS				
Description	**Manufacturer**	**Model Number**	**Size**	**Comments**
Tyvek coveralls	Kappler/Abanda	1427/1428	xl/lg	NA
Saranex coveralls	Kappler/Abanda	77427/77428/77434	xl/lg	NA
Sijal acid suit	Chemtex Bata	91522-G	xl/lg	NA
Surgical gloves	Best	7005	xl/lg	NA
Neoprene gloves	Edmont	8-354	xl/lg	NA
Nitrile gloves	Granet	1711	10	NA
Butyl gloves	North	B-161	10	NA
Viton gloves	North	F-124	10/11	NA
Long gauntlet neoprene	Edmont	19-938	xl	NA
Cotton work gloves	North	Grip-N/K511M	men's	or equal
Latex booties	Rainfair	1250-Y	xl	NA
PAPR pesticide cartridges	Racal	AP-3	NA	NA
PAPR asbestos cartridges	Racal	SP-3	NA	NA
APR organic cartridges	MSA	GMC-H	NA	NA
APR asbestos cartridges	MSA	Type H	NA	NA
APR pesticide cartridges	MSA	GMP	NA	NA

1.13 Personnel Hygiene and Decontamination

On-Site Hygiene Facility

The **CONTRACTOR** shall provide a hygiene facility on site. The hygiene facility shall include the following:

- Adequate lighting and heat;
- Shower facilities for project personnel;
- Laundry facilities for washing work clothes and towels;
- Areas for changing into and out of work clothing. Work clothing should be stored separately from street clothing;

- Clean and "dirty" locker facilities; and
- Storage area for work clothing, etc.

Portable "Boot Wash" Decontamination Equipment

The **CONTRACTOR** shall provide a portable decontamination station, commonly referred to as a "Boot Wash" facility for each hazardous work zone requiring decontamination for project personnel. These facilities shall be constructed to contain spent wash water, contain a reservoir of clean wash water, a power supply to operate a pump for the wash water, a separate entrance and exit to the decontamination platform, with the equipment being mobile, allowing easy transport from one hazardous work zone to the next. All such wash water shall be disposed of at the dewatering facility. An appropriate detergent such as trisodium phosphate shall be used.

Personnel Decontamination

The **CONTRACTOR** shall provide full decontamination facilities at all hazardous zones. Decontamination facilities must be described in detail in the HASP.

Disposal of Spent Clothing and Material

Contaminated clothing, used respirator cartridges and other disposable items will be put into drums/containers for transport and proper disposal in accordance with TSCA and RCRA requirements.

Containers/55-gallon capacity drums shall conform to the requirements of 40 CFR Part 178 for Transportation of Hazardous Materials. The containers/drums containing excavated and other hazardous material shall be transported by the **CONTRACTOR** to the staging area.

The **CONTRACTOR** is responsible for the proper container packaging, labeling, transporting, and disposal.

1.14 Equipment Decontamination

General

All equipment and material used in this project shall be thoroughly washed down in accordance with established federal and state procedures before it is removed from the project. With the exception of the excavated materials, all other contaminated debris, clothing, etc. that cannot be decontaminated shall be disposed at the **CONTRACTOR's** expense by a method permitted by appropriate regulatory agencies. The cost for this element of work shall be incorporated in the lump sum bid for mobilization/demobilization the unit prices bid for disposal of decontamination liquids or as otherwise directed on this project. All vehicles and equipment used in the "Dirty Area" will be decontaminated to the satisfaction of the SO in the decontamination area on site prior to leaving the project. The **CONTRACTOR** will certify, in writing, that each piece of equipment has been decontaminated prior to removal from the site.

Decontamination shall take place within the designated equipment and materials decontamination area. The decontamination shall consist of degreasing (if required), followed by high-pressure, hot-water

cleaning, supplemented by detergents as appropriate. Wash units shall be portable, high-pressure with a self-contained water storage tank and pressurizing system (as required). Each unit shall be capable of heating wash waters to 180 degrees Fahrenheit and providing a nozzle pressure of 150 psi.

Personnel engaged in vehicle decontamination will wear protective clothing and equipment as determined in the HASP. If the **CONTRACTOR** cannot or does not satisfactorily decontaminate his tools or equipment at the completion of the project, the **CONTRACTOR** will dispose of any equipment which cannot be decontaminated satisfactorily and will bear the cost of such tools and equipment and its disposal without any liability to the **ENGINEER**. At the completion of the project the **CONTRACTOR** shall completely decontaminate and clean the decontamination area.

Decontamination Station

The **CONTRACTOR** shall construct a decontamination station as described in Section 01100, Decontamination Station. The decontamination station shall be located in the Contamination Reduction Zone and shall be used to clean all vehicles leaving the Exclusion Zone prior to entering the Support Zone or leaving the site.

1.15 Air Monitoring Program

General

The **CONTRACTOR** shall develop, as part of the HASP, an air monitoring program (AMP). The purpose of the AMP is to determine that the proper level of personnel protective equipment is used, to document that the level of worker protection is adequate, and to assess the migration of contaminants to off-site receptors as a result of site work.

The **CONTRACTOR** shall supply all personnel, equipment, facilities, and supplies to develop and implement the air monitoring program described in this section. Equipment shall include at a minimum real-time aerosol monitors, depending on work activities and environmental conditions.

The **CONTRACTOR**'s AMP shall include both real-time and documentation air monitoring (personal and area sampling as needed). The purpose of real-time monitoring will be to determine if an upgrade (or downgrade) of PPE is required while performing on-site work and to implement engineering controls, protocols, or emergency procedures if **CONTRACTOR**-established action levels are encountered.

The **CONTRACTOR** shall also use documentation monitoring to ensure that adequate PPE is being used and to determine if engineering controls are mitigating the migration of contamination to off-site receptors. Documentation monitoring shall include the collection and analysis of samples for total nuisance dust.

To protect the public in the neighboring residential neighborhood, the **CONTRACTOR** must include in the AMP provisions for suspending work and implementing engineering controls based upon detectable odors, as well as upon instrument monitoring results.

During the progress of active remedial work, the **CONTRACTOR** will monitor the quality of the air in and around each active hazardous operation with real-time instrumentation prior to personnel entering these areas. Sampling at the hazardous work site will be conducted on a continuous basis. Any

departures from general background will be reported to the SO prior to entering the area. The SO will determine when and if operations should be shut down.

Air monitoring (both real time and documentation monitoring) shall be conducted by a minimum of one dedicated person with communication to the foreman whenever intrusive activities (such as excavation, tank removal, and soil treatment) are performed in an exclusion zone. After completion of intrusive activities involving contaminated materials and removal of the exclusion zone, air monitoring may be discontinued.

Air monitoring equipment will be operated by personnel trained in the use of the specific equipment provided and will be under the control of the SO. A log of the location, time, type and value of each reading and/or sampling will be maintained. Copies of log sheets will be provided on a daily basis to the **ENGINEER**'s on-site representative.

Action Levels

The **CONTRACTOR** is responsible for developing level of protection site action levels for organic vapors and/or inorganic species.

The SO, **CONTRACTOR**, and their personnel will be responsible for implementing, maintaining and enforcing the respirator program.

In addition to these on-site action levels, the following action levels will be established for work area and perimeter monitoring of particulates. If the following levels are attained at the perimeter of the exclusion zone, then work will cease until engineering controls bring levels down to acceptable limits. These levels are general and shall be used as minimum action levels. The **CONTRACTOR** shall develop site-specific work area and perimeter monitoring action levels based on contaminants found in the work areas.

Parameter	Action Level	Action
Total particulates	2.5 times background and/or greater than 150 $\mu g/m^3$	Work ceases until mitigated
Visible Dust	Visible dust as determined by the **ENGINEER**.	Work ceases until mitigated

(Continued on next page)

The following action levels shall be used as minimum action levels for organic vapors and odors.

Parameter	Action Level	Action
Total Organic Vapors	5 ppm at work zone	Workers use respirators
	25 ppm at work zone	Work ceases until mitigated
Odors	Noticable odors outside the exclusion zone as determined by the **ENGINEER**.	Work ceases until mitigated

Real-Time Monitoring

The **CONTRACTOR** shall submit a written copy of the real time air monitoring results for each Workday, by 10:00 a.m. the following Workday, which shall include an appropriately scaled map of the Work area depicting sample locations, wind direction and other pertinent meteorological data: date; time; analytical results; applicable standards and engineering controls implemented (if necessary).

Real-time monitoring shall be conducted using the following equipment:

Organic vapor photoionizers shall be Photovac TIP, total organic vapor analyzer as manufactured by Photovac International, 739B Park Avenue, Huntington, New York 11743 or equal. The **CONTRACTOR** shall provide one Photovac TIP for each and every hazardous work zone operation.

Particulate monitoring must be performed using real-time particulate monitors and shall monitor particulate matter in the range of 0-10 microns diameter (PM_{10}) with the following minimum performance standards:

Object to be measured: Dust, Mists, Aerosols
Measurement Ranges: 0.001 to 400 mg/m³ (1 to 400,000 µg/m³)
Precision (2-sigma) at constant temperature:
+/- 10 µg/m³ for one second averaging; +/- 1.5 µg/m³ for sixty second averaging
Accuracy:
+/- 5% of reading +/- precision (Referred to gravimetric calibration with SAE fine test dust (mmd= 2 to 3 µm, g= 2.5, as aerosolized)
Resolution: 0.1% of reading or 1 µg/m³, whichever is larger
Particle Size Range of Maximum Response: 0.1-10 µ
Total Number of Data Points in Memory: 10,000
Logged Data:
Each Data Point: average concentration, time/date, and data point number
Run Summary:
overall average, maximum concentrations, time/date of maximum, total number of logged points, start time/date, total elapsed time (run duration), STEL

concentration and time/date occurrence, averaging (logging) period, calibration factor, and tag number.

Alarm Averaging Time (user selectable):
real-time (1-60 seconds) or STEL (15 minutes)

Operating Time: 48 hours (fully charged NiMH battery); continuously with charger

Operating Temperature: -10 to 50°C (14 to 122°F)

Automatic alarms are suggested.

Particulate levels will be monitored immediately downwind at the working site and integrated over a period not to exceed 15 minutes. Consequently, instrumentation shall require necessary averaging hardware to accomplish this task. A monitor such as the personal DataRAM, manufactured by Monitoring Instruments for the Environment, Inc., or equivalent, can be used as a real time particulate screening tool. Although the instrument's design does not allow it to make a sharp differentiation of particulates at the PM_{10} standard, the instrument could be used in the passive mode without a pump to provide readings in the 0.1 to 10μ range in the immediate vicinity of construction activities.

Real-time monitoring will be conducted at any excavation of contaminated soil or sediments. Real-time monitoring will also be conducted at perimeter locations including an upwind (background) and two downwind locations. A background reading will be established daily at the beginning of the work shift. If the wind direction changes during the course of the day, a new background reading will be made. Downwind readings at the perimeter will be made when **CONTRACTOR** action levels have been exceeded at the excavation face or at a minimum of twice a day.

If action levels are exceeded at the perimeter location for fugitive dust, work must be suspended and engineering controls must be implemented to bring concentrations back down to acceptable levels.

Construction activities generate dust which could potentially transport contaminants off site. There may be situations when visible dust is being generated and leaving the site and the monitoring equipment does not measure PM_{10} at or above the action level. Therefore, if dust is observed leaving the working site, additional dust suppression techniques must be employed by the **CONTRACTOR**.

Documentation Monitoring

Documentation monitoring will be conducted at the perimeter at a minimum of two locations for total dust and PCBs. Documentation monitoring will be conducted only during excavation, consolidation, staging, removal, or decontamination activities.

A. Dust will be collected using a glass fiber filter in series with a polyurethane foam, and a high flow vacuum pump, and analyzed for PCBs using EPA Method TO-4.

B. Documentation samples will be collected at established perimeter locations. The two locations will be chosen according to site activities and expected wind direction.

C. The perimeter locations will be established and marked with high visibility paint or flagging at approximately equidistant points around the site. Samples will be collected at a height of 6 feet above ground surface.

D. Documentation samples will be collected continuously, during the normal work hours when activities are occurring on site. At the end of the week two samples will be selected by the **ENGINEER** for analysis.

E. The documentation samples will be collected over an eight (8) hour work period.

F. In addition to perimeter monitoring, personnel documentation samples will be collected on site once a week. On-site samples will be collected by choosing "high risk" workers to wear appropriate collection media for pesticides, metals, and particulate. "High risk" workers are those who are most likely to encounter contamination on a particular task. At a minimum, two high risk workers will be chosen to wear collection media for a particular day each week and the media will be analyzed with the documentation air monitoring samples.

G. The **CONTRACTOR** shall submit a written copy of the documentation air monitoring results within 7 days of sampling, which shall include an appropriately scaled map of the Work area depicting sample locations, wind direction and other pertinent meteorological data: date; time; analytical results; applicable standards and engineering controls implemented (if necessary).

H. The documentation sampling submitted shall also identify the "high risk" workers chosen to wear appropriate collection media for contaminants; date media was worn; task involved; analytical results and applicable standards.

I. Payment for air monitoring will not be approved until the above submittals have been received and approved by the **ENGINEER**.

Community Air Monitoring

Real-time air monitoring, for particulate levels at the perimeter of the work area is necessary:

A. Particulates should be continuously monitored upwind, downwind and within the work area at temporary particulate monitoring stations. If the downwind particulate level is 150 ug/m^3 greater than the upwind particulate level, then dust suppression techniques must be employed. All readings must be recorded and be available for **ENGINEER**'s review.

The **CONTRACTOR** shall install a meteorological station on site that will be capable of recording, at a minimum, wind velocity and direction.

1.16 Emergency Equipment and First Aid Requirements

Communications

The **CONTRACTOR** shall provide telephone communication at the site field office. Emergency numbers, such as police, sheriff, fire, ambulance, hospital, poison control, NYSDEC, EPA, NYSDOH, and utilities, applicable to this site shall be prominently posted near the telephone.

The **CONTRACTOR** shall establish a signaling system for emergency purposes.

Emergency Shower and Emergency Eye Wash

The **CONTRACTOR** shall supply and maintain one portable eyewash/body wash facility per active hazardous work zone. The facility shall have a minimum water capacity of 10 gallons and shall conform to OSHA regulations 29 CFR 1910.151. The portable eyewash/body wash facility shall be manufactured/ supplied by Direct Safety Company, Lab Safety Supply Company, or other appropriate suppliers.

Fire Extinguishers

The **CONTRACTOR** shall supply and maintain at least one fire extinguisher in the **CONTRACTOR's** office and one at each hazardous work zone. The fire extinguisher shall be a 20-pound Class ABC dry fire extinguisher with UL-approval per OSHA Safety and Health Training Standards 29 CFR 1910.157. The fire extinguisher shall be manufactured/supplied by Direct Safety Company, Lab Safety Supply Company, or other appropriate suppliers.

First Aid Kit

The **CONTRACTOR** shall supply and locate in his project office and at each and every hazardous work zone one 24-unit (minimum size) "industrial" or "Contractor" first aid kit, required by OSHA requirements 29 CFR 1910.151. The first aid kit shall be manufactured/supplied by Norton, Scott, or other appropriate suppliers.

Emergency Inventory

In addition to those items specified elsewhere, the SO will maintain the following inventory of equipment and protective clothing for use at the site in the event of emergencies.

a. Washable coveralls;

b. Gloves (outer);

c. Gloves (inner);

d. SCBA;

e. Escape SCBA (authorized visitor use);

f. Face shields;

g. Safety glasses;

h. Respirators and appropriate cartridges;

i. Disposable coveralls

j. Chemical-resistent boots and latex boot covers;

k. Hard hats;

l. Bottled breathing air; and

m. Rain suits.

1.17 Emergency Responses/contingency Plan and Procedures

Daily Work

During the progress of work, the **CONTRACTOR** will monitor the quality of the air in and around each active hazardous operation prior to personnel entering these areas. Sampling shall be conducted on a continuous basis. Based on the air monitoring data, the proper level of protection will be chosen by the SO.

Emergency Vehicle Access

In the event that emergency services vehicles (police, fire, ambulance) need access to a location which is blocked by the working crew operations, those operations (equipment, materials, etc.) will be immediately moved to allow those vehicles access. Emergency crews will be briefed as to site conditions and hazards by the SO. All vehicles and personnel will be decontaminated prior to leaving the site.

The **CONTRACTOR** shall schedule a site briefing with the local Fire Department at the completion of mobilization to familiarize emergency response personnel with his operations and site layout.

Personal Injury Response Plan

In cases of personal injuries, the injured person or the crew personnel in charge will notify the SO. The SO will assess the seriousness of the injury, give first aid treatment if advisable, consult by telephone with a physician if necessary, and arrange for hospitalization if required. The SO will arrange for an ambulance if required.

If soiled clothing cannot be removed, the injured person will be wrapped in blankets for transportation to the hospital.

Personnel, including unauthorized personnel, having skin contact with chemically contaminated liquids or soils shall be flushed with water after any wet or soiled clothing has been removed.

These personnel should be observed by the SO to ascertain whether there are any symptoms resulting from the exposure. If there is any visible manifestation of exposure such as skin irritation, the project personnel will refer to a consulting physician to determine whether the symptoms were the result of a delayed or acute exposure, a secondary response to exposure such as skin infection, or occupational dermatitis. All episodes of obvious chemical contamination will be reviewed by the SO in order to determine whether changes are needed in work procedures.

Route to the Hospital

The **CONTRACTOR** shall post in conspicuous places in the Support Zone a map with written directions to the nearest hospital or emergency medical treatment facility.

Fire Service

The **CONTRACTOR** will make arrangements to take immediate fire fighting and fire protection measures with the local Fire Chief. If there is a fire, the crewmen or their person in charge will immediately call the SO. The SO will immediately call the fire personnel.

The air downwind from any fire or explosion will be monitored immediately in order to protect workers and the nearby community. If personal injuries result from any fire or explosion, the procedures outlined in the Personal Injury Response Plan are to be followed.

Master Telephone List

The attached master telephone list will be completed and prominently posted at the field office. The list will have telephone numbers of all project personnel, emergency services including hospital, fire, police, and utilities. In addition, two copies with telephone numbers are to be given to the **DEPARTMENT** for emergency reference purposes.

Emergency Service		Telephone Number
Fire Department		911
Police Department		911
Ambulance		911
Hospital/Emergency Care Facility (Oswego Hospital)		(315) 349-5511
Poison Control Center		(800) 336-6997
Chemical Emergency Advice (CHEMTREC)		(800) 424-9300
NYSDEC Albany Office	Work Hours After Hours	(518) 457-7878 (800) 342-9296 (leave message)
NYSDEC Syracuse Office	Work Hours	(315) 426-7551
Oswego County Dept. of Health		(315) 349-3545
New York State Dept. of Health - Albany		(518) 402-7890
New York State Dept. of Health - Syracuse		(315) 426-7627

1.18 Heat Stress Monitoring

Site personnel who wear protective clothing allow body heat to be accumulated with an elevation of the body temperature. Heat cramps, heat exhaustion, and heat stroke can be experienced, which, if not remedied, can threaten life or health. Therefore, an American Red Cross Standard First Aid book or equivalent will be maintained on site at all times so that the SO and site personnel will be able to recognize symptoms of heat emergencies and be capable of controlling the problem.

When protective clothing is worn, especially Levels A and B, the suggested guidelines for ambient temperature and maximum wearing time per excursion are:

Ambient Temperature (°F)	Maximum Wearing Time Per Excursion (Minutes)
Above 90	15
85 to 90	30
80 to 85	60
70 to 80	90
60 to 70	120
50 to 60	180

One method of measuring the effectiveness of employees' rest-recovery regime is by monitoring the heart rate. The "Brouha guideline" is one such method:

- During a 3-minute period, count the pulse rate for the **last** 30 seconds of the first minute, the **last** 30 seconds of the second minute, and the **last** 30 seconds of the third minute.
- Double the count.

If the recovery pulse rate during the last 30 seconds of the first minute is at 110 beats/minute or less and the deceleration between the first, second, and third minutes is **at least** 10 beats/minute, the work-recovery regime is acceptable. If the employee's rate is above that specified, a longer rest period is required, accompanied by an increased intake of fluids.

In the case of heat cramps or heat exhaustion, "Gatorade" or its equivalent is suggested as part of the treatment regime. The reason for this type of liquid refreshment is that such beverages will return much-needed electrolytes to the system. Without these electrolytes, body systems cannot function properly, thereby increasing the represented health hazard.

This liquid refreshment will be stored in a cooler at the edge of the decontamination zone in plastic squeeze bottles. The plastic bottles will be marked with individual's names. Disposable cups with lids

and straws may be used in place of the squeeze bottles. Prior to drinking within the decontamination zone, the project personnel shall follow the following decontamination procedures:

A. Personnel shall wash and rinse their outer gloves and remove them.

B. Personnel shall remove their hard hats and respirators and place on table.

C. Personnel shall remove their inner gloves and place them on table.

D. Personnel shall wash and rinse their face and hands.

E. Personnel shall carefully remove their personal bottle or cup from the cooler to ensure that their outer clothes do not touch any bottles, cups, etc.

F. The used bottle or cups will not be returned to the cooler, but will be placed in a receptacle or container to be cleaned or disposed of.

G. Personnel shall replace their respirators, hard hats, gloves and tape gloves prior to re-entering the hazardous zone.

When personnel are working in situations where the ambient temperatures and humidity are high--and especially in situations where protection Levels A, B, and C are required--the SO must:

- Assure that all employees drink plenty of fluids ("Gatorade" or its equivalent);
- Assure that frequent breaks are scheduled so overheating does not occur; and
- Revise work schedules, when necessary, to take advantage of the cooler parts of the day (i.e., 5:00 a.m. to 1:00 p.m., and 6:00 p.m. to nightfall).

Cold Stress

Whole-body protection shall be provided to all site personnel that have prolonged exposure to cold air. The right kind of protective clothing shall be provided to site personnel to prevent cold stress. The following dry clothing shall be provided by the CONTRACTOR as deemed necessary by the SO:

- Appropriate underclothing (wool or other);
- Outer coats that repel wind and moisture;
- Face, head, and ear coverings;
- Extra pair of socks;
- Insulated safety boots; and

- Glove liners (wool) or wind- and water-repellant gloves.

The SO will use the equivalent chill temperature when determining the combined cooling effect of wind and low temperatures on exposed skin or when determining clothing insulation requirements.

Site personnel working continuously in the cold are required to warm themselves on a regular basis in the on-site hygiene facility. Warm, sweet drinks will also be provided to site personnel to prevent dehydration. The SO shall follow the work practices and recommendations for cold stress threshold limit values as stated by the 1991-1992 Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices by the American Conference of Governmental Industrial Hygienists or equivalent cold stress prevention methods.

1.19 Logs, Reports and Record Keeping

Security Log

A daily log of security incidents and visitors granted access to the site will be maintained, as well as a log of all personnel entering and exiting the site.

All approved visitors to the site will be briefed by the SO on safety and security, provided with temporary identification and safety equipment, and escorted throughout their visit. Site visitors will not be permitted to enter a hazardous work zone.

Project site shall be posted, "Warning: Hazardous Work Area, Do Not Enter Unless Authorized," and access restricted by the use of a snow fence.

Safety Log

The CONTRACTOR's SO will maintain a bound safety logbook. The log will include all health and safety matters on site and include, but not be limited to, the following information:

- Date and weather conditions on site;
- A description of the proposed work for the day;
- Times when site personnel arrive and depart;
- Air monitoring data;
- Heat and/or cold stress monitoring;
- Decontamination procedures;
- Type and calibration of air sampling/monitoring equipment used;
- Safety meeting summaries; and

- Accidents

Emergency Or Accident Report

Any emergency or accident will be reported immediately to the SO. The **ENGINEER** will also be notified. The **CONTRACTOR** will submit a written report immediately, but no later than 24 hours of its concurrence. The report will include, but not be limited to, the nature of the problem, time, location, areas affected, manner and methods used to control the emergency, sampling and/or monitoring data, impact, if any, to the surrounding community, and corrective actions the **CONTRACTOR** will institute to minimize future occurrences. All spills will be treated as emergencies.

Daily Work Report

The **CONTRACTOR** shall maintain a daily work report that summarizes the following:

- Work performed,
- Level of protection,
- Air monitoring results,
- Safety-related problems, and
- Corrective actions implemented.

1.20 Posting Regulations

The **CONTRACTOR** will post signs at the perimeter of the Exclusion Zone that state "Warning, Hazardous Work Area, Do Not Enter Unless Authorized." In addition, a notice directing visitors to sign in will be posted at the project site Also, the **CONTRACTOR** will post a sign stating that any questions about the site should be directed to the New York State Department of Environmental Conservation.

Safety regulations and safety reminders will be posted at conspicuous locations throughout the project area. The following safety regulations and safety reminders are at a minimum to be posted around the job site.

SAFETY REGULATIONS

(To be Posted for Project Personnel)

The main safety emphasis is on preventing personal **contact** with gases, soils, sludge and water. Towards that end, the following rules have been established.

Regulations

A. Eating, drinking and smoking on the site is PROHIBITED except in specifically designated areas.

B. All project personnel on the site must wear clean or new gloves daily.

C. If you get wet to the skin, you must wash the affected area with soap and water immediately. If clothes in touch with the skin are wet, these must be changed.

D. You must wash your hands and face before eating, drinking or smoking.

E. Observe regulations on washing and removing boots before entering the dressing room or a clean area and showering before going home.

Recommendations

A. Do not smoke on site with dirty hands; better yet, do not smoke.

B. Check for any personal habit which could get soil or water into your body.

Examples: food off your fingers, wiping your face or nose with a dirty hand or running a dirty hand through your hair.

C. Check that any regularly worn clothing is clean. Examples include dirty watchbands, neck chains and a dirty liner on your safety helmet. Safety practices with poisonous chemicals can be summed up with a few words:

Don't breathe in chemical odors and don't touch the water, soil, and sludge.

If you do get dirty or wet, clean up as soon as possible.

SAFETY REMINDER FOR TOXIC CHEMICALS

(Post for Project Personnel)

Chemicals can't cause problems unless you breathe them, eat them, or put them on your skin.

Chemicals in Gases, Soils, Sludge, and Water

Don't let them go into your mouth, nose, or stay on your skin.

Use common personal hygiene.

A. Don't eat or drink on the site.

B. No smoking in the area of work.

C. Wear protective clothing.

D. Glove liners must be clean.

E. Wash your hands whenever practical. Wash before eating, drinking, or smoking.

F. Don't carry chemicals home to your family. (For example, on clothing, mud in the car, dirty hands.)

G. Follow strictly the HASP.

1.21 Community Protection

General

The **CONTRACTOR** shall develop, as part of this HASP, a Community Protection Plan (CPP). The CPP shall outline those steps which the **CONTRACTOR** will implement to protect the health and safety of surrounding human population and the environment.

A. Air Monitoring

Provide real-time air monitoring for particulate levels at the perimeter of the work area including the monitoring of particulates shall be monitored at the two documentation sampling stations for a total of 2 dust monitors. If the downwind particulate level is 50 $\mu g/m^3$ greater than the upwind particulate level, dust suppressing techniques shall be employed. All readings shall be recorded and be available for State (DEC and DOH) personnel to review.

B. Off-Site Spill Response

The **CONTRACTOR** shall produce a Spill Response Plan, coordinated with local officials, in case of an off-site spill of either liquid or solid wastes. The plan shall include transportation routes and times, as well as arrangements for cleanup and decontamination measures. The driver shall be supplied with Material Safety Data Sheets (MSDSs), a 24-hour emergency phone number, and instructions for reporting emergencies to local agencies and the project site.

1.22 Confined Space Work

CONTRACTOR'S work may require entry into confined spaces. Confined space work shall be conducted in accordance with **CONTRACTOR'S** "permit required confined space" program. **CONTRACTOR's** bid shall include all costs necessary to perform the work in accordance with these requirements.

As part of the entry program, the **ENGINEER** will:

a. Brief the **CONTRACTOR** regarding any hazards identified and the **ENGINEER's** experience, if any, with confined space which makes the space a permit required confined space.

b. Advise the **CONTRACTOR** of any precautions or procedures that haven't been implemented if previous work was performed in the confined space.

c. Observe entry operations of the **CONTRACTOR** to determine whether the requirements of 1910.146 are being met.

d. Debrief the **CONTRACTOR** at the conclusion of the entry regarding the conditions and any hazards which may have been encountered during confined space work.

2. PRODUCTS

Not Used.

3. EXECUTION

Not Used.

*** END OF SECTION ***

SECTION 01400
QUALITY CONTROL

PART I GENERAL

1.01 SECTION INCLUDES

A. Quality assurance and control of installation.
B. References and Standards.
C. Tolerances.
D. Field samples.
E. Inspection and testing services.
F. Testing by Contractor.
G. Manufacturers' field services and reports.

1.02 RELATED SECTIONS

A. Section 01300 - SUBMITTALS: Manufacturers' instructions and certificates.

1.03 QUALITY ASSURANCE/CONTROL

A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.
B. Comply fully with manufacturers' instructions, including each step in sequence.
C. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.
D. Should manufacturers' instructions conflict with Contract Documents, request clarification from Engineer before proceeding.
E. Comply with specified standards as a minimum quality for the Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
F. Perform work by persons qualified to produce workmanship of specified quality.
G. Secure Products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion or disfigurement.

1.04 REFERENCES AND STANDARDS

A. Conform to reference standard by date of issue current on date for receiving bids, except where a specific date is established by code.
B. For products or workmanship specified by association, trade, or other consensus standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
C. Should specified reference standards conflict with Contract Documents, request clarification from Engineer before proceeding.

1.05 TOLERANCES

A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.

B. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from Engineer before proceeding.

C. Adjust products to appropriate dimensions; position before securing products in place.

1.06 FIELD SAMPLES

A. Furnish field samples at the site as required by individual Specification Sections for review.

B. Acceptable samples represent a quality level for the Work.

C. Where field sample is specified in individual Sections to be removed, clear area after field sample has been accepted by Engineer.

1.07 TESTING BY LABORATORY SERVICES

A. Contractor shall employ and pay for the services of an independent testing firm, acceptable to Department and Engineer, to perform tests.

B. Independent testing firm shall:

1. Perform tests and other services specified in the individual Specification Sections and as required by Engineer and Department.
2. Prepare and submit reports to the Engineer, in duplicate, indicating observations and results of tests and indicating compliance or non-compliance with Contract Documents.

C. Engineer will forward copy of report(s) to Contractor.

D. Contractor shall:

1. Cooperate with independent firm; furnish samples of materials; furnish design mix, equipment, tools, storage and assistance as requested.
2. Notify Engineer and independent firm 48 hours prior to expected time for operations requiring services.
3. Make arrangements with independent firm and pay for additional samples and tests required for Contractor's own use.

E. Retesting required because of non-conformance to specified requirements shall be performed, on instructions by the Engineer, by the same independent firm which performed the initial tests and inspections.

F. Payment for retesting will be the Contractor's cost with no change in the contract price.

PART 2 PRODUCTS Not used.

PART 3 EXECUTION Not used.

END OF SECTION

SECTION 01425

CHARACTERIZATION SAMPLING

1. GENERAL

1.1 Description

A. The **CONTRACTOR** shall collect, preserve, handle, transport, analyze, and report results in writing of the analyses of characterization samples.

B. Soils in the Yard Area targeted for excavation are identified as "known clean" or "suspected clean" on contract drawings. These soils have been characterized by previous testing by the **DEPARTMENT** during the remedial investigation and design. No characterization testing of these soils is included in this contract.

C. Material outside the "known clean" or "suspected clean" areas may be identified by the **ENGINEER** as providing insufficient support for the proposed concrete slab. All such material shall be excavated, staged on-site, analyzed for PCBs. If levels are below 1 ppm, material can be deposited either in the cooling water pond or in the northeast corner of the site. If the PCBs are detected at levels above 1 ppm, but under 10 ppm, it may be disposed of off-site as provided for in Section 02223 if approved by the engineer. If the consolidation process is still underway (i.e. if the geotextile and clean fill have not yet been placed) this material shall be deposited in the cooling water pond. If PCBs are detected at levels above 10 ppm, the material shall be disposed off-site as provided for in Section 02223.

D. Prior to excavation, the **CONTRACTOR** shall collect characterization samples in the area of the sediment removal as described in these specifications, as shown on the plans, and as directed by the **ENGINEER** to confirm the areal extent of sediments which contain PCBs above the screening level of 1.0 part per million. Approximately twenty-two (22) sediment samples shall be collected from the wetland area and analyzed for PCBs.

E. The **CONTRACTOR** shall have the samples analyzed by an NYSDOH ELAP certified laboratory. Samples will be analyzed by EPA Standard Method 8080.

1.2 Related Sections

Section 01010 - Summary of Work.
Section 02220 - Excavation.
Section 02221 - Sediment Excavation.

1.3 Submittals

The **CONTRACTOR** shall submit a written plan for sampling procedures that shall detail the **CONTRACTOR**'s operation and shall include all activities that will relate to the

collection of samples, transportation and analysis. All procedures shall be consistent with the site specific Quality Assurance Project Plan (QAPjP).

2. PRODUCTS

Not Applicable

3. EXECUTION

3.1 Soil and Sediment Samples

A. The **CONTRACTOR** shall collect characterization samples as described in Section 02221- Sediment Removal, and as directed by the **ENGINEER.**

B. Sampling and analytical methods and procedures for verification sampling shall be detailed and in accordance with the **CONTRACTOR**'s site-specific QAPjP (see Section 01010 Summary of Work).

C. A 48-hour turnaround time is required for all PCB samples. The acceptable laboratory to be utilized for the required work must be advised in advance of this recommendation for adequate participation. The **ENGINEER** will require a hard copy of analytical results, with the ASP Category B reporting and deliverable package in CLP format to be supplied within three weeks of sample collection.

D. Soil and sediment Samples shall be analyzed for the following:

1. TCL PCBs: Method 8080 with category B deliverables.

E. Analytical results shall be reported on dry weight basis.

F. Soil samples will be considered environmental samples (i.e., not waste samples), and will require strict adherence to QA/QC requirements for environmental samples. Laboratory QA/QC samples include analysis of one matrix spike/matrix spike duplicate (MS/MSD) set per 20 samples. One matrix spike blank analysis for every MS/MSD set is required also, in order to substantiate any matrix interferences. In addition, field duplicate and field rinsate blank QC samples are required. Field duplicate samples shall be collected and analyzed at a rate of one per every 10 field samples. Field rinsate blank samples are not required if dedicated sampling equipment is utilized.

G. If the sampling results are not within acceptable QA/QC ranges (as stated in the **CONTRACTOR's** QAPjP), the **CONTRACTOR** shall collect and analyze an additional sample(s) at the location(s) of the sample(s) not meeting QA/QC requirements. A maximum 48-hour turnaround time is required on any additional sampling required as stated in paragraph G above. Additional samples shall be at **CONTRACTOR's** cost.

H. The **ENGINEER** shall review the **CONTRACTOR's** Analytical Data Deliverable Package. If verification sampling data quality is found not to meet QA/QC requirements as stated in the **CONTRACTOR's** QAPjP after this review, the **CONTRACTOR** shall be responsible for all costs to secure verification sampling data quality even if initial results indicated that the data met all QA/QC requirements. These additional costs could include but may not be limited to, resampling and reanalysis, further excavation, backfilling, and top soiling, seeding, and mulching.

*** END OF SECTION ***

SECTION 01520

TEMPORARY FACILITIES AND CONTROLS

1. GENERAL

1.1 Scope of Work

A. Provide temporary facilities or contingency equipment as required herein to properly carry out the Project scope of work.

1.2 Related Sections

A. All plans and provisions of the Agreement, including Amendments and Specific Conditions, apply to the work of this section.

2. PRODUCTS

2.1 Materials and Equipment

A. Provide new or used materials and equipment that are undamaged and in working condition.

B. Provide only materials and equipment that are recognized as being suitable for the intended use (through compliance with appropriate standards and regulations).

2.2 Water Service

A. Provide valves with adequate temperature and pressure ratings for the intended use.

B. Provide back flow protection or adequate vacuum breakers.

C. Provide heavy-duty, abrasion-resistant hoses with a pressure rating greater than the maximum pressure of the water system.

D. Provide adequately sized hot water heater.

2.3 Electrical Service

A. Provide written plan for electrical service while on site with appropriate approvals as necessary.

B. Provide materials that comply with applicable NEMA, NECA, and UL standards and governing regulations of temporary electrical services.

C. Provide grounded extension cords with waterproof connectors. Use "hard service" cords where there is exposure to abrasion and traffic.

D. Provide general service lamps and guard cages or tempered glass enclosures where lamp is exposed to breakage by removal operations. Use liquid-tight enclosures or boxes for the devices.

3. EXECUTION

3.1 General

A. Use qualified tradesmen for installation of temporary utilities, facilities, and constructions.

B. Locate all temporary items where they are approved and in such a manner to cause minimum interference with the project work and operation of the other site activities.

C. Relocate, modify, and extend services and facilities as required to accommodate the Project, or as directed by the **ENGINEER**, throughout the course of the work.

D. Install temporary utilities in accordance with the servicing utility's requirements.

3.2 Temporary Utilities

A. Temporary Power

1. The **CONTRACTOR** shall provide a weatherproof, grounded temporary electrical power service and distribution system of sufficient size, capacity, and power characteristics to accommodate performance of the work.

2. Install overload protection and disconnect switches for each temporary circuit at the power source.

3. Install all cable or extension cords in the work area in such a manner that visual surveillance is easily accomplished.

B. Temporary Light

1. The **CONTRACTOR** shall provide temporary lighting adequate to provide sufficient illumination for safe work and traffic conditions in every area of work. Minimum lighting shall be five foot candles.

2. Wiring in the work area shall be in UL-approved cable and located in such a manner that visual surveillance is easily accomplished.

C. Temporary Water for Construction

1. The **CONTRACTOR** shall install a temporary potable water service to adequately supply the temporary enclosure areas.

2. Limit the flow on each hot and cold water line to 10 gallons per minute.

3. Provide hot water at a minimum temperature of 100°F.

4. Maintain piping, hoses, connections, and valves in leak-proof condition. Where finish surfaces may be damaged by spillage or leakage, provide drip pans of suitable size. Drain water promptly from pans as it accumulates.

5. The **CONTRACTOR** shall obtain the necessary permission for source of water, make all connections, and remove same at completion of the work. Any damage to the existing system shall be repaired at no cost to this Contract.

6. If the water is obtained by connecting to the public water system, the connection shall include suitable back flow preventor and shall be appropriately decommissioned.

3.3 Temporary Facilities

A. Staging Areas

1. Staging areas (if required) shall be located on the site in areas approved by the **ENGINEER** in order to minimize possible cross contamination.

2. The staging areas shall have a lined bottom with a minimum 40-mil sealed, HDPE watertight liner.

3. Waste materials shall be covered at all times with a minimum 12-mil HDPE sealed, watertight liner to prevent contaminated runoff.

4. All staging areas shall be constructed to prevent the spread of any contamination to the surrounding soils, surfaces, and/or groundwater.

5. Water spray or equivalent shall be utilized as necessary to prevent dust generation. Monitoring shall be provided to ensure that unacceptable levels of dust generated from the movement and handling of soil do not migrate from the site.

6. Shop Drawings of all staging areas shall be submitted by the **CONTRACTOR** to the **ENGINEER** for review and approval prior to the start of work.

7. The **CONTRACTOR** shall decontaminate staging areas on concrete pads as directed by the **ENGINEER**.

B. Decontamination Trailer and Personal Hygiene Facility

1. A separate trailer for personnel decontamination shall be provided. The equipment and fixtures specified below shall be provided:

   a. Shower facilities with at least one shower for every six on-site personnel. Separate showers shall be provided for men and women.

   b Locker room with one locker for each employee.

   c. A room where all personnel safety equipment and protective clothing can be stored.

   d Laundry area equipped with automatic washing and drying machines or sub-contract laundering to a service firm approved by the **ENGINEER.**

   e Boot rack for wash boots to drain.

   f. Toilet facilities in accordance with OSHA and local health organizations.

   g. Sanitary waste holding tank and piping from the decontamination facility and site offices.

2. All equipment and fixtures shall be maintained in clean condition. No storage of any equipment will be allowed in the decontamination trailer. The installation shall be in accordance with the HASP.

3. Shop drawing of the trailer and facilities shall be submitted by the **CONTRACTOR** to the **ENGINEER** for review and approval.

C. Sanitary Facilities

1. The **CONTRACTOR** shall provide self-contained chemical toilet units in an amount based on the total number of workers employed on the Project in accordance with the provisions of the Health and Sanitary Codes of the State of New York. The **CONTRACTOR** may locate some of them in the work area. Those that are located outside the work area shall be located where approved by NYSDEC and screened from public view. At the completion of the abatement work, units within the work area shall be decontaminated prior to their removal from the enclosures. Units shall be maintained throughout the work.

3.4 Temporary Controls

A. Fire Prevention

1. Take all precautions necessary and required to prevent fires.

2. Volatile liquids shall not be used within a temporary enclosure.

3. Provide a minimum of two extinguishers for each separate and active enclosure. Locate one in the dirty room of the decontamination unit and one in the clean room.

4. The **CONTRACTOR** shall contact the local Fire Company, schedule, and conduct a site visit for Fire Company personnel after mobilization is complete to ensure familiarity with the **CONTRACTOR's** operations.

B. Noise, Vibration, and Dust Control

1. Conduct operations to cause least annoyance to residents in vicinity of work, and comply with applicable local ordinances.

2. Equip compressors, hoists, and other apparatus with such mechanical devices as may be necessary to minimize noise, vibration and dust. Equip compressors with silencers on intake lines.

3. Equip gasoline or oil-operated equipment with silencers or mufflers on intake and exhaust lines.

4. Provide unpaved roads, detours, or haul roads used in construction areas with water treatment to minimize dust. No visible dust, as determined by the **ENGINEER**, will be permitted beyond the limits of the exclusion zone.

5. **CONTRACTOR** is responsible for providing all sound barriers needed to meet the requirements of these specifications. **CONTRACTOR** is responsible for all costs related to the manufacturer's representatives or consultants (contractors) who specialize in addressing such problems.

C. Water Control

1. Exercise care in project drainage practice to prevent pollution of watercourses.

2. The **CONTRACTOR** shall be fully responsible for any and all damages to life and property that occur as a result of his activities. Damages resulting from polluting watercourses shall be repaired, restored, or compensated for by the **CONTRACTOR**.

3. Grade construction areas so as to minimize retention of rainwater, except as specified hereafter. Provide temporary rainwater runoff diversion around construction areas.

4. Comply with procedures outlined in EPA manuals entitled, "Guidelines for Erosion and Sedimentation Control Planning and Implementation,"

EPA-72-015, and "Processes, Procedures, and Methods to Control Pollution Resulting from All Construction Activity," EPA 43019-73-007.

D. Pollution Control

1. Maintain work areas on and off site free from further environmental pollution that would be in violation of any federal, state, or local regulations.

2. Minimize air pollution by wetting down bare soils with clean water, requiring use of properly operating combustion emission control devices on construction vehicles and equipment used by **CONTRACTORS**, and encouraging shutdown of motorized equipment not actually in use.

3. Any emissions during site activities that may have an adverse health effect on workers or the community shall be suppressed to the extent possible.

4. Chemicals used, whether herbicide, pesticide, disinfectant, polymer, reactant, or other classification, must be approved by either the EPA or USDA or any other applicable regulatory agency and the **ENGINEER** and be used in a manner as their original purpose was intended.

5. Use of such chemicals and disposal of residues shall be in conformance with manufacturers' instructions.

6. Use of chemicals must be approved in advance by the **ENGINEER**.

7. Disposal of volatile fluid wastes (such as mineral spirits, oil, or paint thinner) in storm or sanitary sewer system or into streams or waterways is not permitted.

8. Volatile wastes generated will be handled as hazardous wastes and reported to NYSDEC.

9. The **CONTRACTOR** shall provide that the generated project hazardous waste (if any) and any existing hazard waste to be removed under this project shall be transported, manifested, and disposed in accordance with the current regulations.

10. More specific requirements are given in other sections of this document.

E. Traffic Control

1. The **CONTRACTOR** shall maintain all temporary road access routes. Temporary access roads will be repaired as necessary to insure unimpeded daily operations of Great Lakes Veneer, Corp. This may include at a minimum, routine grading of the temporary access roads.

F. Rubbish Control (Noncontaminated)

1. Clean up the debris resulting from the work at the end of each day and leave work areas broom clean.

2. Remove debris from the site at least once a week or more often if it presents a fire hazard or becomes excessive. Burning of waste material will not be permitted.

3.5 Removal

A. Maintain all temporary facilities and controls as long as needed for the safe and proper completion of the work.

B. Remove all such temporary facilities and controls as soon as safe progress of the work will permit.

*** END OF SECTION ***

SECTION 01540

SECURITY

1. GENERAL

1.1 Site Security

A. The **CONTRACTOR** is solely responsible for the security of the **ENGINEER's** and **CONTRACTOR's** work areas, equipment, materials, and supplies provided under this contract. Furthermore, **CONTRACTOR** is responsible for ensuring site visitors related to this contract are escorted as necessary (to get where they are going) and do not enter contaminated areas without authorization.

B. If the **CONTRACTOR** furnishes a uniformed watchman or other security personnel, the **CONTRACTOR** shall provide that person(s) with accommodations separate from the **DEPARTMENT** and **ENGINEER**. The **ENGINEER** will have the right of approval and rejection of the **CONTRACTOR's** security personnel.

C. The **CONTRACTOR** shall be responsible for the control of all persons and vehicles entering and leaving the project site, and shall:

1. Require personnel to print full name and employer and sign in on entering the project site and to sign out when leaving and maintain the logs.

2. Maintain a log of project-related vehicles and equipment entering and leaving the work areas.

3. Persons not associated with the project will require the **ENGINEER's** acceptance to be admitted on site.

4. Maintain a log of visitors, separate from the project personnel log.

D. A log of all security incidents shall be maintained and furnished to the **ENGINEER** upon request.

E. The **CONTRACTOR** shall ensure that all warning signs are in place and temporary fences around work areas are closed and any breaks or gaps are attended immediately. The **ENGINEER** shall be informed immediately of any incident of vandalism in the work areas.

F. The **CONTRACTOR** shall contact law enforcement officials, emergency medical care units, local fire departments and utility emergency teams to ascertain the type of response required in any emergency situation and to coordinate the responses of the various units. A standard operating procedure describing security force response to foreseeable contingencies shall be developed. The **CONTRACTOR**

shall also prepare and update a list of emergency points of contact, telephone numbers, radio frequencies, and call signs to ensure dependable responses.

G. The **CONTRACTOR** shall maintain a current list of authorized persons and shall submit copies of the updated list to the **ENGINEER**.

H. Security personnel shall record their presence while patrolling the site using a watchman's clock. The tapes or punch cards shall be delivered to the **ENGINEER** once a week.

2. PRODUCTS

Not Applicable.

3. EXECUTION

Not Applicable.

*** END OF SECTION ***

SECTION 01560

EROSION AND SURFACE WATER CONTROL

1. GENERAL

1.1 Scope of Work

A. The CONTRACTOR shall furnish all labor, tools, materials, equipment, and incidentals necessary for the proper completion of soil excavation and wetlands remediation and all related sediment and erosion control as specified herein.

B. The CONTRACTOR shall provide positive means of erosion control, such as shallow ditches (see "New York Guidelines for Urban Erosion and Sediment Control" Third printing 10/91 USDA - Soil Conservation Service) around work areas to remove surface drainage water from excavated areas. Only those waters that meet the New York State discharge criteria for the contaminants contained in the water may be disposed of in this manner. Nonhazardous water that does not meet the New York State discharge criteria must be disposed of as outlined in Section 01010, paragraph 4.9. Water from non-contaminated surface drainage control operations shall be treated by filtration, settling basin, or other approved methods to reduce the amount of sediment contained in the water to allowable levels prior to discharge. At the completion of the remedial work, ditches shall be backfilled and the ground surface restored to original conditions.

1.2 Related Sections

Section 02110 - Site Clearing.
Section 02220 - Excavation.
Section 02221 - Sediment Removal.

1.3 Submittals

The CONTRACTOR shall submit a written Work Plan that shall detail the CONTRACTOR's operation and shall include all activities that will relate to the soil and sediment excavation and pond remediation (i.e., excavation plan, sampling plan, etc.) subject to the approval of the ENGINEER. The Work Plan must detail erosion control methods and surface water management procedures which will be implemented by the CONTRACTOR throughout the work.

2. PRODUCTS

Not Applicable

3. EXECUTION

A. The **CONTRACTOR** shall adhere strictly to the provisions of the Work Plan as approved and shall control and manage surface water in every area where his/her activities take place. The actual methods shall be chosen by the **CONTRACTOR**; however, the **ENGINEER** must approve any method before construction begins.

B. Surface water from areas of the excavation which have not been disturbed and which do not show signs of exposed refuse or leachate seeps shall be prevented from entering areas where construction or work is in progress or contaminated areas.

C. Surface water from areas of known areas of contamination shall be collected prior to leaving those areas and transported or pumped through watertight pipes to a temporary storage tank for later treatment through the water treatment system. Disposal shall be in accordance with all Federal and State regulations at **CONTRACTOR's** cost.

D. In the event surface runoff is the cause of existing clean areas, or subsequently cleaned areas, becoming contaminated, the affected areas shall be cleaned in accordance with instructions given by the **ENGINEER.** The **CONTRACTOR** shall be responsible for all costs associated with mitigating the affects of contaminated runoff migrating to clean areas or off site during the duration of the contract.

E. Leachate which is visibly flowing from the excavation shall be collected at each exit point and piped or transported into a temporary storage facility for on-site treatment in accordance with Federal and State regulations.

* END OF SECTION *

SECTION 01580

PROJECT IDENTIFICATION AND SIGNS

1. GENERAL

1.1 Description

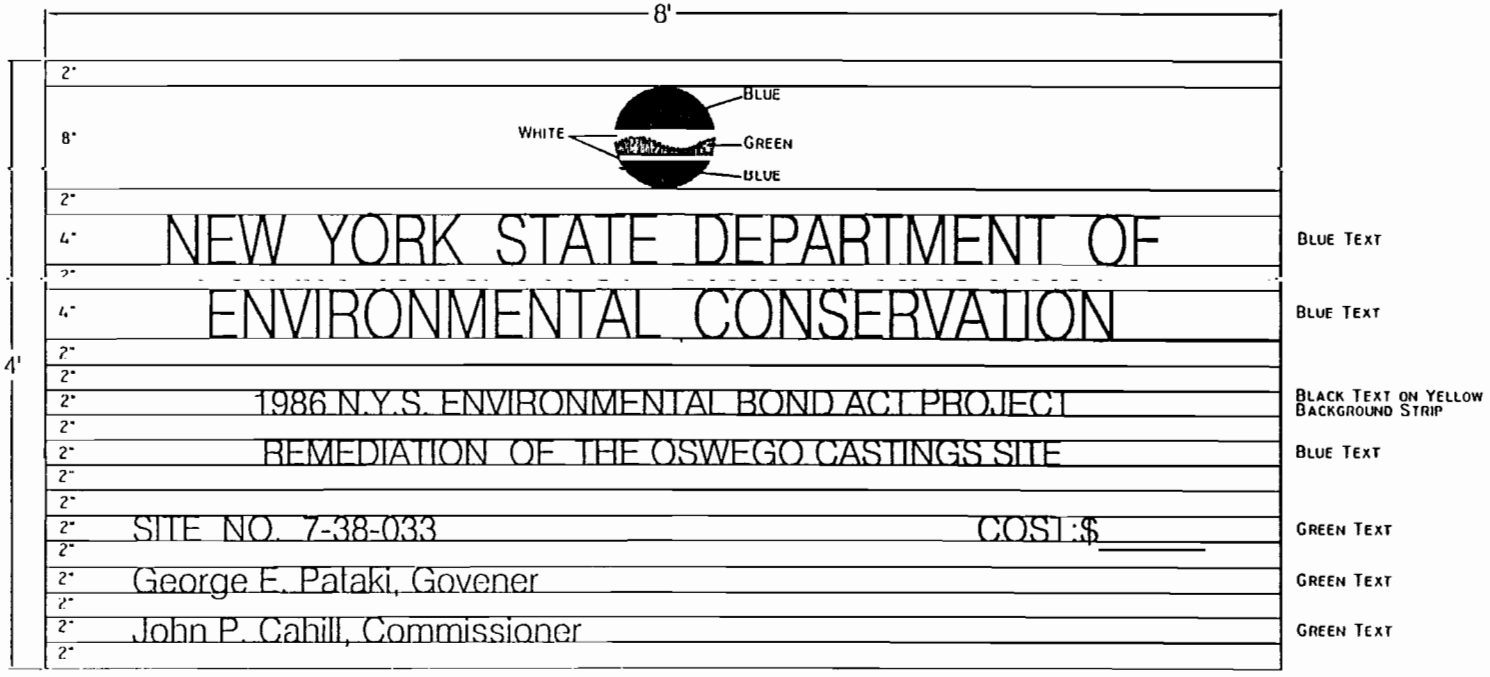
A project sign with the following specifications and as shown on the attached Figure 8 is to be installed at a location designated by the **ENGINEER**.

2. PRODUCTS

The sign shall be 4' high by 8' wide, and constructed of 3/4- to 1-inch medium density overlay plywood, with a resin coating on both sides. The edges shall be framed with a snap trim edge cap consisting of an aluminum channel with a polyvinyl coating. An aluminum sign of equal size may also be used. The sign's background will be painted with white exterior oil base sign enamel. The fourth line will have green letters. The first, second and third lines will have blue letters. The NYSDEC logo will be painted as noted. Graphics are to be painted with a commercial grade exterior paint. All adhesives are solvent resistant. The center of the sign should be located approximately 6 to 7 feet from ground level.

3. EXECUTION

The sign will be erected on two 4-inch by 4-inch pressure-treated posts or similarly suitable material such as western Red Cedar. The posts shall be imbedded a minimum of 30 inches below grade.



NOTE: BACKGROUND OF SIGN IS WHITE. COST AMOUNT TO BE DETERMINED.

SECTION 01580 - PROJECT SIGN

* END OF SECTION *

SECTION 01590

FIELD OFFICES

1. FIELD OFFICES

A. The **CONTRACTOR** shall erect, furnish and maintain a field office with a telephone on the site of the work as approved by the **ENGINEER,** during the entire period of work. The **CONTRACTOR**, or an authorized agent, shall be present at his office at all times while his work is in progress. Readily accessible copies of both the Contract Documents and the latest approved working drawings shall be kept at his field office.

The **CONTRACTOR** shall provide one separate and lockable field office at the site for the exclusive use of the **DEPARTMENT** and the **ENGINEER.**

B. The **CONTRACTOR** shall submit for approval a plan for maintenance of the **DEPARTMENT's** and the **ENGINEER's** office facilities.

C. The **DEPARTMENT's** and the **ENGINEER's** Field Office Trailer shall be furnished as stipulated herein and in a location directed by the **DEPARTMENT/ENGINEER**. The **DEPARTMENT's/ENGINEER's** Field Office shall be located such that the trailers are directly adjacent to the exclusion zone and direct access is provided to the main facility entrance on Mitchell Street (ref. Drawing 3) unless otherwise approved by the **ENGINEER**. This will allow public access to the **DEPARTMENT's/ENGINEER's** Field Office without providing access to the work area. The **CONTRACTOR** shall provide signage as necessary to direct visitors, mailpersons, and delivery persons to specific areas of the site as appropriate. All necessary installations shall be provided. The Field Office Trailer shall be ready for occupancy within seven (7) days following the notice to proceed and shall be provided until substantial completion. The field office shall contain two partitioned offices with locking doors, each having a minimum of ninety-six (96) square feet of floor area and as a minimum each shall be furnished as follows:

1. Overhead shelves and two (2) two-drawer, fireproof, file cabinets with locks and keys.

2. One drafting table, 48" x 89".

3. One heater, sufficient to maintain comfortable working conditions.

4. One air conditioner, sufficient to maintain comfortable working conditions.

5. A closet.

6. Sufficient supply of outlets and lights.

8. Adequate supply of potable water.

9. Two (2) flat-top movable desks, 44" x 30", with lockable drawers.

10. Four (4) office chairs.

11. One drafting stool.

12. Two (2) large wastebaskets.

13. One photocopying machine with an adequate supply of paper..

14. One ten (10)-pound class ABC fire extinguisher.

15. First aid kit (Bullard Mfg. Co., Model 136 or equal).

16. One (1) direct-line telephone service with one (1) phone for the exclusive use of the **DEPARTMENT** and the **ENGINEER**, and one (1) answering machine.

17. One fax machine with a dedicated telephone line, built-in telephone, auto dial, and auto receive features.

18. One (1) computer running Windows 95 (or later edition) with internet access, printer, and an adequate supply of paper.

19. The Field Office shall contain one partitioned meeting area having a minimum of one-hundred forty (140) square feet of floor area. The meeting area will contain:

    a. One office table with laminated top, two feet six inches by 10 feet (2.5' x 10').

    b. Eight straight backed chairs.

    c. One (1) bulletin board, four feet by six feet (4' x 6').

    d. One (1) wastebasket.

    e. One (1) mailbox.

D. The **CONTRACTOR** shall be responsible for the first $200 per month of long distance calls made from the **DEPARTMENT's** and **ENGINEER's** Field Office.

E. A sign shall be furnished on the outside of the **DEPARTMENT/ ENGINEER's** Field Office. The sign shall be 2' x 3' x 3/4" thick marine plywood (or aluminum) with white background and black letters.

The sign shall read as follows:

FIELD OFFICE
NEW YORK STATE DEPARTMENT
OF
ENVIRONMENTAL CONSERVATION

Telephone: 315/___-____

Note: The **CONTRACTOR** shall include telephone number on the trailer sign, when available.

F. All trailers and equipment supplied to the **ENGINEER** and **DEPARTMENT** will remain the **CONTRACTOR's** property, unless specified otherwise.

G. The **ENGINEER's/DEPARTMENT's** trailer shall be located and installed in such a location as to provide free access for any individual wishing to communicate with the **ENGINEER** and/or **DEPARTMENT's** representative. The public access to this trailer shall be provided directly for the public road and shall be marked on both sides with an orange snow fence. The entrance for the public shall be clearly posted.

*** END OF SECTION ***

SECTION 02110

SITE CLEARING

1. GENERAL

1.1 Scope of Work

A. Due to the hazardous nature of the site, the **CONTRACTOR** shall clear in only those areas required for construction operations, site access, and remediation of soils and sediments and remove all debris resulting from the work. The **CONTRACTOR** shall confine his operations within the limits indicated on the Plans, including limits of easement lines and right-of-way, and shall not enter any area outside these limits without prior written consent of the **ENGINEER.**

B. Existing features, trees, and vegetation to remain, as designated by the **ENGINEER,** shall be protected, and if damaged or destroyed, shall be repaired or replaced in kind at the **CONTRACTOR's** expense.

2. PRODUCTS

Not applicable.

3. EXECUTION

3.1 Clearing and Grubbing

A. In only those areas defined in the scope of work and any other areas as designated by the **ENGINEER,** cut, grub, remove, and dispose of all trees, stumps, brush, shrubs, roots, and any other objectionable material. At the **CONTRACTOR's** option, large trees may be left in place in areas were excavation depths are limited to six (6) inches.

B. Due to the hazardous nature of the soils on site, grubbing shall be restricted to only areas designated by the **ENGINEER.**

C. Contaminated areas shall not be grubbed. Stumps, roots and other subsurface vegetation in contaminated areas shall be excavated and handled in the same manner as the contaminated soils or sediments.

D. Trees or foliage designated by the **ENGINEER** to remain shall be protected from damage by erecting suitable barriers, or by other approved means. Clearing operations shall be conducted in a manner to prevent falling trees from damaging trees designated to remain or other existing features.

E. Where it is necessary to cut branches of trees that are to remain, the cut shall be

made flush with trunk or larger branch, with care being taken to prevent tearing the bark beyond the cut. An acceptable commercial tree paint shall then be applied over cut or damaged areas.

F. Areas outside the limits of clearing shall be protected and equipment or materials shall not be stored or allowed to damage these areas.

3.2 Disposal of Materials

A. All tree trunks, limbs, roots, stumps, brush, foliage, and other vegetation free of soil and soil-like material shall be chipped and stockpiled on site in an uncontaminated area.

B. Cleared materials from contaminated areas shall be considered nonhazardous and non-contaminated.

C. Roots, stumps, and other contaminated vegetation in soils and sediments to be removed from the site and tree trunks and limbs too large for chipping shall be appropriately disposed off site by the **CONTRACTOR**.

D. Burning shall not be permitted as a means of disposal.

E. Dumping of spoil material into any stream corridor, wetland, flood plain, or surface water is prohibited.

F. Stumps, trees, limbs, or brush shall not be buried in any fills or embankments or disposed of in any stream corridor, wetland, or any surface water.

* END OF SECTION *

SECTION 02140

DEWATERING

1. GENERAL

1.1 Scope of Work

A. The **CONTRACTOR** shall furnish all labor, tools, materials, equipment, and incidentals necessary for the proper dewatering of the cooling water pond and the wetland area (as described in Section 02221-Sediment Excavation, and Section 02226-Cooling Water Pond-Filling) and all related work as specified herein.

1.2 Description of Work

A. The work involved with excavation dewatering shall include, but is not necessarily limited to, the following:

1. Dewatering of the cooling water pond and the wetland area, as described in Section 02221-Sediment Excavation, and Section 02226-Cooling Water Pond-Filling and as delineated on the contract drawings.

2. Proper disposal of water removed.

3. Preparation of dewatering plan.

B. The actual dewatering methods shall be chosen by the **CONTRACTOR**; however, the **ENGINEER** must approve any method before dewatering begins. **CONTRACTOR** is responsible for handling water in accordance with 01520 Temporary Facilities & Controls.

1.3 Related Sections

A. Section 01520 - Temporary Facilities.
Section 01560 - Erosion and Surface Water Control.
Section 02220 - Excavation.
Section 02221 - Sediment Removal
Section 02223 - Transportation and Disposal.
Section 02226 - Cooling Water Pond-Filling

1.4 Submittals

A. Shop drawings of dewatering details (i.e., well points, pump system, drain construction, contaminant tanks and other equipment necessary to complete the work).

2. PRODUCTS

Not applicable.

3. EXECUTION

A. The **CONTRACTOR** shall select a proposed method of dewatering that complements his plan of excavation.

B. No sampling of water will be required for discharge of water to the cooling water pond and to the adjacent pond and wetland. Water discharged to these areas will not be allowed to discharge (directly or indirectly) off-site. The **CONTRACTOR** may use temporary barriers to ensure that discharged water is contained on-site. Diversion swales, temporary piping, and other appropriate devices shall be employed to eliminate, to the extent practicable, the inflow of storm water into the receiving waters during such operations.

C. The **CONTRACTOR** shall provide a method (e.g particle filters) to ensure a low turbidity (less than 50 NTU - "no visible silt") effluent. The **CONTRACTOR** shall not allow the discharge of water to transport contaminated sediment, and shall be solely responsible for any contamination caused by inadequately filtered water.

*** END OF SECTION ***

SECTION 02160

EXCAVATION SUPPORT SYSTEMS

1. GENERAL

1.1 Scope of Work

A. The CONTRACTOR shall furnish all labor, tools, materials, equipment, and incidentals necessary for the proper completion of the temporary support of the excavation processes as specified herein.

B. All temporary excavation support systems shall conform to the provisions of the Occupational Safety and Health Act (as amended), 29 CFR Part 1926 - Safety and Health Regulation for Construction and the New York Department of Labor Industrial Code Rule No. 23.

C. Temporary support (bracing, sheeting, shoring, etc.) shall be placed as not to put any stress that may cause damage to portions of completed work.

1.2 Description of Work

A. The work involved with the excavation support shall include, but is not necessarily limited to, the following:

1. Protect excavations by shoring, bracing, sheet piling, underpinning, or other methods approved by the ENGINEER, to prevent cave-in, lateral movement of adjacent earth, or loose soil from falling into the excavation.

2. Notify ENGINEER of unexpected subsurface conditions and discontinue work in affected area until notification to resume work.

3. Grade excavation perimeter to prevent surface water runoff into the excavation.

1.3 Submittals

A. Identification of any sheeting and bracing which is intended to be used by the CONTRACTOR.

B. Sheeting and bracing design calculations (sealed by a Professional Engineer).

C. Technical information regarding sheeting and bracing materials to be used.

2. PRODUCTS

A. Wood sheeting, shoring, and bracing shall be Southern Pine or equivalent of 1,800 psi stress class (i.e., Douglas Fir), as approved by the **ENGINEER**.

B. Steel sheeting shall conform to ASTM-328 (latest revision), and bracing shall conform to ASTM A-36 (latest edition).

3. INSTALLATION

A. Temporary excavation support shall be installed in accordance with code requirements.

1. All sheeting shall be right and continuous.

2. The sheeting shall extend at least 2 feet above the surface.

3. As soon as the temporary support is placed, if there is a space between the wall and the support, it should be appropriately filled and compacted, as approved by the **ENGINEER**.

B. Removal of Support

1. In general, the support shall be removed as the excavation is backfilled in such a manner to avoid cave-ins or disturbance to adjacent area.

2. Permission by the **ENGINEER** shall be obtained before the support is removed.

* END OF SECTION *

SECTION 02220

EXCAVATION

1. GENERAL

1.1 Scope of Work

A. The **CONTRACTOR** shall furnish all labor, tools, materials, equipment, and incidentals to provide all work necessary to excavate and handle the soils, sediments and other material to be disposed of as shown on the Plans and specified herein.

B. Protection of all work to remain.

1.2 Description of Work

A. The extent of soil, sediment and other material excavation and handling is as specified and shown on the Plans. Supplemental instructions may be furnished by the **ENGINEER** in the field.

B. The work shall include, but not necessarily be limited to, the excavation and handling of soils and sediments at the site.

1.3 Definitions

A. Not applicable

1.4 Related Sections

Section 01050 - Surveys
Section 01520 - Temporary Facilities and Controls
Section 01560 - Erosion and Surface Water Control
Section 02110 - Site Clearing
Section 02140- Dewatering
Section 02160 - Excavation Support Systems
Section 02223 - Transportation and Disposal
Section 03010 - Subgrade and Subbase Preparation

1.4 Submittals

A. The **CONTRACTOR** shall submit a work plan detailing the planned operations to complete the work to the **ENGINEER** for review and approval prior to the start of work.

2. PRODUCTS

Not applicable.

3. EXECUTION

3.1 General

A. The **CONTRACTOR** shall reduce the potential for cross-contamination of uncontaminated areas with contaminated soils by using appropriate decontamination protocols prior to moving between areas of contamination and minimizing double moving of materials.

B. The **CONTRACTOR** shall employ dust control methods during handling activities as necessary. The **CONTRACTOR** shall use water or water amended with an appropriate surfactant, used in accordance with the manufacturer's recommendations, or other means to control dust acceptable to the **ENGINEER**. No visible dust is permitted beyond the limits of the exclusion zone as a result of excavation activities, as determined by the **ENGINEER**.

C. Any excavations that are left unattended for any period of time shall be securely fenced with orange snow fence, and posted with barricade tape to prevent unauthorized entry into the excavation. All temporary fencing is to be removed and properly disposed at the completion of the Contract.

D. The **CONTRACTOR** shall not load soil and/or other material into the vehicles/containers when it is raining without prior approval from the **ENGINEER**. All soil, sediment and other material shall remain covered during rain.

E. Debris and material properly determined to be hazardous under federal and state regulations by the **ENGINEER** shall be disposed of as hazardous regardless of the **CONTRACTOR's** sampling results. Debris properly determined to be hazardous under federal and state regulations using the **CONTRACTOR's** sampling results shall be disposed of as hazardous regardless of the **ENGINEER's** sampling results.

F. The **CONTRACTOR** shall be responsible for providing adequate protection of existing structures to remain during execution of **CONTRACTOR** activities, especially excavation and backfilling.

G. **CONTRACTOR** shall be responsible for providing adequate protection against erosion during all field activities.

H. The quantity of soils, wastes and sediments have been estimated and may not represent the actual quantities. The quantity is based upon the areas shown on the project drawings.

3.2 Excavated Soils from Yard Area

A. Areas to be excavated in yard area are identified on Figure 2 - "Yard Excavation." as "KNOWN CLEAN" or "NEARLY CLEAN" material. These areas are to be excavated to a depth of approximately 3.5 feet. These areas will then be backfilled with 2.5 feet of material from the remainder of the yard. Backfill will be

compacted in 6" lifts as indicated in Section 03010 to assure uniform support for the concrete slab.

B. All excavated materials discussed in "A" above are to be consolidated with the contaminated sediment in the cooling water pond. If the initial survey shows that the cooling water pond is less than 8' deep (on average), not all of the excavated material will fit in the pond. If this is the case, materials in the yard area previously placed during Operating Unit One, which can be assumed to be clean, can be disposed of in the northeast corner of the Great Lakes Veneer property.

C. "Soft spots" must be excavated to ensure uniform support for the concrete slab. Areas that are suspected of needing excavation include the "debarker area" (delineated on the plans).

D. The location of the previously removed septic tank (shown on the plans) is surrounded by a plastic liner, which may have prevented its settling. This area will be investigated, and if it is not stable, it will be completely excavated, the plastic liner will be removed, and the hole will be backfilled with material from the remainder of the yard. Backfill will be compacted in 6" lifts as indicated in Section 03010 to assure uniform support for the concrete slab.

3.3 Excavation of New Pond

A. Soil and sediment to be excavated in the "New Pond" area are identified on Figure 3 - "Sediment Removal." These areas are to be excavated to the depth shown. Excavated material will be placed in the Cooling Pond, covering the contaminated sediment referenced in Section 02221 and the soil from the yard area discussed in item 3.2, above. Material in excess of the amount needed to cap the cooling water pond may be disposed of in the Northeast corner of the Great Lakes Veneer property.

3.4 Excavation of Former Landfill Area

A. The previously remediated landfill must be regraded to provide drainage away from the slab. Crushed stone must be scraped off and stockpiled, the geotextile removed, and then the underlying soil excavated. The area where this work is to take place is identified on Figure 2 and labeled "Replace Geotextile." Regrading will continue west of this area as shown by the proposed contours, directing run-off toward the "new pond" area. In total, approximately 600 cubic yards of material area to be removed. This material can be assumed to be free from PCB contamination, and may be placed in the area of the cooling water pond as part of the required 24" soil cover. Material in excess of the amount needed to cap the cooling water pond may be disposed of in the Northeast corner of the Great Lakes Veneer property. New geotextile must be installed where geotextile was removed and the crushed stone must be replaced. A preliminary grading plan was developed based on preliminary survey data, and is shown on the Yard Excavation figure.

*** END OF SECTION ***

SECTION 02221

SEDIMENT REMOVAL

1. GENERAL

1.1 Scope:

This section covers excavation and removal of soils, sediments and other materials from the "downstream pond" and the adjacent wetlands located to the west and north of the cooling water pond.

1.2 Related Sections

A. Section 01110 - Water Treatment.
Section 01425 - Verification and Characterization Sampling
Section 01560 - Erosion and Surface Water Control.
Section 02140 - Dewatering.
Section 02220 - Excavation.
Section 02223 - Transportation and Disposal.
Section 02226 - Cooling Water Pond - Filling.

2. SUBMITTALS

A. Sediment Removal Plan: The **CONTRACTOR** shall submit a Sediment Removal Plan to the **ENGINEER** prior to the start of work for review. This plan will include a description of dewatering of the area to be excavated.

B. Erosion Control Plan: The **CONTRACTOR** shall submit an Erosion Control Plan to the **ENGINEER** prior to the start of work for review.

3. EXECUTION

3.1 Excavation

A. General

1. Sediments and other materials shall be excavated in accordance with 02220, Excavation, and **CONTRACTOR**'s approved work plan.

2. During removal operations, the **CONTRACTOR** shall provide and implement measures for preventing soils, sediments and other materials at locations which have not been remediated from migrating to sections of reaches where remediation has been completed. These measures shall include construction of temporary dikes and ditches to confine seepage and storm water and shall provide for protection of remediated sections during storm events.

3. Excavated material will be placed on site in the Cooling Pond as described

in Section 02226.

B. Site Preparation

1. Sediment samples must be collected as per Section 01425 to accurately delineate the extent of contamination.

2. A temporary dam shall be installed isolating the area containing contaminated sediment from the remainder of the pond.

3. The pond area will be dewatered in accordance with section 02140. Surface water shall be diverted away from the work area.

4. Appropriate erosion controls shall be provided.

C. Excavation:

1. The area of sediment excavation outside the pond shall be excavated 6" into the underlying clay material. Work will be carried out is such a way as to minimize impact on the adjacent wetland habitat.

2. Appropriate erosion shall be provided to prevent migration of contaminated material during excavation.

* END OF SECTION *

SECTION 02223

TRANSPORTATION AND DISPOSAL

1. GENERAL

1.1 Scope of Work

A. The **CONTRACTOR** shall properly transport and dispose of all items, including solid and liquid hazardous and nonhazardous wastes removed from the site, to appropriate disposal facilities. This includes existing wastes as well as the wastes generated by the **CONTRACTOR.** The **CONTRACTOR** shall be responsible and will be held accountable for assuring that all sampling, analysis, transportation, and disposal requirements of the TSDF, SWMF, POTW, reclamation or salvage facilities, federal, state, and local governments are complied with and properly documented.

1.2 Submittals

A. **Transportation Plan:** The **CONTRACTOR** shall submit a Transportation Plan to the **ENGINEER** prior to the start of work for review. This shall include:

1. Type and number of vehicles used;
2. Travel routes and times; and
3. Copies of transportation permits.

B. **Disposal Facilities:** The **CONTRACTOR** shall submit to the **ENGINEER** information regarding proposed facilities for disposal of each type of waste. All proposed facilities must be permitted. Information submitted shall include, but not be limited to:

- Name;
- Owner;
- Type of facility/permit;
- Contact person, phone number:
- Location;
- Hours of operation; and
- Copies of permits.

1.3 Permits and Regulations

A. The **CONTRACTOR** shall comply with all federal, state, and local regulations regarding transportation and disposal of hazardous and nonhazardous material. These include, but are not limited to:

- Trucks used for transportation of hazardous material for disposal off site shall be permitted pursuant to 6 NYCRR Part 364;

- Vehicle operator possession of a commercial driver's license with hazardous materials endorsement (if applicable);
- Registration of vehicle as a hazardous waste carrier (if applicable);
- Utilization of shipping papers and/or hazardous waste manifest (40 CFR 262.20);
- Proper marking and placarding of vehicles;
- Placement of emergency response procedures and emergency telephone numbers in vehicle, and operator familiarity with emergency response procedures (see Minimum Health and Safety Requirements, attached); and
- Compliance with load height and weight regulations.

2. PRODUCTS

2.1 Materials and Equipment

A. All equipment supplied shall be in good working condition. Equipment and machinery delivered to the site, including haul trucks, that have visible oil or hydraulic fluid leaks, will not be allowed on site until satisfactorily repaired. The **CONTRACTOR** is responsible for the cleanup of any oil or hydraulic fluid spills at the **CONTRACTOR'S** expense.

B. The **CONTRACTOR** shall not allow soil to be tracked off site at any time during the Project. Visible soil tracks on streets will not be allowed. The **CONTRACTOR** shall take sufficient precautions to prevent loose soils from adhering to tire treads, wheel wells, etc. Any loose soil spread shall be cleaned up.

C. Trucks used for transportation of material for off-site disposal shall be water tight and permitted pursuant to 6 NYCRR Part 364. All trucks shall be covered prior to leaving the site.

3. EXECUTION

3.1 Decontamination

A. Transport vehicles shall be decontaminated at the Decontamination Station (see Section 01100) upon leaving the Exclusion Zone at the site and again at the disposal facility as required.

3.2 Transportation

A. Materials shall be transported only at the times and by the routes indicated in the approved Transportation Plan, unless permission is received by the **ENGINEER** to do otherwise. The **CONTRACTOR** shall observe the legal load limits.

Prior to shipment of hazardous wastes off the site, the **CONTRACTOR** shall confirm by written communication from the designated TSDF that it is authorized, has the capacity, and will provide or assure that the ultimate disposal method is followed for the particular hazardous waste on the manifest. Additionally, the **CONTRACTOR** shall confirm by written communication from the designated transporter(s) that they are authorized to deliver the manifested waste to the designated TSDF or SWMF.

3.3 Sampling

A. The **CONTRACTOR** shall be responsible for all cost associated with sampling of wastes to be disposed of as may be required by the disposal facility.

3.4 Manifesting

A. The **CONTRACTOR** shall complete all required manifest forms and Bill of Lading forms for the **DEPARTMENT** for proper transportation and disposal of materials off site. Since there is no responsible party to act as the generator at this inactive hazardous waste disposal site, the **DEPARTMENT** has obtained the EPA-required generator identification number and the **DEPARTMENT** or its representative will sign all manifests for proper shipping. However, the **CONTRACTOR** shall be responsible and will be held accountable for assuring that all sampling, analysis, transportation, and disposal requirements of the TSDF, SWMF, POTW, federal, state, and local governments are complied with and properly documented. The EPA-required Generator Identification Number for the Oswego Castings site is as follows: **NYD002225787**.

* END OF SECTION *

SECTION 02225

TRENCHING

PART I GENERAL

1.01 SECTION INCLUDES

A. Trenches for pipelines and appurtenances.
B. Maintaining trenches, temporary sheeting and bracing.
C. Encountering underground facilities.
D. Existing structures and pavements within the trench limits.
E. Dust control.

1.02 RELATED SECTIONS

A. Section 03010 - SUBGRADE AND SUBBASE
B. Section 02900 - SITE RESTORATION

1.03 DEFINITIONS

A. Trenching or Excavation

1. Grubbing, stripping, removing, storing and rehandling of all materials of every name and nature necessary to be removed for all purposes incidental to the construction and completion of all the work under construction;
2. All dikes, ditches, flumes, cofferdams, pumping, bailing, draining, well points, or otherwise disposing of water;
3. The removing and disposing of all surplus materials from the excavations in the manner specified;
4. The maintenance, accommodation and protection of travel and the temporary paving of highways, roads and driveways;
5. The supporting and protecting of all tracks, rails, buildings, curbs, sidewalks, pavements, overhead wires, poles, trees, vines, shrubbery, pipes, sewers, conduits or other structures or property in the vicinity of the work, whether over or underground or which appear within or adjacent to the excavations and the restoration of the same in case of settlement or other injury;
6. All temporary bridging and fencing and the removing of same.

B. Earth - All materials such as sand, gravel, clay, loam, ashes, cinders, pavements, muck, roots or pieces of timber, soft or broken rock, barring, or wedging from their original beds, and specifically excluding all ledge or bedrock and individual boulders or masonry larger than one- half cubic yard in volume.

C. Backfill - The refilling of excavation and trenches to the line of filling indicated on the Contract Drawings or as directed using materials suitable for refilling of excavations and trenches; and the compacting of all materials used in filling or refilling by tolling, ramming, watering,

puddling, etc., as may be required.

D. Spoil - Surplus excavated materials not required or not suitable for backfill or embankments.

E. Embankments - Fills constructed above the original surface of the ground or such other elevation as specified or directed.

F. Limiting Subgrade - The underside of the pipe barrel for pipelines.

G. Excavation Below Subgrade

1. Excavation below the limiting subgrade of pipelines.
2. Excavate to such new lines and grades as required when material encountered at the limiting subgrade is not suitable for proper support of pipelines.

PART 2 PRODUCTS

Not Applicable

02230. PART 3 EXECUTION

3.01 PREPARATION

A. Identify required lines, levels, contours, and datum. Locate all utilities and underground obstructions prior to starting excavations, including cutting pavements.

B. Relocate, remove and later restore, or replace existing structures in the proposed trench limits and those structures which would be damaged or impede progress.

C. Maintain support of existing power, lighting, telephone, traffic control and utility poles adjacent to excavations as required by the owners of the poles.

D. Do not operate on paved surfaces equipment which has treads or wheels that would cut or damage the pavement.

E. Avoid damage to existing pavement other than pavement within the limits of the trench. Provide the pads of outriggers with protective covers, or place planks or timbers under the pads to prevent damaged to pavements. No payment shall be made for replacement or restoration of pavements beyond the payment limits which are damaged during the Work.

3.02 EXCAVATION

A. Excavate trenches to the lines and grades specified and as required. Backfill with native soil or granular materials as directed by the ENGINEER, any excavated space carried beyond or below the lines and grades shown on the Contract Drawings, or as directed by the ENGINEER. Backfill unauthorized excavations at the **CONTRACTOR**'s expense.

B. Excavate the trench sides vertically between the centerline of the pipe and an elevation I foot above the top of the pipe unless this conflicts with the requirements of OSHA. In the case of rock excavation, excavate to 6 inches below invert elevation of pipe and 12 inches wider than the

nominal pipe diameter. Maintain a minimum clearance of 6 inches around the pipe.

C. Provide and maintain proper and satisfactory means and devices for the removal of all water entering the excavations, and remove all such water as fast as it may collect, in such a manner as shall not interfere with the progression of the work or the proper placing of pipes, or other work.

D. Prevent damage to surrounding structures while excavating.

E. Furnish, place and maintain such sheeting, bracing and shoring as may be required to support the sides and ends of excavations in such manner as to prevent any movement which could, in any way, damage the pipe, structures, or other work; diminish the width necessary for construction; otherwise damage or delay the work of the Contract; endanger existing structures, pipes or pavements; or cause the excavation limits to exceed the right-of-way limits.

All sheeting, bracing, and shoring plans must be stamped by a New York State licensed professional engineer and submitted to the Engineer.

In no case will bracing be permitted against pipes or structures in trenches or other excavations.

Drive sheeting vertically with the edges tight together as the excavation progresses, and in such manner as to maintain pressure against the original ground at all times.

Design all bracing to maintain sheeting in its proper position.

The adequacy of all sheeting and bracing is the sole responsibility of the CONTRACTOR.

Remove and dispose all material which slides, falls or caves into the established limits of excavations due to any cause whatsoever, at the CONTRACTOR's expense. No extra compensation will be paid to the CONTRACTOR for any materials ordered for refilling the void areas left by the slide, fall or cave-in.

F. Discontinue machine excavation in the vicinity of pipes, conduits and other underground structures and facilities and complete the excavation with hand tools as required by Industrial Code Rule 53.

G. When determination of the exact location of a pipe or other underground structure is necessary for completing the work properly, excavate test holes to determine such locations.

H. When the bottom of any excavation is taken out beyond the limits indicated or prescribed, backfill and compact the resulting void with granular fill compacted to 95 percent maximum modified Proctor density.

I. Remove material which, in the opinion of the ENGINEER, is found to be unsuitable for foundation of the pipeline and appurtenances during excavation. Payment shall be made under the appropriate item of the bid.

J. Minimize the creation and dispersion of dust.

K. Completely fill all voids which occur under existing sidewalks, curbs, gutters or other structures during the excavation with granular fill.

END OF SECTION

SECTION 02226

COOLING WATER POND - FILLING

1. GENERAL

1.1 Scope of Work

A. The **CONTRACTOR** shall furnish all labor, tools, materials, equipment and incidentals necessary to fill and compact the "cooling water pond" as identified on the plans.

B. The **CONTRACTOR** shall be responsible for ensuring that contaminated material is confined to the area of the cooling water pond, and covered with a minimum of 12" of material containing PCBs at a concentration of less than 1 ppm.

1.2 Related Sections

Section 02220 Excavation
Section 02230 Geotextile
Section 02900 Restoration
Section 01425 Verification and Characterization Sampling

2. SUBMITTALS

A. Erosion Control Plan: The **CONTRACTOR** shall submit an Erosion Control Plan to the **ENGINEER** prior to the start of work for review.

3. EXECUTION

3.1 Filling

A. The Pond shall be dewatered as described in 3.3 below.
B. Existing pavement in the yard area may be disposed of in the pond, but should be deposited in such a way as to avoid excessive voids (e.g. no excessively large, intact segments).
C. Contaminated material must be kept at least 12" below the surrounding ground elevation. A geotextile will be placed over the contaminated material.
D. The area of the pond will be filled a minimum of 12" above the surrounding area to allow for settling. All soil shall be placed in 6" lifts, and compacted using vibratory or sheepsfoot rollers, or other methods approved by the engineer. Water content in this soil must be conducive to optimal compaction.

E. The above requirements provide for a minimum of 24" of clean, compacted soil covering the former pond area. The final elevation of the pond area will be approximately 310', using the datum established by contract drawings.

3.2 Siltation Control

A. The **CONTRACTOR** shall prepare and the **ENGINEER** shall approve an erosion control plan describing all steps to prevent suspended sediment from being transported to "clean" areas.

3.3 Dewatering:

A. General

The Cooling Water Pond will be dewatered to within 12 inches of pond bottom. Water will be discharged to the Downstream Pond area or to the New Pond area if that area has been excavated. Water will not be discharged off-site or allowed to flow off-site after being discharged. Treatment with particle filters will be provided to ensure a discharge with no visible sediment and a turbidity of <50 NTU.

CONTRACTOR is responsible for sizing and providing all equipment necessary to handle all associated waters generated as a result of the dewatering operations.

* END OF SECTION *

SECTION 02230

GEOTEXTILE

1. GENERAL

1.1 Scope of Work

A. The **CONTRACTOR** shall provide all labor, materials, equipment, and services necessary for the placement of geotextile stabilization fabric in the landfill cap and as shown on the drawings and specified.

1.2 Submittals

A. Shop Drawings:

1. Refer to Section 01011 for requirements relating to shop drawing submittals.

2. Submit manufacturer's data, specifications, installation instructions and dimensions.

3. Submit an affidavit certifying that the geotextile furnished complies with all requirements specified herein and is free of any broken needles.

4. No geotextile shall be shipped until the affidavit is submitted to the ENGINEER.

1.3 Quality Assurance

A. Manufacturer's Qualifications:

Geotextile manufacturer shall be a specialist in the manufacture of drainage control filter fabric, and must have produced and successfully installed a minimum of five million square feet.

1.4 Product Delivery, Storage and Handling

A. Each roll of geotextile delivered to the site shall be labeled by the manufacturer identifying the manufacturer's name, product identification, lot number, roll number and roll dimensions.

B. Geotextile shall be protected from ultraviolet light exposure, precipitation or other inundation, mud, dirt, dust, puncture, cutting or any other damaging or deleterious conditions. Geotextile rolls shall be shipped and stored in relatively opaque and watertight wrappings.

C. CONTRACTOR shall provide all labor and equipment required to assist the ENGINEER in inspection of materials upon delivery to the site.

2. PRODUCTS

2.1 Geotextile

A. Geotextile shall be Mirafi 600X or equal, and shall conform to the following:

Fabric Property	Unit	Test Method	Typical Value
Grab Tensile Strength	lb.	ASTMD-1682	300
Grab Tensile Elongation	%	ASTMD-1682	35 (max.)
Modulus (at 10% Elongation)	lb.	ASTMD-1682	140
Trapezoda Tear Strength	lb.	ASTMD-1117	120
Mullen Burst Strength	psi	ASTMD-3786	600+
Puncture Strength	lb.	ASTMD-3787	130
Abrasion Resistance	lb.	ASTMD-3884	100
Coefficient of Permeability, K	cm/sec	CFMC-GET-2	0.01
Water Flow Rate	gal/min/sf	CFMC-GET-2	50
EOS	US Std. Sieve	COE-CW-02215	20-45

Geotextile shall be woven from monofilaments of polypropylene which are nonbiodegradable and resistant to most soil chemicals, acids and alkalies within a pH range of 3 to 12. The fabric shall be stabilized against UV degradation.

3. EXECUTION

3.1 Installation - General

A. All geotextiles shall be weighted with sandbags when required. Such sandbags shall be installed during placement and shall remain until replaced with cover material.

B. Fabric shall be overlapped side-to-side and end-to-end 12 inches.

C. Geotextiles shall not be exposed to precipitation prior to being installed, and shall not be exposed to direct sunlight for more than 15 days.

D. Install according to manufacturer's recommendations.

3.2 Geotextile Repair

A. Any holes or tears in the fabric shall be repaired as follows:

1. On slopes: A fabric patch shall be sewn into place using a double sewn lock stitch (1/4 in. to 3/4 in. apart and no closer than I inch from any edge). Should any tear exceed 10 percent of the width of the roll, that roll shall be removed from the slope and replaced.

2. Flat areas: A fabric patch shall be spot-seamed in place with a minimum of 24 inches of overlap in all directions.

B. Care shall be taken to remove any soil or other material which may have penetrated the torn geotextile.

3.3 Placement of Cover Materials

A. CONTRACTOR shall place all cover materials in such a manner to ensure the geotextile is not damaged; minimal slippage of the geotextile on underlying layers; and no excess tensile stresses in the geotextile.

* END OF SECTION *

SECTION 02500
SANITARY SEWER INSTALLATION

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Installation of pipe, manholes, and appurtenances for sewer collection and transmission lines.

1.02 RELATED SECTIONS

A. Section 02225 - Trenching
B. Section 03010 - Subgrade and Subbase Preparation

1.03 DELIVERY, STORAGE AND HANDLING

A. Deliver, store, protect and handle products under provisions of the General Conditions.

1.04 REFERENCES

A. Schedule 40 PVC sewer pipe shall be installed in accordance with Recommended Standards for Wastewater Facilities (a.k.a. 10 States Standards), Latest edition.

PART 2 PRODUCTS

2.01 PIPE

A. Pipe

1. Sewer line shall be schedule 40 PVC, and shall match the diameter of the existing sewer line, which is reputed to be 6".

2. All pipe and appurtenances to comply with the applicable standards for their type of material.

B. Joints - All joints shall be watertight. Joints may be bell and socket or solvent weld. Suitable couplings complying with ASTM specifications shall be used for joining dissimilar materials.

C. Inspection - Inspect pipe and appurtenances upon delivery and prior to installation for conformance with standards and specifications.

2.02 BEDDING MATERIALS

A. Pipe Bedding - shall be clean granular fill, with 100% passing a 3/8" sieve and less than 10% passing a number 200 sieve. .

2.03 ACCESSORIES

A. Concrete Manholes - Concrete type specified in Section 02606.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify existing conditions.

B. The drawings and specifications may contain information relating to conditions below the ground surface at the site of proposed work, but such information is furnished without guarantee as to it being complete or correct. The **CONTRACTOR** shall assume all risks and responsibilities and shall complete the work in whatever manner and under whatever conditions he may encounter or create without extra cost to NYSDEC. Information and data shown or indicated in the Contract Documents with respect to existing underground facilities at or contiguous to the site is based upon information furnished to **ENGINEER** by owners of such underground facilities or others, and **DEPARTMENT** and **ENGINEER** do not assume responsibility for the accuracy or completeness thereof. The **CONTRACTOR** shall perform exploratory excavations in advance of his work to verify the location, depth, size, and material of existing utilities which may interfere with the work to be performed under this contract. The cost for exploratory excavations shall be included in the price bid for pipe installation. No additional payment will be considered for exploratory excavations as required to complete the work as directed by the **ENGINEER.** Information on utilities is based upon available data and shall be verified by the **CONTRACTOR** prior to proceeding with the work. All damage to existing utilities shall be the **CONTRACTOR**'s cost to repair or replace.

3.02 PREPARATION

A. Place pipe and related appurtenances as shown on the contract drawings. Use slings or other approved methods to unload and place pipe. Do not dump pipe from trucks.

B. Field cut pipes in accordance with manufacturer's instructions.

C. When material unsuitable for foundation has been removed, as outlined in Section 02225, replace with select fill compacted to 95 percent Maximum Standard Proctor Density. Payment shall be made under the appropriate item of the Bid.

E. Excavate bell holes at each joint to permit the joint to be made properly and to

provide uniform and continuous bearing for the pipe.

3.03 INSTALLATION - PIPE

A. Maintain a minimum vertical separation of 18 inches when the sewer crosses a potable water line.

B. A horizontal separation of 10 feet shall be maintained between water lines and all storm or sanitary sewer lines.

C. Examine all pipe and appurtenances prior to installation for defects and damage. Immediately remove from site, all pipe or appurtenances which are known to be defective or damaged.

D. Maintain trench free of standing water when laying pipe.

E. Route pipe as shown on Contract Drawings, and as required by actual location of utilities and structures. Provide a minimum slope of 1% unless otherwise directed by the **ENGINEER**. Provide a uniform slope between manholes.

F. Sewers shall be laid with straight alignment between manholes. Straight alignment shall be checked by either using a laser beam or lamping.

G. Trenching

1. The width of the trench shall be ample to allow the pipe to be laid and jointed properly and to allow the bedding and haunching to be placed and compacted to adequately support the pipe. The trench sides shall be kept as nearly vertical as possible. In unsupported, unstable soil the size and stiffness of the pipe, stiffness of the embedment and in-situ soil and depth of cover shall be considered in determining the minimum trench width necessary to adequately support the pipe.

2. Ledge rock, boulders, and large stones shall be removed to provide a minimum clearance of 4 inches (100 mm) below and on each side of all pipe(s).

H. Bedding, Haunching, and Initial Backfill

1. Bedding materials shall be carefully compacted to support the anticipated load, based on the type soil encountered and potential groundwater conditions.

2. All water entering the excavations or other parts of the work shall be

removed until all the work has been completed. No sanitary sewer shall be used for the disposal of trench water, unless specifically approved by the **ENGINEER**, and then only if the trench water does not ultimately arrive at existing pumping or wastewater treatment facilities.

I. Final Backfill

1. Final backfill shall be of a suitable material removed from excavation. Debris, frozen material, large clods or stones, organic matter, or other unstable materials shall not be used for final backfill within 2 feet (600 mm) of the top of the pipe.

2. Final backfill shall be placed in such a manner as not to disturb the alignment of the pipe

3. Install a sand cushion when clearance between the sewer and any other existing facility or service is less than 1 foot.

4. Methods used for installing and compacting backfill above the pipe shall provide for adequate support of the concrete pad, in substantial conformance with Section 03010.

3.04 Testing

A. The sewer shall be air tested as per ASTM C-1417 or tested hydrostatically. The hydrostatic test shall be performed with a minimum head of 2'. Exfiltration shall not exceed 200 gallons per inch pipe diameter per mile per day.

SECTION 02600

WATERLINE INSTALLATION

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Installation of pipe, fittings, and appurtenances for water distribution and transmission lines.

1.02 RELATED SECTIONS

A. Section 02225 - Trenching
B. Section 02610 - Ductile Iron Pipe
C. Section 02675 - Pressure Testing, Flushing, Disinfecting And Health Sampling of Water Mains
D. Section 02700 - Concrete Thrust Block
E. Section 03010 - Sub Grade And Subbase

1.03 DELIVERY, STORAGE AND HANDLING

A. Deliver, store, protect and handle products under provisions of the General Conditions.

1.04 REFERENCES

A. Ductile iron water pipe shall be installed in accordance with AWWA C600, latest edition.

PART 2 PRODUCTS

2.01 PIPE - See Section 02610.

A. Pipe

1. Materials for piping, joints and fittings shall be specified in the sections for the type of pipe to be installed..

2. All pipe and appurtenances to comply with the applicable standards for their type of material.

B. Joints - All joints shall be push-on type using unless mechanical joints are called for by the **ENGINEER.** If any evidence of seasonal groundwater is noted within 12" of the proposed piping, joints Viton gaskets shall be used.

C. Inspection - Inspect pipe and appurtenances upon delivery and prior to installation for conformance with standards and specifications.

2.02 BEDDING MATERIALS

A. Pipe Bedding - if required, bedding shall be clean granular fill, with 100% passing a 3/8" sieve and less than 10% passing a number 200 sieve.

2.03 ACCESSORIES

A. Concrete for Thrust Blocks - Concrete type specified in Section 02700.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify existing conditions.

B. The drawings and specifications may contain information relating to conditions below the ground surface at the site of proposed work, but such information is furnished without guarantee as to it being complete or correct. The Contractor shall assume all risks and responsibilities and shall complete the work in whatever manner and under whatever conditions he may encounter or create without extra cost to NYSDEC. Information and data shown or indicated in the Contract Documents with respect to existing underground facilities at or contiguous to the site is based upon information furnished to Engineer by owners of such underground facilities or others, and Department and Engineer do not assume responsibility for the accuracy or completeness thereof. The Contractor shall perform exploratory excavations in advance of his work to verify the location, depth, size, and material of existing utilities which may interfere with the work to be performed under this contract. The cost for exploratory excavations shall be included in the price bid for pipe installation. No additional payment will be considered for exploratory excavations as required to complete the work as directed by the Engineer. Information on utilities is based upon available data and shall be verified by the Contractor prior to proceeding with the work. All damage to existing utilities shall be the Contractor's cost to repair or replace.

3.02 PREPARATION

A. Place pipe and related appurtenances as shown on contract drawings. Use slings or other approved methods to unload and place pipe. Do not dump pipe from trucks. Cover both ends of each pipe segment when in outdoor storage or staging area.

B. Field cut pipes in accordance with manufacturer's instructions. Bevel all cuts. Remove all burrs.

C. Remove scale and dirt, on inside and outside of pipe, before assembly.

D. When material unsuitable for foundation has been removed, as outlined in Section 02225, replace with select fill compacted to 95 percent Maximum Standard Proctor Density. Payment shall be made under the appropriate item of the Bid.

E. Excavate bell holes at each joint to permit the joint to be made properly and to provide uniform and continuous bearing for the pipe.

3.03 INSTALLATION - PIPE

A. Connect to existing 6" Waterline inside Great Lakes Veneer building. Provide a shut-off valve inside the building. Valve must meet applicable AWWA standards. Extend new line across yard area to terminate 10' past the concrete slab, where it will be capped.

B. A horizontal separation of 10 feet shall be maintained between water lines and all storm or sanitary sewer lines. Maintain a minimum vertical separation of 18 inches when the water main crosses below storm or sanitary sewers.

C. Examine all pipe and appurtenances prior to installation for defects and damage. Immediately remove from site, all pipe or appurtenances which are known to be defective or damaged.

D. Maintain temporary plugs in all open ends of pipe when laying pipe is not actively in progress. Temporary plugs shall be water tight.

E. Maintain trench free of standing water when laying pipe.

F. Install pipe with a minimum cover, as measured from final grade, of 4 feet over the top of the pipe.

G. Prevent floatation of the pipe in the event of water entering trench. Water shall not be permitted to enter the pipe.

H. Route pipe as shown on Contract Drawings, and as required by actual location of utilities and structures.

I. Install pipe in accordance with the manufacturer's instructions and AWWA C600, latest edition.

J. Install temporary facilities as required by Contract Drawings or as necessary to permit flushing, pressure testing, chlorine injection for disinfecting, dechlorinating and sampling in accordance with AWWA C600, latest edition. Backfill and restore all excavations made to install these fittings in accordance with Section 03010.

Install additional fittings as directed by Engineer. Payment for these fittings shall be made at prices stipulated in Bid.

K. Install a sand cushion when clearance between water main and any other existing facility or service is less than 1 foot.

L. Methods used for installing and compacting backfill above the pipe shall provide for adequate support of the concrete pad, as per Section 03010.

M. Contractor shall install viton gaskets in lieu of standard SBR gaskets when pipeline is within 12" of seasonal high groundwater, or as directed by the Engineer.

SECTION 02606
SANITARY SEWER MANHOLES

PART 1-GENERAL

1.1 DESCRIPTION

A. Scope: One proposed manhole is included in this project, at the end of the proposed sewer extension.. The **CONTRACTOR** shall provide all labor, materials, equipment and incidentals as shown, specified and required to install this manhole as described below.

B. General:

1. Manholes shall conform in shape, size, dimensions, material, and other respects as ordered by **ENGINEER**.
2. Cast-iron frames, grates and covers shall be the standard frame and grate or cover.
3. Manhole steps shall be a copolymer with steel embedded reinforcing bars as provided by the Precast Concrete Supplier from standard inventory.

1.2 QUALITY ASSURANCE

A. Reference Standards:

1. ASTM C 478, Specification for Precast Reinforced Concrete Manhole Sections.

1.3 SUBMITTALS

A. Shop Drawings: Submit for approval the following:

1. Drawings showing design and construction details of all precast concrete manholes including details of joints between the manhole bases and riser sections and stubs or openings for the connection of sewers.

PART 2 - PRODUCTS

2.1. PRECAST CONCRETE MANHOLES

A. Except where otherwise specified precast manhole components shall consist of reinforced concrete pipe sections especially designed for manhole construction and manufactured in accordance with ASTM C 478 except as modified herein.

B. Precast, reinforced concrete manhole bases, riser sections, flat slabs and other components shall be manufactured by wet cast methods only, using forms which will provide smooth surfaces free from irregularities, honeycombing or other imperfections.

C. Joints between manhole components shall be the tongue and groove type employing a single, continuous rubber 0-ring gasket and shall conform to AWWA C302. The circumferential and longitudinal steel reinforcement shall extend into the bell and spigot ends of the joint without breaking the continuity of the steel. Joints between the base sections, riser sections and top slabs of manholes 72

inches in diameter and less shall be rubber and concrete joints. Joints for manhole components greater than 72 inches in diameter shall be provided with steel bell and spigot rings.

E. All precast manhole components shall be of approved design and of sufficient strength to withstand the loads imposed upon them. They shall be designed for a minimum earth cover loading of 130 pounds per cubic foot, an H-20 wheel loading, and an allowance of 30 percent in roadways and 15 percent in rights-of-way for impact. Manhole bases shall have two cages of reinforcing steel in their walls, each of the area equal to that required in the riser sections. Wall thickness shall not be less than 5 inches. Concrete top slabs shall not be less than 8 inches thick.

F. Lifting holes, if used in manhole components, shall be tapered, and no more than two shall be cast in each section. Tapered, solid rubber plugs shall be furnished to seal the lifting holes. The lifting holes shall be made to be scaled by plugs driven from the outside face of the section only.

G. Mark date of manufacture and name or trademark of manufacturer on inside of barrel.

H. The barrel of the manhole shall be constructed of various lengths of riser pipe manufactured in increments of one foot to provide the correct height with the fewest joints. Openings in the barrel of the manholes for sewers or drop connections will not be permitted closer than one foot from the nearest joint. Special manhole base or riser sections shall be furnished as necessary to meet this requirement.

I. A precast or cast-in-place slab or precast eccentric cone, as shown or approved, shall be provided at the top of the manhole barrel to receive the cast iron fimme and cover.

J. Manhole sections shall contain manhole steps, 12 inches on centers, accurately positioned and embedded in the concrete.

2.2 MISCELLANEOUS METALS

A. Manhole frames with covers to be gray iron castings, class 35B. Manhole covers to be provided with factory-installed self-sealing gasket system. Covers diameter to be 30 inches, frame diameter to provide 27-inch clear opening. Depth of frame to be 6-inch.

B. Manufacturers: Provide casting of one of the following:

1. Neenah Foundry Company
2. Flockhart Foundry Company
3. Or equal.

2.3 DROP CONNECTIONS

A. Drop connections for manholes shall be constructed where shown or ordered. Pipe and fittings shall be ductile iron, reinforced concrete, or vitrified clay as shown or otherwise approved.

PART 3 - EXECUTION

3.1 MANHOLE BASES

A. Precast bases shall be set on a crushed stone or crushed gravel foundation. Precast bases shall be set at the proper grade and carefully leveled and aligned.

3.2 PRECAST MANHOLE SECTIONS

A. Set sections vertical with steps and sections in true alignment. The base of the bell or groove end at joints between components shall be buttered with 1:2 cement-sand mortar to provide a uniform bearing between components. All joints shall be sealed with cement mortar inside and out and troweled smooth to the contour of the wall surface. Raised or rough joint finishes will not be accepted.

B. Install sections, joints and gaskets in accordance with manufacturers recommendations.

C. Lifting holes shall be sealed tight with a solid rubber plug driven into the hole from the outside of the barrel and the remaining void filled with 1 to 2 cement-sand mortar.

3.3 GRADING RINGS

A. Grading rings shall be used for all precast manholes where required. Grade rings shall be a maximum of 12 inches in height, constructed on the roof slab or cone section on which the manhole frame and cover shall be placed. The height of the grade rings shall be such as is necessary to bring the manhole frame to the proper grade.

3.4 GRADING AT MANHOLES

A. All manholes in unpaved areas shall be built to an elevation two feet (2') below finished grade. measurements shall be taken from buildings corners to permit easy relocation of the structure.

B. Manholes in paved areas shall be constructed to meet the final surface grade. Manholes shall not project above finished roadway pavements to prevent damage from snowplows.

C. **CONTRACTOR** shall be solely responsible for the proper height of all manholes. **CONTRACTOR** is cautioned that **ENGINEER'S** review of Shop drawings for manhole components will be general in nature and **CONTRACTOR** shall provide an adequate supply of random length precast manhole riser sections to adjust any manhole to meet field conditions for final grading.

3.5 MANHOLE WATERTIGHTNESS

A. All manholes shall be free of visible leakage. Each manhole shall be tested for leaks and inspected, and all leaks shall be repaired in a manner subject to **ENGINEER'S** approval.

3.6 FLEXIBLE PIPE JOINT AT MANHOLE BASE

A. An approved flexible joint shall be provided between each pipe entering and exiting the manhole. This may be accomplished by the installation in the manhole base of the bell end of a pipe or by other means subject to approval of **ENGINEER**. Joints shall be similar to the approved pipe joints. The joint into the manhole base shall be completely watertight.

END OF SECTION

SECTION 02610

DUCTILE IRON PIPE

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Ductile iron pipe and fittings for water distribution and transmission lines.

1.02 RELATED SECTIONS

A. Section 02600 - Pipeline Installation

B. Section 02675 - Pressure Testing, Flushing, Disinfecting And Health Sampling of Water Mains

1.03 REFERENCES

A. ANSI/AWWA C104 - Cement-Mortar Lining for Ductile Iron Pipe and Fittings for Water.

B. ANSI/AWWA C110 - Ductile Iron and Gray Iron Fittings,3 inch through 48 inch, for Water and Other Liquids.

C. ANSI/AWWA C111 - Rubber-Gasket Joints for Ductile Iron and Gray Iron Pressure Pipe and Fittings.

D. ANSI/AWWA C151 - Ductile Iron Pipe, Centrifugally Cast in Metal Molds or Sand Lined Molds, for Water or Other Liquids.

1.04 SUBMITTALS

A. Product Data - Provide data on pipe materials, pipe fittings and accessories.

B. Manufacturer's Certificate - Certify that products meet or exceed specified requirements.

1.05 DELIVERY, STORAGE AND HANDLING

A. Deliver, store, protect and handle products to site under provisions of General Conditions.

PART 2 PRODUCTS

2.01 DUCTILE IRON PIPE

A. Pipe Specifications

1. Pipe - ANSI/AWWA C151.

2. Joints - ANSI/AWWA C111, rubber gasket.

3. Cement Lined - ANSI/AWWA C104.

4. Wall Thickness - Class 51 unless otherwise scheduled in Bid Items or shown on Contract Drawings.

B. Fittings Specifications

1. Fittings - ANSI/AWWA C153 (compact), Class 51.

2. Joints - ANSI/AWWA C111, rubber gasket, mechanical joint, unless otherwise specified.

3. Cement Lined - ANSI/AWWA C104.

2.02 PUSH-ON JOINT PIPE

A. Manufacturers

1. American Pipe Product - Fastite Joint.

2. U. S. Pipe Product - Tyton Joint.

3. Griffin Pipe Product - Super Bell-Tite Joint.

4. McWane Group (includes Clow and Atlantic States)

2.03 VITON GASKETS

A. Manufacturer

1. Akron Gaskets

2. Or equal.

3. All gaskets shall be approved by the pipe manufacturer.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify existing conditions under provisions of General Conditions.

3.02 INSTALLATION

A. Assemble push-on joints using lubricant furnished by manufacturer. Guide plain end of pipe into bell until contact is made with gasket and exert sufficient force to drive pipe home until penetration is made to depth recommended by manufacturer. If any evidence of seasonal groundwater is noted within 12" of the proposed piping, joints shall be made with Viton gaskets.

B. Assemble mechanical joints in accordance with the Notes on Method of Installation, AWWA C111, Appendix A. Tighten all bolts by means of torque wrenches such that follower is brought up evenly. When effective sealing is not obtained at the specified torques, disassemble joint, clean, and reassemble. If any evidence of seasonal groundwater is noted within 12" of the proposed piping, joints shall be made with Viton gaskets.

END OF SECTION

SECTION 02670
MONITORING WELL INSTALLATION

1. GENERAL

1.1 Scope of Work

A. The **CONTRACTOR** shall furnish all labor, tools, materials, equipment, and incidentals to provide all work necessary to install and develop four (4) shallow overburden monitoring wells, as shown on the plans.

1.2 Submittals

A. The **CONTRACTOR** shall submit the monitoring well installation procedures as part of the Work Plan for the site.

2 PRODUCTS

2.1 Well Casing Materials

A. Each well casing shall consist of riser length and screen length as identified in Part 3 of this Section.

B. Solvents, glues, or other adhesives are prohibited for use on casing joints.

C. Shallow Well

1. Well casing and screen shall be four (4) inch inner diameter, threaded flush joint, Schedule 40 PVC. Casing and screen shall be steam cleaned prior to installation.
2. The screen shall be 0.010" slot Schedule 40 PVC. The bottom plus, on the screen shall be threaded, not slip on.

2.2 Sand Pack

A. The sand pack shall consist of #1 Morie sand (no substitutions).

2.3 Bollards

A. Bollards shall consist of a 6" diameter well casing filled with concrete. The bollard must extend a minimum of 36" above grade and a minimum of 24" below grade. Bollards are to be set in concrete.

3. EXECUTION

3.1 Drilling of Monitoring Wells

A. General

1. **CONTRACTOR** shall drill all monitoring well borings with a drill rig suitable for the work. Boreholes shall be advanced using hollow stem auger and roller bit/core drill equipment.
2. Prior to drilling at each location, the drill rig shall be leveled. Each well shall be installed plumb and true.
3. All equipment placed into the well borings must be properly decontaminated prior to the work, and between each well installation, by steam cleaning.
4. Use of drilling muds, air systems, and drilling lubricants is prohibited.

5. The **CONTRACTOR** shall place new locks on all wells, including existing wells. The locks shall be heavy duty, key locking padlocks, and must be approved by the **DEPARTMENT** prior to purchase. One key shall be able to open all well locks. Four keys for the locks must be given to the **DEPARTMENT** upon completion of the work.

B. Shallow Well

1. Overburden shallow well borings shall be installed with 61/4-inch ID hollow stem augers (HSA) drilled boreholes.
2. A 6-inch diameter temporary casing will be installed in the borehole.
3. A 10-foot well screen shall be placed in the well.

3.2 Well Construction

A. Shallow Well

1. The sand pack will be introduced gradually inside the 6-inch diameter temporary casing, and fill the annular space between the screen and borehole adjacent to the screen, extending one to two feet above the screen. The temporary casing will be withdrawn in increments so that the native formation materials are not allowed to collapse directly against the well casing or screen.
2. A one to two foot thick bentonite pellet seal above the sand pack will be provided by the **CONTRACTOR**. Bentonite will be allowed to hydrate for at least one hour. Cement/bentonite grout will installed above the bentonite seal to within three feet of ground surface. No organic polymer additives ire permitted. The grout will be mixed with a mud pump to a consistency acceptable to the **ENGINEER**.
3. Neat cement or concrete will be used from three feet to the ground surface.

B. An outer protective steel casing will be provided and cemented in place around the riser pipe. The top of the steel casing will extend approximately three feet above the finished grade and two inches above the top of the well casing. Three feet of steel casing, will be below ground. The monitoring well will have a vented and locked cap. A drain hole shall be drilled at the base of the casing, and a vent hole shall be located at the top of the casing. The cement collar will be tapered away from the well to divert surface runoff from the well.

C. The monitoring wells will have a vented and locked cap. The **CONTRACTOR** shall remove the locks from the existing wells, and shall install heavy duty padlocks on all wells that are keyed the same.

D. All drilling equipment such as augers, casing, bits, and sampling equipment which may come in contact with subsurface materials shall be

steam cleaned before being brought onto the site. The drilling and sampling equipment will be steam cleaned before leaving the site. All PVC materials (screens and risers) will be steam cleaned prior to well installation.

E. Drilling fluids will be properly disposed off site in accordance to all applicable regulations, as approved by the **ENGINEER**.

F. The casing for Well #1 (as identified on contract drawings) will be protected from vehicular traffic by bollards. The **ENGINEER** may require bollards for the other casings if he determines that the well casing is at risk of damage due to vehicular traffic.

3.3 Well Development

A. All installed monitoring wells shall be developed as soon as possible following installation, but not before the well seal and grout have properly set. The entire saturated screened or openhole interval must be developed.

B. The wells shall be developed using either bailing , manual pumping using a Waterra or equal pump, or powered suction-lift pumping, as approved by the **ENGINEER**. Well development shall be initiated gently, and the degree of agitation then slowly increased to remove fines from the well bottom and sand pack. Water must not be introduced into the well during development.

C. Development shall continue until the turbidity in the recovery water is less than 50 NTU'S. If the turbidity exceeds 50 NTU's after 500 gallons have been removed, development shall continue as determined by the **ENGINEER**.

D. **CONTRACTOR** will be responsible for testing and disposing of all development water in accordance to all applicable regulations, as approved by the **ENGINEER**.

3.4 Surveying

A. The locations and elevations of the installed monitoring wells shall be surveyed by a New York State licensed surveyor directly following installation, and located on a site drawing. Elevations are required for the ground surface, top of well casing, and top of protective casing. All elevations must be determined to the nearest 0.01 feet.

END OF SECTION

SECTION 03000
CONCRETE SLAB INSTALLATION

1. GENERAL

1.1 SCOPE OF WORK

A. The **CONTRACTOR** shall furnish all labor, materials, equipment, and incidentals needed for the cast-in-place concrete required by the Contract Documents and as herein specified.

1.2 SUBMITTALS

A. Name and location of batch plant.
B. Design mix.
C. Shop drawings:
   1) Drawings showing elevation of all control points (doorways, building corners, edges of pavement) and placement of all reinforcing, location of joints, sealing of joints, etc.
   2) List of Concrete materials and concrete mix designs proposed for use. Include the results of all tests performed to qualify the materials and to establish the mix designs in accordance with ACI 301 3.8.2. Submit written report to **ENGINEER** for each proposed concrete mix at least 15 days prior to start of work. Do not begin concrete production until mixes have been reviewed and are acceptable to the **ENGINEER**. Mix designs may be adjusted when material characteristics, job conditions, weather, test results, or other circumstances warrant. Do not use revised concrete mixes until submitted to and accepted by the **ENGINEER**.
   3) Drawing(s) showing forms, including shoring and bracing.
   4) Drawings showing the proposed location of the debarker, including footings and isolation joints.
D. Samples: Submit samples of materials as specified and/or as requested by **ENGINEER**, including names, sources, and descriptions.

1.3 QUALITY ASSURANCE

A. Codes and Standards.

1. Comply with the provisions of the following codes and standards, except as otherwise shown or specified:

a: ACI 301 - "Specifications for Structural Concrete for Buildings. "

b. ACI 304 - "Recommended Practice for Measuring, Mixing,

Transporting, and Placing Concrete"

c. ACI 305 - "Recommended Practice for Hot Weather Concreting. "

d. ACI 306 - "Recommended Practice for Cold Weather Concreting"

e. ACI 315 - "Manual of Standard Practice for Detailing Reinforced Concrete Structures."

f. ACI 318 - "Building Code Requirements for Reinforced Concrete."

g. ACI 330 - "Plain Concrete Parking Lots."

g. CRSI - "Manual of Standard Practice."

h. ACI 347 - "Recommended Practice for Concrete Framework"

2. Where provisions of the above codes and standards are in conflict with the building code in force for the project, the more stringent code shall apply.

B. Quality Control: Perform sampling and testing during concrete placement, as follows:

1. Sampling: ASTM C 172.

2. Slump: ASTM C143, one test for each load at point of discharge.

3. Air Content: ASTM C 31, one for each set of compressive strength specimens.

4. Compressive Strength: ASTM C 39, one set for each 50 cubic yards or fraction thereof of each class of concrete; 1 specimen tested at 7 days, 2 specimens tested at 28 days.
(1) When the total quantity of concrete is less than 50 cubic yards, the strength tests may be waived by **ENGINEER** if field experience indicates evidence of satisfactory strength.

2. PRODUCTS

A. Portland Cement - ASTM C 150, Type III.

B. Aggregates - ASTM C 33

1. Fine aggregates - clean, sharp, natural sand free of dune sand, bank run sand, manufactured sand, loam, clay, etc.

2. Coarse aggregate - clean processed natural limestone free of all foreign matter.

C. Water - clean, fresh, free of all oils, acids organics, etc.

D. Admixtures.

1. Air-Entraining - ASTM C 260.

2. Water-Reducing - ASTM C 494.

3. Fibrous Reinforcement - ASTM C 1116, ACI 302.IR-89 (or latest revision) Reinforcing fibers shall be collated 100% virgin polypropylene materials designed to reduce formation of early shrinkage cracks in concrete. Fiber length shall be ½ in. to 3/4 in. Fibers shall be Grace Fibers as manufactured by W.R. Grace and Co. or approved equal. The component ratio shall be ½ lbs. of fibers to each cubic yard of concrete.

4. Surfacing - The surface will be finished in accordance with section 8.6 of ACI 302 - "Finishing Class 6 Floors".

5. Curing, sealing - ASTM C-309, Type 1 (Sikagaurd Cure/Hard or approved equal)

E. Concrete Qualifiers.

Concrete will be made from NYSDOT approved materials, obtained from DOT approved sources. NYSDOT Class E or F concrete will be used on this job. Mixture specifications are presented below. Use of Class F concrete will be limited to those sections of the slab where rapid curing is critical for the operation of the sawmill.

	Class E	**Class F** Item No. 502.05
Cement (lbs/cy)	648	716
Sand (% of total aggregate)	35.8	34.6
Strength -at twenty-eight (28) days	4,000 psi	4,000 psi
Water/cement (weight)	0.44	0.38
Air content (min, ideal, max)	5, 6.5, 8.0	5, 6.5, 8.0
Slump range	3-4 inches	2-3 inches
Coarse Aggregate Gradation	CA2*	CA2*
Primary Use	Structural Slabs	High early strength

*CA2 Aggregate: 100% passing 1",
93-100% passing 1",

27-58% passing ½",
0-8% passing ¼"

F. Reinforcing

1. Welded Wire Fabric - 10 gauge, 6" o.c. mesh - ASTM A185.

G. Dowels:

1. Dowels shall meet the requirements of AASHTO M254 for load deflection, pullout, corrosion, and abrasion.
2. Dowels are to be steel with a 50 ksi minimum yield strength.
3. The free end of the dowel shall be saw cut and free of burrs or projections.
4. Dowel coating shall be continuous and undamaged for the entire length of the dowel. Coating will be NYSDOT approved.
5. Bond breaking material will be NYSDOT approved.

H. Frame and Grating - (Reteculine)

1. The frames, gratings, and appurtenant parts shall be fabricated from steel conforming to ASTM A36.

2. All parts shall be galvanized according to the requirements of the NYSDOT 719-01 type 1.

3. Grating shall be provided with lock down bolt anchors.

I. Waterstops

1. Waterstops are not to be used on this project

J. Forms

1. Conform to ACI 347, Chapter 3, Materials and Form Work.
2. Softwood Framing Lumber. Kiln-dried, and conform to N.B.S. Product Standards PS 20.
3. Light framing or studs for plywood forms, 2 inches to 4 inches nominal in width and thickness, standard grade.
4. Plywood. Shall be softwood, plywood N.B.S., P.S.I.
5. Form Coatings. Non-staining synthetic resin-barrier sealer.
6. Sealant. One part silicone sealant as recommended by form manufacturer.

3. EXECUTION

3.1 FORM INSTALLATION

A. General
   1. Conform with ACI 347, Chapter 2, Construction.
   2. Check that reinforcement is secured in place.
   3. Verify that expansion joint material, anchors, and other embedded items are secured in position.

B. Embedded Items
   1. The **CONTRACTOR** shall set accurately and hold in exact position in the forms until the concrete is poured all metal parts that are to be embedded in the concrete and he shall furnish and set accurately all inserts and anchor other bolts where indicated or necessary for the attaching of piping, valves, hardware and equipment.
   2. Reinforcement: Two layers of 10 gauge mesh on 6" centers will be installed, 3" from the top and 3" from the bottom of the slab. Reinforcement shall not extend through contraction joints. Install necessary supports and chairs to hold welded wire mesh in place during concrete pours. Straighten mesh to lay in flat plane and bend mesh as required to fit work. Laps shall be no less than one full mesh unless otherwise detailed. Tie every other wire at laps.
   3. Dowels: End dowels shall be 6" from the edge of pavement. Intervening dowels shall be spaced 12" $\pm$1/2" apart. Dowel centerlines shall be at the mid-depth of concrete $\pm$1/4". Dowels shall be parallel to the concrete centerline to within 1/8" per foot. The center of the dowels shall be located at the joint.

C. Form Cleanup
   1. All dirt, chips, sawdust and other foreign matter shall be removed from within the forms before any concrete is deposited therein. Forms previously used shall be thoroughly cleaned of all dirt, mortar and foreign matter before being used.
   2. Temporary openings shall be provided at the base of wall forms and at other points where necessary to facilitate cleaning and inspection immediately before depositing concrete.

3.2 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Cement: Store in weather-tight enclosures and protect against dampness, contamination and warehouse set.

B. Aggregates
   1. Stockpile to prevent excessive segregation, or contamination with other materials or other sizes of aggregates.
   2. Use only one supply source for each aggregate stock pile.

C. Admixtures
   1. Store to prevent contamination, evaporation or damage.
   2. Protect liquid admixtures from freezing or harmful temperature ranges.
   3. Agitate emulsions prior to use.
   4. No other admixtures than those specified will be used unless approved by the **ENGINEER.**
   5. The reinforcing fibers shall be added to the concrete mix at the time and location of initial concrete batching. The fibers shall be mixed into the concrete in accordance with the fiber manufacturers' recommendations.

3.3 MIXING

A. Certificates

1. Manufacturer's certification that materials meet specification requirements.
2. Material content per cubic yard of each class of concrete furnished: (to be furnished at time of delivery)
   - dry weights of cement
   - saturated surface-dried weights of fine and coarse aggregates
   - quantities, types, and name of admixtures
   - weight of water
   - water/cement ratio
3. Ready-mix delivery tickets, ASTM C 94, if ready-mix is used. (to be furnished at time of delivery)

B. Transit Mixed Concrete

Transit mixed concrete may be used providing the following criteria for batching, mixing, hauling and discharging are adhered to:

- Batching: Batch load or ribbon load materials thru back of mixer; add approximately 90% of the design water at this time.
- Cement: Mixing shall begin not more than 5 minutes after the cement has contacted the aggregates.
- Mixing: Mixing may be performed at the plant or in transit. Mixing shall be 100 revolutions minimum to 160 revolutions maximum at 6 to 18 rpm. After mixing agitate at 2 to 6 rpm.
- Discharge: The remaining 10% of the design water may be mixed to attain the initi slump. Maximum discharge time is 50 minutes.
- Trucks shall have an accurate electric revolution counting device and water gauge.
- Time in mixer shall not exceed 90 minutes after charging mixer.

C. Truck Mix Concrete

Truck mix concrete may be used providing the following criteria for batching, mixing, hauling and discharging are adhered to. The **ENGINEER** reserves the right to require a layered mix.

- Batching:
  a) Regular Mix - drum can be rocked or revolved for aggregates. Drum cannot be moved while cement is added.
  b) Layered Mix - Fine aggregate and SSD coarse aggregate loaded thru hatch with rocking allowed after each fraction is added. The drum cannot be moved after cement is added.
- Cement Contact Time w/Aggregates:
  a) Regular Mix - 30 minutes max.
  b) Layered Mix - 90 minutes max.
- Mixing
  a) Regular Mix - Begin mixing at the project site after the addition of water. Mixing shall be a minimum of 100 revolutions for 15 minutes time maximum @ 6 - 18 rpm. After mixing, agitation may continue for 30 minutes maximum @ 2 - 6 rpm.
  b) Layered Mix - same as for Regular Mix
- Discharging

a) Regular Mix - 30 minutes max after end of mixing.
b) Layered Mix - 30 minutes max after end of mixing.

- Trucks shall have an accurate electric revolution counting device and water gauge.

3.4 CONCRETE PLACEMENT

A. General - Place concrete in compliance with the practices and recommendations of ACI-304, and herein specified. Subbase must be prepared as described in Section 03010, and must be uniformly moist when the concrete is placed.

B. Placement of concrete should not occur in rainy weather.

C. Panels shall be no larger than 15' by 15'. Sections are to be maintained as close to square as practical. Forms are to be wetted.

D. Internal Joints: Doweled, internal are required every 15', maximum. Reinforcement will not extend through contraction joints. These joints may be either construction joints (i.e. at the form) or contraction joints (i.e. saw cut). All internal joints are to be doweled and sealed with a durable elastomeric sealant, Sikaflex -2c, SL or approved equal.

E. Isolation Joints: A non-extruding, preformed compressible material 3/4 to 1" thick will be placed between the slab and buildings.

F. Isolation Joints for Posts: Contractor must coordinate with Great Lakes Veneer the installation of the debarker on the concrete slab. Posts and footings for the debarker will be isolated from the pad as shown on Figure 4 "Concrete Details."

F. Deposit and consolidate concrete slabs in a continuous operation, within the limits of construction joints, until the placing of a panel or section is complete. Consolidate concrete during placing operations using mechanical vibrating equipment as appropriate, so that concrete is thoroughly worked around reinforcing and other embedded items and into corners.

G. Bring slab surfaces to the correct level with a straight edge strike off. Use bull floats or darbies to smooth the surface, leaving it free of humps or hollows.

H. After mechanical finishing, hand operated smoothing lutes approved by the **ENGINEER** shall, if necessary, be used to smooth out surface irregularities. Except for irregularities or small areas, or in the case of breakdowns, hand screeding and finishing of pavement will not be permitted.

I. Edging: A trowel shall be inserted between the for and the concrete for a depth of approximately 3 inches along the entire length of the slab before the edging tool is used. Finishing of the pavement edges shall be performed in a manner approved by the **ENGINEER** using approved edging tools.

3.5 COLD WEATHER PLACING

A. Protect all concrete work from physical damage or reduced strength which could be caused by frost, freezing actions, or low temperatures.

A. When air temperature has fallen to or is expected to fall below 40° F, uniformly heat all water and aggregate before mixing, to obtain a mixture temperature of not less than 50° F and not more than 80° F at point of placement. The temperature of the concrete shall not be permitted fall below 40° F during the curing period (7 days minimum).

B. Do not use calcium chloride, salt, and other materials containing antifreeze agents or chemical accelerators.

3.6 MONOLITHIC SLAB FINISH

A. Begin float finishing when surface water has disappeared or when concrete has stiffened sufficiently to permit the operation of a power-driven float. Check surface plane to a tolerance not to exceed 1/4 inch in 10 feet, with minimum uniform slope of 1%, as shown on the plans.

B. Begin the final troweling when the surface produces a ringing sound as the trowel is moved over the surface.

3.7 CONCRETE CURING AND PROTECTION

A. Protect freshly placed concrete from premature drying and excessive cold or hot temperatures.

B. Weather permitting, keep placed concrete continuously moist for not less than 72 hours.

3.8 CONCRETE FLOOR SEALER

A. Concrete slab shall be fully cured, cleaned, and etched.

B. Apply sealer as recommended by manufacturer or as specified in the contract documents.

SECTION 03010

SUB GRADE AND SUBBASE

1. GENERAL

1.1 Scope of Work

A. The **CONTRACTOR** shall furnish all labor, tools, materials, equipment and incidentals necessary to provide a level and uniform sub grade suitable for supporting the proposed concrete pavement as shown and specified.

C. The **CONTRACTOR** shall furnish all labor, tools, materials, equipment and incidentals necessary to provide a 4" granular subbase suitable for supporting the proposed concrete pavement as shown and specified.

1.2 Related Sections

Section 01050 Surveys
Section 02220 Excavation
Section 03000 Concrete

1.3 Submittals

The **CONTRACTOR** shall submit:

A. The name and location of each proposed source of subbase material.

B. Certification from suppliers that all fill materials to be supplied for use on this Project meet the requirements of this Specification section, and that the materials are clean (meet analytical criteria specified in Section 01425, Verification Sampling - provide one analytical sample per source of material to be used: the list of analytes must include each compound on the target compound list in the NYSDEC ASP). The **ENGINEER** shall use **DEPARTMENT** TAGM 4046 as the basis for acceptance of the fill materials. Certification must be received and approved by the **ENGINEER** prior to delivery of fill materials to the Site. The **ENGINEER** must be present during the acquisition of these samples from each source.

C. Samples of all subbase material.

D. A typical grain-size analysis of all proposed subbase materials.

E. The moisture density curve for the fill material.

F. Compaction testing results.

G. NYSDEC mining permits.

2. PRODUCTS

2.1 SUBBASE

A. Materials for subbase shall consist of approved blast furnace slag, sand, gravel, crushed stone, or blends of these materials. Subbase gradation shall meet the following criterial: 100% passing a 3" sieve, 90-100% passing a 2" sieve 30-65% passing a 1/4" sieve, 5-40% passing a No. 40 sieve, and 0-10% passing a No. 200 sieve. The plasticity index of the fraction passing the #40 sieve shall not exceed 5. Material will be accepted on the basis of a magnesium sulfate soundness loss after 4 cycles of 20 percent or less.

3. EXECUTION

3.1 SUB GRADE PREPARATION

A. The CONTRACTOR will ensure that the subsoil on which the slab will be constructed will be uniformly compacted and will consist of relatively uniform material. Any material that would provide a significantly different level of support must be excavated and replaced with material similar in composition and compaction to surrounding material.

B. Compacting of subgrade shall be accomplished with a minimum of 6 passes of a roller weighing not less than 5 tons, or other procedures as approved by the engineer.

C. Final grading of sub grade shall be within -1"/+0" of true grade.

3.2 SUBBASE PREPARATION

A. Subbase will be firmly compacted. Compacting of subbase shall be accomplished with compactors adequate to achieve 95 percent of ASTM D698 density.

B. Following rough grading of the subbase, proof-rolling shall be implemented in accordance with section 4.1.1 of ACI 302.1R-15. Proof rolling shall be observed and evaluated by the engineer or the engineer's representative, and should be accomplished by a loaded tandem axle dump or equivalent. In any case, multiple passes should be make using a preestablished grid pattern. If rutting or pumping is evident, corrective action should be taken.

B. Subbase will be fine graded to be within 1/4" of true grade. High areas shall be trimmed, and low areas shall be filled with an approved granular material and compacted.

C. The subbase shall be uniformly moist when the concrete is placed. During concrete paving, a roller weighing not less than 5 tons, shall be maintained in

readiness to recompact the subbase course if the surface has become, for any reason, uneven, or defective. Soft spots in the subbase shall be corrected to the satisfaction of the engineer.

*** END OF SECTION ***

SECTION XII

Measurement for Payment

SECTION XII
MEASUREMENT FOR PAYMENT

1. BID ITEM 1 - SITE PREPARATION

1.1 General

A. Bid Item I shall be bid lump sum price for site preparation as specified and directed herein. The **CONTRACTOR** shall submit a separate bid breakdown (see Section III, Article 12) for this Bid Item that shows the individual cost of providing items in the scope of work for this Bid Item as described below plus mobilization, demobilization, and miscellaneous items not specified elsewhere:

1. Mobilization and Demobilization,
2. Clearing and Grubbing,
3. Decontamination Station,
4. Staging Areas,
5. Temporary Utilities,
6. Decontamination Trailer and Personal Hygiene Facility,
7. Field Offices and Support Areas,
8. Project Signs,
9. Control, Layout and As-Built Surveys,
10. Erosion and Surface Water Controls, and
11. Meteorological Station.

1.2 Measurement and Payment

A. The **CONTRACTOR** shall submit a bid breakdown for this Bid Item that shows the individual cost of mobilization, demobilization, and miscellaneous items not elsewhere specified but necessary for a complete and proper remediation (provide detail).

B. Measurement for payment shall be for items complete, installed, and properly functioning. The **CONTRACTOR** may invoice for up to 70% of this item and pollution liability insurance upon successful installation of the work and the remaining 30% at substantial completion. Payment shall be lump sum bid for each individual item described above, including mobilization, demobilization, and miscellaneous as submitted in the **CONTRACTOR**'s bid breakdown.

2. BID ITEM 2 - SITE SERVICES

2.1 General

A. Bid Item 2 shall be bid unit price per calendar day for site services as specified and directed herein.

1. Site Security

2. Fencing

3. Field Offices and Support Areas

4. Temporary Utilities

5. Erosion and Surface Water Controls

6. Disposal of Contractor-Generated Solid Waste

8. Meteorological Station

9. Staging Areas

10. Maintenance of Survey Controls and verification of grades and elevations.

2.2 Measurement for Payment

A. The **CONTRACTOR** shall submit a separate bid breakdown for this item showing the individual cost per day for providing items in the scope of work for this Bid Item.

B. Measurement for payment of this Bid Item shall be by calender day beginning after satisfactory installation of site facilities and shall end at substantial completion or a the end of the Contract Time specified in Section VI Article 6. 1, whichever is sooner. Payment shall be unit price bid for each individual item described above as submitted in the **CONTRACTOR's** bid breakdown. A one hundred percent reduction in payment shall occur for each calendar day that operation and/or maintenance of any item included in this Bid Item was unsatisfactory or unused as determined by the **ENGINEER.**

3. BID ITEM 3 - HEALTH AND SAFETY

3.1 General

A. Bid Item 3 shall be bid unit price per calendar day for health and safety as directed below.

1. Health and Safety Officer.

2. Decontamination Station.

3. Health and Safety Equipment.

4. Decontamination Trailer and Personal Hygiene Facility.

5. Air Monitoring

6. Dust Control

7. Sampling, Analyses, Handling and Disposal of Personal Protective Equipment (PPE) and Decontamination Wastes not specifically included in other bid items.

3.2 Measurement for Payment

A. The **CONTRACTOR** shall submit a bid breakdown showing the capital and daily O&M costs for items included in this Bid Item (Items not included in Bid Item 2, Site Services).

B. Measurement for payment of this Bid Item shall be for each day the HASP has been adhered to in the opinion of the **ENGINEER.** Work included in this item shall be by calendar day beginning after the satisfactory establishment of an exclusion zone and shall be considered completed when there is no longer an exclusion zone in the project area or at the end of the Contract Time specified in Section VI, Article 6. 1, whichever is sooner. All daily maintenance costs for health and safety are part of this Bid Item including everything required in the HASP. A reduction in the payment for this item will occur for each day the **CONTRACTOR** fails to adhere (in the opinion of the **ENGINEER**) to the HASP. There will be one hundred (100) percent reduction in this Bid Item for days where no remediation work occurs in the exclusion zone. No payment will be made for Saturdays, Sundays and holidays specified in Section XIII.

C. Exclusion zone(s) will be established upon the initiation of intrusive activities involving contaminated areas. Exclusion zone(s) will be removed from the yard area(s) when the 4 inch granular sub-base has been installed from the wetland area when the contaminated sediment removal is complete, and from the cooling water pond when one lift of clean soils has been placed over contaminated materials consolidated within the cooling water pond.

4. BID ITEMS 4A, 4B, 4C - UTILITY INSTALLATION

4.1 General

A. Bid Item 4A shall provide a unit price bid for each linear foot of water piping installed, including all trenching, testing and backfilling.

B. Bid Item 4B shall provide a unit price bid for each linear foot of sanitary sewer piping, including the installation of one manhole, all trenching, testing and backfilling, as shown on the contract drawings.

C. Bid Item 4C shall provide a unit price bid for each linear foot of storm sewer piping installed, including all trenching and backfilling.

D. The **CONTRACTOR** shall not be reimbursed for excavation of materials resulting from unapproved excavations. Materials from unapproved excavations shall be properly backfilled by the **CONTRACTOR**. The **CONTRACTOR** shall not be reimbursed for excavation, consolidation or backfilling of unapproved excavations.

4.2 Measurement for Payment

A. Measurement for payment of Bid Items 4A and 4C shall be for the actual quantity length of piping installed as measured "in place" by a NYS licensed surveyor.

5. BID ITEMS 5A, 5B, AND 5C - SOIL AND SEDIMENT REMOVAL AND CONSOLIDATION

5.1 General

A. Bid Item 5A shall provide a unit price bid for each cubic yard of material (i.e., sediments, soil and debris) properly excavated from the Yard Area and backfilled on-site.

B. Bid Item 5B shall provide a unit price bid for each cubic yard of material (i.e., sediments, soil and debris) properly excavated from the wetland area and backfilled on-site.

D. Bid Item 5C shall provide a unit price bid for each cubic yard of material (i.e., sediments, soil and debris) properly excavated from the new pond area and backfilled on-site.

E. The **CONTRACTOR** shall not be reimbursed for excavation of materials resulting from unapproved excavations. Materials from unapproved excavations shall be properly backfilled by the **CONTRACTOR**. The **CONTRACTOR** shall not be reimbursed for excavation, consolidation or backfilling of unapproved excavations.

5.2 Measurement for Payment

A. Measurement for payment of Bid Items 5A, 5B, and 5C shall be for the actual quantity of material which is properly excavated and backfilled on site as indicated by the **ENGINEER's** records. Payment shall be made based on volume calculations from surveys of the excavated areas.

6. BID ITEM 6 - CONCRETE SLAB CONSTRUCTION

6.1 General

A. Bid Item 6 shall provide a unit price bid for the actual area (square feet) of concrete installed. Price shall include grading and compaction of subgrade, installation and compaction of 4" granular subbase, placement of reinforcing, construction of forms, delivery and installation of concrete, forming of joints, finishing, curing, and sealing.

6.2 Measurement for Payment

A. Measurement for Payment for bid item 6 shall be for the actual area of the finished concrete slab as indicated by the **ENGINEER's** records properly installed as measured by a NYS licensed surveyor.

7. BID ITEMS 7A, 7B AND 7C - SITE RESTORATION

7.1 General

A. Bid Item 7A shall be lump sum bid for completion of the site restoration and shall include, but not be limited to, the following:

All surfaces, pavements, vegetation, culverts and other features removed disturbed, damaged or destroyed during the remediation shall be restored and maintained. Any crushed stone in the regraded portions of former landfill area will be scraped off and stockpiled on site, to be replaced after regrading. Disturbed wetland areas will be graded to original elevations or lower, and will be seeded with a mix of sages and rushes.

B. Bid Item 7B shall provide a unit price bid for each cubic yard of material excavated from the former landfill area. and backfilled on-site.

C. Bid Item 7C shall provide a unit price bid for each square yard of geotextile supplied and installed over the former landfill area.

7.2 Measurement for Payment

A. The **CONTRACTOR** shall submit a bid breakdown for these items that shows the individual cost of the above items and other miscellaneous items not elsewhere specified but necessary for a complete and proper restoration.

B. Measurement for Payment shall be for items complete, installed and properly functioning. Payment for Bid Item 7A shall be lump sum bid for each item described above, including miscellaneous items as submitted in the **CONTRACTOR's** bid breakdown.

C. Measurement for payment of Bid Items 7B and 7C shall be bid unit price for each cubic yard of material excavated and for each square foot of geotextile which is supplied and indicated by the **ENGINEER's** records as properly installed as measured by a NYS licensed surveyor.

8. BID ITEMS 8 - VERIFICATION SAMPLING

8.1 General

A. Bid Item 9 shall be bid unit price for each PCB soil or sediment sample collected and analyzed.

8.2 Measurement for Payment

A. Measurement for Payment of Bid Item 9 shall be for the actual number of samples properly collected and analyzed. No measurement for payment shall be made for quality assurance/quality control (QA/QC) samples. Costs associated with QA/QC shall be included in the unit prices for bid items 9. Payment shall be at the unit price bid for each sample as measured by the Engineer that has full, complete and acceptable documentation.

9. BID ITEM 9 - MONITORING WELL INSTALLATION

9.1 General

Bid Item 9, well installation shall be bid unit price for each linear foot of well installed.

9.2 Measurement for Payment

A. Measurement for Payment for bid item 9 shall be for the actual depth of well installed as indicated by the **ENGINEER's** records.

*** END OF SECTION ***

SECTION XIII

Wage Rates and Associated Contract Requirements

NEW YORK STATE DEPARTMENT OF LABOR
BUREAU OF PUBLIC WORK
STATE OFFICE BUILDING CAMPUS
ALBANY, NY 12240

SCHEDULE 2000A

Date 02/09/01

NYSDEC

PRC 0102071 OSWEGO COUNTY 01

WILLIAM OTTAWAY, ENV. ENG.
NYSDEC,DER,BWRA
50 WOLF ROAD
ROOM 348
ALBANY NY 12233

Location and Type of Project
PROJECT ID #: NONE
OSWEGO CASTINGS
REMEDIATION OF SITE
MITCHELL ST.
CITY OF OSWEGO,NY

In response to your request, enclosed is the schedule of the prevailing hourly wage rates and the prevailing hourly supplements for the above project, together with copies of the Notice of Contract Let (PW-16) for your use. THE SCHEDULES MUST BE ANNEXED TO AND FORM A PART OF THE SPECIFICATIONS FOR THIS PROJECT WHEN IT IS ADVERTISED FOR BIDS. These schedules have been prepared and forwarded in accordance with Article 8 of the NYS Labor Law, which provides that it shall be the duty of the fiscal officer to ascertain and determine the schedules of supplements to be provided and wages to be paid to workers, laborers and mechanics employed on public work projects, and to file such schedules with the Department having jurisdiction.

The attached rates are based on the latest information available to the Department of Labor, Bureau of Public Work. Care should be taken to review the rates for obvious errors. Any corrections should be brought to the Department's attention immediately. It is the responsibility of the Public Work contractor to use the proper rate. If there is a question on the proper classification to be used, please call the district office located nearest the project.

This schedule is effective from July 1, 2000 through June 30, 2001. A new updated schedule will automatically be mailed to you each July 1 until we are notified that the project is completed or canceled.

Note: A 1997 AMENDMENT TO SECTION 220 OF THE LABOR LAW REQUIRES THE DEPT. OF JURISDICTION TO RECEIVE AND MAINTAIN MONTHLY TRANSCRIPTS OF PAYROLL RECORDS FOR THREE YEARS FROM THE DATE OF COMPLETION OF THE WORK IN THE AWARDED CONTRACT.

Very truly yours,

Kevin E. Jones
DIRECTOR

NOTICE TO CONTRACTING AGENCIES:

Upon cancellation or completion of this project, enter the necessary information and return this page to Bureau of Public Work, Bldg. 12, Rm. 130 SOBC, Albany, NY 12240.

PROJECT HAS BEEN COMPLETED/CANCELED:

Date _____

Signature _____

Title _____

For additional information, contact our local District Offices:

Albany (518) 457-2744
Binghamton (607) 721-8005
Buffalo (716) 847-7159
Hempstead (516) 485-4878
New York City (212) 352-6088
Syracuse (315) 428-4056
Rochester (716) 258-4505
Utica (315) 793-2314
White Plains (914) 997-9507

PW-200 (7-00)

CONTRACT REQUIREMENTS

Each public work contract to which the State, a public benefit corporation, a municipal corporation or a commission appointed pursuant to law is a party and which may involve the employment of laborers, workers or mechanics, shall comply with the requirements of Article 8 (Sections 220-223) of the New York State Labor Law:

1. No laborer, worker or mechanic in the employ of the contractor, subcontractor or other person doing or contracting to do the whole or a part of the work contemplated by the contract shall be permitted or required to work more than eight hours in any one calendar day or more than five days in any one week except in the extraordinary emergencies set forth in the Labor Law or where a dispensation is granted by the Commissioner of Labor.

2. Each laborer, worker or mechanic employed by the contractor or subcontractor shall be paid not less than the prevailing rate of wages as indicated on the wage schedule provided by the Department, Bureau of Public Work. The prevailing rate of wage shall be annually determined no later than thirty days prior to July 1st of each year. The prevailing rate of wage for the period commencing July first of such year through June thirtieth, inclusive of the following year shall be the rate of wage set forth in collective bargaining agreements for the same period, including those increases for such period which are directly ascertainable from such collective bargaining agreements. (See Sections 220.3, 220.5)

3. It shall be the duty of the department of jurisdiction to file with the fiscal officer, the classification of workers mechanics and laborers to be employed on a public work project, together with a statement of the work to be performed by each classification. (See Section 220.3-a)

4. The contractor and every subcontractor shall post in a prominent and accessible place at the work site a statement of all wage rates and supplements to be paid or provided for the various classes of mechanics, workers or laborers. (See Section 220.3-a)

5. No employee shall be deemed to be an apprentice unless individually registered with the New York State Department of Labor. The allowable ratio of apprentices to journey-level workers in any craft classification shall not be greater than the ratio permitted to the contractor as to its work force on any job under the registered program. Any employee who is not registered as above, shall be paid or provided the prevailing wage and supplement rate for the journey level classification of work actually performed. The contractor or subcontractor will be required to furnish written evidence of registration of its program and apprentices as well as of the appropriate ratios and wage and supplement rates for the area of construction, prior to using any apprentices on the contract work. (See Section 220.3-e)

6. (a) No contractor, subcontractor, nor any person acting on its behalf, shall by reason of race, creed, color, disability, sex or national origin discriminate against any citizen of the State of New York who is qualified and available to perform the work to which the employment relates. (See Section 220-e(a))

   (b) No contractor, subcontractor, nor any person acting on its behalf, shall in any manner, discriminate against or intimidate any employee on account of race, creed, color, disability, sex or national origin. (See Section 220-e(b))
   Note: The Human Rights Law also prohibits discrimination in employment because of age, marital status or religion.

   (c) There may be deducted from the amount payable to the contractor under the contract a penalty of fifty dollars for each calendar day during which such person was discriminated against or intimidated in violation of the provisions of the contract. (Section 220-e(c))

(d) The contract may be cancelled or terminated by the State or municipality, and all moneys due or to become due thereunder may be forfeited, for a second or anysubsequent violation of the terms or conditions of the antidiscrimination sections of the contract. (See Section 220-e(d))

7. (a) All contractors or their subcontractors shall provide to their subcontractors a copy of the prevailing wage rate schedule specified in the public work contract as well as any subsequently issued schedules. A failure to provide these schedules by a contractor or subcontractor is a violation of Article 8 or the Labor Law. (See Section 220-e(d))

(b) All subcontractors engaged by a public improvement contractor or its subcontractor, upon receipt of the original schedule and any subsequently issued schedules, shall provide to such contractor a verified statement attesting that the subcontractor has received the wage schedule and will pay or provide the applicable rate of wages and supplements specified therein. (See Section 220-a)

PW-3 (8-99).

ATTENTION: ALL CONTRACTORS AND SUBCONTRACTORS
ENGAGED ON PUBLIC WORK PROJECTS IN NEW YORK STATE

INTRODUCTION: Below are the major provisions of the Labor Law covering workers on public work projects.

HOURS: A laborer, worker or mechanic is permitted to work on a public work project no more than eight hours a day and no more than five days in a week, except in case of extraordinary emergency such as a fire, flood or danger to life or property. You may apply to the Bureau of Public Work for a DISPENSATION permitting workers to work additional hours or days per week on a particular public work project.

WAGES AND SUPPLEMENTS: The wages and supplements to be paid and provided for laborers, workers and mechanics employed on a public work project shall be not less than those listed in the current prevailing rate schedule for the locality where the work is performed. If a prevailing rate schedule for the project has not been provided to the prime contractor by the department of jurisdiction (i.e., the governmental entity awarding the public work contract), or to a subcontractor by the prime contractor, the applicable schedule must be obtained from the Department of Jurisdiction, who must make written application to the Bureau of Public Work, Labor Department, Building No. 12, State Office Building Campus, Albany, New York 12240.

The prime contractor is responsible for any underpayments of prevailing wages or supplements by its subcontractors.

PAYROLL RECORDS: Every contractor and subcontractor must keep originals or transcripts of payroll records, showing for each person employed on public work, the following:

1. Name 2. Address and phone number 3. Social Security Number, 4. Occupational classification in which worked, 5. Hourly wage rate paid 6. Supplements provided 7. Daily and weekly number of hours worked in each classification 8. Deductions made 9. Actual wages paid. When payroll records are requested by the Commissioner, each payroll record must be affirmed as true under the penalties of perjury which means a notorized signature to that effect. Such records must be kept on the site of the work when the contractor or subcontractor does not maintain a regular place of business in New York State and the amount of the contract exceeds $25,000. All other contractors and subcontractors must, within 5 days after a request, produce at the work site the original payrolls or transcripts.

Every contractor and subcontractor shall submit to the Dept. of Jurisdiction within thrity days after issuance of it's first payroll, and every thirty days thereafter, a transcript of the original payroll records, subscribed and affirmed as true under penalty of perjury, as provided by Article 8, Section 220, of the NYS Labor Law. The DEPARTMENT OF JURISDICTION shall receive and maintain such payroll records. The original payrolls and transcripts must be preserved for three years from the date of completion of the project.

POSTING: The current prevailing rate schedule must be posted in a prominent and accessible place on the site of the public work project.

APPRENTICES: Employees cannot be paid apprentice rates if they are not individually registered under a program or agreement registered with the Commissioner of Labor. The contractor or subcontractor will be required to furnish written evidence of the registration of its program and apprentices and of the appropriate ratio. The allowable ratio of apprentices to journeymen in any craft classification can be no greater than the ratio permitted to the contractor or subcontractor as to its work force on any job under the registered program. An employee listed on a payroll as an apprentice, who is not registered as above, must be paid the prevailing journeyman's wage rate for that classification of work.
(See attached sheet detailing Apprentice to Journeyman ratios)

WITHHOLDING OF PAYMENTS: When a complaint is filed with the Commissioner of Labor alleging the failure of a contractor or subcontractor to pay or provide the prevailing wages or supplements, or when the Commissioner of Labor believes that unpaid wages or supplements may be due, payments on the public work contract may be withheld from the prime contractor in a sufficient amount to satisfy the alleged unpaid wages and supplements, including interest and civil penalty, pending a final determination.

INTEREST AND PENALTIES: If an underpayment of wages or supplements is found, interest must be added at the rate then in effect prescribed by the Superintendent of Banks pursuant to section 14-a of the banking law per annum from the date of underpayment to the date of the new payment, and may also include the imposition of a civil penalty not to exceed 25% of the amount due.

DEBARMENT: When final determinations have been made against a contractor or subcontractor in two instances within a six-year period determining that it willfully failed to pay or provide the prevailing rate of wages or supplements,

or if there is one wilful violation that involves falsification of payroll records or kickback of wages, such contractor or subcontractor will be ineligible to bid on or be awarded a public work contract for a period of five years from the second final determination.

CRIMINAL SANCTIONS: Willful violations of the Prevailing Wage Law (Article 8 of the Labor Law) constitute a misdemeanor punishable by fine or imprisonment, or both.

DISCRIMINATION: No employee or applicant for employment may be discriminated against on account of age, race, creed, color, national origin, sex, disability or marital status. Every employer subject to the New York State Human Rights Law must conspicuously post at its offices, places of employment or employment training centers, notices furnished by the State Division of Human Rights.

POSTING OF OTHER NOTICES: Every employer providing worker's compensation insurance and disability benefits must post in a conspicuous place notices of such coverage in a form prescribed by the Workers' Compensation Board.

Employers liable for contributions under the Unemployment Insurance Law must conspicuously post notices furnished by the State Department of Labor.

NOTICE OF NEW PREVAILING WAGE RATE PUBLICATIONS

APPLICABLE TO ALL COUNTIES

(*) AS NOTED ON PREVAILING RATE SCHEDULES PAGES.

The annual determination of the prevailing rates of wages and supplements for workers employed on public work projects throughout the state will be published on May 31st of each year. These new rates will be in effect July 1st thru June 30th. This new determination will supersede the original schedule or any prior issued annual determination.

It is the responsibility of the contracting agency or its agents to provide all prevailing rate schedules to contractors immediately upon receipt. Any rate change from a previously issued determination becomes effective July 1st, regardless of whether the new determination has been received by the contractor.

When you review the schedule for a particular occupation, your attention should be directed to the dates above the column of rates. These are the dates that additional adjustments become effective.

PW-202 (4-95) docm: letterd

VERIFYING THE REGISTRATION APPRENTICES

Certain State and Federal Laws require that apprentices must be individually registered as such in order to be paid apprenticeship rates on Public Work.

The New York Labor Department is the official registration agency for apprentices in New York State. No other Federal or State Agency or office registers apprentices in New York State.

Each year the apprentice training central office in Albany receives hundreds of requests from Federal and State Agencies, Contractors, and other interested parties requesting verification of individual apprentice registrations.

The following information is provided in order to clarify New York State procedures.

All registered apprentices in New York State are individually registered by name, address, social security number, starting date of training, and other related data.

This information is computerized and is available ONLY through the Albany Apprentice Training Central Office.

Persons wishing to verify the apprentice registration of any individual should write to the Senior Employment Consultant, New York State Department of Labor, Job Service and Training Division, Building 12, State Office Building Campus, Albany, New York 12240.

All inquiries MUST include name and social security number and will be answered in writing. The response will indicate whether or not the individual is registered, and if so, will provide other pertinent information regarding the registration.

The only conclusive proof of individual apprentice registration is written verification from the Albany Apprentice Training Central Office. Neither Federal nor State Apprentice Training Offices outside Albany can provide conclusive registration information.

It should be noted that the existence of a registered apprenticeship program is not conclusive proof that any individual is registered in that program.

Furthermore, the existence or possession of wallet cards, identification cards or copies of state forms are not conclusive proof of the registration of any individual as an apprentice.

NEW YORK STATE DEPT. OF LABOR
Bureau of Public Work
State Office Building Campus
Albany, NY 12240

NYSDEC

Schedule Type

Date
COMPLETE 2000A
02/09/01
Prevailing Rate Case No.

WILLIAM OTTAWAY, ENV. ENG.
NYSDEC,DER,BWRA
50 WOLF ROAD
ROOM 348
ALBANY NY 12233

0102071 01
PROJECT ID #: NONE
OSWEGO CASTINGS
REMEDIATION OF SITE
MITCHELL ST.

OSWEGO COUNTY
AGY. OF JURIS. : OTHER NEW YORK STATE AGENCY
NAT. OF PROJECT: OTHER RECON,MAINT,REPAIR,ALT

Copies of the wage and supplement schedule for the Public Work project identified above are enclosed herewith. Sec. 220.3a of the Labor Law requires that certain information be furnished to the Commissioner of Labor.

Accordingly, you **MUST** complete **ONE** of these requests for EACH prime contract let immediately upon notifying a successful bidder for this Public Work project. Photocopy as many blank forms as required to supply one for each contractor.

Return this request to the address given above

☐ Project **CANCELLED, POSTPONED** or assigned to agency's own employees. If reactivated, new rates and supplements will be requested.

☐ CONTRACT AWARDED: (check one and indicate date of first legal instrument which bound agency to contract.)

☐ Letter of Intent _____ ☐ Contract Signed _____ ☐ Resolution _____

Work to be done by this prime contractor:

Type of Contract: **CHECK APPLICABLE TYPE**

☐ (01) General Construction ☐ (02) Heating/Ventilation ☐ (03) Electrical
☐ (04) Plumbing ☐ (05) Other _____

Contractor Information: **ALL INFORMATION MUST BE SUPPLIED**

CONTRACTOR'S TELEPHONE #: (____) _____ – _____

Federal Employer Identification Number: _____

Name: _____

Address: _____

_____

_____

City: _____ State: _____ Zip: _____

Amount of Contract _____ Approximate Starting Date: ___/___/___

Approximate Completion Date: ___/___/___

Estimated Date Entire Project Will be Completed: ___/___/___

CONTRACTS NOT YET AWARDED

Type of Contract (Check all applicable contract types)

☐ (01) General Construction ☐ (02) Heating/Ventilation ☐ (03) Electrical
☐ (04) Plumbing ☐ (05) Other _____

Signature _____ Date _____

New York State Prevailing Rate Schedule Department of Labor

Case Number

0102071
OSWEGO 2000A

INSTRUCTIONS

PREVAILING RATE SCHEDULE INFORMATION

The information listed below is provided to assist you in the interpretation of particular requirements, for each classification of worker, contained in the attached Schedule of Prevailing Rates.

PAID HOLIDAYS

Paid Holidays are days for which an eligible employee receives a regular day's pay, but is not required to perform work.
Note: If an employee works on a day listed as a paid holiday, this remuneration is in addition to payment of the required prevailing rate for the work actually performed.

OVERTIME

Overtime holiday pay is the premium pay that is required for work performed on specified holidays. It is only required where the employee actually performs work on such holidays. The applicable holidays are listed under HOLIDAYS: OVERTIME. The required rate of pay for these covered holidays can be found in the OVERTIME PAY section listings for each classification.

SUPPLEMENTAL BENEFITS

Particular attention should be given to the supplemental benefit requirements. Although in most cases the payment or provision of supplements is for each hour worked, some classifications require the payment or provision of supplements for each hour paid (this may include paid holidays on which no work is performed) and/or may require supplements to be paid or provided at a premium rate for premium hours worked.

EFFECTIVE DATES

When you review the schedule for a particular trade or occupation, your attention should be directed to the date above the column(s) of rates. This is the date on which the rate become effective. The rate listed is valid until the next effective rate change or until the new annual determination, which takes effect on July 1 of each year. All contractors and subcontractors are required to pay the current prevailing rates of wages and supplements. The department of jurisdiction is required to provide a copy of the current annual determination. Should you have questions, please contact the Bureau of Public Work or visit the NYS Department of Labor's Web site at www.labor.state.ny.us for current wage rate information.

WORKERS COMPENSATION

In accordance with Section 142 of the State Finance Law, the contractor shall maintain coverage under the life of the contract for the benefit of such employees as required by the provisions of the New York State Workers' Compensation Law.

-Contractor to be awarded contract must provide proof of Workers' Compensation coverage prior to being allowed to begin work.

-The policy of insurance must be issued by a company authorized to provide Workers' Compensation coverage in this state.

-Proof of coverage must be on form C-105.2 (Certificate of Workers' Compensation Insurance) and must name this agency as a certififcate holder.

-If New York State coverage is added to an existing out of state policy, it can only be added to a policy of a company authorized to write Workers' Compensation coverage in this state, and the coverage must be listed under item 3A of the information page.

-The contract must maintain proof that subcontractors doing work covered under this contract secure and maintain a Workers' Compensation policy for all employees working in New York State.

If you have any questions concerning the attached schedule or would like additional information, please contact nearest BUREAU of PUBLIC WORK District Office or write to the NEW YORK STATE DEPARTMENT of LABOR, BUREAU of PUBLIC WORK, BUILDING 12, STATE OFFICE BUILDING CAMPUS, ALBANY, NEW YORK 12240.

District Office Locations:	Telephone#	FAX #
Bureau of Public Work - Albany	518-457-2744	518-485-0240
Bureau of Public Work - Binghamton	607-721-8005	607-721-8004
Bureau of Public Work - Buffalo	716-847-7159	716-847-7650
Bureau of Public Work - Hempstead	516-485-4878	516-485-0322
Bureau of Public Work - Rochester	716-258-4505	716-258-4708
Bureau of Public Work - Syracuse	315-428-4056	315-428-4671
Bureau of Public Work - Utica	315-793-2314	315-793-2342
Bureau of Public Work - White Plains	914-997-9507	914-997-9523
Bureau of Public Work - New York City	212-352-6088	212-352-6186
Bureau of Public Work - Central Office	518-457-5589	518-485-1870

(7/06/99)

OVERTIME

Following is an explanation of the code(s) listed in the OVERTIME section of each classification contained in the attached schedule. Additional requirements may also be listed in the OVERTIME section.

(A) Time and one half of the hourly rate after 7 hours per day.
(AA) Time and one half of the hourly rate after 7 and one half hours per day.
(B) Time and one half of the hourly rate after 8 hours per day.
(B1) Time and one half of the hourly rate for the 9th & 10th hours week days and the 1st 8 hours on Saturday. Double the hourly rate for all additional hours.
(C) Double the hourly rate after 7 hours per day.
(C1) Double the hourly rate after 7 and one half hours per day.
(D) Double the hourly rate after 8 hours per day.
(D1) Double the hourly rate after 9 hours per day.
(E) Time and one half of the hourly rate on Saturday.
(E1) Time and one half 1st 4 hours on Saturday. Double the hourly rate all additional Saturday hours.
(E2) Saturday may be used as a make-up day at straight time when a day is lost during that week due to inclement weather.
(E3) Between November 1st and March 3rd Saturday may be used as a make-up day at straight time when a day is lost during that weekdue to inclement weather, provided a given employee has worked between 16 and 32 hours that week.
(E4) Saturday and Sunday may be used as a make-up day at straight time

when a day is lost during that week due to inclement weather.
(F) Time and one half of the hourly rate on Saturday and Sunday.
(G) Time and one half of the hourly rate on Saturday and Holidays.
(H) Time and one half of the hourly rate on Saturday, Sunday, and Holidays.
(I) Time and one half of the hourly rate on Sunday.
(J) Time and one half of the hourly rate on Sunday and Holidays.
(K) Time and one half of the hourly rate on Holidays.
(L) Double the hourly rate on Saturday.
(M) Double the hourly rate on Saturday and Sunday.
(N) Double the hourly rate on Saturday and Holidays.
(O) Double the hourly rate on Saturday, Sunday, and Holidays.
(P) Double the hourly rate on Sunday.
(Q) Double the hourly rate on Sunday and Holidays.
(R) Double the hourly rate on Holidays.
(S) Two and one half times the hourly rate for Holidays, if worked.
(S1) Two and one half times the hourly rate the first 8 hours on Sunday or Hoilidays. One and one half times the hourly rate all additional hours.
(T) Triple the hourly rate for Holidays, if worked.
(U) Four times the hourly rate for Holidays, if worked.
(V) Including benefits at SAME PREMIUM as shown for overtime.
(W) Time and one half for benefits on all overtime hours.
NOTE: BENEFITS are PER HOUR WORKED, for each hour worked, unless otherwise noted

HOLIDAYS

PAID

Paid Holidays are days for which an eligible employee receives a regular day's pay, but is not required to perform work.
Note: If an employee works on a day listed as a paid holiday, this remuneration is in addition to payment of the required prevailing rate for the work actually performed.

OVERTIME

Overtime holiday pay is the premium pay that is required for work performed on specified holidays. It is only required where the employee actually performs work on such holidays. The applicable holidays are listed under HOLIDAYS: OVERTIME. The required rate of pay for these covered holidays can be found in the OVERTIME PAY section listings for each classification.

Following is an explanation of the code(s) listed in the HOLIDAY section of each classification contained in the attached schedule. The Holidays as listed below are to be paid at the wage rates at which the employee is normally classified.

(1) None.
(2) Labor Day.
(3) Memorial Day and Labor Day.
(4) Memorial Day and July 4th.
(5) Memorial Day, July 4th, and Labor Day.
(6) New Year's Day, Thanksgiving Day, and Christmas Day.
(7) Lincoln's Birthday, Washington's Birthday, and Veterans Day.
(8) Good Friday.
(9) Lincoln's Birthday.
(10) Washington's Birthday.
(11) Columbus Day.
(12) Election Day.

(13) Presidential Election Day.
(14) 1/2 Day on Presidemtial Election Day.
(15) Veterans Day.
(16) Day after Thanksgiving Day.
(17) July 4th.
(18) 1/2 Day before Christmas Day.
(19) 1/2 Day before New Years Day.
(20) Thanksgiving Day.
(21) New Year's Day.
(22) Christmas Day.
(23) Day before Christmas.
(24) Day before New Year's Day.
(25) Presidents' Day.
(26) Martin Luther King, Jr. Day.

ASBESTOS WORKER

WAGES(per hour)

	7/01/2000
Asbestos Worker Insulation Work (On mechanical systems only)	$21.48

OVERTIME PAY: See (B1, Q) on OVERTIME PAGE
HOLIDAYS:
Paid: See (1) on HOLIDAY PAGE
Overtime: See (4, 6) on HOLIDAY PAGE. Triple time for LABOR DAY if worked.

APPRENTICES: (1) yr terms at the following percentage of Journeyman'swage.

1st yr	2nd	3rd	4th
40%+$1.00	50%+$1.00	70%	80%
$9.59	$11.74	$15.03	$17.18

SUPPLEMENTAL BENEFITS:(per hour worked)

Journeyman.....	$9.69
APPRENTICES	9.69

THE FOLLOWING RATES APPLY TO WORK ON: SCHOOLS,HOSPITALS,NURSING HOMES,HEALTH CARE FACILITIES,PUBLIC HOUSING,OFFICE BUILDINGS,HOTELS AND MOTELS,EXCLUDING UNDERGROUND WORK,STAND ALONE STEAM AND ELECTRIC GENERATION PLANTS ASSOCIATED WITH THESE FACILITIES.

_WAGES(per hour)

JOURNEYMAN.....	$17.28
APPRENTICES:	
1ST YEAR.....	9.59
2ND YEAR.....	11.74

SUPPLEMENTAL BENEFITS:(per hour worked)

JOURNEYMAN.....	$6.69
APPRENTICES.....	6.69

NO. 6-30

ASBESTOS WORKER
WAGES(per hour)

	7/01/2000
Asbestos Worker Removal & Abatement Only *.....	$18.42

* On Mechanical Devices NOT to be scrapped.

OVERTIME PAY: See (B, E2, H) ON OVERTIME PAGE.
HOLIDAYS:
Paid: See (1) on HOLIDAY PAGE.
Overtime: See (5, 6) on HOLIDAY PAGE.

SUPPLEMENTAL BENEFITS:(per hour worked)

$6.50

1-202.1B

BOILERMAKER
WAGES(per hour)

	7/01/2000
Boilermaker.....	$23.00

OVERTIME PAY:New Work See (B,E,Q) on OVERTIME PAGE. Time & 1/2 for the 9th & 10th hours Monday thru Saturday,double all addtl.hours.
OVERTIME PAY:Maint. See (B,E,Q) on OVERTIME PAGE
HOLIDAYS:
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6, 10, 11, 15) on HOLIDAY PAGE

APPRENTICES: (1/2) year terms at the following percentage of Journeyman's wage.

1st	2nd	3rd	4th	5th	6th	7th	8th
65%	65%	70%	75%	80%	85%	90%	95%

SUPPLEMENTAL BENEFITS:(per hour worked) *NOTE See below

Journeyman... $ 8.02 Plus 13% of gross wage

*Note (Supplemental benefits per hour paid)

Journeyman...$ 4.00

Apprentice	Per hrs worked	Per hrs Paid
1st year.	$ 6.64 + 13% of wage	$ 2.62
2nd year..		
1st 6 months	6.84 + 13% of wage	2.82
2nd 6 months	7.04 + 13% of wage	3.02

3rd year..			
1st 6 months	7.2[illegible]	+ 13% of wage	3.22
2nd 6 months	7.4[illegible]	+ 13% of wage	3.42
4th year..			
1st 6 months	7.6[illegible]	+ 13% of wage	3.62
2nd 6 months	7.8[illegible]	+ 13% of wage	3.82

No.6-175

ELEVATOR

WAGES(per hour)

	7/01/2000
Elevator Constructor...	$25.13
" Helper ..	$17.59

OVERTIME PAY: See (D, O, T) on OVERTIME PAGE
HOLIDAYS:
Paid: See (5, 6, 16) on HOLIDAY PAGE
Overtime: See (5, 6, 16) on HOLIDAY PAGE
SUPPLEMENTAL BENEFITS:(per hour worked)

$ 6.935 plus
6 % of wage

No. 6-62.1

CARPENTER

WAGES(per hour) 7/01/2000

Building:	
Carpenter.....	$19.10
Carpet Layer.....	19.10
Dry-Wall Applicator..	19.10
Lather.....	19.10
Hazardous waste work.	19.10
Piledriver (Bldg)....	19.25
Millwright.....	19.35
Millwright welder....	19.60
Diver Wet Day.....	40.00
" Dry Day & Tenders	19.25
Pile driver welder...	19.50

OVERTIME PAY: See (B,E,Q,) on OVERTIME PAGE
HOLIDAYS:
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

APPRENTICES: (1/2) year terms at the following percentage of Journeyman's wage.

1st	2nd	3rd	4th	5th	6th	7th	8th
50%	55%	60%	65%	70%	75%	80%	85%

SUPPLEMENTAL BENEFITS:(per hour worked)

Journeyman $9.245

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Appr 70% to Journeyman	$9.245	
Appr 60% to 65%	6.495	
Appr 50% to 55%	3.745	No. 6-747

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GLAZIER

WAGES(per hour)

	6/01/2000
Glazier..... ..$	18.31
" over 35 ft above ground*	
*Addit.$.50 per hr.	

OVERTIME PAY:See (B,E,E2,Q) on OVERTIME PAGE.
HOLIDAYS:
Paid: See (1) on HOLIDAY PAGE.
Overtime: See (5, 6) on HOLIDAY PAGE.

APPRENTICES: (1/2) year terms at the following percentage of journeyman's wage.

1st.	2nd.	3rd.	4th.	5th.	6th.	7th.	8th.	9th	10th
40%	45%	50%	55%	60%	65%	70%	75%	80%	85%

SUPPLEMENTAL BENEFITS:(per hour worked)

Journeyman & ALL Apprentices $ 5.41

5-677.B

ROOFER

WAGES(per hour)

	7/01/2000	6/01/2001
Roofer,Waterproofer..	$ 19.65	addl.$.75

*Addtl. $.75 per hr. for Pitch removal & application.
*Addtl. $.75 per hr. for asbestos abatement.

OVERTIME PAY: See (B, E, *,Q) on OVERTIME PAGE *
* Saturday may be paid at straight time if it is the 5th day worked. But if a holiday falls in that week Saturday will be paid at 1 1/2 times the rate.

HOLIDAY:
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

APPRENTICES: (500) hour terms at the following percentage of journeyman's wage.

1st 500hrs	2nd 500hrs	3rd 1000 to 2000	4th 2000 to 3000	5th 3000 to 4000
$9.82	9.82	11.79	13.75	15.72

SUPPLEMENTAL BENEFITS:(per hour worked)

Journeyman	$ 7.72
Appr 1st thru 4th terms	4.52
Appr 5th thru 6th terms	6.72
Appr 7th thru 8th terms	7.72

6-195

SHEETMETAL WORKER

WAGES(per hour)

	7/01/2000
Sheetmetal Worker:	
*(under $5 million)..	$ 21.66
*(over $ 5 million)..	22.66

*For total cost of Sheetmetal contract only.

OVERTIME PAY: See (B, E, Q*) on OVERTIME PAGE
*National Holidays Only.

HOLIDAY:
Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

APPRENTICES: (1/2)year terms at the following percentage of journeyman's wage.

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
40%	45%	50%	55%	60%	65%	70%	75%	80%	85%

SUPPLEMENTAL BENEFITS:(per hour worked)

Journeyman	$10.395		
Appr 1st thru 3rd year	6.41	plus 3% of both wage and	$ 5.78
Appr 4th & 5th year	7.41	plus 3% of both wage and	6.78

6-58

LABORER

Laborer (Building):

Group #A: Basic rate, nuclear site or nuclear related work.
Group #B: Blaster, asbestos and hazardous waste.

The rates and supplements under Group "A" and Group "B" apply to all catagories listed below if the above discriptions are applicable.

WAGES(per hour)	7/01/2000	7/01/20017/01/2002
ADDITIONALADDITIONAL		
Group # A.....	$ 18.41	$.86 $.86
Group # B.....	18.81	

OVERTIME PAY: See{B,E,Q,E2}on OVERTIME PAGE
HOLIDAYS:
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

SUPPLEMENTAL BENEFITS:(per hour worked)

$ 7.10

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WAGES(per hour)

	7/01/2000	7/01/2001	7/01/2002
Laborer(Bldg):(projects to $20 million total cost of project)			
All classifications..{.D RATE }		ADDITIONAL	ADDITIONAL
(Except if Group A or B apply)	$14.97	$.38	$.66

OVERTIME PAY: See (B,E,Q,E2) on OVERTIME PAGE
HOLIDAYS:
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

SUPPLEMENTAL BENEFITS:(per hour worked)

$ 7.10

No. 6-214/0-20

THE FOLLOWING RAT E APPLIES TO ALL PROJECTS { TO 20 MILLION } BID PRIOR TO 7/01/2000 AND MAY BE USED UNTIL 6/30/2001.

Laborer(Bldg):

All classifications: $14.79
(Except if Group A or B apply)

OVERTIME PAY: See (B,E,Q,E2) on OVERTIME PAGE
HOLIDAYS:
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

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The following apprentice percentages apply to all above classifications.

APPRENTICES: (1) year terms of the following percentage of journeyman's wage

1st	2nd	3rd	4th
60%	70%	80%	90%

SUPPLEMENTAL BENEFITS:(per hour worked)

$ 7.10

6-2140-20

MASON - Building

WAGES(per hour)

7/01/2000

Bricklayer, Blocker, Stone Mason, Concrete Finisher, Plasterer, Refractor Pointer, Caulker, Cleaner, Fireproofer, Snythetic Plastering, Gunite Nozzman, Cutting of Concrete, Grout Nozzman, Bush Hammering of All Concrete, Curing.
All of The Above.....$ 21.505

Additional $ .25 per hr for work in restricted radiation area of atomic plant.
Additional $5.00 per day for working on a two point suspension scaffold except

Pointers Caulkers and Cleaners.

OVERTIME PAY: See (B, E, E2*, Q) on OVERTIME PAGE.
* Provided employee worked between 16 and 32 hours in that week.

HOLIDAY:
Paid: See (1) on HOLIDAY PAGE.
Overtime: See (5, 6) on HOLIDAY PAGE.

Apprentices: (750 hour) Terms at the following percentage of Journeyman's wage.

1st	2nd	3rd	4th	5th	6th	7th	8th
55%	60%	65%	70%	75%	80%	85%	90%

SUPPLEMENTAL BENEFITS:(per hour worked)

$9.12

6-2b.4

MASON - Building

WAGES(per hour)

7/01/2000

Building:
Tile,Terrazzo,Marble Wk..$ 17.63
Finisher..... 15.13

OVERTIME PAY: See (B, E, Q) on OVERTIME PAGE
HOLIDAY:
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

APPRENTICES: (1/2 yr) terms at the following percentage of journeyman's wage.

	1st	2nd	3rd	4th	5th	6th
Setter.....	40%	50%	60%	70%	80%	90%
Finisher...	50%	60%	75%	90%		

SUPPLEMENTAL BENEFITS:(per hour worked)

Finisher	$ 7.2$
Setter	7.3$

6-2T.3

SURVEY CREW - Building

SURVEY CLASSIFICATIONS:
Party Chief- One who directs a survey party.
Instrumentman- One who runs the instrument and assists the Party Chief.
Rodman- One who holds the rods and in general, assists the survey party.

WAGES:(per hour)	7/01/2000	6/01/2001
Survey Rates-Building:		
Party Chief.....	$21.50	$22.00
Inst. Man/Rodperson	18.06	18.51
Grade checker.....	18.06	18.51

Additional 2.00 per hr. if work requires Level A, B or C of Personal Protective Equipment listed in the Occup. Saf. & Health Guidance Manual for Hazardous waste site activities. Paper dust masks are excluded from coverage in this section.

OVERTIME PAY: See (B, E, Q) on OVERTIME PAGE.
HOLIDAY:
Paid: See (5, 6) on HOLIDAY PAGE.
Overtime: See (5, 6) on HOLIDAY PAGE.

APPRENTICES: (1000) hour terms at the following percentage of Journeyman's wage.

1st 1000 hours	13.5	$13.88
2nd 1000 hours	15.3$	15.73
3rd 1000 hours	17.1$	17.58

SUPPLEMENTAL BENEFITS: (per hour paid)

Journeymen	$10.85	$11.40
Appr 1st	5.50	5.85
Appr 2nd	7.10	7.55
Appr 3rd	8.3$	8.90

6-545.b

SPRINKLER FITTER

WAGES(per hour)	7/01/2000
Sprinkler Fitter.....$	23.6$

OVERTIME PAY: See (B, E, Q) on OVERTIME PAGE.
HOLIDAY:
Paid: See (1) on HOLIDAY PAGE.
Overtime: See (5, 6) on HOLIDAY PAGE.

APPRENTICES: (1/2) year terms at the following percentage of Journeyman;s wage.

1st.	2nd.	3rd.	4th.	5th.	6th.	7th.	8th.	9th.	10th.
40%	45%	50%	55%	60%	65%	70%	75%	80%	85%

SUPPLEMENTAL BENEFITS:(per hour worked)

Journeyman	$ 7.95
Apprs. 1st thru 4th term	4.10
All other terms	7.95

No. 1-669

In the Towns of Orwell and Richland.
THE FOLLOWING RATE APPLIES:

TEAMSTER-Building

Truck Driver (Building):
Group # A: Straight trucks, Mechanic Helper, Parts Chaser.
Group # B: Tractor trailer, Farm Tractor, Fuel Tank.
Group # C: Euclid.
Group # D: Mechanic-on-Site.

WAGES(per hour) 7/01/2000

Building:(under $ 5 million)

Group #A	$16.43
Group #B	16.43
Group #C	16.43
Group #D	16.43

OVERTIME PAY: On Job site See (D,O) on OVE TIME PAGE
OVERTIME PAY: Over road See (B,H) on OVERTIME PAGE
HOLIDAY:
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5,6) on HOLIDAY PAGE

SUPPLEMENTAL BENEFITS:(per hour worked)

$ 6.13

6-317un5

WAGES(per hour) 7/01/2000

Building:(over $ 5 million)

Group #A	17.43
Group #B	17.58
Group #C	17.83
Group #D	17.63

OVERTIME PAY: On Job site See (D,O) on OVERTIME PAGE
OVERTIME PAY: Over road See (B,H) on OVERTIME PAGE
HOLIDAY:
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5,6) on HOLIDAY PAGE

SUPPLEMENTAL BENEFITS: (per hour worked)

6.28

6-317ov5

In the Remainder of the County.
THE FOLLOWING RATE APPLIES:

TEAMSTER-Building

Truck Driver (Building): Group # A: Fuel Trucks, Fork Lift (Warehouse & Storage Area Only), Bus, Warehouse, Yardman, Truck Helper, Pickups, Panel Truck, Flatbody Material Trucks (straight Jobs), Single axle Dump Trucks, Dumpsters, Material Checkers & Receivers, Greasers, Tiremen, Mechanic Helpers and Parts Chasers.
Group # B: Tandems, Mechanics & Batch Trucks.
Group # C: Semi Trailers, Low Boys, Asphalt Distributor Trucks, and Agitator Mixer Truck, Dump Crete Type Vehicles and 3 axle Dump trucks.
Group # D: Asbestos Removal, Special earth moving Euclid type or similar off highway equip.(non self load.)

WAGES(per hour)

	7/01/2000	6/01/2001	6/01/2002	6/01/2003	6/01/2004
Building:					
Group #A	$16.30	16.70	17.00	Addit. $.85	Addit. $.90
Group #B	16.35	16.75	17.05		
Group #C	16.40	16.80	17.10		
Group #D	16.56	16.96	17.26		

OVERTIME PAY: See (B, E, Q) on OVERTIME PAGE.
HOLIDAY:
Paid: See (1) on HOLIDAY PAGE.
Overtime: See (5, 6) on HOLIDAY PAGE.

SUPPLEMENTAL BENEFITS: (per hour worked)

7/01/2000	6/01/2001	6/01/2002
$7.80	$8.15	$8.65

7-687

POWER EQUIPMENT OPERATOR - BUILDING

Building:
CLASS # A: Air Plako, Asphalt and Blacktop Roller, Automated Concrete Spreader (CMI or equiv), Automated Fine Grade Machine (CMI), Backhoe, Belt Placer, Blacktop Spreader(such as Barber Greene & Blaw Knox), Blacktop Plant (automated), Blast or Rotary Drill Truck or cat mounted), Boom Truck, Cableway, Caisson Auger, Scraper, Central Mix Plant (Automated),Cherry Picker-over(15)ton capacity, Concrete pump, Crane, Crusher - Rock, Derrick, Diesel Power Unit, Dragline, Dredge, Dual Drum Paver, Elevating Grader(self-propelled or towed),

Elevator Hoist- Two Cage, Excavator-All purpose-hydraulically operated, Fork Lift (Loed/Lull Rough Terrain type), Front End Loader(4c.y. and over), Gradall, Grader (Power), Head Tower (Saurman or equal), Hoist (2 or 3 Drum), Hydroblaster (Laser Pump) (LCM's) work Boat Operator, Light Plants, compressors and generators, Locomotive, Maintenance Engineer, Maintenance Welder, Mine Hoist, Mucking Machine or Mole, Overhead Crane-Fixed/Permanent, Pile Driver, Quarry Master or Equivalent, Refrigeration Equip.-For Soil Stabilization, Sea Mule, Shovel, Side Boom. Slip Form Paver, Straddle Buggy (Ross Carrier, Lumber Carrier), Tractor Drawn Belt Type Loader(Euclid Loader), Trenching Machine (digging capacity of over 4 ft.depth), Truck Crane Operator, Truck or Trailer mounted log chipper(self-feeder), Tug operator(Manned, rented equip. excluded), Tunnel Shovel, Vibro or Sonic Hammer Controls(when not mounted in proximity to Rig Operator) Dewatering press, Burning plant operator, Barrel shredder.

CLASS B: "A" Frame Truck, Blacktop Plant(non-automatic), Boring Machine, Bulldozer, Cage-Hoist, Central Mix Plant(non-automated), Cherry Picker(15)tons and under, Compressor when used in battery of not more than five, Concrete Paver(single drum over 16S), Core Boring Machine, Drill Rigs-Tractor mounted, Elevator-as a material hoist, Fork Lift(other than Loed/Lull rough terr)w or w/o attach, Front End Loader(under 4 c.y.) Gunite Machine, High Pressure Boiler(15 lbs. & Over),Hoist(one drum),Hydraulic Breaking Hammer (Drop Hammer), Kolman Plant Loader (screening gravel), Maintenance Grease Man, Mixer for stabilized base-self-propelled (Seaman Mixer), Monorail Machine, Parapet Concrete or Pavemt Grinder, Post Hole Digger (truck or tractor mtd), Power Sweeper(Wayne or similar), Group Pump, Pump-Crete or Squeeze-Crete, Skid Steer Bobcat type loader, Road Widener(front end of Grader or self propelled), Roller, Shell Winder (motorized), Snorkel(over head arms), Snowblower controlman, Trenching Machine (digging capapcity of 4 ft. or less), Tugger Hoist, Vibro-tamp, Well Drill, Well Point System (Submersible pumps used in lieu of well point system), Winch(Motor driven), Winch truck, self-contained Hydraulic Bench Drill, Parts man and Vacuum mach. (self prop. or mtd.)Winch Cat

CLASS C: Compressor (Up to 500 c.f.), Concrete Paver or Mixer (under 16S),Concrete Pavement Spreaders and Finishers (not automated), Conveyor (over 12 ft), Electric Submersible Pump (4" and over), Farm Tractor with or without accessories, Fine Grade Machine (not automated), Fireman, Form Tamper, Generator(2,500 watts and over) Hydraulic Pump, Mechical Heaters - More than two(2) Mechanical Heaters or any Mechanical Heater or Heaters whose combined output exceeds 640,000 BTU per hour (manufacturer's rating) plus one self contained heating unit (i.e. Sundog or Air Heat type, New Holland Hay Dryer type excluded), Mulching Machine, Oiler, Post Driver(Truck or Tractor Mounted), Power Driven Welding Machine-300 amp.and over(other than all electric)one Welding Machine under 300 amp. won't require engineer unless in battery, Power Heater(hay dryer), Pump(all water & trash), Revinus Widener(rd widener), Single Light Plant, Steam Cleaner or Jenny, Tractor w or w/out towed access, Winch Cat

WAGES(per hour)	7/ 1/2000	6/01/2001
Building:		
Master Mechanic.....	$22.94	$23.44
Asst.Master Mechanic	22.00	22.50
Class # A.....	21.50	22.00
Class # B.....	20.03	20.48
Class # C.....	17.21	17.41
Ple Dr. w/Bm/Ld 100ft+	22.50	23.00
Tower Crane	22.50	23.00
Crane/Derrick w/boom:		
" 150 ft and over...	22.50	23.00
" 200 ft.....	23.50	24.00
" 300 ft.....	24.50	25.00

ALL LATTICE BOOM CRANES 65 TON CAPACITY AND OVER - CLASS A RATE PLUS $1.00
ALL HYDRAULIC CRANES 65 TON TO 79 TON CAPACITY - CLASS A RATE PLUS $.35
ALL HYDRAULIC CRANES 80 TON TO 99 TON CAPACITY - CLASS A RATE PLUS $.50
ALL HYDRAULIC CRANES 100 TON CAPACITY AND OVER - CLASS A RATE PLUS $1.00

ADDITIONAL $2.00 per hr. if work requires Level A,B,C of Personal Protective Equipment listed in the Occup. Saf. & Health Guidance Manual for Hazard. Wst. Site Activities. Paper dust masks are excluded from coverage in this section.

OVERTIME PAY: See (B, E, Q) on OVERTIME PAGE
HOLIDAY:
Paid: See (5 , 6) on holiday page
Overtime: (5 , 6) on holiday page

APPRENTICS: (1000) HOUR TERMS AT THE FOLLOWING PERCENTAGE OF JOURNEYMAN'S WAGE.

1st	2nd	3rd	4th
60% of class A	65% of class A	70% of class A	80% of class A

SUPPLEMENTAL BENEFITS: (per hour paid)

journeyman	$10.85	$11.40	
appr 1st	5.50	5.85	
appr 2nd	7.10	7.55	
appr 3rd	7.40	7.95	
appr 4th	8.35	8.90	6-545b

LINEMAN LINEMAN/ELECTRIC

WAGES(per hour)

	7/01/1999	4/30/2000
Lineman/Tech./Welder	$29.17	29.85
Dynamite/Cable splicer	29.17	29.85
Digging Mach.....	26.25	26.87
Tract Trlr Driver.....	24.79	25.37
Truck Dr/Groundman.....	23.34	23.88
Mech. 1st Class.....	23.34	23.88
Mech. 2nd Class/Flagman	17.50	17.91

Additional 1.00 per hr. for crew on helicopter job.

Above rates applicable on all overhead Transmission line work where other construction trades are or have been involved. This applies to transmission line work only, not other construction.

Lineman/Technician.....	27.96	28.64
Dynamite/welder.....	27.96	28.64
Digging Mach.....	25.16	25.78

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Trctr Trlr Driver	23.77	24.34
Truck Dr/Groundman.....	22.37	22.91
Mech. 1st Class.....	22.37	22.91
Mech. 2nd Class.....	16.78	17.18
Flagman.....	16.78	17.18
Certified Welder.....	29.36	30.07
Cable Splicer	30.76	31.50

Additional 1.00 per hour on helicopter job.

Above rates apply on Switching Structures, Maintanence projects, Railroad Catenary install/maint, Third rail installation, Bonding of Rails and pipe type cable installation.

Lineman /Tech/Dynamite	26.68	27.36
Welder/Cable Splicer	26.68	27.36
Digging Machine Operator	24.01	24.62
Tractor Trailer Driver	22.68	23.26
Truck Driver/Groundman	21.34	21.89
Mech. 1st Class.....	21.34	21.89
Mech. 2nd Class/Flagman	16.01	16.42

Additional 1.00 per. hr. for crew on helicopter job.

Above rates applicable on all overhead and underground distribution and maintenance work, and all overhead and underground transmission line work where no other construction trades are or have been involved.

Lineman/tech/welder.....	27.26	27.36
Cable splicer.....	29.99	30.10
Certified welder (pipe-type cable).....	28.62	28.73
Digging machine operator	24.53	24.62
Tractor trailer driver..	23.17	23.26
Mechanic 1st class.....	21.81	21.89
Groundman/Truck driver..	21.81	21.89
Mechanic 2nd class/flagman	16.36	16.42

Additional $ 1.00 per hour for crew on helecopter job.

Above rates applicable on all electrical SUB-STATIONS and all other work not defined as "Utility outside electrical work".

OVERTIME PAY: See (B, E, Q,) on OVERTIME PAGE.

HOLIDAYS:
Paid: See (5, 6, 8, 13, 25) on HOLIDAY PAGE plus Gov. Election Day.
Overtime: See (5, 6, 8, 13, 25) on HOLIDAY PAGE plus Gov Election Day.
SUPPLEMENTS for holidays paid at straight time.

The following APPRENTICE rates and the following SUPPLEMENTAL benefits apply to all classification categories of CONSTRUCTION, TRANSMISSION and DISTRIBUTION.

APPRENTICES: (1000) hr terms at the following percentage of Journeyman's wage.

1st.	2nd.	3rd.	4th.	5th.	6th.	7th.
60%	65%	70%	75%	80%	85%	90%

SUPPLEMENTAL BENEFITS:(per Hour worked including above listed holidays.

$ 6.85 plus 7.5% of wage	7.00 plus 7.5% of wage

6-1249a

LINEMAN/ELECTRIC

WAGES(per hour)

	7/01/1999	4/30/2000
Certified Welder... ...	25.00	25.71
Lineman/Technician.....	23.81	24.49
Digging Mach.....	21.43	22.04
Tractor trailer driver.	20.24	20.82
Truck Driver/groundman.	19.05	19.59
Mechanic 1st Class.....	19.05	19.59
Mechanic 2nd Class/Flagman	14.29	14.69

Above rates applicable on ALL Lighting and Traffic Signal Systems with the installation, testing, operation, maintenance and repair of all traffic control and illumination projects, traffic monitoring systems and road weather information systems.

OVERTIME PAY: See (B, E, Q,) on OVERTIME PAGE.

HOLIDAYS:
Paid: See (5, 6, 8, 13, 25) on HOLIDAY PAGE plus Gov Election Day.
Overtime: See (5, 6, 8, 13, 25) on HOLIDAY PAGE plus Gov Election Day.
Supplements paid at STRAIGHT TIME rate for holidays.
Overtime: (5, 6, 8, 13, 25)
The following APPRENTICE Rates and the following SUPPLEMENTAL BENEFITS apply to all classifications.

APPRENTICES: (1000) hour terms at the following percentage of Journey's wage.

1st.	2nd.	3rd.	4th.	5th.	6th.	7th.
60%	65%	70%	75%	80%	85%	90%

SUPPLEMENTAL BENEFITS: per Hour Worked including above listed holidays.

$ 6.85 plus 7% of wage	7.00 plus 7% of wage

NOTE(S): Each employee in a helicoptor crew to receive $ 1.00 above regular pay rate.

6-1249a-LT

LINEMAN - Pole Treater

WAGES(per hour)

	7/01/1999	6/01/2000	6/01/2001
POLE TREATER AND MAINTENANCE			
Pole treater 1st (Minimum 1 year experience)	$10.97	$11.24	$11.52
Pole treater 2nd (Minimum 6 months experience)	10.38	10.64	10.91
Pole treater 3rd (Minimum 3 months experience)	9.81	10.06	10.31
Inexperienced treater (Less than 3 months)	9.24	9.47	9.71

OVERTIME PAY: See (B, H) on OVERTIME PAGE.
HOLIDAYS
Paid : See (5, 6, 8, 10, 15) on HOLIDAY PAGE.
Overtime : See (5, 6, 8, 10, 15) on HOLIDAY PAGE.

SUPPLEMENTAL BENEFITS:(per hours worked including the above listed holidays)

$ 3.15 plus 3% of wage	3.25 plus 3% of wage	3.35 plus 3% of wage

*NOTE.....ABOVE RATES APPLICABLE THROUGHOUT THE ENTIRE STATE EXCEPT THE FOLLOWING COUNTIES: BRONX, KINGS, NEW YORK COUNTY, QUEENS, RICHMOND, NASSAU, AND SUFFOLK COUNTIES.

6-1249pole

Towns of Constantia, Hastings, Schroeppel and West Monroe;
THE FOLLOWING RATE APPLIES:

ELECTRICIAN (Syracuse)

WAGES(per hour)	7/01/2000	6/01/2001	6/01/2002
		ADDITIONAL	ADDITIONAL
Electrician.....	$ 22.00	$1.50	$1.50
Cable Splicer.....	24.20		

OVERTIME PAY: See (B, E*, Q) on OVERTIME PAGE
* Double Time after 8hrs. on saturday.
HOLIDAYS:
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

APPRENTICES: (at the following percentage of journeyman's wage)

1st Period (0-1000 hrs)	40%	4th Period (3501-5000 hrs)	60%
2nd Period (1001-2000 hrs)	45%	5th Period (5001-6500 hrs)	70%
3rd Period (2001-3500 hrs)	50%	6th Period (6501-8000 hrs)	80%

SUPPLEMENTAL BENEFITS:(per hour worked)

New York State Prevailing Rate Schedule Department of Labor

Case Number

0102071
OSWEGO 2000A

Journeyman	$ 8.68 plus 3% of wage	
Apprentices:	1st period	$2.99 plus 3% of wage
	2nd period	
	3rd period	$6.92 plus 3% of wage
	4th period	$7.14 plus 3% of wage
	5th period	$7.36 plus 3% of wage
	6th period	$7.58 plus 3% of wage

ELECTRICIAN
Teledata Rates

Teledata Installer... Perform installation and termination of teledata cable and installation of teledata equipment. Diagnostic and "start up" testing are excluded from the scope of the installer.

Teledata Technician.. May perform all facets of teledata work covered by this agreement including diagnostic and "start up" testing.

WAGES (per hour)	7/01/2000
Technician.....	$ 18.00
Journeyman installer..	16.20

OVERTIME PAY: See (B,E,Q) on OVERTIME page

HOLIDAYS:
Paid: LABOR DAY AND JULY 4TH
Overtime: LABOR DAY AND JULY 4TH

SUPPLEMENTAL BENEFITS: (per hour worked)

Technician	$ 4.00 plus 3% of wage
Journeyman Installer	3.85 " "

No. 6-43-S

Entire County except the Townships of Schoeppel, Hastings, West Monroe and Constantia;
FOLLOWING RATE APPLIES:

ELECTRICIAN (Oswego)

WAGES(per hour)	7/01/2000	6/01/2001	6/01/2002

		ADDITIONAL	ADDITIONAL
Electrician.....	$ 24.00	$.50	$.50
Cable Splicer.....	26.40		

OVERTIME PAY: See (B, E*, Q) on OVERTIME PAGE
* Double Time after 8hrs. on saturday.
HOLIDAYS:
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

APPRENTICES: (at the following percentage of journeyman's wage)

1st Period (0 -1000 hrs)	40%	4th Period (3501-5000 hrs)	60%
2nd Period (1001-2000 hrs)	45%	5th Period (5001-6500 hrs)	70%
3rd Period (2001-3500 hrs)	50%	6th Period (6501-8000 hrs)	80%

SUPPLEMENTAL BENEFITS:(per hour worked)

Journeyman	$ 8.74 plus 3% of wage

Apprentice:

1st period	$2.99 plus 3% of wage
2nd period	
3rd period	$6.92 plus 3% of wage
4th period	$7.14 plus 3% of wage
5th period	$7.36 plus 3% of wage
6th period	$7.58 plus 3% of wage

ELECTRICIAN
Teledata rates

Teledata Installer.....	Perform installation and termination of teledata cable and installation of teledata equipment. Diagnostic and "start up" testing are excluded from the scope of the installer.
Teledata Technician.....	May perform all facets of teledata work covered by this Agreement including diagnostic and "Start up" testing.
WAGES (per hour)	7/01/2000

Technician ..... $ 18.00
Journeyman installer. 16.20

OVERTIME PAY: See (B,E,Q) on overtime page.
HOLIDAYS:
Paid: LABOR DAY AND JULY 4TH
Overtime: LABOR DAY AND JULY 4TH

SUPPLEMENTAL BENEFITS: (Per hour worked)

Technician ..... 4.00 plus 3 % of wage
Journeyman Installer... 3.85 " "

No. 6-43-S

LINEMAN-TREE CLEARANCE/TRIMMING

Applies to line clearance, tree work and right-of-way preparation on all new or existing overhead electrical, telephone and CATV lines where construction is involved. Does not apply to beautification or line of sight trimming.

WAGES(per hour)

	07/01/1999	01/01/2000
Tree Trimmer:		
Treeman.....	$ 14.91	15.28
" Equip. Operator.	13.21	13.54
" Mechanic.....	13.21	13.54
" Truck Driver....	11.22	11.50
" Inexperienced Grdsman	9.30	9.53
" Flagman	6.72	6.89

OVERTIME PAY: See (B, E, Q) on OVERTIME PAGE.

HOLIDAYS:
Paid: See (5, 6, 8, 10, 15, 16) on HOLIDAY PAGE.
Overtime: See (5, 6, 8, 10, 15, 16) on HOLIDAY PAGE.
Supplements paid at STRAIGHT TIME rate for holidays.
Overtime: (5, 6, 8, 10, 15, 16)

SUPPLEMENTAL BENEFITS: (per hour worked including above listed holidays.

$ 3.65 plus 3% of wage — 3.75 plus 3% of wage

No. 6-1249TT

IRONWORKER

WAGES(per hour)

	7/01/2000	5/01/2001	5/01/2002
Structural/Reinf/rebar	$20.00	add $.75	add $ .75
Mach Mover & Rigger..	20.00		
Ornamental & curtain			

Wall/window.....	20.00
Chain Link Fence/securty	20.00
Sheeter/Bridge rail..	20.00
Pre-Cast erector	20.00
Stone Derrickman	20.00
Pre-Engineered bldg Erector	20.00

OVERTIME PAY: See (B, E, Q) on OVERTIME PAGE
HOLIDAYS:
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5,6) on HOLIDAY PAGE

APPRENTICES: (1) year terms at the following rates.

1st	2nd	3rd	4th
50%	60%	75%	85%
$10.00	12.00	15.00	17.00

SUPPLEMENTAL BENEFITS: (Per hour worked)

Journeyman	$12.09
All apprentices	3.89

6-60

In the Towns of Amboy, Constantia, Oneida Lake and Williamstown.
THE FOLLOWING RATE APPLIES:

PAINTER

WAGES(per hour)	07/01/1999	07/01/2000
Brush-Roller.....	16.85	17.20
Sign painting	16.85	17.20
Dry Wall Taper.....	16.85	17.20
Park. Lot/Hwgy Strip	16.85	17.20
Lead base paint abatement	16.85	17.20
Spray.....	17.35	17.70
Epoxy (Brush-Roller)..	17.35	17.70
Epoxy (Spray).....	17.35	17.70
Sandblasting (Oper)	17.35	17.70
Boatswain Chair.....	17.35	17.70
Swing Scaffold.....	17.35	17.70
Structural Steel.....	17.35	17.70
Coal Tar epoxy.....	18.35	18.70
Asbestos related work.	19.05	19.40
Bridge cleaning/Oiling	26.80	27.10
Bridge Sandblasting...	26.80	27.10
Bridge painting.....	26.80	27.10

OVERTIME PAY: See (B,E4,F,R) on OVERTIME PAGE
*NOTE: Nuclear power plants (Double time applicable on Sunday if other trades working receive double time.)
HOLIDAY:
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5,6) on HOLIDAY PAGE

Prevailing Rate Schedule

New York State — Department of Labor

Case Number

0102071
OSWEGO — 2000A

APPRENTICES: (1000 hr) terms at the following percentage of journeyman's wage.

1st	2nd	3rd	4th	5th	6th	7th	8th
40%	45%	50%	55%	60%	70%	80%	90%

SUPPLEMENTAL BENEFITS:(per hour worked)

Journeyman	$ 7.15	$ 7.35
Appr 1st thru 5th terms	2.70	2.70
Appr 6th term.....	4.93	4.93
Appr 7th term	5.43	5.63
Appr 8th term.....	5.93	6.13

6-31

In the Remainder of the County.
THE FOLLOWING RATE APPLIES:

PAINTER

WAGES(per hour) — 7/01/2000

Brush-Roller.....	$ 19.13
*Steel, Spray, SandBlast	20.35 *
Paperhanger, Taper...	19.13
Metalizing.....	19.70
Bridge painting.....	25.72

(*) Addtl $1.19 per hr. when painting contract is in excess of $100,000. Steel, hazardous work, working with picks, bosun chair, window jacks, swing stage, safety belts, spray painting, steam cleaning, sandblasting, safe-way staging over fifteen (15) feet in height, any chemical or epoxy applications, hydro water blasting and steeplejack work and bridge painting, two (2) component block filler and epoxy system block filler, encapsulation or abatement of lead or asbestos:

OVERTIME PAY: See (B,E4,F,R) on OVERTIME PAGE
*NOTE: NUCLEAR POWER PLANTS (DOUBLE TIME ON SUNDAY,ALSO IF OTHER TRADES ARE WORKING RECEIVE DOJBLE TIME

HOLIDAY:
Paid: See (1) on HOLIDAY PAGE (applies only on contracts $100,000. and over.)
Overtime: See (5,6) on HOLIDAY PAGE

APPRENTICES: (1/2) year terms at the following percentage of journeyman's wage.

1ST	2ND	3RD	4TH	5TH	6TH	7TH	8TH
60%	65%	70%	75%	80%	85%	90%	95%

SUPPLEMENTAL BENEFITS:(per hour WORKED)
ON NUCLEAR POWER PLANTS (PER HOUR PAID)

JOURNEYMAN:.....	$8.78
APPR.1ST & 2ND TERMS...	3.93
APPR.3RD & 4TH TERMS...	4.88
APPR.5TH & 6TH TERMS...	6.58
APPR.7TH & 8TH TERMS...	7.78

No.6-38.0

PLUMBER

WAGES(per hour) 7/01/2000

Plumber/Welder.....	$ 24.43
Steamfitter.....	24.43
On schools, hospitals & health related facilities.....	21.27
Under $300,000	21.27*

*Only to be used where the total Plumbing, HVAC or refrigeration contract does not exceed $100,000 or the combination of all does not exceed $300,000.

OVERTIME PAY: See (B, E, Q) on OVERTIME PAGE.

HOLIDAY:
Paid: See (1) on HOLIDAY PAGE.
Overtime: See (5, 6) on HOLIDAY PAGE.

APPRENTICES: (1) year terms at the following percentage of journeyman's wage.

1st	2nd	3rd	4th	5th
50%	60%	70%	80%	90%

SUPPLEMENTAL BENEFITS:(per hour worked)

Journeyman	$ 6.83
Appr 1st yr	2.68 plus 50% of $ 4.15
Appr 2nd yr	2.68 plus 75% of 4.15
Appr 3rd yr	2.68 plus 90% of 4.15
Appr 4th & 5th yrs	6.83

6-73.1

WELDER

Welder...To be paid the rate of the mechanic performing the work.

SURVEY CREW - Consulting Engineer

Feasibility and preliminary design surveying, line and grade surveying for inspection or supervision of construction when performed under a consulting engineer agreement.

SURVEY CLASSIFICATIONS:
Party Chief- One who directs a survey party.
Instrumentman- One who runs the instrument and assists the Party Chief.
Rodman- One who holds the rods and in general, assists the survey party.

WAGES:(per hour)

	7/01/2000	6/01/2001	6/01/2002
Survey Rates:			
Party Chief	$ 20.93	$21.74	$22.45
Instrument,Rodperson..	18.44	19.25	19.96

Additional 3.00 per hr. for work in a tunnel.
Additional 2.50 per hr. for DEC or EPA certified toxic or hazardous waste work.

OVERTIME PAY: See (B, E, Q) on OVERTIME PAGE
HOLIDAY:
Paid: See (5,6) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

SUPPLEMENTAL BENEFITS: (per hour worked)

	$11.15	$11.60	$12.15

6-545Dcalg

SURVEY CREW - Heavy/Highway

SURVEY CLASSIFICATIONS:
Party Chief- One who directs a survey party.
Instrumentman- One who runs the instrument and assists the Party Chief.
Rodman- One who holds the rods and in general, assists the survey party.

WAGES:(per hour)

	7/01/2000	6/01/2001	6/01/2002
Survey Rates:			
Party Chief	$21.93	$22.74	$23.45
Instrument/Rodman.....	19.44	20.25	20.96

Additional 3.00 per hr. for work in a tunnel.
Additional 2.50 per hr. for DEC or EPA certified toxic or hazardous waste work.

OVERTIME PAY: See (B, E, Q) on OVERTIME PAGE
HOLIDAY:
Paid: See (5, 6) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

APPRENTICE: (1 yr or 1000 hr) terms at the following wage rates.

	1st	2nd	3rd
7/01/2000	$ 12.50	14.01	15.82
6/01/2001	13.21	14.80	16.48
6/01/2002	13.77	15.38	17.04

SUPPLEMENTAL BENEFITS: (per hour paid)

Journeyman	$11.15	$11.60	$12.15
Appr 1st	5.85	5.90	6.10
Appr 2nd	7.40	7.50	7.80
Appr 3rd	8.65	9.00	9.45

CARPENTER

WAGES(per hour) 7/01/2000

Heavy/Highway:	
Carpenter .....$	19.48
Piledriver(Heavy/Hiway)	19.48
Certified welder	20.98

On projects for removal and/or abatement of asbestos or any toxic or hazardous material and it is required by the employer or mandated by NYS or Federal Regulation to wear propective equipment an additional $1.50 per hour above their appropriate rate for all classifications including apprentices.

OVERTIME PAY: See (B, E, Q, V,E2) on OVERTIME PAGE
HOLIDAYS:
Paid: See (2, 17) on HOLIDAY PAGE
Overtime: See (5 & 6)on HOLIDAY PAGE

APPRENTICES: (1/2) year terms at the following percentage of journeyman's wage.

1st	2nd	3rd	4th	5th	6th	7th	8th
50%	55%	60%	65%	70%	75%	80%	85%

SUPPLEMENTAL BENEFITS:(per hour paid)

Journeyman.....	$9.245
Appr 70% to Journeyman.....	9.245
Appr 60% to 65%.....	6.495
Appr 50% to 55%.....	3.745

1/6-ADCh747

CARPENTER

WAGES(per hour) 7/01/2000

Marine Construction:	
Diver	
Wet Day.....	40.00
Dry Day/tender ..	20.48
Certified welder....	20.98
Hazardous waste.....	20.98

OVERTIME PAY: See (B, E, Q, V & E2)) on OVERTIME PAGE
HOLIDAYS:
Paid: See (2, 17) on HOLIDAY PAGE
Overtime: See (5 & 6) on HOLIDAY PAGE

APPRENTICES: (1/2) year terms at the following percentage of journeyman's wage.

1st	2nd	3rd	4th	5th	6th	7th	8th
50%	55%	60%	65%	70%	75%	80%	85%

SUPPLEMENTAL BENEFITS:(per hour paid)

Journeyman	$ 9.245
Appr 70% to Journeyman	9.245
Appr 60% to 65%	6.495
Appr 50% to 55%	3.745

no. 6-ADCd747

MASON - HEAVY/HIGHWAY

WAGES(per hour)

	7/01/2000
Heavy/Highway:	
Cement Finish (H/H)	$ 18.92
Bricklayer	18.92

Additional $1.00 per for work from swing scaffold or staging suspended by means of ropes or cables from hooks over parapet walls or windows.

OVERTIME PAY: See (B, E, Q) on OVERTIME PAGE.
HOLIDAY:
Paid: See (5, 20) on HOLIDAY PAGE.
Overtime: See (5, 6) on HOLIDAY PAGE.

APPRENTICE WAGE % JOURNEYMAN'S WAGE.(6 MONTH TERMS)

1ST.	2ND.	3RD.	4TH.	5TH.	6TH
50%	55%	60%	65%	70%	80%

SUPPLEMENTAL BENEFITS:(per hour worked)

$ 8.37

6-2hh.4

LABORER- HEAVY/HIGHWAY

Heavy/Highway Laborer:
GROUP # A: Basic, Drill Helper, Flagman, Outboard and Hand Boats. GROUP # B: Bull Float, Chain Saw, Concrete Aggregate Bin, Concrete Bootmen, Gin Buggy, Hand or Machine Vibrator, Jack Hammer, Mason Tender, Mortar Mixer, Pavement Breaker,Handlers of all Steel Mesh, Small Generators for Laborers' Tools, Installation of Bridge Drainage Pipe, Pipe Layers, Vibrator Type Rollers, Tamper, Drill Doctor, Tail or Screw Operator on Asphalt Paver, Water Pump Operators(1-1/2" and Single Diaphragm), Nozzle (Asphalt, Gunite, Seeding, and Sand Blasting), Laborers on Chain Link Fence Erection, Rock Splitter and Power Unit, Pusher Type Concrete Saw and all other Gas, Electric, Oil and Air Tool Operators, Wrecking Laborer. GROUP #C: All Rock or Drilling Machine Operators (Except Quarry Master and Similar Type), Acetylene Torch Operators, Asphalt Raker and Powderman. GROUP #D: Blasters, Form Setters, Stone or Granite Curb Setters. GROUP #E: EPA or DEC Certified Toxic or Hazardous Waste Work

WAGES(per hour)	7/01/2000	7/01/2001
Heavy/Highway Laborer:		
Group # A	18.64	$ .80 addtl
Group # B	18.84	
Group # C	19.04	
Group # D	19.24	
Group # E	$2.00/hr	over above rates.

OVERTIME PAY: See (B,E,Q,T) on OVERTIME PAGE
HOLIDAYS:
Paid: See (5,6) on HOLIDAY PAGE
Overtime: See (5,6) on HOLIDAY PAGE

APPRENTICES: (1000 hr) terms at the following percentage of journeyman GROUP A WAGE.

1st	2nd	3rd	4th
60%	70%	80%	90%
0-1000	1001-2000	2001-3000	3001-4000 hours

SUPPLEMENTAL BENEFITS:(per hour worked)

$ 7.10

No. 6-214/2h

In Towns of Orwell and Richland.
THE FOLLOWING RATE APPLIES:

TEAMSTER-Heavy/Highway

Truck Driver(H/H): GROUP 1: Warehousemen, Yardmen, Truck Helpers, Pickups, Panel Trucks, Flatboy Material Trucks(straight jobs), Single Axel Dump Trucks, Dumpsters, Material Checkers and Receivers, Greasers, Truck Tiremen, Mechanics Helpers and Parts Chasers. Tandems and Batch Trucks, Mechanics, Dispatcher, Semi-Trailers, Low-boy Trucks, Asphalt Distribitor Trucks, and Agitator, Mixer Trucks and dumpcrete type vehicles, Truck Mechanic, Fuel Trucks. GROUP 2: Specialized Earth Moving Equipment, Euclid type, or similar off- highway,where not self-loading, Straddle (Ross) Carrier, and self-contained concrete mobile truck, Off-highway Tandem Back-Dump, Twin Engin Equipment and Double-Hitched Equipment where not self-loading.

WAGES(per hour)	7/01/2000
Heavy/Hiway:	
Group #1.....	18.17
Group #2.....	18.37

*For all work bid on or after April 1,1988 there shall be a twelve month carryover of the rates in effect at the time of the bid.

Additional $ 1.50 per hr on City, County or Federal/State designated hazardous waste site when personal protection is required, by regulation to be used or worn.

OVERTIME PAY: See (B, E, Q) on OVERTIME PAGE
HOLIDAY:
Paid: See (5, 6) on HOLIDAY PAGE
Overtime: See (5,6) on HOLIDAY PAGE

SUPPLEMENTAL BENEFITS:(per hour worked)

6.875

In the Remainder of the County.
THE FOLLOWING RATE APPLIES:

TEAMSTER-Heavy/Highway

Truck Driver(H/H): GROUP 1: Warehousemen, Yardmen, Truck Helpers, Pickups, Panel Trucks, Flatboy Material Trucks(straight jobs), Single Axel Dump Trucks, Dumpsters, Material Checkers and Receivers, Greasers, Truck Tiremen, Mechanics Helpers and Parts Chasers. Fork Lift (storage & warehouse areas only) Tandems and Batch Trucks, Mechanics, Dispatcher. Semi-Trailers, Low-boy Trucks, Asphalt Distributor Trucks, and Agitator, Mixer Trucks and dumpcrete type vehicles, Truck Mechanic, Fuel Truck.
GROUP 2: Specialized Earth Moving Equipment, Euclid type, or similar off-highway where not self-loading, Straddle (Ross) Carrier, and self-contained concrete mobile truck. Off-highway Tandem Back-Dump, Twin Engin Equipment and Double-Hitched Equipment where not self-loading.

WAGES(per hour)	7/01/2000	6/01/2001	6/01/2002	6/01/2003
Heavy/Highway:				
Group #1.....$	19.44	19.80	20.23	Addit.
Group #2.....	19.76	20.12	20.55	$.90

Additional $2.50 per hr for hazardous waste removal work on a City, County,

and/or Federal Designated waste site and regulations require employee to use or wear respiratory protection. For work bid on or after April 1, 1982 there shall be a 12 month carryover of the negotiated rate in effect at the time of the bid.

OVERTIME PAY: See (B, E, Q) on OVERTIME PAGE.
HOLIDAY:
Paid: See (5, 6) on HOLIDAY PAGE.
Overtime: See (5, 6) on HOLIDAY PAGE.
SUPPLEMENTAL BENEFITS:(per hour worked)

7/01/2000	6/01/2001	6/01/2002
$ 8.40	8.84	9.26

7-687h

POWER EQUIPMENT OPERATOR - Heavy/Highway

CLASS A: Asphalt Paver (fixed screed 10' width and over), Extend a-mat paver, Automated Concrete Spreader, Automatic Fine Grader, Backhoe (except tractor-mounted,rubber tired), Belt Placer, Blacktop Plant (automated) Boom Truck 100' & Over (jib & boom), Cableway, Caisson Auger, Central Mix Concrete Plant(automated), Hydraulic crane, (over 5 tons capacity), Concrete Curb Machine, Self-propelled, Slipform, Concrete Pump(8" or over), Crane, Derricks, Dragline, Dredge, Excavator (all purpose-hydraulic-Gradall or similar), Front End Loader(4c.y.& over), Head Tower (Sauerman or equal), Hoist (two or three drum), Belt loader, Hydrodemolition Equip (self contained) Maint. Eng, Mine Hoist, Mucking Machine or Mole, Overhead Crane(Gantry or Straddle Type), Pavement Profiler over 300 H.P., Pile Driver, Power Grader, Road widener, Scraper, Shovel, Side Boom, Slip Form Paver(If a second man is needed, he shall

be an Oiler), Tractor Drawn Belt Type Loader, Truck Crane, Truck or Trailer Mounted Chipper(self-feed), Tug Oper.(manned, rented equipt excluded), Tunnel Shovel.

CLASS B: Asphalt paver under 10 ft width, Automated slope paving machine, Backhoe (Tractor-Mounted,Rubber Tired) Blacktop Plant (non-automated),Blast or Rotary Drill (Truck or Tractor Mounted), Boom Truck under 100' (boom & jib), Boring Machine, Directional boring machine, Bridge deck finishing machine, Cage Hoist, Central Mix Plant (Non Automated),All Concrete Batching Plants, Hydraulic crane (5 tons & under), Compressors(4 or less exceeding 2,000 c.f.m.combined capacity), Concrete Paver over 16S, Concrete Pump (Under 8"), Core Drill (skid, truck mtd. or track), Crusher, Diesel Power Unit, Drill Rigs (Tractor Mtd), Fork Lift, F.E.Loader(under 4 c.y.), Hi-Pressure Boiler (15 lbs.& over), Hoist(One Drum), Hydro Axe, Kolman Plant Loader & similar type loaders(if employer requires another man, he shall be Oiler), L.C.M.Work Boat Oper, Locomotive, Lubrication Eng/Greaseman, Welder, Mixer(f or stabilized base-self propelled), Pavement Profiler(under 300H.P.) Plant Engineer, Pump Crete, Refrigeration Equipment (for soil stabilization), Roller(all above grade), Sea Mule, Skid Steer Bobcat Type Loader, Self-propelled rubbleizer, Stationary central compressed air plant (5000cfm and up), Tractor with Dozer and/or Pusher, Trencher, Tugger Hoist, Vermeer Saw (ride-on), Winch and Winch Cat, Log Skidder,

CLASS C:Aggregate Plant, A Frame Truck, Ballast Regulator (ride-on), Boiler(used in conjunction with production), Cement & Bin oper, Compressors (4 under 2,000 cfm combined capacity; or 3 orless with more than 1200 cfm. but not to exceed 2,000 c.f.m), Compressors (any size but subject to other provisions for compressors-Dust Collectors, Generators, Pumps, Welding Machines, Light Plants- 4 of any type orcombination), Concrete Paver or Mixer(16s & over), Concrete Saw (self propelled), Concrete Paverment Spreaders & Finishers, Conveyor, Elec. Pump Used in Conjunction with Well Point System, Farm Tractor with accessories, Form Tamper, Grout Pump, Gunite Machine, Hydra-spiker(ride-on), Hammers(hydraulic-self propelled), Hydraulic Pump (jacking system), Light plants, Mulching Mach., Oiler, Parapet conc. or pave. grinder, Post Hole Digger & Post Driver, Power Sweeper, Power Heaterman, Roller(grade & fill), Scarifier(ride-on), Shell Winder, Steam Cleaner Span-saw(ride-on), Tamper(ride-on), All ride-on Tie Extractors, Tie Handlers, Tie Inserters, Tie spacers and Track Liners. Submersible Electric Pump(when used in lieu of well point system), Tractor, Vacuum machine (self propelled) Vibratory Compactor, Well Drill, Well point.

WAGES(per hour)	7/01/99	7/01/2000
Heavy/Highway:		
Master Mechanic....	$ 24.00	$ 24.55
CLASS A*.....	22.65	23.20
CLASS B.....	21.77	22.32
CLASS C.....	18.49	19.04

PIPELINE: Master mechanic, Class A and Class B rates apply.

*Additional 1.00 per hr for Crane with boom & jib over 100 ft.
*Additional 2.00 per hr for Crane with boom & jib 150 ft & over.
Additional 2.50 per hr for EPA or DEC classified toxic or hazardous waste work

and employee is required by regulations to use or wear personal protection.

OVERTIME PAY: See (B, E, Q) on OVERTIME PAGE
HOLIDAY:

Paid: See (5, 6) on HOLIDAY PAGE

Overtime: See (5,6,) on HOLIDAY PAGE

APPRENTICES: (1000) hour terms at the following rate.

	1st	2nd	3rd	4th
99/2000	$11.33	12.46	15.86	16.99

SUPPLEMENTAL BENEFITS: (per hour paid)

Journeyman/Appr Indentured before 4/01/98		$11.80	$ 12.25
Apprentice indentured after 4/01/98	1st	6.05	6.30
	2nd	7.55	7.80
	3rd	7.85	8.10
	4th	8.30	8.55

6-545h

MARINE CONSTRUCTION

WAGES (per hour)

	10-01-99-9-30-00
Hydraulic Dredge:	
Class A:	
Leverman.....	$ 26.68
Class B:	
Engineer.....	23.51
Derrick Operator.....	23.51
Chief Mate.....	23.18
Chief Welder.....	23.80
Electrician.....	22.82
Fill Placer.....	23.18
Asst.Fill Placer.....	21.29
Boat master.....	22.63
Class C	
Maintenance Eng.....	22.67
Mate.....	21.17
Welder Dredge.....	22.31
Spider Barge Oper....	22.12
Boat Capt.....	21.32
Steward.....	21.12
Chief of Party.....	21.17
Class D	
Deckhand.....	17.04
Oiler.....	17.69
Fireman.....	17.69
Shoreman.....	17.04
Rodman.....	17.04
Tug Deckhand.....	17.26

OVERTIME: See (B, F, R) on OVERTIME PAGE.

HOLIDAY:
PAID: See (5, 6, 8, 10, 15) on HOLIDAY PAGE.
OVERTIME: See (5, 6, 8, 10, 15) on OVERTIME PAGE.

The following SUPPLEMENTAL BENEFITS apply to ALL classifications.

SUPPLEMENTAL BENEFITS: (per hour worked)

All Class A & B	$ 4.46 (OVERTIME $ 1.25 EXTRA) plus 8% of WAGE
All Class C	$ 3.86 (OVERTIME $ 0.95 EXTRA) plus 8% of WAGE
All Class D	$ 3.26 (OVERTIME $ 0.65 EXTRA) plus 8% of WAGE

4-25a

MARINE CONSTRUCTION

WAGES (per hour)

	10-01-99- 9-30-00
Dipper & Clamshell Dredges:	
Class A:	
Operator.....	$ 26.26
Class B:	
Operator II.....	21.55
Engineer.....	23.12
Boat Master.....	21.74
Class C:	
Maintenance Eng...	22.07
Mate.....	20.57
Welder.....	21.72
Boat Capt.....	20.72
Chief of Party....	20.57
Class D:	
Oiler.....	17.39
Fireman.....	17.39
Scowman.....	16.73
Rodman.....	16.73
Tug Deckhand.....	16.96
Deckhand.....	16.96

HOLIDAY:
PAID: See (5, 6, 8, 10, 15) on Holiday Page.
OVERTIME: See (5, 6, 8, 10, 15) on Overtime Page.

SUPPLEMENTAL BENEFITS: (per hour worked)

New York State Prevailing Rate Schedule Department of Labor

Case Number 0102071 OSWEGO 2000A

Class A & B	$ 4.46 (OVERTIME $ 1.25 EXTRA) plus 8% of WAGE 8% of wage
Class C	$ 3.86 (OVERTIME $ 0.95 EXTRA) plus 8% of WAGE
Class D	$ 3.26 (OVERTIME $ 0.65 EXTRA) plus 8% of WAGE

4-25/3

CORRECTIONS

OCTOBER 27, 2000

Prevailing Wages

Status: Approved **Overtime Schedules** **Holiday Schedules**

Union Name: Painter - 38

☒ **Regular**
☐ **Residential**

Job Description: Painter

Counties:

Oswego

Special Conditions:

Except in Towns of Amboy, Constantia, Oneida Lake and Williamstown

Wage Information:

PAINTER

WAGES (per hour)	7/01/2000	5/01/2001
Brush-Roller(*).....	$19.13	19.46
Steel, Spray, SandBlast....	20.35	20.68
Paperhanger, Taper.....	19.13	19.46
Metalizing.....	19.70	20.03
Bridge painting.....	25.72	26.85

(*) NOTE: Brush - Roller Application
The following wage rate shall apply based on the amount of the contract:

Contracts Over 100,000 (Journeyman)	21.54	21.87
Contracts Under 100,000 (Journeyman)	20.35	20.68

Steel, hazardous work, working with picks, bosun chair, window jacks, swing stage, safety belts, spray painting, steam cleaning, sandblasting,safe-way staging over fifteen (15) feet in height, any chemical or epoxy applications, hydro water blasting and steeplejack work, two (2) component block filler and epoxy system block filler, encapsulation or abatement of lead or asbestos.

OVERTIME PAY: See (B,E4,F,R) on OVERTIME PAGE
*NOTE: NUCLEAR POWER PLANTS (DOUBLE TIME ON SUNDAY, ALSO IF OTHER TRADES WORKING ARE RECEIVE DOUBLE TIME.

HOLIDAY:
Paid: See (1) on HOLIDAY PAGE (applies only on contracts $100,000. and over.)
Overtime: See (5,6) on HOLIDAY PAGE

APPRENTICES: (1/2) year terms at the following percentage of journeyman's wage.

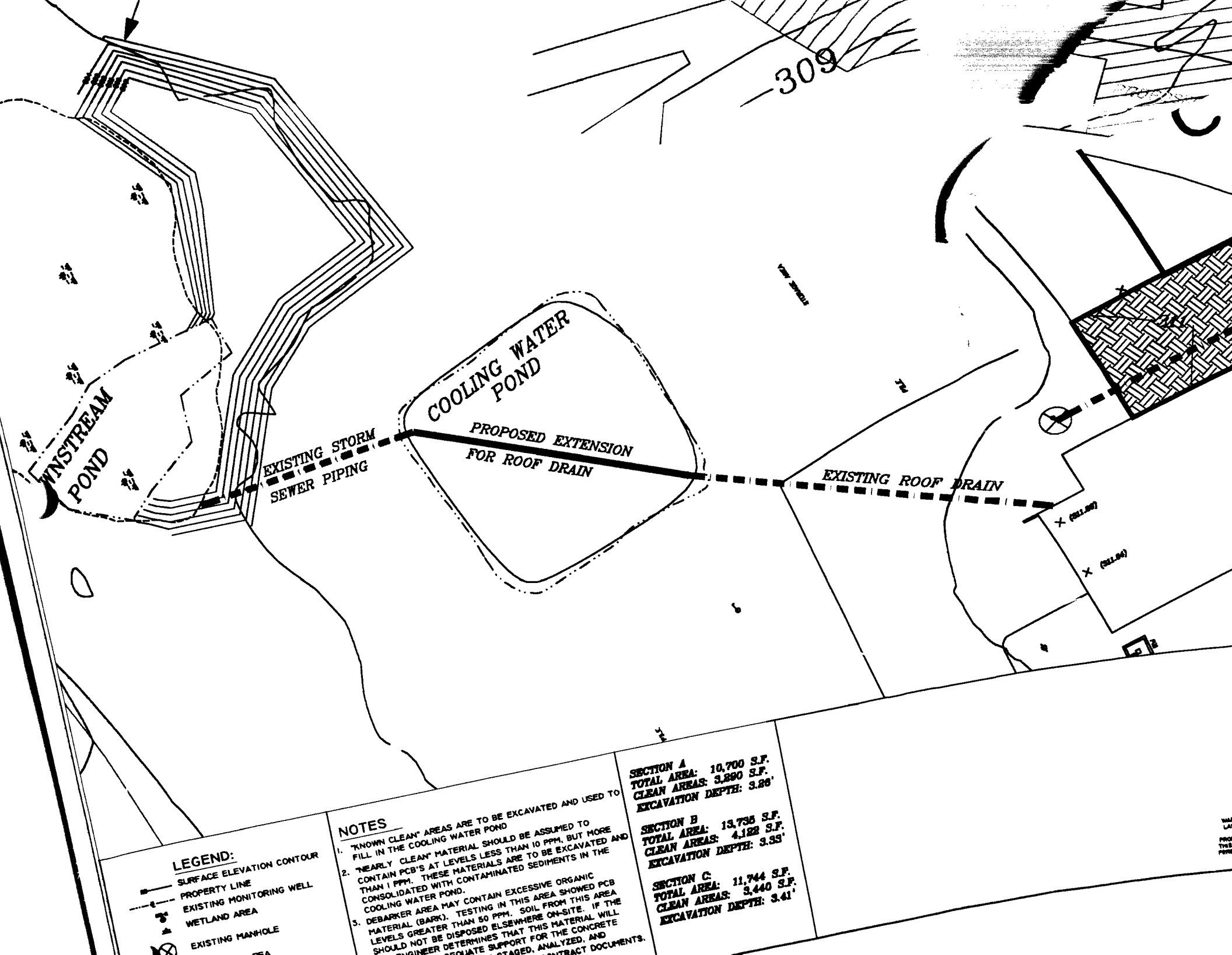
1st	2ND	3RD	4TH	5TH	6TH	7TH	8TH
60%	65%	70%	75%	80%	85%	90%	95%

SUPPLEMENTAL BENEFITS: (per hour WORKED)
(per hour PAID - ON NUCLEAR POWER PLANTS)

JOURNEYMAN:.....	$8.78	9.15
APPR.1ST & 2ND TERMS...	3.93	3.93
APPR.3RD & 4TH TERMS...	4.88	4.88
APPR.5TH & 6TH TERMS...	6.58	6.58
APPR.7TH & 8TH TERMS...	7.78	7.78

FIGURES

MITCHELL STREET
Property Line
DOWNSTREAM WETLANDS
(CONTAMINATED SEDIMENT)
COOLING
WATER POND
(CONTAMINATED
SEDIMENT)
LOG PILES
LOG PILES
YARD AREA
(CONTAMINATED
295
300
305
310
315



LEGEND:

- SURFACE ELEVATION CONTOUR
- PROPERTY LINE
- EXISTING MONITORING WELL
- WETLAND AREA
- EXISTING MANHOLE

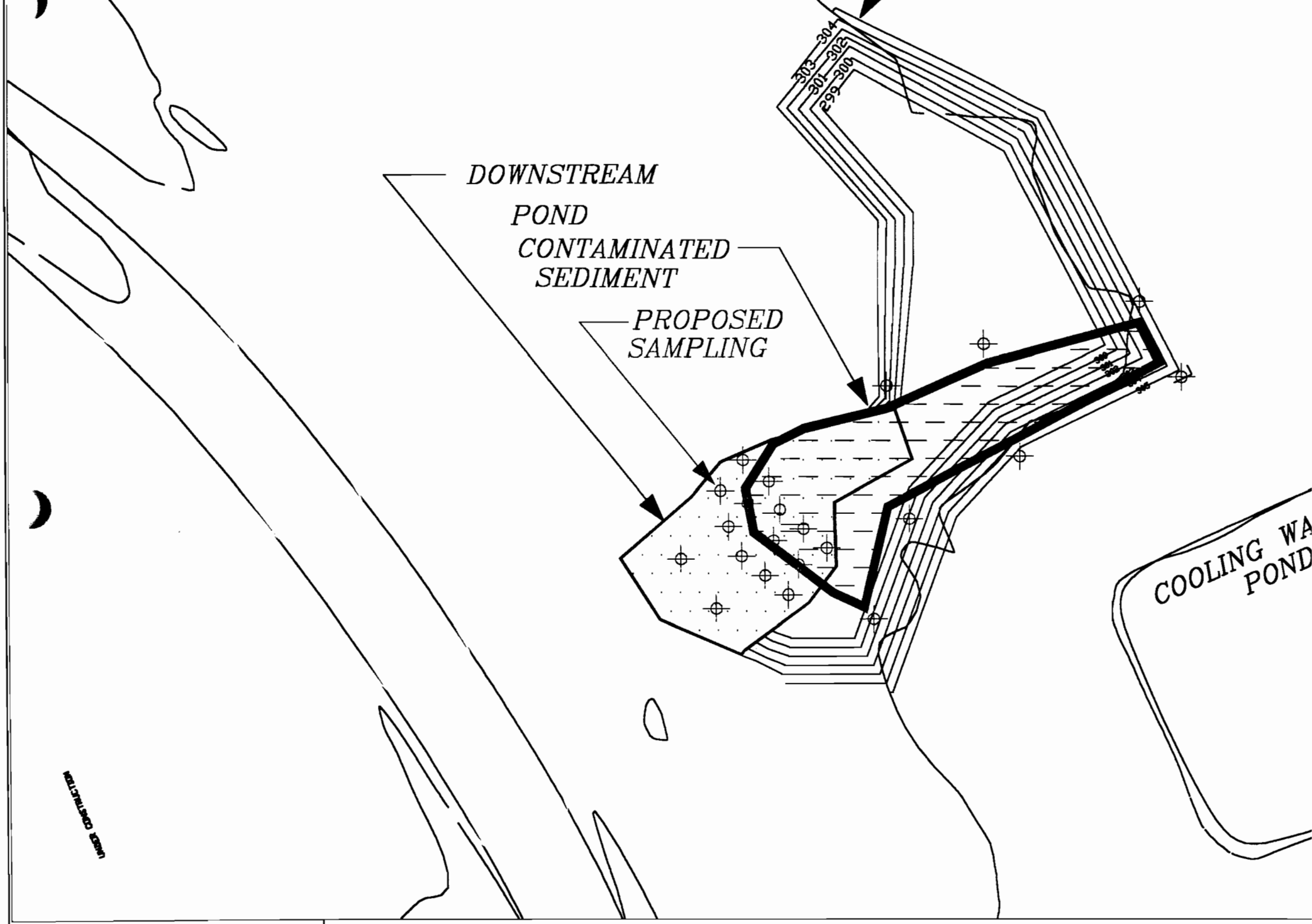
NOTES

1. "KNOWN CLEAN" AREAS ARE TO BE EXCAVATED AND USED TO FILL IN THE COOLING WATER POND
2. "NEARLY CLEAN" MATERIAL SHOULD BE ASSUMED TO CONTAIN PCB'S AT LEVELS LESS THAN 10 PPM, BUT MORE THAN 1 PPM. THESE MATERIALS ARE TO BE EXCAVATED AND CONSOLIDATED WITH CONTAMINATED SEDIMENTS IN THE COOLING WATER POND.
3. DEBARKER AREA MAY CONTAIN EXCESSIVE ORGANIC MATERIAL (BARK). TESTING IN THIS AREA SHOWED PCB LEVELS GREATER THAN 50 PPM. SOIL FROM THIS AREA SHOULD NOT BE DISPOSED ELSEWHERE ON-SITE. IF THE ENGINEER DETERMINES THAT THIS MATERIAL WILL REQUIRE SUPPORT FOR THE CONCRETE STAGED, ANALYZED, AND CONTRACT DOCUMENTS.

SECTION A
TOTAL AREA: 10,700 S.F.
CLEAN AREAS: 3,290 S.F.
EXCAVATION DEPTH: 3.26'

SECTION B
TOTAL AREA: 13,735 S.F.
CLEAN AREAS: 4,122 S.F.
EXCAVATION DEPTH: 3.33'

SECTION C
TOTAL AREA: 11,744 S.F.
CLEAN AREAS: 3,440 S.F.
EXCAVATION DEPTH: 3.41'


304
303
302
301
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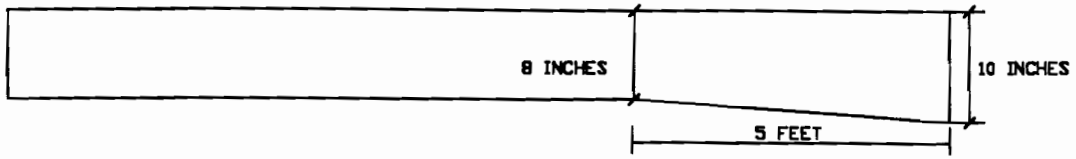
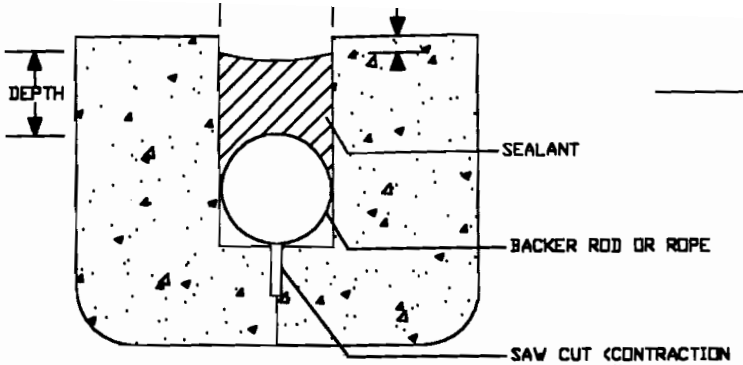
299
DOWNSTREAM
POND
CONTAMINATED
SEDIMENT
PROPOSED
SAMPLING
COOLING WA
POND
LEGEND:
SURFACE ELEVATION CONTOUR
PROPERTY LINE
EXISTING MONITORING WELL
WETLAND AREA



CONCRETE PAD - EDGE THICKENING

NTS

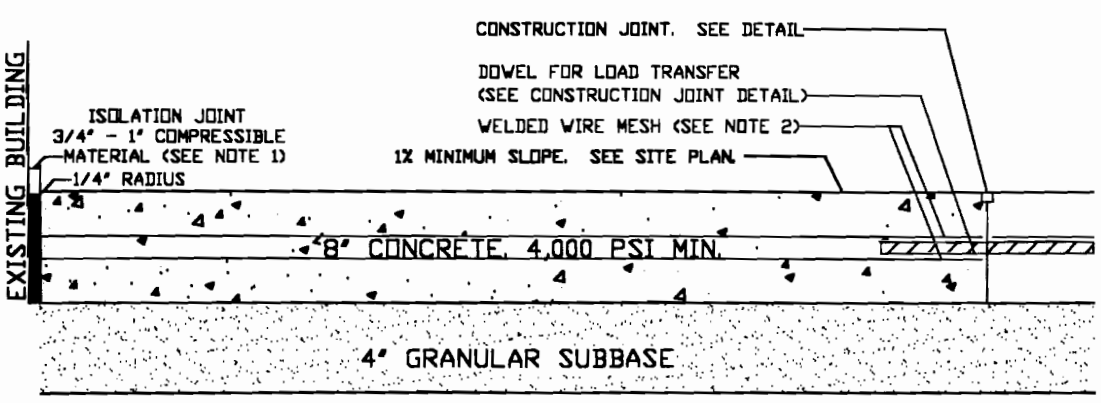
NOTES:
1. SLAB TO BE THICKENED AT ALL EXTERNAL EDGES WHICH ARE LOADED, INCLUDING DOORWAYS
2. SLAB TO BE THICKENED TO 10" , AND TAPERED BACK TO 8" OVER A 5' DISTANCE.



JOINT SEALING

NTS

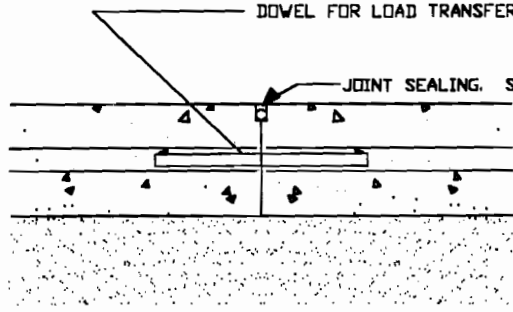
NOTES:
1. SEALANT TO BE SIKAFLEX -2C, SL OR APPROVED EQUAL
2. MINIMUM DEPTH 1/4". MAXIMUM DEPTH 1/2"
3. $\frac{\text{DEPTH}}{\text{WIDTH}}$ = SHAPE FACTOR = 0.5



CONCRETE PAD - CROSS SECTION

NTS

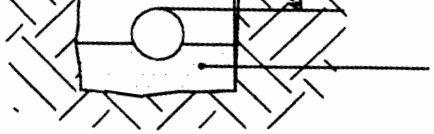
NOTES:
1. INSTALL 1" NONEXTRUDABLE, PREFORMED COMPRESSIBLE MATERIAL BETWEEN SLAB AND ANY EXISTING BUILDINGS.
2. REINFORCING MESH: 2 LAYERS OF 10 GAUGE WIRE AT 6" CENTERS. WIRE TO BE 60,000 PSI YIELD STRENGTH WELDED WIRE MESH. INSTALL MESH AT 3" FROM TOP AND 3" FROM BOTTOM OF CONCRETE. MESH SHALL NOT EXTEND THROUGH THE CONTRACTION JOINT.



CONSTRUCTION JOINT

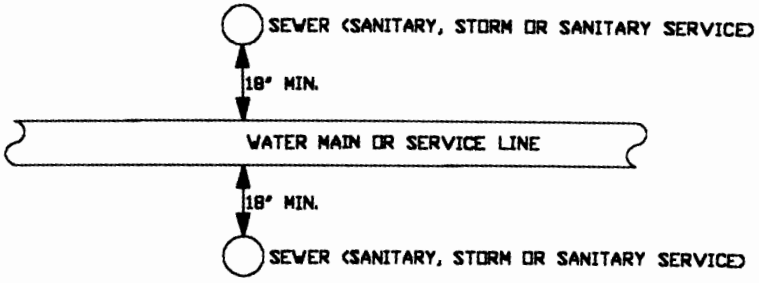
NTS

NOTES:
1. INTERNAL JOINTS (CONSTRUCTION OR CONTRACTION) TO BE SPACED NO G THAN 15' O.C.
2. PROVIDE DOWELS AT ALL INTERNAL JOINTS. INSTALL DOWEL AT MID-DE DOWELS TO BE STEEL WITH A 50 KSI MINIMUM YIELD STRENGTH DOWEL DIMENTIONS: DIAMETER: 1". TOTAL LENGTH 18". SPACIN
3. DOWELS SHALL MEET THE REQUIREMENTS OF AASHTO M254 FOR LOAD DE PULLOUT, CORROSION, AND ABRASION.
4. END DOWELS SHALL BE 6" FROM THE EDGE OF PAVEMENT. INTERVENING SHALL BE SPACED 12" +1/2" APART. DOWEL CENTERLINES SHALL BE AT MID-DEPTH OF CONCRETE +1/4". DOWELS SHALL BE PARALLEL TO THE C CENTERLINE TO WITHIN 1/8" PER FOOT. THE DOWELS SHALL BE CENTER THE JOINT.
5. REINFORCEMENT DOES NOT EXTEND THROUGH CONSTRUCTION JOINT



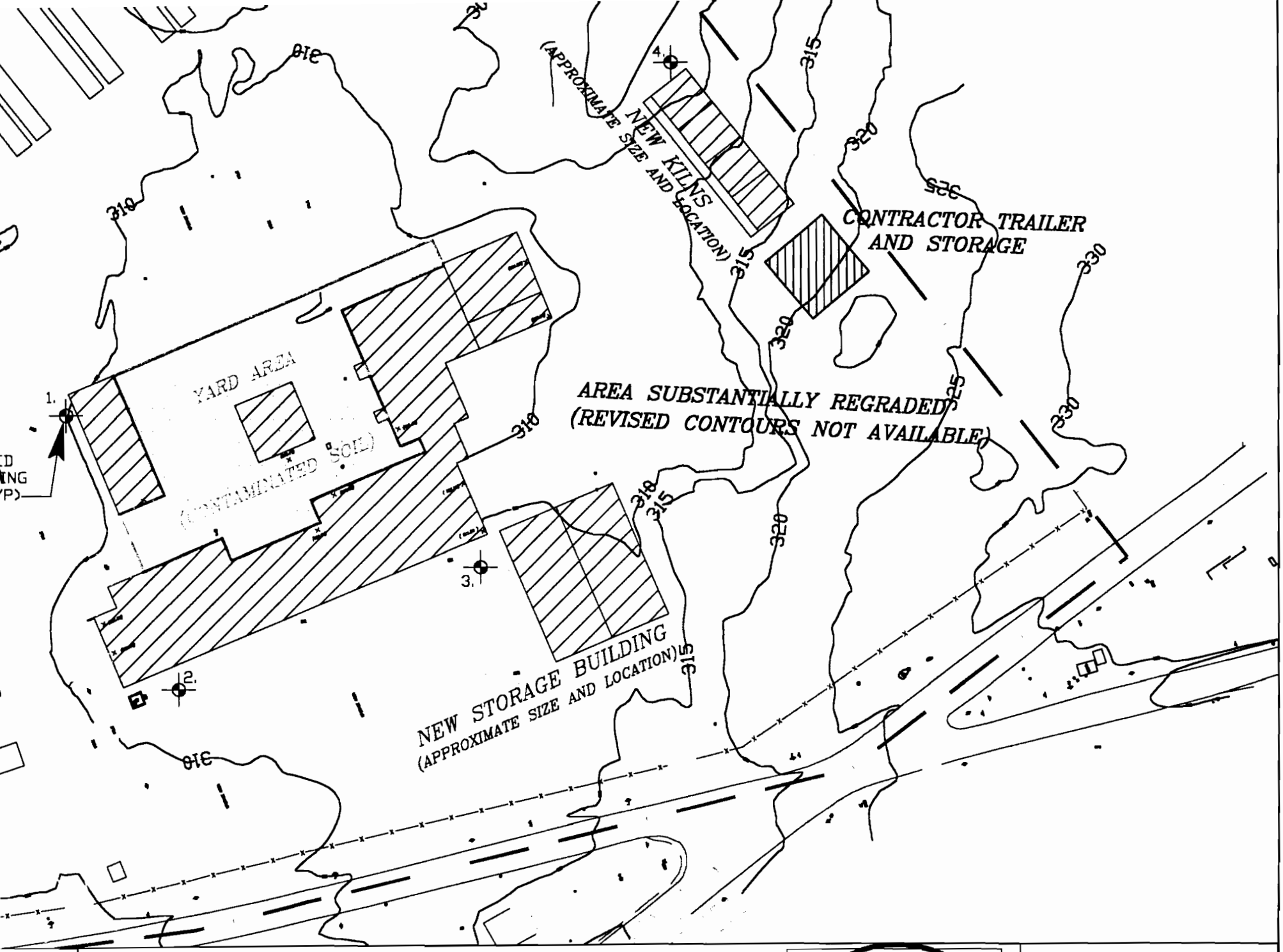
WATER MAIN INSTALLATION

1. INSTALL A SAND CUSHION WHEN CLEARANCE BETWEEN WATER MAIN AND ANY OTHER EXISTING FACILITY OR SERVICE IS LESS THAN 1 FOOT.
2. BEDDING SHALL BE SHAPED TO PROVIDE UNIFORM AND CONTIMUOUS SUPPORT FOR PIPES AND FITTINGS COUPLINGS SHALL NOT BEAR DIRECTLY ON THE BEDDING OR SUPPORT THE WEIGHT OF THE PIPE.
3. IF BOTTOM OF TRENCH IS COMPRISED OF SOUND MATERIAL, FREE FROM EXCESSIVE ORGANIC MATERIAL AND STONE, THE PIPE MAY BE LAID ON UNDISTURBED SOIL, PREPARED AS PER NOTE 2.
4. IF TRENCH BOTTOM INCLUDES EXCESSIVE ORGANIC MATERIAL OR STONE, OR OTHERWISE WOULD PROVIDE INADEQUATE SUPPORT FOR THE PIPE, UP TO 4" OF GRANULAR MATERIAL WILL BE INSTALLED, COMPACTED TO 95% MODIFIED PROCTOR DENSITY, AND SHAPED AS PER NOTE 2 ABOVE.
5. ANY BEDDING MATERIAL ADDED SHALL BE SAND OR A NATURAL SANDY SOIL WITH <10% PASSING A #200 SIEVE AND 100% PASSING A 3/8" SIEVE.



WATER/SEWER CROSSING

1. INSTALL A SAND CUSHION WHEN CLEARANCE BETWEEN WATER MAIN AND ANY OTHER EXISTING FACILITY OR SERVICE IS LESS THAN 1 FOOT.
2. IF 18" VERTICAL SEPARATION CAN NOT BE ACHIEVED, THE ENGINEER MAY REQUIRE CONCRETE ENCASEMENT OF EITHER LINE OR OTHER MEASURES AS APPROPRIATE TO ISOLATE THE WATER LINE FROM ANY POTENTIAL CONTAMINATION.
3. SEPARATION REQUIREMENTS MAY BE RELAXED IF SEWER IS CONSTRUCTED FROM WATER MAIN GRADE MATERIALS.



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SHALL BE

STATE OF NEW YORK
MICHAEL J. RYAN

OSWEGO CASTINGS SITE
OSWEGO, OSWEGO COUNTY, NEW YORK
SITE No. 7-38-033

New York State Department of Environmental Conservation

SCALE: 1"=100'
DRAWING: