# SUMMARY REPORT OF

# SUBSURFACE INVESTIGATION

## Performed on the Athens Boat Yard Property

## Located at 35 South Washington Street
## Town of Athens, Greene County, New York

**December 22, 2006**

**ESI File: AA06166.20**

**Prepared By:**

**Ecosystems Strategies, Inc.**
**24 Davis Avenue**
**Poughkeepsie, New York 12603**

**Prepared For:**

**Athens Boat Yard**
**21 South Water Street**
**Athens, New York 12015**

The undersigned has reviewed this Summary Report of Subsurface Investigation and certifies to Athens Boat Yard that the information provided in this document is accurate as of the date of issuance by this office.

Any and all questions or comments, including requests for additional information, should be submitted to the undersigned.

Paul H. Ciminello
President

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# 1.0 INTRODUCTION

## 1.1 Purpose

This Summary Report of Subsurface Investigation (Report) documents environmental fieldwork performed by Ecosystems Strategies, Inc. (ESI) on the Athens Boat Yard property, located at 35 South Washington Street, Town of Athens, Greene County, New York. Investigative and analytical work was performed to further delineate previously identified lead impacts on specified portions of the subject property, which were identified during a Phase II investigation conducted by Kaaterskill Engineering Associates, P.C. (KEA) (see Section 1.4, below). As a result of the lead impacts detected during the KEA investigation, the New York State Department of Environmental Conservation (NYSDEC) made notification in a correspondence to Mr. Peter Houghton dated September 5, 2006, of it's intent to designate the site as a potential inactive hazardous waste disposal site. The specific purpose of this Report is to summarize the work performed by ESI and ESI's subcontractors, and to suggest, if appropriate, further investigative and/or remedial options regarding identified on-site conditions. A copy of this Workplan was submitted to the NYSDEC for review prior to the extension of soil borings.

This Report describes all fieldwork methodologies for the work conducted by this office, includes discussions of the resulting analytical data from collected samples, and provides conclusions and recommendations drawn from the fieldwork and analytical data.

## 1.2 Limitations

This written analysis summarizes the site characterization activities conducted on a specified portion of the property located at 35 South Washington Street, Town of Athens, Greene County, New York and is not relevant to other portions of this property or any other property. It is a representation of those portions of the property analyzed as of the respective dates of fieldwork. This Report cannot be held accountable for activities or events resulting in contamination after the dates of fieldwork.

Services summarized in this Report were performed in accordance with generally accepted practices and established NYSDEC protocols. Unless specifically noted, the findings and conclusions contained herein must be considered not as scientific certainties, but as probabilities based on professional judgement.

## 1.3 Site Location and Description

The property is an approximately 3.4-acre parcel located on the eastern side of South Washington Street directly west of the Hudson River. The property is occupied by a large structure that consists of office space, manufacturing space and warehouse space. The structure is surrounded by a gravel parking area to the west, grass and wooded areas to the south and east. The building is reported to have been used for manufacturing purposes since it's construction. The structure currently houses the Athens Boat Yard, which manufactures electric boats and launches.

The specified portion of the property on which the environmental investigation was conducted (hereafter referred to as the "Site") consists of a gravel parking/loading dock area and the area immediately east of the loading dock, adjacent to the Hudson River. A Fieldwork Map indicating specific Site characteristics is provided in Appendix A.

*Site Topography and Hydrogeology*

During the course of the fieldwork documented in this Report, shallow groundwater was noted to be present on the subject property at depths of approximately two to four feet below surface grade (bsg) at all boring locations (SB-1 through SB-11) (see Table 1, Field Observations). No other data documenting groundwater depth, or site-specific investigation of groundwater direction of flow, is known to exist for the subject property. Groundwater at the site is likely tidally influenced.

## 1.4 Objectives

A Phase II Environmental Site Assessment, performed on the property by KEA in May 2002, identified elevated lead at two soil borings located in the loading dock area. These impacts were observed in composite soil samples obtained from depths of zero to eight feet bsg. The objectives of the work conducted by ESI were to further delineate the lead impacts in the loading dock area and recommend additional investigative work or remedial options if warranted.

# 2.0 SUBSURFACE INVESTIGATION

## 2.1 Summary of Services

In order to achieve the objectives specified in Section 1.4, above, ESI extended eleven soil borings at the Site and submitted soil samples for laboratory analysis of total and (as warranted) leachable lead. This Report is divided into individual sections that document fieldwork methodology (Section 2.2) and laboratory results (Section 2.3), and present ESI's conclusions and recommendations (Section 3.0).

## 2.2 Fieldwork Methodology

### 2.2.1 Site Preparation Services

Prior to the initiation of fieldwork, a request for a complete utility markout of the subject property was submitted by ESI as required by New York State Department of Labor regulations. Confirmation of underground utility locations was secured and a field check of the utility markout was conducted prior to the extension of soil borings.

### 2.2.2 Extension of Soil Borings

ESI personnel supervised the extension of eleven soil borings on the Site in October 2006. Borings were advanced in the loading dock area and immediately east of the loading dock area, adjacent to the Hudson River. A Fieldwork Map indicating boring locations and associated selected site features is provided in Appendix A.

All soil borings were extended by Todd Syska, Inc. using a geoprobe, direct-push sampling spoon equipped with a pneumatic hammer and disposable acetate sleeves (used to prevent the cross contamination of soil samples). Sampling was conducted at each boring location at four-foot intervals to a maximum depth of six feet below grade or until refusal was reached. The sampling spoon was decontaminated prior to the initiation of fieldwork and after the collection of each sample. Decontamination procedures were consistent with established NYSDEC protocols.

A MiniRAE 2000 (Model PGM 7600) photo-ionization detector (PID) was utilized by ESI personnel to screen all encountered material for the presence of any volatile organic vapors where appropriate. Prior to the initiation of fieldwork, this PID was properly calibrated to read parts per million calibration gas equivalents (ppm-cge) of isobutylene in accordance with protocols set forth by the equipment manufacturer.

An assessment of subsurface soil characteristics, including soil type, the presence of foreign materials, field indications of contamination (e.g., unusual coloration patterns, or odors), and instrument indications of contamination (i.e., PID readings) was made by ESI personnel during the extension of each soil boring. ESI personnel maintained independent field logs documenting physical characteristics, PID readings, and any field indications of contamination for all encountered material at each boring location. Relevant information from ESI logs for each boring location is summarized in Table 1, Appendix B.

Samples of soil material were collected from each of the soil borings at various depths (see Section 2.2.3 for specifics regarding sample collection methodology) and notations were made regarding the sampled material's physical characteristics. Observations of soil borings are summarized in Table 1 of the attached Report. A sufficient volume of material was collected at each sample location for the required analyses and for potential additional analyses.

Subsurface soils encountered at the Site during the extension of the soil borings generally consisted of coarse gravel with gray clay and gray silty clay at the terminus of the boring which was six feet bsg. Groundwater was encountered during the extension of the soil borings at approximately two to four feet bsg.

### 2.2.3 Sample Collection

All material samples were obtained in a manner consistent with NYSDEC sample collection and decontamination protocols. Soil samples were collected using decontaminated stainless steel trowels and dedicated gloves, which were used at each sample location to place the material into laboratory supplied glassware. Prior to the collection of each material sample, the sample collection instrument was decontaminated to avoid cross-contamination between samples.

All sample containers were placed in a cooler immediately after sample collection and were maintained at cold temperatures prior to transport to the laboratory. The soil samples were transported on October 24, 2006 via courier to York Analytical Laboratories, Inc. a New York State Department of Health-certified laboratory (ELAP Certification Number 10854) for chemical analyses. Appropriate chain-of-custody procedures were followed.

## 2.3 Laboratory Analysis

### 2.3.1 Guidance Levels

The term "guidance level," as defined in this Report, refers to the concentration of a particular contaminant above which remedial actions are considered more likely. The overall objective of setting guidance levels is to assess the integrity of on-site soils relative to conditions which are likely to present a threat to public health or the environment, given the existing and probable future uses of the site. On-site soils with contaminant levels exceeding these guidance levels are considered more likely to warrant remediation. No independent risk assessment was performed as part of this investigation.

The guidance level identified in this Report for total lead in soils is based on 6 NYCRR Part 375-6.8 (b) Restricted Use Soil Cleanup Objectives, Industrial Use. The guidance level identified for Toxicity Characteristic Leachate Procedure (TCLP) lead in soils is based on 6 NYCRR Part 371.3 Characteristics of Hazardous Waste, Table 1.

### 2.3.2 Sample Submission

Submission of samples for laboratory analysis was based on observations made by ESI personnel during the extension of the soil borings, including the presence or absence of elevated PID readings, unusual odors, discoloration, or, any other unusual patterns. A sufficient number of samples were submitted for analysis to provide a general screening of the property and to allow for additional analysis, if warranted.

Soil samples SB-1 through SB-11 were submitted for analysis of total lead using USEPA Method 6010. The eight soil samples with the highest lead concentrations were subsequently analyzed by TCLP to determine the potential for hazardous lead levels.

### 2.3.3 Laboratory Results

A summary of the results of the laboratory analyses conducted on samples SB-1 through SB-11 is presented below (Data Summary Tables are presented in Appendix C and complete copies of Laboratory Reports are included as Appendix D). Recommendations regarding these findings are located in Section 3.0 of this Report, Conclusions and Recommendations.

**Total Lead**

All soil samples (SB-1 through SB-11) were analyzed for total weight lead.

Elevated levels of lead (guidance level 3,900 mg/kg) were detected in soils sample SB-4(2') (4,040 mg/kg), SB-6 (2') (3,990 mg/kg) and SB-7 (3') (8,350 mg/kg).
Lead above 1,000 mg/kg was detected at SB-1 (20-24") (1,510 mg/kg), SB-3 (2') (1,570 mg/kg), SB-3 (4-6') (3,000 mg/kg), SB-4 (4-6') (1,620 mg/kg), SB-9 (3-4') (1,747 mg/kg) and SB-11 (2-3') (1,190 mg/kg). Peak lead detections were observed at SB-7 (3'). Lead detections above 1,000 mg/kg averaged 3,002 mg/kg.
Lead was detected below 1,000 mg/kg at SB-1 (0-4") (199 mg/kg), SB-1 (4-6') (81.6 mg/kg), SB-2 (0-6") (461 mg/kg), SB-2 (2') (44.5 mg/kg), SB-2 (4-6') (932 mg/kg), SB-3 (6"-1') (74.6 mg/kg), SB-4 (0-6") (118 mg/kg), SB-5 (3-4') (241 mg/kg), SB-5 (4-6') (959 mg/kg), SB-6 (0-6") (144 mg/kg), SB-6 (4-6') (130 mg/kg), SB-7 (1-2') (321 mg/kg), SB-7 (4-6') (79.9 mg/kg), SB-8 (0-1') (135 mg/kg), SB-8 (2-3') (34.1 mg/kg), SB-8 (4-6') (18.8 mg/kg), SB-9 (1-2') (160 mg/kg), SB-9 (4-6') (341 mg/kg), SB-10 (6"-1') (38.6 mg/kg), SB-10 (3-4') (21 mg/kg), SB-10 (4-6') (112 mg/kg), SB-11 (0-6") (44.4 mg/kg) and SB-11 (5-6') (316 mg/kg). Lead detections below 1,000 mg/kg averaged 218 mg/kg.
Laboratory data for total lead is summarized in Table 2, Appendix C.

**TCLP Lead**

Soil samples SB-1 (20"-24"), SB-3 (4'-6'), SB-4 (2'), SB-5 (4'-6'), SB-6 (2') SB-7 (3'), SB-9 (3'-4') and SB-11 (2'-3') were analyzed for TCLP lead (samples contained total lead above 950 mg/kg). Elevated levels of TCLP lead (guidance level 5.0 mg/L) were detected in soil samples SB-3 (4'-6') (13.9 mg/L), SB-6 (2') (9.09 mg/L), SB-7 (3') (50.9 mg/L) and SB-11 (2'-3') (5.48 mg/L). TCLP lead below 5 mg/L was detected at SB-1 (20-24") (1.68 mg/L), SB-4 (2') (0.971 mg/L) and SB-5 (4-6') (2.98 mg/L). Laboratory data for TCLP Lead is summarized in Table 3, Appendix C.

# 3.0 CONCLUSIONS AND RECOMMENDATIONS

This office has completed the services summarized in Section 2.0 on specified portions of the Athens Boat Yard property, located at 35 South Washington Street, Town of Athens, Greene County, New York. Services included the extension of eleven soil borings at various locations in the loading dock area to further delineate subsurface lead contamination resulting from the historic usage of the property as an industrial manufacturing facility. Sampling locations were scattered to provide a profile of existing Site subsurface and surface soil conditions.

Based on the services provided and data generated, the following conclusions and recommendations (in **bold**) have been made:

1. Laboratory analysis of the samples collected indicated the presence of lead at all boring locations and at all depth intervals. Concentrations of lead above NYSDEC guidance levels (3,900 mg/kg) were detected at SB-4 (2') (4,040 mg/kg), SB-6 (2') (3,990 mg/kg) and SB-7 (3') (8,350 mg/kg). These borings are located in the southwestern area of the loading dock yard. Significant lead concentrations appear to be restricted to the upper four feet of soil. No soil borings were advanced beneath the southwestern portion of the building. Elevated levels of lead are likely to exist beneath this section of the building.

   The source of the identified lead impacts present in subsurface soils are likely due to the historic operation of the site and/or historic fill that contained material with lead as a component.

   **Additional soil borings are recommended beneath the southwestern portion of the building to further delineate the extent of lead impacts at the site.**

2. Elevated levels of TCLP lead (guidance level 5.0 mg/L) at SB-3 (3-6') (13.9 mg/L), SB-6 (2') (9.09 mg/L), SB-7 (3') (50.9 mg/L), SB-9 (3-4') (19.9 mg/L) and SB-11 (2-3') (5.48 mg/L) in the southwestern area of the loading dock yard suggest potential groundwater impacts. Any soils excavated from the site may require disposal as hazardous waste.

   **Additional testing via the installation of several groundwater monitoring wells may be appropriate to document the presence or absence of lead in groundwater. The extent of soil warranting removal should be determined in part on these groundwater data.**

   *Estimated Cost - $3,000*

   **Excavation and proper disposal of lead impacted soils in the southwestern area of the loading dock yard to three feet bsg is recommended (approximately 500-600 cubic yards). The stockpiled soil should be characterized to determine waste disposal procedures and be disposed of accordingly. Post excavation samples should be conducted on the floor and walls of the excavated area to document the integrity of the remaining soils.**

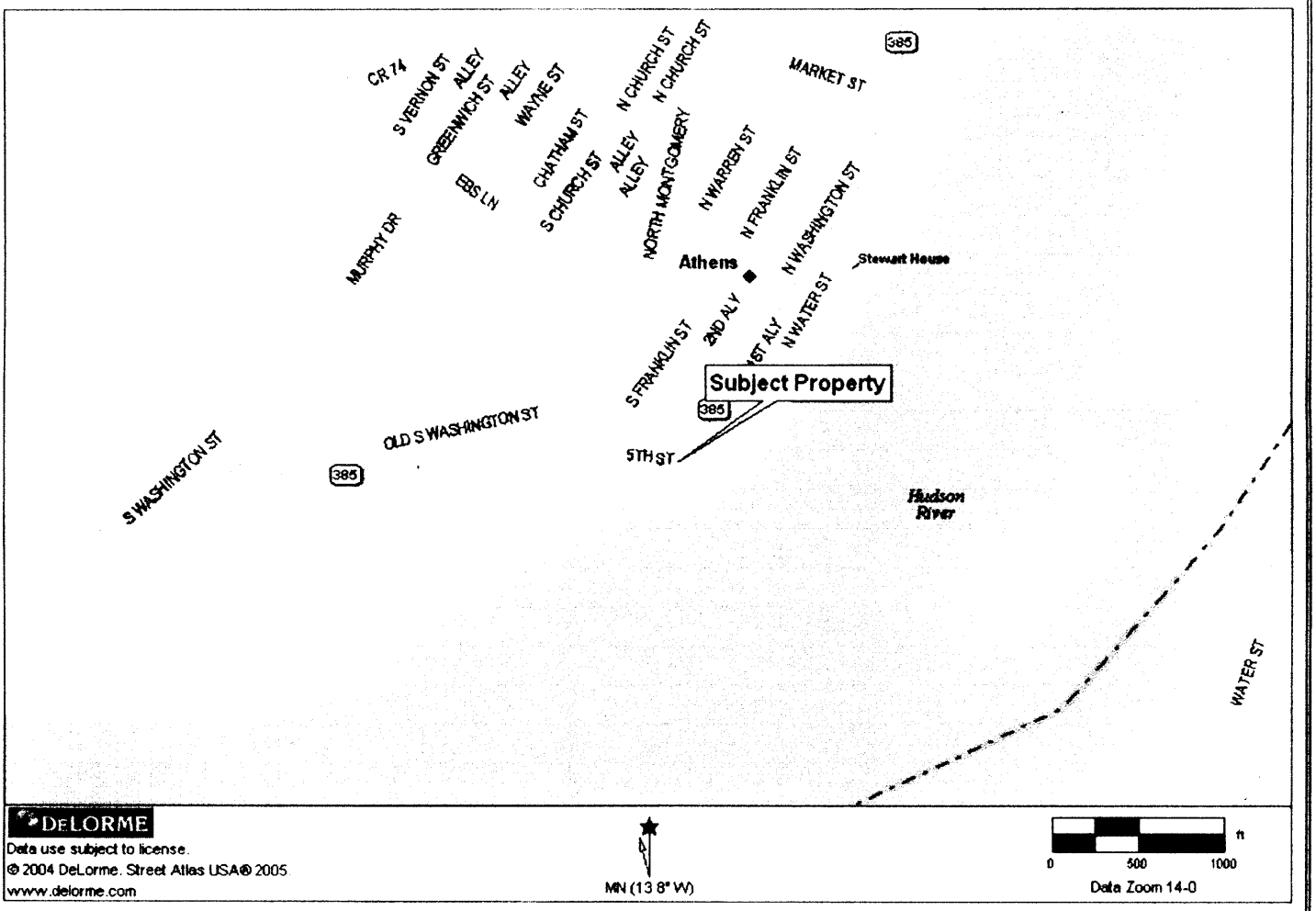
   *Estimated Cost - $60,000 to $80,000*

3. The NYSDEC has requested information on the environmental conditions at this site. ESI's Workplan was submitted to the NYSDEC prior to the extension of soil borings.

   **It is recommended that this report be forwarded to the NYSDEC as well as follow-up documentation of site remedial activities.**

# APPENDIX A

## Maps




**Site Location Map**
Athens Boat Yard
35 South Washington Street
Town of Athens
Greene County, New York

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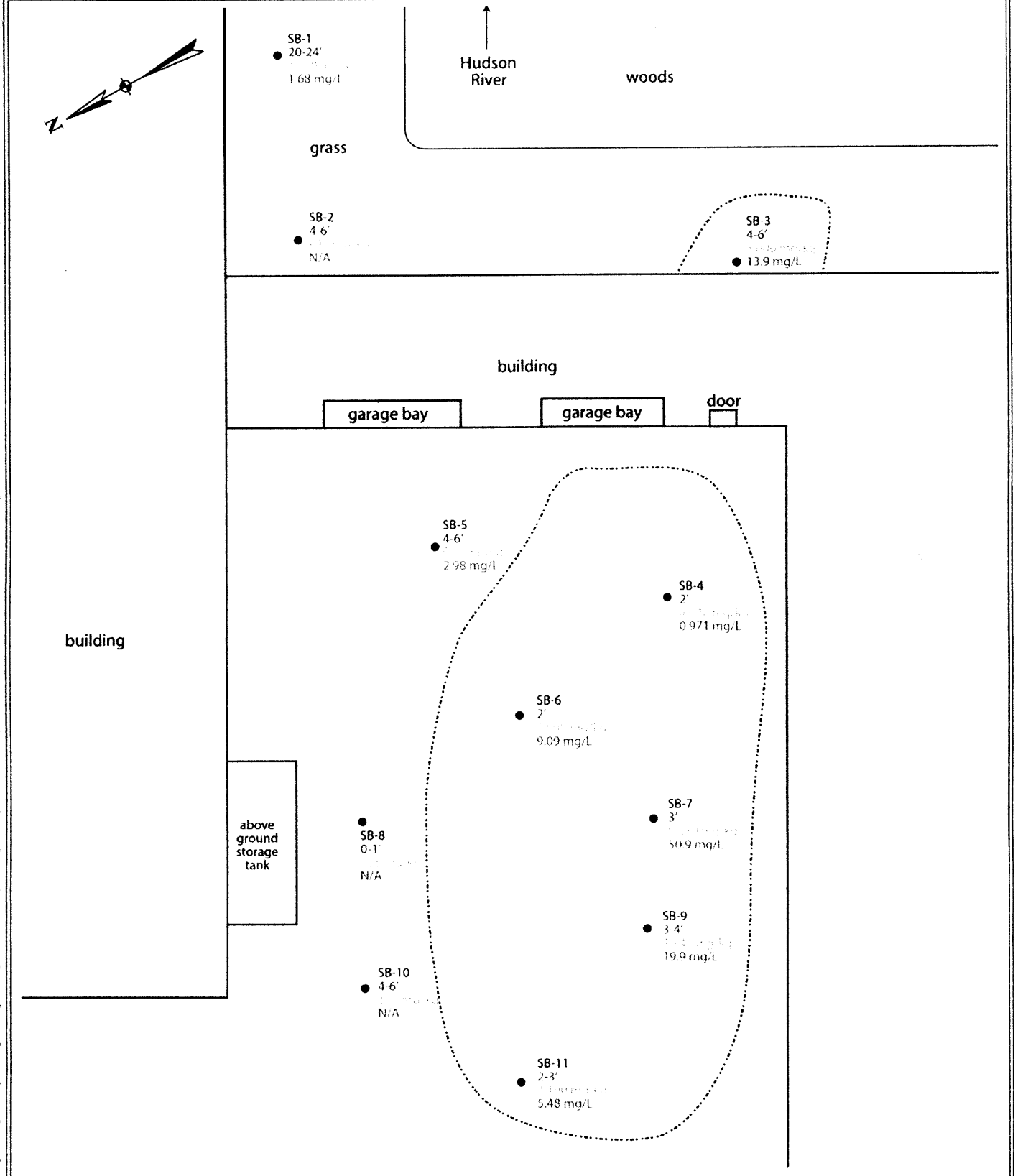
ESI File: AA06166.20

Date: December 2006

Appendix A




All feature locations are approximate. This map is intended as a schematic to be used in conjunction with the associated report, and it should not be relied upon as a survey for planning or other activities.

# Fieldwork Map

Athens Boat Yard
35 South Washington Street
Town of Athens
Greene County, New York

Legend:
- ● sample location
  SB-11 = sample ID
  2-3' = sample depth
  5.48 mg/L = TCLP concentration (if analyzed)
  N/A = not analyzed
- ..... proposed area of excavation

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December 2006

Not to scale

Appendix A

# APPENDIX B

## Fieldwork Observations Table

## Table 1: Fieldwork Observations

| Boring ID | Location | Depth of Boring | Soil Characteristics | Groundwater Encountered | PID Reading | Field Observations |
|---|---|---|---|---|---|---|
| SB-1 | East of loading dock yard, adjacent to the Hudson River | (0-6") | Grass, topsoil | No | 0.0 ppm | No evidence of contamination |
| | | (20-24") | Light brown clayey silt, trace stone, wet | 2.0 | 0.0 ppm | No evidence of contamination |
| | | (4-6') | Gray clay, trace imbedded stone, wet | | 0.0 ppm | No evidence of contamination |
| SB-2 | East of loading dock yard, in southwest corner of building | (0-6") | Grass, topsoil | No | 0.0 ppm | No evidence of contamination |
| | | (2-4') | Light brown clayey silt, wet | 2.0 | 0.0 ppm | No evidence of contamination |
| | | (4-6') | Coarse sand turning to black organic material, gray clay in tip | | 0.0 ppm | No evidence of contamination |
| SB-3 | Southeast of loading dock yard | (6-1') | Topsoil, gravel | No | 0.0 ppm | No evidence of contamination |
| | | (2-3') | Dark brown silt, possible ash | No | 0.0 ppm | No evidence of contamination |
| | | (3-4') | Gray, silty clay | 4.0 | 0.0 ppm | No evidence of contamination |
| | | (4-5') | Dark gray to black, organic material | | 0.0 ppm | No evidence of contamination |
| | | (5'-6') | Gray silty clay | | 0.0 ppm | No evidence of contamination |
| SB-4 | In southern corner of loading dock yard | (0-6") | Gravel | No | 0.0 ppm | No evidence of contamination |
| | | (6-24") | Dark brown silt and gravel | No | 0.0 ppm | No evidence of contamination |
| | | (4-6') | Gray silt and gravel turning to gray silty clay | 4.0 | 0.0 ppm | No evidence of contamination |
| SB-5 | In northeastern/central area of loading dock yard | (0-4') | Poor recovery, gravel turning to light brown fine to medium sand and gravel | No | 0.0 ppm | No evidence of contamination |
| | | (4-6') | Gray gravel, brown possible ash turning to gray clay | 4.0 | 0.0 ppm | No evidence of contamination |
| SB-6 | In the central area of loading dock yard | (0-6") | Gravel turning to light brown/reddish medium to coarse sand | No | 0.0 ppm | No evidence of contamination |
| | | (20-36") | Dark brown sandy silt, possible ash | No | 0.0 ppm | No evidence of contamination |
| | | (4-6') | Gray gravel, brown possible ash turning to gray clay | 4.0 | 0.0 ppm | No evidence of contamination |
| SB-7 | In southwestern area of loading dock yard | (0-6") | Gravel | No | 0.0 ppm | No evidence of contamination |
| | | (6-24") | Light brown sand and gravel | No | 0.0 ppm | No evidence of contamination |
| | | (2-4') | Dark brown fine sandy silt, trace clay | 3.0 | 0.0 ppm | No evidence of contamination |
| | | (4-6') | Coarse sand turning to red/gray silty clay with imbedded gravel | | 0.0 ppm | No evidence of contamination |

| Boring ID | Location | Depth of Boring | Soil Characteristics | Groundwater Encountered | PID Reading | Field Observations |
|---|---|---|---|---|---|---|
| SB-8 | In loading dock yard, adjacent to above ground storage tank (AST) | (0-2') | Gravel and dark brown medium sand. | No | 0.0 ppm | No evidence of contamination |
| | | (2-4') | Light brown, gravel and fine sand, some silts. | 3.0 | 0.0 ppm | No evidence of contamination |
| | | (4-6') | Coarse gravel, turning to gray clay | | 0.0 ppm | No evidence of contamination |
| SB-9 | In loading dock yard, west of SB-7 | (0-1') | Gray gravel | No | 0.0 ppm | No evidence of contamination |
| | | (1-2') | Brown, fine sand, ash and coal fragments. | No | 0.0 ppm | No evidence of contamination |
| | | (2-4') | Dark brown/black, fine sand and silt. | 3.0 | 0.0 ppm | No evidence of contamination |
| | | (4-6') | Brown/gray, clayey silt with imbedded stone. | | 0.0 ppm | No evidence of contamination |
| SB-10 | In loading dock yard, south-west of AST | (0-6") | Gravel | No | 0.0 ppm | No evidence of contamination |
| | | (6-1') | Dark brown, fine sand and gravel, trace ash. | No | 0.0 ppm | No evidence of contamination |
| | | (1-3') | Gray gravel and silt. | 3.0 | 0.0 ppm | No evidence of contamination |
| | | (3-4') | Gray, clayey silt with imbedded stone | | 0.0 ppm | No evidence of contamination |
| | | (4-6') | Gray silty clay with imbedded stone. | | 0.0 ppm | No evidence of contamination |
| SB-11 | In southwestern area of loading dock yard | (0-1') | Gravel, some fine to medium sand | No | 0.0 ppm | No evidence of contamination |
| | | (1-4') | Gray, fine sand and silt, some ash | 2.5 | 0.0 ppm | No evidence of contamination |
| | | (4-5') | Ash, coarse gravel | | 0.0 ppm | No evidence of contamination |
| | | (5-6') | Gray silty clay with imbedded stone | | 0.0 ppm | No evidence of contamination |

# APPENDIX C

## Data Summary Tables

## Table 2: Total Lead in Soils

Results provided in mg/kg (parts per million). Results shown in **bold** exceed guidance levels.

| Metal | Guidance Level | Sample Identification | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | SB-1 (0-4") | SB-1 (20-24") | SB-1 (4-6') | SB-2 (0-6") | SB-2 (2') | SB-2 (4-6') | SB-3 (6"-1') | SB-3 (2') |
| Lead | 3,900 | 199 | 1,510 | 81.6 | 461 | 44.5 | 932 | 74.6 | 1,570 |

| Metal | Guidance Level | Sample Identification | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | SB-3 (4-6') | SB-4 (0-6") | SB-4 (2') | SB-4 (4-6') | SB-5 (3-4') | SB-5 (4-6') | SB-6 (0-6") | SB-6 (2') |
| Lead | 3,900 | 3,000 | 118 | **4,040** | 1,620 | 241 | 959 | 144 | **3,990** |

| Metal | Guidance Level | Sample Identification | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | SB-6 (4-6') | SB-7 (1-2') | SB-7 (3') | SB-7 (4-6') | SB-8 (0-1') | SB-8 (2-3') | SB-8 (4-6') | SB-9 (1-2') |
| Lead | 3,900 | 130 | 321 | **8,350** | 79.9 | 135 | 34.1 | 18.8 | 160 |

| Metal | Guidance Level | Sample Identification | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | SB-9 (3-4') | SB-9 (4-6') | SB-10 (6"-1') | SB-10 (3-4') | SB-10 (4-6') | SB-11 (0-6") | SB-11 (2-3') | SB-11 (5-6') |
| Lead | 3,900 | 1,747 | 341 | 38.6 | 21 | 112 | 44.4 | 1,190 | 316 |

Notes:
Guidance levels are based on 6 NYCRR Part 375-6.8 (b) Restricted Use Soil Cleanup Objectives, Industrial Use.

## Table 3: TCLP Lead in Soils

Results provided in mg/L (parts per million). Results shown in **bold** exceed guidance levels.

| Metal | Guidance Level | Sample Identification | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | SB-1 (20"-24") | SB-3 (4'-6') | SB-4 (2') | SB-5 (4'-6') | SB-6 (2') | SB-7 (3') | SB-9 (3'-4') | SB-11 (2'-3') |
| Lead | 5.0 | 1.68 | **13.9** | 0.971 | 2.98 | **9.09** | **50.9** | **19.9** | **5.48** |

Notes:
Guidance level is based on 6 NYCRR Section 371.3 Characteristics of Hazardous Waste Table 1.

# APPENDIX D

## Laboratory Reports

YORK
ANALYTICAL LABORATORIES, INC.



# Technical Report

prepared for

**Ecosystems Strategies, Inc.**
**24 Davis Avenue**
**Poughkeepsie, NY 12603**
**Attention: John Petronella**

Report Date: 10/30/2006
***Re: Client Project ID: AA 06166.20***
York Project No.: 06100777

CT License No. PH-0723 New York License No. 10854

120 RESEARCH DRIVE STRATFORD, CT 06615 (203) 325-1371 FAX (203) 357-0166

Report Date: 10/30/2006
Client Project ID: AA 06166.20
York Project No.: 06100777

**Ecosystems Strategies, Inc.**
24 Davis Avenue
Poughkeepsie, NY 12603
Attention: John Petronella

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## Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on 10/24/06. The project was identifed as your project "AA 06166.20 ".

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables .

All samples were received in proper condition meeting the NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

### *Analysis Results*

| Client Sample ID | | | SB-1 0-4in | | SB-1 20-24in | |
|---|---|---|---|---|---|---|
| York Sample ID | | | 06100777-01 | | 06100777-02 | |
| Matrix | | | SOIL | | SOIL | |
| Parameter | Method | Units | Results | MDL | Results | MDL |
| Lead | SW846-6010 | mg/kG | 199 | 0.500 | 1510 | 0.500 |

| Client Sample ID | | | SB-1 4-6' | | SB-2 0-6in | |
|---|---|---|---|---|---|---|
| York Sample ID | | | 06100777-03 | | 06100777-04 | |
| Matrix | | | SOIL | | SOIL | |
| Parameter | Method | Units | Results | MDL | Results | MDL |
| Lead | SW846-6010 | mg/kG | 81.6 | 0.500 | 461 | 0.500 |

| Client Sample ID | | | SB-2 2' | | SB-2 4-6' | |
|---|---|---|---|---|---|---|
| York Sample ID | | | 06100777-05 | | 06100777-06 | |
| Matrix | | | SOIL | | SOIL | |
| Parameter | Method | Units | Results | MDL | Results | MDL |
| Lead | SW846-6010 | mg/kG | 44.5 | 0.500 | 932 | 0.500 |

YORK

| Client Sample ID | | | SB-3 6-1' | | SB-3 2' | |
|---|---|---|---|---|---|---|
| York Sample ID | | | 06100777-07 | | 06100777-08 | |
| Matrix | | | SOIL | | SOIL | |
| Parameter | Method | Units | Results | MDL | Results | MDL |
| Lead | SW846-6010 | mg/kG | 74.6 | 0.500 | 1570 | 0.500 |

| Client Sample ID | | | SB-3 4-6' | | SB-4 0-6in | |
|---|---|---|---|---|---|---|
| York Sample ID | | | 06100777-09 | | 06100777-10 | |
| Matrix | | | SOIL | | SOIL | |
| Parameter | Method | Units | Results | MDL | Results | MDL |
| Lead | SW846-6010 | mg/kG | 3000 | 0.500 | 118 | 0.500 |

| Client Sample ID | | | SB-4 2' | | SB-4 4-6' | |
|---|---|---|---|---|---|---|
| York Sample ID | | | 06100777-11 | | 06100777-12 | |
| Matrix | | | SOIL | | SOIL | |
| Parameter | Method | Units | Results | MDL | Results | MDL |
| Lead | SW846-6010 | mg/kG | 4040 | 0.500 | 1620 | 0.500 |

| Client Sample ID | | | SB-5 3-4' | | SB-5 4-6' | |
|---|---|---|---|---|---|---|
| York Sample ID | | | 06100777-13 | | 06100777-14 | |
| Matrix | | | SOIL | | SOIL | |
| Parameter | Method | Units | Results | MDL | Results | MDL |
| Lead | SW846-6010 | mg/kG | 241 | 0.500 | 959 | 0.500 |

| Client Sample ID | | | SB-6 0-6in | | SB-6 2' | |
|---|---|---|---|---|---|---|
| York Sample ID | | | 06100777-15 | | 06100777-16 | |
| Matrix | | | SOIL | | SOIL | |
| Parameter | Method | Units | Results | MDL | Results | MDL |
| Lead | SW846-6010 | mg/kG | 144 | 0.500 | 3990 | 0.500 |

| Client Sample ID | | | SB-6 4-6' | | SB-7 1-2' | |
|---|---|---|---|---|---|---|
| York Sample ID | | | 06100777-17 | | 06100777-18 | |
| Matrix | | | SOIL | | SOIL | |
| Parameter | Method | Units | Results | MDL | Results | MDL |
| Lead | SW846-6010 | mg/kG | 130 | 0.500 | 321 | 0.500 |

| Client Sample ID | | | SB-7 3' | | SB-7 4-6' | |
|---|---|---|---|---|---|---|
| York Sample ID | | | 06100777-19 | | 06100777-20 | |
| Matrix | | | SOIL | | SOIL | |
| Parameter | Method | Units | Results | MDL | Results | MDL |
| Lead | SW846-6010 | mg/kG | 8350 | 0.500 | 79.9 | 0.500 |

| Client Sample ID | | | SB-8 0-1' | | SB-8 2-3' | |
|---|---|---|---|---|---|---|
| York Sample ID | | | 06100777-21 | | 06100777-22 | |
| Matrix | | | SOIL | | SOIL | |
| Parameter | Method | Units | Results | MDL | Results | MDL |
| Lead | SW846-6010 | mg/kG | 135 | 0.500 | 34.1 | 0.500 |

YORK

| Client Sample ID | | | SB-8 4-6' | | SB-9 1-2' | |
|---|---|---|---|---|---|---|
| York Sample ID | | | 06100777-23 | | 06100777-24 | |
| Matrix | | | SOIL | | SOIL | |
| Parameter | Method | Units | Results | MDL | Results | MDL |
| Lead | SW846-6010 | mg/kG | 18.8 | 0.500 | 160 | 0.500 |

| Client Sample ID | | | SB-9 4-6' | | SB-10 6-1' | |
|---|---|---|---|---|---|---|
| York Sample ID | | | 06100777-25 | | 06100777-26 | |
| Matrix | | | SOIL | | SOIL | |
| Parameter | Method | Units | Results | MDL | Results | MDL |
| Lead | SW846-6010 | mg/kG | 341 | 0.500 | 38.6 | 0.500 |

| Client Sample ID | | | SB-10 3-4' | | SB-10 4-6' | |
|---|---|---|---|---|---|---|
| York Sample ID | | | 06100777-27 | | 06100777-28 | |
| Matrix | | | SOIL | | SOIL | |
| Parameter | Method | Units | Results | MDL | Results | MDL |
| Lead | SW846-6010 | mg/kG | 21.1 | 0.500 | 112 | 0.500 |

| Client Sample ID | | | SB-11 0-6in | | SB-11 2-3' | |
|---|---|---|---|---|---|---|
| York Sample ID | | | 06100777-29 | | 06100777-30 | |
| Matrix | | | SOIL | | SOIL | |
| Parameter | Method | Units | Results | MDL | Results | MDL |
| Lead | SW846-6010 | mg/kG | 44.4 | 0.500 | 1190 | 0.500 |

| Client Sample ID | | | SB-11 5-6' | |
|---|---|---|---|---|
| York Sample ID | | | 06100777-31 | |
| Matrix | | | SOIL | |
| Parameter | Method | Units | Results | MDL |
| Lead | SW846-6010 | mg/kG | 316 | 0.500 |

**Units Key:** For Waters/Liquids: mg/L = ppm ; ug/L = ppb For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

YORK

Report Date: 10/30/2006
Client Project ID: AA 06166.20
York Project No.: 06100777

**Notes for York Project No. 06100777**

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All samples were received in proper condition for analysis with proper documentation.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

**Approved By:** Robert Q. Bradley
Managing Director

**Date:** 10/30/2006

YORK

YORK
Analytical Laboratories, Inc.
120 RESEARCH DRIVE
STRATFORD, CT 06615
203.325.1371 FAX 203.357-0166



0610077

| Company Name | Report to: | Invoice to: | Project ID/No. |
|---|---|---|---|
| Ecosystems Strategies, Inc. | John Petronella | Brenda | AA 06166.20 |

Samples Collected by (signature)

John Petronella
Name (printed)

| Sample No. | Location/ID | Date Sampled | Sample Matrix | | | | Analyses Requested | Container Desc. |
|---|---|---|---|---|---|---|---|---|
| | | | Water | Soil | Air | Other | | |
| | SB-1 0"-4" | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-1 20"-24" | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-1 4'-6' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-2 0"-6" | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-2 2' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-2 4'-6' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-3 6"-1' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-3 2' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-3 4'-6' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-4 0"-6" | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |

***hain-of-Custody Record***

| | | | |
|---|---|---|---|
| Bottles Relinquished from Lab by | Date/Time | Samples Relinquished by | 10/23/06 11am |
| Bottles received in field by | Date/Time | Samples Relinquished by | Date/Time |

Samples received by 10/24 — 10/24 12d
Samples received in LAB by — Date/Time 9:00

*omments/Special Instructions*

4.1°C

***Turn-Around Time Requested- Specify Date Expected if RUSH Requested: DATE DUE FOR RUSH:***

X STANDARD X RUSH(Define)_____

YORK
Analytical Laboratories, Inc.
120 RESEARCH DRIVE
STRATFORD, CT 06615
203.325.1371 FAX 203.357-0166



061007M

| Company Name | Report to: | Invoice to: | Project ID/No. | Samples Collected by (signature) |
|---|---|---|---|---|
| Ecosystems Strategies, Inc. | John Petronella | Brenda | AA 06166.20 | John Petronella (Name printed) |

| Sample No. | Location/ID | Date Sampled | Sample Matrix: Water | Soil | Air | Other | Analyses Requested | Container Desc. |
|---|---|---|---|---|---|---|---|---|
| | SB-4 2' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-4 4'-6' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-5 3'-4' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-5 4'-6' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-6 0"-6" | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-6 2' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-6 4'-6' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-7 1'-2' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-7 3' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-7 4'-6' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |

**Chain-of-Custody Record**

| | | | |
|---|---|---|---|
| Bottles Relinquished from Lab by | Date/Time | Samples Relinquished by 10/23/06 11am | Samples received by 10/24 10a |
| Bottles received in field by | Date/Time | Samples Relinquished by | Samples received in LAB by 10/24 Date/Time 4:00 |

Comments/Special Instructions

4.1°C

**Turn-Around Time Requested- Specify Date Expected if RUSH Requested: DATE DUE FOR RUSH:**

STANDARD X RUSH(Define)_____

YORK
Analytical Laboratories, Inc.
120 RESEARCH DRIVE
STRATFORD, CT 06615
203.325.1371 FAX 203.357-0166



0610077

| Company Name | Report to: | Invoice to: | Project ID/No. | Samples Collected by (signature) |
|---|---|---|---|---|
| Ecosystems Strategies, Inc. | John Petronella | Brenda | AA 06166.20 | John Petronella (Name printed) |

| Sample No. | Location/ID | Date Sampled | Sample Matrix | | | | Analyses Requested | Container Desc. |
|---|---|---|---|---|---|---|---|---|
| | | | Water | Soil | Air | Other | | |
| | SB-8 0'-1' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-8 2'-3' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-8 4'-6' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-9 1'-2' | 10/20/2006 | | X | | | Total Lead | 2, 2 oz jars |
| | SB-9 4'-6' | 10/20/2006 | | X | | | Total Lead | 2, 2 oz jars |
| | SB-10 6"-1' | 10/20/2006 | | X | | | Total Lead | 2, 2 oz jars |
| | SB-10 3'-4' | 10/20/2006 | | X | | | Total Lead | 2, 2 oz jars |
| | SB-10 4'-6' | 10/20/2006 | | X | | | Total Lead | 2, 2 oz jars |
| | SB-11 0"-6" | 10/20/2006 | | X | | | Total Lead | 2, 2 oz jars |
| | SB-11 2'-3' | 10/20/2006 | | X | | | Total Lead | 2, 2 oz jars |

***Chain-of-Custody Record***

| | | | |
|---|---|---|---|
| Bottles Relinquished from Lab by | Date/Time | Samples Relinquished by | 10/23/06 11am Date/Time |
| Bottles received in field by | Date/Time | Samples Relinquished by | Date/Time |
| Samples received by | 10/24 12d Date/Time | | |
| Samples received in LAB by | 10/24 9:20 Date/Time | | |

*Comments/Special Instructions*

4.1°C

***Turn-Around Time Requested- Specify Date Expected if RUSH Requested: DATE DUE FOR RUSH:***

X STANDARD ___ RUSH(Define)_____

YORK
Analytical Laboratories, Inc.
120 RESEARCH DRIVE
STRATFORD, CT 06615
203.325.1371 FAX 203.357-0166



0610077.

| Company Name | Report to: | Invoice to: | Project ID/No. | |
|---|---|---|---|---|
| Ecosystems Strategies, Inc. | John Petronella | Brenda | AA 06166.20 | Samples Collected by (signature) |
| | | | | John Petronella (Name printed) |

| Sample No. | Location/ID | Date Sampled | Sample Matrix | | | | Analyses Requested | Container Desc. |
|---|---|---|---|---|---|---|---|---|
| | | | Water | Soil | Air | Other | | |
| | SB-11 5'-6' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | | | | | | | | |
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***Chain-of-Custody Record***

| | | | |
|---|---|---|---|
| Bottles Relinquished from Lab by | Date/Time | Samples Relinquished by | 10/26/06 11am Date/Time |
| Bottles received in field by | Date/Time | Samples Relinquished by | Date/Time |
| | | Samples received by | 10/24 Date/Time |
| | | Samples received in LAB by 10/24 4:00 | Date/Time |

*Comments/Special Instructions*

4.1°C

***Turn-Around Time Requested- Specify Date Expected if RUSH Requested: DATE DUE FOR RUSH:***

X STANDARD X RUSH(Define)_____

YORK
ANALYTICAL LABORATORIES, INC.

# Technical Report

prepared for

**Ecosystems Strategies, Inc.**
**24 Davis Avenue**
**Poughkeepsie, NY 12603**
**Attention: John Petronella**

Report Date: 11/3/2006
***Re: Client Project ID: AA06166.20***
York Project No.: 06100871

CT License No. PH-0723 New York License No. 10854

120 RESEARCH DRIVE STRATFORD, CT 06615 (203) 325-1371 FAX (203) 357-0166

Report Date: 11/3/2006
Client Project ID: AA06166.20
York Project No.: 06100871

**Ecosystems Strategies, Inc.**
24 Davis Avenue
Poughkeepsie, NY 12603
Attention: John Petronella

---

## Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on 10/27/06. The project was identifed as your project "AA06166.20".

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables .

All samples were received in proper condition meeting the NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## *Analysis Results*

| Client Sample ID | | | SB-9 3'-4' | |
|---|---|---|---|---|
| York Sample ID | | | 06100871-01 | |
| Matrix | | | SOIL | |
| **Parameter** | **Method** | **Units** | **Results** | **MDL** |
| Lead | SW846-6010 | mg/kG | 1747 | 0.500 |

**Units Key:** For Waters/Liquids: mg/L = ppm ; ug/L = ppb For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

YORK

Report Date: 11/3/2006
Client Project ID: AA06166.20
York Project No.: 06100871

**Notes for York Project No. 06100871**

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All samples were received in proper condition for analysis with proper documentation.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

**Approved By:** Robert Q. Bradley
Managing Director

**Date:** 11/3/2006

YORK

# YORK

Analytical Laboratories, Inc.

120 Research Drive

Stratford, CT 06615

203.325.1371 FAX 203.357-0166



| Company Name | Report to: | Invoice to: | Project ID/No. | Samples Collected by (signature) |
|---|---|---|---|---|
| Ecosystems Strategies, Inc. | John Petronella | Brenda | AA 06166.20 | John Petronella (Name printed) |

| Sample No. | Location/ID | Date Sampled | Sample Matrix: Water | Soil | Air | Other | Analyses Requested | Container Desc. |
|---|---|---|---|---|---|---|---|---|
| | SB-11 5'-6' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-9 3'-4' | 10/20/2006 | | X | | | Total Lead | 2, 2oz jars |
| | | | | | | | | |
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***Chain-of-Custody Record***

| | | | |
|---|---|---|---|
| Bottles Relinquished from Lab by | Date/Time | Samples Relinquished by | Date/Time |
| Bottles received in field by | Date/Time | Samples Relinquished by | Date/Time |
| Samples received by | Date/Time | | |
| Samples received in LAB by | Date/Time | | |

*Comments/Special Instructions*

Rec'd C.O.C. - 10/27/06

***Turn-Around Time Requested- Specify Date Expected if RUSH Requested: DATE DUE FOR RUSH:***

✓ STANDARD X RUSH(Define)

as per John Petronella 10/27/06

10/26/2006 12:45 4857083 PAGE 02

YORK
ANALYTICAL LABORATORIES, INC.

# Technical Report

prepared for

**Ecosystems Strategies, Inc.**
**24 Davis Avenue**
**Poughkeepsie, NY 12603**
**Attention: John Petronella**

Report Date: 11/9/2006
***Re: Client Project ID: AA 06166.20***
York Project No.: 06100777 Addendum

CT License No. PH-0723 New York License No. 10854

120 RESEARCH DRIVE STRATFORD, CT 06615 (203) 325-1371 FAX (203) 357-0166

Report Date: 11/9/2006
Client Project ID: AA 06166.20
York Project No.: 06100777 Addendum

**Ecosystems Strategies, Inc.**
24 Davis Avenue
Poughkeepsie, NY 12603
Attention: John Petronella

---

## Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on 10/24/06. The project was identifed as your project "AA 06166.20 ".

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables .

All samples were received in proper condition meeting the NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

### *Analysis Results*

| Client Sample ID | | | SB-3 4-6' | | SB-4 2' | |
|---|---|---|---|---|---|---|
| York Sample ID | | | 06100777-09 | | 06100777-11 | |
| Matrix | | | SOIL | | SOIL | |
| Parameter | Method | Units | Results | MDL | Results | MDL |
| TCLP Lead | SW846-1311/6010 | mg/L | 13.9 | 0.005 | 0.971 | 0.005 |

| Client Sample ID | | | SB-6 2' | | SB-7 3' | |
|---|---|---|---|---|---|---|
| York Sample ID | | | 06100777-16 | | 06100777-19 | |
| Matrix | | | SOIL | | SOIL | |
| Parameter | Method | Units | Results | MDL | Results | MDL |
| TCLP Lead | SW846-1311/6010 | mg/L | 9.09 | 0.005 | 50.9 | 0.005 |

**Units Key:** For Waters/Liquids: mg/L = ppm ; ug/L = ppb For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

YORK

Report Date: 11/9/2006
Client Project ID: AA 06166.20
York Project No.: 06100777 Addendum

**Notes for York Project No. 06100777 A**

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All samples were received in proper condition for analysis with proper documentation.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

**Approved By:** Robert Q. Bradley
Managing Director

**Date:** 11/9/2006

YORK

# YORK

Analytical Laboratories, Inc.

120 Research Drive
Stratford, CT 06615
203.325.1371 FAX 203.357-0166

0610077

| Company Name | Report to: | Invoice to: | Project ID/No. | Samples Collected by (signature) |
|---|---|---|---|---|
| Ecosystems Strategies, Inc. | [redacted] | Brenda | AA 06166.20 | [redacted] Name (printed) |

| Sample No. | Location/ID | Date Sampled | Sample Matrix: Water | Soil | Air | Other | Analyses Requested | Container Desc. |
|---|---|---|---|---|---|---|---|---|
| | SB-1 0"-4" | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-1 20"-24" | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-1 4'-6' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-2 0"-6" | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-2 2' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-2 4'-6' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-3 6"-1' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-3 2' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-3 4'-6' | 10/20/2006 | | X | | | TCLP Total Lead | 1, 4 oz jar |
| | SB-4 0"-6" | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |

*Chain-of-Custody Record*

| | | | |
|---|---|---|---|
| Bottles Relinquished from Lab by | Date/Time | Samples Relinquished by | Date/Time 10/23/06 11am |
| Bottles received in field by | Date/Time | Samples Relinquished by | Date/Time |
| Samples received by 10/24 | Date/Time 10/24 12 4:00 | Samples received in LAB by | Date/Time |

*Comments/Special Instructions*

4.1°C

*Turn-Around Time Requested- Specify Date Expected if RUSH Requested: DATE DUE FOR RUSH:*

X STANDARD ~~X~~ RUSH(Define)_____

# YORK

Analytical Laboratories, Inc.

120 RESEARCH DRIVE
STRATFORD, CT 06615
203.325.1371 FAX 203.357-0166

06100771

| Company Name | Report to: | Invoice to: | Project ID/No. | |
|---|---|---|---|---|
| Ecosystems Strategies, Inc. | [redacted] | Brenda | AA 06166.20 | Samples Collected by (signature) [redacted] Name (printed) |

| Sample No. | Location/ID | Date Sampled | Sample Matrix: Water | Soil | Air | Other | Analyses Requested | Container Desc. |
|---|---|---|---|---|---|---|---|---|
| | SB-4 2' | 10/20/2006 | | X | | | TCLP Total Lead | 1, 4 oz jar |
| | SB-4 4'-6' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-5 3'-4' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-5 4'-6' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-6 0"-6" | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-6 2' | 10/20/2006 | | X | | | TCLP Total Lead | 1, 4 oz jar |
| | SB-6 4'-6' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-7 1'-2' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-7 3' | 10/20/2006 | | X | | | TCLP Total Lead | 1, 4 oz jar |
| | SB-7 4'-6' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |

**Chain-of-Custody Record**

| | | | |
|---|---|---|---|
| Bottles Relinquished from Lab by | Date/Time | [redacted] Samples Relinquished by | 10/23/06 11am Date/Time |
| Bottles received in field by | Date/Time | Samples Relinquished by | Date/Time |
| Samples received by 10/24 | | 10/24 120 Date/Time | |
| Samples received in LAB by | | 1108 Date/Time | |

*Comments/Special Instructions*

4.1-C

***Turn-Around Time Requested- Specify Date Expected if RUSH Requested: DATE DUE FOR RUSH:***

STANDARD RUSH(Define)_____

**Ecosystems Strategies, Inc.**
*Environmental Services and Solutions*
24 Davis Avenue, Poughkeepsie, New York 12603-2332
TEL: 845-452-1658 • FAX: 845-485-7083 •
mail@ecosystemsstrategies.com

# TRANSMITTAL COVER SHEET

**DATE:** 11/6/2006 **PAGES: 3** (including cover sheet)

**TO:** Phil Murphy

**FROM:** John Petronella

**FAX:** 203-357-0166 **PHONE:**

**RE:** Additional analysis (TCLP lead)

COMMENTS:

Phil,

Attached, chain with samples identified to be run for TCLP lead per our discussion. There are 4 total (SB-3 4'-6', SB-4 2', SB-6 2', and SB-7 3').

If you have any questions, please me at my office at (845) 452-1658 ext 18.

Regards,

John W. Petronella

cc: File



11/7/06

YORK
ANALYTICAL LABORATORIES, INC.

# Technical Report

prepared for

**Ecosystems Strategies, Inc.**
**24 Davis Avenue**
**Poughkeepsie, NY 12603**
**Attention: John Petronella**

Report Date: 11/16/2006
***Re: Client Project ID: AA06166.20***
York Project No.: 06100871 Addendum

CT License No. PH-0723 New York License No. 10854

120 RESEARCH DRIVE STRATFORD, CT 06615 (203) 325-1371 FAX (203) 357-0166

Report Date: 11/16/2006
Client Project ID: AA06166.20
York Project No.: 06100871 Addendum

**Ecosystems Strategies, Inc.**
24 Davis Avenue
Poughkeepsie, NY 12603
Attention: John Petronella

## Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on 10/27/06. The project was identifed as your project "AA06166.20 ".

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables .

All samples were received in proper condition meeting the NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

### *Analysis Results*

| Client Sample ID | | | SB-9 3'-4' | |
|---|---|---|---|---|
| York Sample ID | | | 06100871-01 | |
| Matrix | | | SOIL | |
| Parameter | Method | Units | Results | MDL |
| TCLP Lead | SW846-1311/6010 | mg/L | 19.9 | 0.005 |

**Units Key:** For Waters/Liquids: mg/L = ppm ; ug/L = ppb For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

### Notes for York Project No. 06100871

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All samples were received in proper condition for analysis with proper documentation.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

**Approved By:** Robert Q. Bradley
Managing Director

**Date:** 11/16/2006

YORK

**Ecosystems Strategies, Inc.**
*Environmental Services and Solutions*
24 Davis Avenue, Poughkeepsie, New York 12603-2332
TEL: 845-452-1658 • FAX: 845-485-7083 •
mail@ecosystemsstrategies.com

# TRANSMITTAL COVER SHEET

**DATE:** 11/13/2006 **PAGES:** 3 (including cover sheet)

**TO:** Phil Murphy

**FROM:** John Petronella

**FAX:** 203-357-0166 **PHONE:**

**RE:** Additional analysis (TCLP lead)

COMMENTS:

Phil,

Attached, chain with samples identified to be run for TCLP lead per my voice mail. There are 4 total (SB-1 20"-24", SB-5 4'-6', SB-9 3'-4', and SB-11 2'-3').

If you have any questions, please me at my office at (845) 452-1658 ext 18.

Regards,

John W. Petronella

cc: File



11/13/06
2:58PM

06100871

# YORK

Analytical Laboratories, Inc.

120 Research Drive

Stratford, CT 06615

203.325.1371 FAX 203.357-0166

Page 4 of 4

| Company Name | Report to: | Invoice to: | Project ID/No. |
|---|---|---|---|
| Ecosystems Strategies, Inc. | John Petronella | Brenda | AA 06166.20 |

Samples Collected by (signature)

John Petronella

Name (printed)

| Sample No. | Location/ID | Date Sampled | Sample Matrix: Water | Soil | Air | Other | Analyses Requested | Container Desc. |
|---|---|---|---|---|---|---|---|---|
| | SB-11 5'-6' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-8 3'-4' | 10/20/2006 | | X | | | TCLP Total Lead | 2, 2oz jars |
| | | | | | | | | |
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Chain-of-Custody Record

| Bottles Relinquished from Lab by | Date/Time | Samples Relinquished by | Date/Time | Samples received by | Date/Time |
|---|---|---|---|---|---|
| Bottles received in field by | Date/Time | Samples Relinquished by | Date/Time | Samples received in LAB by | Date/Time |

Comments/Special Instructions

Rec'd C.O.C. - 10/27/06

Turn-Around Time Requested- Specify Date Expected

If RUSH Requested: DATE DUE FOR RUSH:

✓ STANDARD X RUSH(Define)

45 per John Petronella 10/27/06

YORK
ANALYTICAL LABORATORIES, INC.

# Technical Report

prepared for

**Ecosystems Strategies, Inc.**
**24 Davis Avenue**
**Poughkeepsie, NY 12603**
**Attention: John Petronella**

Report Date: 11/16/2006
***Re: Client Project ID: AA 06166.20***
York Project No.: 06100777 Addendum 2

CT License No. PH-0723 New York License No. 10854

120 RESEARCH DRIVE STRATFORD, CT 06615 (203) 325-1371 FAX (203) 357-0166

Report Date: 11/16/2006
Client Project ID: AA 06166.20
York Project No.: 06100777 Addendum 2

**Ecosystems Strategies, Inc.**
24 Davis Avenue
Poughkeepsie, NY 12603
Attention: John Petronella

---

## Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on 10/24/06. The project was identifed as your project "AA 06166.20 ".

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables .

All samples were received in proper condition meeting the NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

## *Analysis Results*

| Client Sample ID | | | SB-1 20-24in | | SB-5 4-6' | |
|---|---|---|---|---|---|---|
| York Sample ID | | | 06100777-02 | | 06100777-14 | |
| Matrix | | | SOIL | | SOIL | |
| Parameter | Method | Units | Results | MDL | Results | MDL |
| TCLP Lead | SW846-1311/6010 | mg/L | 1.68 | 0.005 | 2.98 | 0.005 |

| Client Sample ID | | | SB-11 2-3' | |
|---|---|---|---|---|
| York Sample ID | | | 06100777-30 | |
| Matrix | | | SOIL | |
| Parameter | Method | Units | Results | MDL |
| TCLP Lead | SW846-1311/6010 | mg/L | 5.48 | 0.005 |

**Units Key:** For Waters/Liquids: mg/L = ppm ; ug/L = ppb For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

YORK

Report Date: 11/16/2006
Client Project ID: AA 06166.20
York Project No.: 06100777 Addendum 2

**Notes for York Project No. 06100777 A2**

1. The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. This MDL is the REPORTING LIMIT and is based upon the lowest standard utilized for calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All samples were received in proper condition for analysis with proper documentation.
6. All analyses conducted met method or Laboratory SOP requirements.
7. It is noted that no analyses reported herein were subcontracted to another laboratory.

**Approved By:** _____ **Date:** 11/16/2006
Robert Q. Bradley
Managing Director

YORK

**Ecosystems Strategies, Inc.**
*Environmental Services and Solutions*
24 Davis Avenue, Poughkeepsie, New York 12603-2332
TEL: 845-452-1658 • FAX: 845-485-7083 •
mail@ecosystemsstrategies.com

# TRANSMITTAL COVER SHEET

**DATE:** 11/13/2006 **PAGES:** 3 (including cover sheet)

**TO:** Phil Murphy

**FROM:** John Petronella

**FAX:** 203-357-0166 **PHONE:**

**RE:** Additional analysis (TCLP lead)

COMMENTS:

Phil,

Attached, chain with samples identified to be run for TCLP lead per my voice mail. There are 4 total (SB-1 20"-24", SB-5 4'-6', SB-9 3'-4', and SB-11 2'-3').

If you have any questions, please me at my office at (845) 452-1658 ext 18.

Regards,

John W. Petronella

cc: File



11/13/06
2:58PM

# YORK

Analytical Laboratories, Inc.

120 Research Drive

Stratford, CT 06615

203.325.1371 FAX 203.357-0166



| Company Name | Report to: | Invoice to: | Project ID/No. | Samples Collected by (signature) |
|---|---|---|---|---|
| Ecosystems Strategies, Inc. | John Petronella | Brenda | AA 06166.20 | John Petronella (Name printed) |

| Sample No. | Location/ID | Date Sampled | Sample Matrix: Water | Soil | Air | Other | Analyses Requested | Container Desc. |
|---|---|---|---|---|---|---|---|---|
| | SB-1 0"-4" | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-1 20"-24" | 10/20/2006 | | X | | | TCLP Total Lead | 1, 4 oz jar |
| | SB-1 4'-6' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-2 0"-6" | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-2 2' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-2 4'-6' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-3 6"-1' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-3 2' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-3 4'-6' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-4 0"-6" | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |

**Chain-of-Custody Record**

| | | | |
|---|---|---|---|
| Bottles Relinquished from Lab by | Date/Time | Samples Relinquished by | Date/Time: 10/23/06 11am |
| Bottles received in field by | Date/Time | Samples Relinquished by | Date/Time |
| | | Samples received by | Date/Time: 10/24 12d |
| | | Samples received in LAB by | Date/Time |

*Comments/Special Instructions*

*Turn-Around Time Requested- Specify Date Expected if RUSH Requested: DATE DUE FOR RUSH:*

X STANDARD ~~X~~ RUSH(Define)_____

11/13/2006 14:14 4857083 PAGE 02

**YORK**
Analytical Laboratories, Inc.
120 Research Drive
Stratford, CT 06615
203.325.1371 FAX 203.357-0166



| Company Name | Report to: | Invoice to: | Project ID/No. | |
|---|---|---|---|---|
| Ecosystems Strategies, Inc. | John Petronella | Brenda | AA 06166.20 | Samples Collected by (signature)<br>John Petronella<br>Name (printed) |

| Sample No. | Location/ID | Date Sampled | Sample Matrix | | | | Analyses Requested | Container Desc. |
|---|---|---|---|---|---|---|---|---|
| | | | Water | Soil | Air | Other | | |
| | SB-4 2' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-4 4'-6' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-5 3'-4' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-5 4'-6' | 10/20/2006 | | X | | | TCLP Total Lead | 1, 4 oz jar |
| | SB-6 0"-6" | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-6 2' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-6 4'-6' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-7 1'-2' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-7 3' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-7 4'-6' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |

***Chain-of-Custody Record***

| | | | | | |
|---|---|---|---|---|---|
| Bottles Relinquished from Lab by | Date/Time | Samples Relinquished by | 10/23/06 11am | Samples received by | 10/24 120 Date/Time |
| Bottles received in field by | Date/Time | Samples Relinquished by | Date/Time | Samples received in LAB by | Date/Time |

*Comments/Special Instructions*

***Turn-Around Time Requested- Specify Date Expected if RUSH Requested: DATE DUE FOR RUSH:***

X STANDARD RUSH(Define)_____

# YORK

Analytical Laboratories, Inc.

120 Research Drive

Stratford, CT 06615

203.325.1371 FAX 203.357-0166



| Company Name | Report to: | Invoice to: | Project ID/No. | Samples Collected by (signature) |
|---|---|---|---|---|
| Ecosystems Strategies, Inc. | John Petronella | Brenda | AA 06166.20 | John Petronella (Name printed) |

| Sample No. | Location/ID | Date Sampled | Sample Matrix: Water | Soil | Air | Other | Analyses Requested | Container Desc. |
|---|---|---|---|---|---|---|---|---|
| | SB-8 0'-1' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-8 2'-3' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-8 4'-6' | 10/20/2006 | | X | | | Total Lead | 1, 4 oz jar |
| | SB-9 1'-2' | 10/20/2006 | | X | | | Total Lead | 2, 2 oz jars |
| | SB-9 4'-6' | 10/20/2006 | | X | | | Total Lead | 2, 2 oz jars |
| | SB-10 6"-1' | 10/20/2006 | | X | | | Total Lead | 2, 2 oz jars |
| | SB-10 3'-4' | 10/20/2006 | | X | | | Total Lead | 2, 2 oz jars |
| | SB-10 4'-6' | 10/20/2006 | | X | | | Total Lead | 2, 2 oz jars |
| | SB-11 0"-6" | 10/20/2006 | | X | | | Total Lead | 2, 2 oz jars |
| | SB-11 2'-3' | 10/20/2006 | | X | | | TCLP Total Lead | 2, 2 oz jars |

**Chain-of-Custody Record**

| | | | |
|---|---|---|---|
| Bottles Relinquished from Lab by | Date/Time | Samples Relinquished by | Date/Time 10/23/06 |
| Bottles received in field by | Date/Time | Samples Relinquished by | Date/Time |
| | | Samples received by | Date/Time 10/24 12:00 |
| | | Samples received in LAB by | Date/Time |

*Comments/Special Instructions*

***Turn-Around Time Requested- Specify Date Expected if RUSH Requested: DATE DUE FOR RUSH:***

X STANDARD _ RUSH(Define)_____