Remedial Investigation/Feasibility Study Work Plan for 640 Trolley Boulevard Site (8-28-108), Gates, New York

Prepared for

New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233

Prepared by

EA Engineering, P.C., and Its Affiliate
EA Science and Technology
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June 2006
EA Project No. 14368.02

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20 June 2006
Christopher J. Canonica, P.E., Program Manager — Date
EA Engineering, P.C.

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David W. Eck, P.E., Project Manager — Date
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20 June 2006
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June 2006
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1. INTRODUCTION

The New York State Department of Environmental Conservation (NYSDEC) tasked EA Engineering, P.C. and its affiliate EA Science and Technology (EA), to perform a remedial investigation/feasibility study (RI/FS) at 640 Trolley Boulevard in the Town of Gates, Monroe County, New York (Figure 1).

The Work Assignment will be conducted under the NYSDEC State Superfund Standby Contract (Work Assignment No. D004438-2). This RI/FS Work Assignment consists of the following three tasks:

Task 1 – Background review and preparation of work plans
Task 2 – Site remedial investigation
Task 3 – Preparation of Feasibility Study

A brief summary of Task 1 is discussed below. Tasks 2 and 3 are discussed in Sections 2 and 3.

1.1 BACKGROUND REVIEW AND PREPARATION OF WORK PLANS

A review of available historic and/or background information was conducted in April 2006 as part of Task 1. Based on the information obtained during that review process, two work plans were prepared as part of Task 1; i.e., a Project Management Work Plan and this RI/FS Work Plan. The Project Management Work Plan was submitted to NYSDEC for review on 16 May 2006.

A scoping session with the NYSDEC and EA was held on 18 May 2006. Based on the discussions of that scoping session, the RI activities detailed in this RI/FS Work Plan (Section 2) have been modified from the original Work Assignment.

In addition, EA was authorized under Task 1 to generate a Generic Health and Safety Plan (HASP) and Generic Quality Assurance Project Plan (QAPP), which will be used for work conducted under the NYSDEC State Superfund Standby Contracts (D004438 and D004441). The Generic HASP and QAPP are being submitted under a separate cover, but concurrently with this RI/FS Work Plan.

EA also was authorized under Task 1 to establish standby subcontract agreements for laboratory analysis, drilling, data validation, and professional services (surveying and engineering). The standby subcontracts are being procured in accordance with NYSDEC State Superfund Standby Contracts (D004438 and D004441) and the *Draft Handbook for Standby Consultant Contracts (for DER Standby Consultants)*[1]. The standby subcontract information will be submitted separately at a later date.

[1] NYSDEC. 2005. Draft Handbook for Standby Consultant Contracts (for DER Standby Consultants). December.

2. REMEDIAL INVESTIGATION

The RI is to evaluate existing on-site conditions, groundwater flow direction, the nature and extent of the contamination, and possible human exposure to the contaminants. The RI activities will include the following:

- Field investigation
- Data validation/determination of usability
- Health exposure assessment
- Fish and wildlife impact analysis
- Remedial Investigation Report
- Public meetings preparation.

2.1 FIELD INVESTIGATION ACTIVITIES

The following field activities will be completed as part of the field investigation portion of the Work Assignment:

- Direct-push/geoprobe drilling program
- Subsurface drilling program
- Groundwater sampling
- Surface water and sediment sampling
- Indoor air monitoring program
- Site surveying

Details of each field activity are provided in the Field Activities Plan (Appendix A).

2.2 DATA VALIDATION/DETERMINATION OF USABILITY

The collection and reporting of reliable data is a primary focus of the sampling and analytical activities. Laboratory and field data will be reviewed to determine the limitations, if any, of the data, and to ensure that the procedures are effective and that the data generated provides sufficient information to achieve the project objectives. An independent qualified third-party will evaluate the analytical data according to NYSDEC DER Data Usability Summary Report (DUSR) guidelines, as detailed in the Generic QAPP discussed in Section 5.

2.3 HEALTH EXPOSURE ASSESSMENT

A qualitative health exposure assessment will be performed. The assessment will be designed to identify potential exposure pathways of site contaminants to the general public. If deemed necessary, a quantitative assessment may be performed in the FS on contaminants of concern and exposure routes of interest. For budget purposes, it has been assumed that a quantitative assessment will not be performed.

2.4 FISH AND WILDLIFE IMPACT ANALYSIS

A Fish and Wildlife Impact Analysis through step II-B will be performed, in accordance with the NYSDEC Division of Fish and Wildlife guidance memorandum[2]. If necessary, the Fish and Wildlife Analysis step III will be added during the FS. For budget purposes, it has been assumed that the Fish and Wildlife Analysis step III will not be performed.

2.5 REMEDIAL INVESTIGATION REPORT

EA will prepare a RI Report, which will include data gaps, if any, and any need for Interim Remedial Measures. The report will include at a minimum:

- Summary of task activities
- Conceptual site model, which will include a site operation history, the environmental setting, a geological description, a contamination assessment with a description of the nature and extent of contamination, a hydrogeologic model, an evaluation of contaminant fate and transport, and the potential public health and environmental concerns
- Summary tables of physical and analytical results
- Conclusions and recommendations.

The findings of the RI will be reduced by EA, analyzed, and made available to the NSYDEC and the New York State Department of Health for review. These findings will be used to determine if the collection of additional data is required, if a Supplemental RI is necessary, or if sufficient data exists to start the FS.

EA will submit three hard copies of the draft RI Report, as well as a copy on disk (WordPerfect 8 or compatible format). Tables and spreadsheets will also be submitted electronically (Microsoft® Excel 2000 or compatible). The final version of the RI Report will include five hard copies and one copy in portable document format.

2.6 PUBLIC MEETING PREPARATION

The RI/FS will include participation in one public informational meeting at the conclusion of the RI/FS. The NYSDEC will coordinate the meeting and EA will present the results of the RI and answer technical questions regarding the methodologies and findings. EA will provide visual aids to the NYSDEC for the meeting. The visual aids may include large site maps on poster boards, data summary sheets, photographs and/or slides of site activities. EA will incorporate information collected by the public agencies into the appropriate RI and/or FS reports.

[2] NYSDEC. 1994. Fish and Wildlife Impace Analysis. October.

3. FEASIBILITY STUDY

The major objective of the FS will be to support an informed risk management decision regarding which remedy appears to be the most appropriate, cost effective, and protective of public health and the environment. The FS will be conducted in accordance with the most recent versions of the 1988 EPA publication *Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA* (U.S. Environmental Protection Agency (EPA) l540lG-891004). With limited options for remedial actions, the scope of the feasibility study will be focused. If source areas were located during the RI, EA will assess whether they need to be addressed and determine how to address them.

EA will conduct the specific subtasks to achieve the following objectives:

3.1 STANDARDS, CRITERIA, AND GUIDANCE

Standards, Criteria, and Guidance (SCGs) for each contaminant detected and SCGs necessary for evaluation of remedial actions will be identified and compared to existing conditions on the site.

3.2 DEVELOPMENT OF REMEDIAL ACTION OBJECTIVES

EA will prepare remedial action objectives for all contaminants of concern and effected media. EA will research appropriate guidance and evaluate background analytical results to determine the remedial action objectives. Guidance to evaluate remedial action objectives includes, but is not limited to, NYSDEC DER-10 *Draft Technical Guidance for Site Investigation and Remediation*[3].

3.3 SCOPING AND THE DEVELOPMENT OF REMEDIAL ALTERNATIVES

A scoping meeting between the NYSDEC and EA will be held to discuss the remedial alternatives applicable to the site. Based on discussions during this meeting, EA will submit a brief letter report with the remedial alternatives to be considered for the site along with the conceptual details of the remedial alternative, which will be reviewed by the NYSDEC. As per guidance from the EPA, the FS will be focused.

3.4 DETAILED ANALYSIS

The detailed analysis of the remedial alternatives will include evaluation of the following factors:

- Overall protection of human health and the environment
- Compliance with SCGs
- Long-term effectiveness and permanence
- Reduction of toxicity, mobility, and volume

[3] NYSDEC. 2002. Draft Technical Guidance for Site Investigation and Remediation. December.

- Short-term effectiveness
- Implementability
- Cost.

3.5 REPORT PREPARATION

The FS Report will include discussions of each of these evaluation criteria for each of the alternatives (or technologies) being considered. A summary, including a comparative analysis, will also be included in the report. EA will recommend a preferred remedy that is protective of public health and the environment, complies to the maximum extent practicable with SCGs and cleanup objectives, reflects a preference for treatment over simple disposal, and is cost effective. EA will prepare a conceptual plan for implementing the preferred alternative and will verify its feasibility.

The report will include limited site background and site characterization discussions as this information will be available in the RI report. The discussions will be limited to only the information necessary to justify the findings of the FS. The report will include a conceptual design of the preferred remedy, which includes a detailed engineer's cost estimate. The FS report will be stamped by a professional engineer in accordance with the New York State Education Law. Three hard copies of the initial report and five hard copies of the final report, along with one copy in portable document format will be submitted to NYSDEC.

3.6 PROPOSED REMEDIAL ACTION PLAN AND PUBLIC MEETING

The NYSDEC will prepare a Proposed Remedial Action Plan, which describes the preferred remedy. EA will provide the tables and figures from RI/FS reports to support this plan, and review and comment on an initial draft of the plan. The NYSDEC will schedule and lead a public meeting to discuss the findings of the FS. EA will attend, present the results of the RI/FS, and provide assistance to the NYSDEC in preparation of visual aides.

4. HEALTH AND SAFETY PLAN

A Generic HASP was developed for the Work Assignments conducted under the NYSDEC Standby Contracts D004438 and D004441. As previously stated, the Generic HASP is being submitted under a separate cover, but concurrently with this RI/FS Work Plan. An addendum to the Generic HASP was developed to address site-specific health and safety issues (Appendix B) for the proposed activities to complete the RI/FS.

Additionally, a Community Air Monitoring Plan has been prepared (Appendix C), due to the anticipated intrusive field activities (e.g., drilling) to be conducted under the RI portion of this Work Assignment.

5. QUALITY ASSURANCE PROJECT PLAN

A Generic QAPP has been developed describing sampling, analysis, testing and monitoring that could potentially be conducted during Work Assignments under the NYSDEC Standby Subcontracts D004438 and D004441. As previously stated, the Generic QAPP is being submitted under separate cover, but concurrently with this RI/FS Work Plan. An addendum to the Generic QAPP was developed to address site-specific quality assurance/quality control issues (Appendix D) for the proposed activities to complete the RI/FS.

6. FINAL BUDGET

The final budget for this Work Assignment (Schedule 2.11) is provided in Appendix E. In addition, the supporting documentation of bids used to develop the final budget is provided in Appendix F.

7. PROJECT ORGANIZATION AND SCHEDULE

7.1 PROJECT ORGANIZATION

The RI/FS will be managed through an organized effort of scientific and engineering personnel, and technical resources. These efforts will employ pre-approved field procedures, sampling techniques, and analytical methods to accomplish the project objectives. Effective program organization will accommodate these requirements while maintaining a manageable degree of control over these activities.

The project organization for the accomplishment of this effort is illustrated on the figure included in Appendix G. The key technical management of this investigation will be accomplished by the Project Manger and assigned project team. Additional individuals will be made available, if warranted. Areas of work that require subcontracting are discussed in Section 8.

7.2 PROJECT MANAGEMENT

EA will provide oversight, coordination, health and safety, field support, and evaluation of analytical data. EA will also be responsible for evaluation of analytical test results, which will be submitted to NYSDEC. The EA staff members involved in this project are detailed below:

- ***Tom Porter, EA Project Quality Assurance/Quality Control (QA/QC) Officer*** - The QA/QC Officer will provide guidance on technical matters and review technical documents relating to the project. He will assess the effectiveness of the QA/QC program and recommend modifications when applicable. Additionally, the QA/QC Officer may delegate technical guidance to specially trained individuals under his direction.

- ***David Eck, P.E., EA Project Manager*** - The Project Manager provides overall coordination and preparation of the project within EA. This includes coordination with NYSDEC and New York State Department of Health, budget control, subcontractor performance, implementation of the Quality Assurance Project Plan, and allocation of resources and staffing to implement both the QA/QC program and the site HASP.

- ***Christie Sobol, E.I.T., EA Project QA/QC Coordinator*** - The Project QA/QC Coordinator is responsible for project-specific supervision and monitoring of the QA/QC program. She will ensure that field personnel are familiar with and adhere to proper sampling procedures, field measurement techniques, sample identification, and chain-of-custody procedures. She will coordinate with the analytical laboratory for the receipt of samples and reporting of analytical results, and will recommend actions to correct deficiencies in the analytical protocol or sampling. Additionally, she will prepare QA/QC reports for management review.

- ***Robert Casey, EA Site Manager*** - The Site Manager will serve as the onsite contact person for field investigations and tests. He will be responsible for coordinating the field activities; including inspecting and replacing equipment, preparing daily and interim reports, scheduling sampling, and coordinating shipment and receipt of samples and containers.

The Program Safety and Health Officer is also an integral part of the project implementation team.

- ***Kris Hoiem, EA Program Health and Safety Officer*** - The Program Safety and Health Officer will be responsible for the development, final technical review, and approval of the HASP. In addition, he will provide authorization, if warranted, to modify personal protective equipment requirements based on field conditions. He will also provide final review of all safety and health monitoring records and personal protective equipment changes to ensure compliance with the provisions of the HASP.

7.3 PROJECT SCHEDULE

The proposed schedule for completion of the RI/FS is presented in Appendix H. The schedule includes tasks up to the completion of the FS report associated with this Work Assignment. The schedule assumes a field activity start date of July 2006 (Direct Push/ Geoprobe Drilling Program). The schedule does not account for delays due to unforeseen site conditions (e.g., inclement weather).

Every attempt will be made to adhere to the schedule presented. Unexpected delays will be documented and reported to NYSDEC in a timely fashion. In the event that the schedule needs to be modified, EA will contact NYSDEC for approval of the updated schedule.

8. SUBCONTRACTORS

Successful implementation of the field and reporting activities associated with this Work Assignment will require the following types of subcontractors:

- A drilling subcontractor to drill soil borings and install bedrock groundwater monitoring wells
- An offsite laboratory to analyze various environmental samples (groundwater and soil)
- An offsite laboratory to analyze various indoor air samples (sub-slab soil vapor, indoor air, and outdoor air)
- A surveyor to assist in the development of a site plan depicting general site features as well as the locations of all soil borings, new and existing monitoring wells, air samples, and surface water/sediment locations
- A data validator to perform a usability analysis of the laboratory data associated with the field samples.

In accordance with NYSDEC's Handbook for Standby Consultant Contracts, a minimum of five written responsive quotes were obtained for work estimated at more than $20,000 (i.e., the offsite laboratory analysis of various environmental samples and the drilling services). A single written responsive quote from a women-owned business enterprise (WBE) was obtained for both the offsite laboratory analysis of various indoor air samples and the data validation services. Both of these services are estimated at less than $10,000 and a single written responsive quote from a minority and women-owned business enterprise (M/WBE) firm meets the minimum requirements of the NYSDEC's Handbook for Standby Consultant Contracts. A single written responsive quote was also obtained for the surveying services from a MBE firm, which also meets the minimum procurement requirements for professional services.

EA proposes to have Con-Test Analytical Laboratory, Inc., a New York State Department of Economic Development (NYSDED) certified WBE, perform the laboratory analyses of indoor air samples. Environmental Data Services, Inc., also a NYSDED certified WBE, is proposed to perform the data validation services for the 640 Trolley Boulevard RI/FS Work Assignment. EA proposes to use Om P. Popli, P.E., L.S., P.C., a NYSDED certified MBE, to perform the surveying services required for completion of this work assignment, based on several factors including geographic location to the 640 Trolley Boulevard site.

Seven quotes were submitted for the analytical laboratory services for the analysis of various environmental samples by the following laboratories:

- Life Science Laboratories, Inc. – Brittonfield
- Hampton-Clarke, Inc.
- Chemtech Consulting Group, Inc.

- Mitkem Corporation
- STL Buffalo
- Accutest Laboratories
- Columbia Analytical Services

Six quotes were submitted for the drilling services by the following companies:

- GeoLogic NY Inc.
- SJB Services, Inc.
- Nothnagle Drilling, Inc.
- Parratt-Wolff, Inc.
- R. Rindfuss Drilling, L.P.
- Geo-Environmental Drilling Company, Inc.

The subcontractors presenting the lowest qualified bid were selected. Based on evaluation of bids solicited in conjunction with preparation of this RI/FS Work Plan, EA proposes the list of subcontractors provided below. Additional information on the subcontractors is included in Appendix I.

Activity	Subcontractor	Projected Contract Amount
Analytical Laboratory (Air)	Con-Test Analytical Laboratory	$3,745.00
Analytical Laboratory (Groundwater/ Surface Water/Sediment/Soil)	Life Science Laboratories, Inc. - Brittonfield	$25,418.00
Driller	GeoLogic NY Inc.	$24,925.00
Surveyor	Om P. Popli, P.E., L.S., P.C.	$4,407.95
Data Validation	Environmental Data Services, Inc.	$6,054.00

9. MINORITY/WOMEN-OWNED BUSINESS ENTERPRISE-EQUAL EMPLOYMENT OPPORTUNITY UTILIZATION PLAN

It is understood that EA is required by NYSDEC to make good faith efforts towards the realization of M/WBE-Equal Employment Opportunity (EEO) goals established under the Standby Contracts. In accordance with the Standby Contracts, EA prepared a Consultant/Contractor Detailed M/WBE-EEO Utilization Plan, which is Section 9.1 of this RI/FS work plan. The M/WBE-EEO Utilization Plan states that EA's goal is to award 20 percent of the total contract costs to M/WBE firms. Specifically, the goal is to award 15 percent of the total contract costs to MBE firms ($29,262) and 5 percent to WBE firms ($9,754). Additionally, EA's goal is to have 10 percent of EA's own workforce for the project be minority and 10 percent female.

EA solicited quotes for drilling services from six drilling companies. Based on the evaluation of the bids presented for these services, EA proposes the use of GeoLogic NY Inc. as a subcontractor in conjunction with performance of the RI/FS who are NYSDED certified WBE, as shown below. Additionally, EA proposes to use M/WBE subcontractors (as identified below) to perform the laboratory analyses of various air samples, surveying and data validation services required to conduct the RI/FS.

Subcontractor	Classification	Service to be Performed	Projected Contract Amount ($)	Award Date	Contract Start Date	Projected Completion Date
Con-Test Analytical Laboratory, Inc.	WBE	Lab Analysis (Air)	3,745.00	TBD		
Om P. Popli, P.E., L.S., P.C.	MBE	Surveying	4,407.95	TBD		
Environmental Data Services, Inc.	WBE	Data Validation	6,054.00	TBD		
GeoLogic NY Inc.	WBE	Drilling	24,925.00	TBD		
NOTE: TBD = To be determined.						

Approximately 17 percent of the total contract costs is proposed to be performed by WBE firms, which exceeds the Standby Contract MBE utilization goals. The MBE utilization goal is not anticipated to be met for this project, although approximately 2.2 percent of the total contract costs is proposed to be awarded to a MBE firm.

As identified in the M/WBE-EEO Utilization Plan, approximately 33 percent of EA's total contract hours for the RI/FS is proposed to be worked by female employees (Section 9.1). However, none of EA's total contract hours are anticipated to be worked by minority employees.

9.1 CONSULTANT/CONTRACTOR DETAILED M/WBE-EEO UTILIZATION PLAN

The plan consists of four forms, which are included Appendix J.

Legend

★ 640 Trolley Blvd

0 625 1,250 2,500 Feet

Source: Monroe County Division of GIS Services, ESRI Base Layer

EA Engineering, Science, and Technology, Inc.

640 TROLLEY BOULEVARD SITE (8-28-108)
RI/FS WORK PLAN
GATES, NEW YORK

FIGURE 1
Site Location

PROJECT MGR:	DESIGNED BY:	CREATED BY:	CHECKED BY:	SCALE:	DATE:	PROJECT NO:	FILE NO:
DWE	CJS	CJS	CWS	AS SHOWN	JUNE 2006	14368.02	GIS/PROJECTS/ FIGURE1.MXD

Appendix A

Field Activities Plan

Field Activities Plan
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1. PROJECT BACKGROUND

The New York State Department of Environmental Conservation (NYSDEC) tasked EA Engineering, P.C. and its affiliate EA Science and Technology (EA), to perform a remedial investigation/feasibility study (RI/FS) at 640 Trolley Boulevard in the Town of Gates, Monroe County, New York (Figure 1).

The Work Assignment will be conducted under the NYSDEC State Superfund Standby Contract (Work Assignment No. D004438-2). An initial step in the Remedial Investigation/Feasibility Study (RI/FS) is preparation of this draft Field Activities Plan (FAP), which describes the anticipated field activities. The elements of this FAP were prepared in accordance with the most recent and applicable guidelines and requirements of NYSDEC and the New York State Department of Health (NYSDOH). This draft FAP was developed as part of the Project Management Work Plan for the 640 Trolley Boulevard site in Gates, New York.

2. DESCRIPTION OF FIELD ACTIVITIES

The primary focus of this Work Assignment is to evaluate existing on-site conditions, groundwater flow direction, evaluate the nature and extent of the contamination, and possible human exposure to the contaminants, as well as develop a remedial approach to address site contamination. The following tasks will be completed as part of the site investigation portion of the RI/FS (Task 2):

- Direct-Push/Geoprobe drilling program
- Subsurface drilling program
- Groundwater sampling
- Surface water and sediment sampling
- Indoor air monitoring program
- Site surveying.

Details of each field activity are provided below.

3. DIRECT-PUSH/GEOPROBE DRILLING PROGRAM

A direct-push drilling program will be implemented as part of this Work Assignment to evaluate the shallow overburden unit. During the initial Site Visit for this Work Assignment, the property owner (Emerson Enterprises) indicated that the loading dock area north of the 640 Trolley Boulevard building would be paved during the spring of 2006. The NYSDEC initiated an Immediate Investigation Work Assignment (IIWA) in April 2006, which included collecting soil samples from 33 soil borings and removing approximately 130 cubic yd of soil impacted with PCBs from this area. Therefore, this area will not be included in the direct-push drilling program for this Work Assignment.

In the remaining area north of the 640 Trolley Boulevard building, EA anticipates that soil borings will be installed in a grid pattern of approximately 15-ft centers as shown on Figure 2. Eight of the shallow soil borings are anticipated to be advanced beneath the building floor. EA estimates that a total of approximately 58 shallow soil borings will be drilled in the area north of and beneath the 640 Trolley Boulevard building (Figure 2). EA expects that the shallow soil borings will be advanced to the top of the bedrock unit. The bedrock beneath the site is Lockport Dolomite and is typically encountered three to 5 ft below ground surface. Each soil boring location will be flagged after sampling to facilitate locating these boring locations with a high precision global positioning system unit.

During the direct-push drilling program, subsurface soil samples will be collected continuously from each of the 58 soil borings until the bedrock/refusal is encountered. Each soil sample will be described and logged identifying its geologic character, features, and properties. The Unified Soil Classification System will be used to characterize the soil samples. The soil will be screened visually for evidence of contamination.

Up to three soil samples will be collected from each of the 58 borings (a maximum of 174 samples) for laboratory analysis. At each boring a surface soil sample will be collected from the zero to two-in. interval. Up to two additional samples will be collected from the remaining soil column with bias toward the most contaminated interval based on photo ionization detector (PID) screening, color, and odors, etc. If no contamination is detected, the subsurface soil sample will be collected either at the water table interface or directly above the bedrock surface, which ever occurs first. Table 1 summarizes the number of soil samples anticipated to be collected during the RI effort.

All of the soil samples will be sent to the laboratory to be considered for polychlorinated biphenyl (PCB) analysis. Initially, select soil samples from each boring location will be analyzed. The remaining samples will be extracted and held by the laboratory until a decision on whether or not to analyze them for PCBs is made by EA (in consultation with the NYSDEC field representative) based on the preliminary laboratory PCB analytical results of the samples initially analyzed.

Based on the field PID analysis, up to 16 of the approximate 174 soil samples will be submitted

for laboratory volatile organic compound (VOC) analysis. The selection of subsurface soil materials for laboratory VOC analysis will be made in consultation with the NYSDEC field representative. The soil samples will be sent to an approved NYSDOH Environmental Laboratories Approval Program (ELAP)-certified laboratory for VOC and PCB analysis and in accordance with the NYSDEC Analytical Services Protocol (ASP). The soil samples will be analyzed using U.S. Environmental Protection Agency (EPA) Method 8260 (VOCs) and Method 8082 (PCBs). The results of the direct-push drilling program will be used to aid in the selection of subsequent drilling locations and monitoring well installations as part of Section 4 (Subsurface Drilling Program).

Drill cuttings will be placed back in the soil borings if there is no visible contamination. Visibly contaminated drill cuttings will be drummed in accordance with Section 8 (Storage and Disposal of Waste).

4. SUBSURFACE DRILLING PROGRAM

A drilling program will be implemented as part of this Work Assignment to evaluate the overburden and bedrock units, groundwater quality, and groundwater flow patterns. The drilling program will include overburden drilling and sampling, and bedrock drilling and coring. An additional six potential soil boring locations are shown on Figure 3; however, the exact locations will be determined based on the analytical results of the Geoprobe/direct-push drilling program. These soil borings will be drilled and subsequently completed as groundwater monitoring wells at the 640 Trolley Boulevard Site. It is expected that one of the groundwater monitoring wells will be installed beneath the 640 Trolley Boulevard building (Figure 3).

During the drilling program, subsurface soil samples will be collected continuously from each of the soil borings until bedrock is encountered. Drill cuttings will be placed on the ground surface if no visible contamination is observed. Visibly contaminated drill cuttings will be drummed in accordance with Section 8. Special attention will be given to examining the bedrock interface/low permeability zones for the presence of dense non-aqueous phase liquid.

Subsurface soil samples will be collected to obtain information on the characteristics of the overburden material and for submittal to a laboratory for further analysis. The soil samples will be described and logged with respect to their geologic character, features, and properties. The soil will be screened visually for evidence of contamination. In addition, samples will be placed in closed containers (e.g., driller jars) and the headspace will be analyzed using a flame or photo ionization detector. All or some part of any subsurface soil interval extracted from a specific soil boring may be collected as a soil sample for laboratory analysis at the discretion of the NYSDEC representative. Up to 12 subsurface soil samples may be collected for laboratory analysis during this Work Assignment project. The soil samples will be sent to an approved ELAP-certified laboratory for VOC and PCB analysis and in accordance with the NYSDEC ASP. The soil samples will be analyzed using EPA Method 8260 (VOCs) and Method 8082 (PCBs). The selection of subsurface soil materials for laboratory analysis will be made in consultation with the NYSDEC field representative and will be based on one of the following:

1. Subsurface soil materials that show visual signs of contamination
2. Subsurface soil materials that cause a sustained response above the measured background response on a calibrated flame or photo ionization screening instrument
3. A combination of these situations.

Table 1 summarizes the number of soil samples anticipated to be collected during the RI effort.

4.1 BEDROCK MONITORING WELLS

Figure 3 illustrates the tentative locations of the proposed monitoring wells. The exact placement of the monitoring wells will be based upon the information collected during the direct-push drilling program (Section 3) and knowledge of the existing distribution of contaminants based on the Preliminary Site Assessment (PSA) results. It is expected that the

monitoring wells will be constructed similar to the construction of the existing monitoring well network. The well construction logs for the existing wells installed during the PSA activities are provided in Attachment A. The existing wells are constructed with a screened interval entirely within the shallow bedrock system. The drilling and installation of monitoring wells will be supervised and documented by a field hydrogeologist according to the procedures described below.

In addition, the existing offsite monitoring well (MW-02) was noted to be damaged by the NYSDEC during a May 2006 site visit associated with the IIWA. MW-02 will be abandoned and replaced as part of this RI/FS. The replacement well will be similar to construction as the existing well, except that it will be flush mounted due to the extensive tractor-trailer traffic near the well location.

4.2 BEDROCK WELL INSTALLATION METHOD

The drilling program will include the installation of shallow groundwater monitoring wells. The shallow wells will be approximately 25 to 30-ft deep and screened entirely within the shallow bedrock system. During installation, the overburden will be drilled to bedrock using 6-1/4 in. inside diameter hollow-stem augers, with continuous split spoon sampling to the top of bedrock (anticipated to be 3-6 ft below ground surface).

Once bedrock is encountered, a rock socket will be set one to two ft into the top of competent bedrock. The rock socket will be advanced by water rotary rock drilling with a 5-7/8 in. outside diameter roller bit using the hollow-stem augers as a temporary casing. Four in. ID steel casing will be set in the rock socket and cement/bentonite grout will be injected around the casing through a tremie pipe. The hollow-stem augers will then be withdrawn and the grout within the borehole will be topped off, as necessary. The cement/bentonite grout will be allowed to set for a minimum of 24-hours prior to completing the bedrock core to a depth of approximately 25 to 30-ft below ground surface. The bedrock will be HQ cored to a depth of approximately 25 to 30-ft below ground surface and the monitoring well will be constructed as described below.

Each monitoring well will be constructed with a 10-ft length of 2-in. ID threaded schedule 40 polyvinyl chloride flush-joint casing with a ten-ft machine slotted 0.010-in. well screen. The annulus around the well screen will be backfilled with No. 1 Morie sand. The sand pack will extend 1-2 ft above the well screen. A bentonite seal will be placed above the sand pack to form a minimum 2-ft seal. Cement/bentonite grout will be placed to within 3 ft of the surface. Each well will have a vented cap and there will be a locking cover. It is anticipated that four monitoring wells (including the replacement well for MW-02) will be flush mounted due to their location inside the building or in a paved loading area. Those wells anticipated to be flush mounted are shown on Figure 3. A cement pad will be installed to channel surface water away from the well. A weep hole will be drilled in the stick-up protective casing to allow any water between the inner and outer casing to drain. The monitoring well identifications will start with MW-06.

4.3 WELL DEVELOPMENT

The monitoring wells will be developed no sooner than 24-hours following installation. The wells will be developed using surging and pumping techniques. Well development will be considered complete when temperature, conductivity, and pH have stabilized and a turbidity of less than 50 nephelometric turbidity units has been achieved. Development water will be discharged to the ground surface away from the well, unless otherwise directed by the NYSDEC. If non-aqueous phase liquid (NAPL) or an odor is observed, or if directed by NYSDEC, the development water will be containerized, handled, and disposed of as detailed in Section 8.

5. GROUNDWATER SAMPLING

Groundwater samples will be collected during 2 separate sampling events from 11 monitoring wells (5 existing wells (including the replacement well for MW-02) and 6 monitoring wells installed as part of this RI) (see Figure 3). Groundwater samples will be collected from each well a minimum of 2 weeks following monitoring well installation and development and then again at least 3 months later. During each groundwater sampling event, groundwater samples will be analyzed by an approved ELAP-certified laboratory for VOCs, semi-volatile organic compounds (SVOCs), and PCBs in accordance with the NYSDEC ASP. The groundwater samples will be analyzed using EPA Method 8260 (VOCs), Method 8270 (SVOCs), and Method 8082 (PCBs). Table 1 summarizes the number of groundwater samples anticipated to be collected during the RI effort.

Prior to the start of both groundwater sampling events, water levels will be collected from the monitoring well network and from the New York State Barge Canal to prepare a groundwater contour map and evaluate groundwater flow patterns. In addition, an oil/water interface probe will be used to measure product thickness (if any) in the groundwater monitoring wells.

Purge water will be discharged to the ground surface away from the well, unless otherwise directed by the NYSDEC. If NAPL or an odor is observed, or if directed by NYSDEC, the purge water must be containerized, handled, and disposed of as detailed in Section 8.

The following procedures will be used for monitoring well groundwater sampling:

- Wear appropriate personal protective equipment as specified in the Generic HASP and HASP Addendum. In addition, samplers will use new sampling gloves for the collection of each sample.

- Unlock and remove well cap.

- Obtain PID readings and record in field logbook.

- Measure the static water level in the well with an electronic water level indicator. The water level indicator will be washed with Alconox detergent and water, then rinsed with deionized water between individual wells to prevent cross-examination. Decontamination fluids will be containerized.

- Calculate the volume of water in the well.

- Place polyethylene sheeting around well casing to prevent contamination of sampling equipment in the event sampling equipment is dropped.

- Purge 3-5 well volumes of water from well, using one of three methods described below. Purged water will be containerized separately from decontamination fluids.

— Bail with a dedicated, disposable polyethylene bailer.

— Pump with a centrifugal pump using new polyethylene tubing dedicated to each well. Set intake slightly below the surface level of the ground water and start pump; continue to lower the intake line through the well to just above screen depth ensuring that all standing water in the well has been purged.

— Pump with a submersible pump equipped with: (1) a check valve to avoid backflush, and (2) new polyethylene tubing dedicated to each well. Set intake at the surface level of the ground water and start pump; continue to lower the intake line ensuring that all standing water in the well has been purged.

- Allow field parameters of pH, reduction-oxidation potential (Eh), dissolved oxygen, specific conductivity, and temperature to stabilize before sampling. Purging will be complete if the following conditions are met:

— Consecutive pH readings are ±0.2 pH units of each other
— Consecutive water temperatures are ±0.5°C of each other
— Consecutive measured specific conductance is ±10 percent of each other.

If these parameters are not met after purging a volume equal to 3-5 times the volume of standing water in the well, the EA Project Manager will be contacted to determine the appropriate action(s).

- If the well goes dry before the required volumes are removed, the well may be sampled when it recovers (recovery period up to 24 hours).

- Obtain sample from well with a bailer suspended on new, clean nylon twine. The sampling will be performed with a new bailer dedicated to each individual well.

- Collect the sample aliquot for VOC analysis first by lowering and raising the bailer slowly to avoid agitation and degassing, and then collect sample aliquots for the SVOC analysis and carefully pour directly into the appropriate sample bottles. Sample bottles containing appropriate preservative for the parameter to be analyzed will be obtained from the laboratory.

- Obtain field measurement of pH, dissolved oxygen, temperature, and specific conductivity and record in field logbook. The instruments will be decontaminated between wells to prevent cross-contamination.

- Place analytical samples in cooler and chill to 4°C. Samples will be shipped to the analytical laboratories within 24 hours.

- If a centrifugal or submersible pump is used, it will be decontaminated following the procedure in Section 8, and the polyethylene suction/discharge line will be properly discarded.

- Re-lock well cap.

- Fill out field logbook, sample log sheet, labels, custody seals, and chain-of-custody forms.

A monitoring well gauging, purging, and sampling form is provided as Figure 4. Groundwater samples will be placed in appropriate sample containers, sealed, and submitted to the laboratory for analysis. The samples will be labeled, handled, and packaged following the procedures described in Generic QAPP and QAPP Addendum. Quality assurance/quality control samples will be collected at the frequency detailed in the Generic QAPP, QAPP Addendum, and Table 1.

6. SURFACE WATER AND SEDIMENT SAMPLING

Two drainage ditches are present near the 640 Trolley Boulevard site (Figure 5). One drainage ditch north of the 640 Trolley Boulevard site building runs east-west before it turns to the north and drains into the New York State Barge Canal. The second drainage ditch is located immediately west of the 640 Trolley Boulevard property. This ditch runs parallel to the fence that separates the 640 Trolley Boulevard site from the 700 Trolley Boulevard site. During the initial PSA, PCBs were detected in the shallow sediments in these ditches. To better define the distribution of PCBs in the drainage ditches, approximately 11 sediment and 4 surface water samples will be collected and analyzed by an approved ELAP-certified laboratory for PCBs. Table 1 summarizes the number of surface water and sediment samples anticipated to be collected during the RI effort. The surface water and sediment sampling locations will be flagged after sampling to facilitate locating these sampling locations with a high precision global positioning system unit.

The approximate locations for the collection of sediment and surface water samples are shown on Figure 5. Seven of the sediment/surface water sampling locations will be located offsite. Figure 6 provides the names and addresses of property owners where the offsite sediment/surface water sampling is anticipated to occur based on the current tax information provided by Monroe County Real Property Office. Prior to initiating the sediment/surface water sampling, the property owners will be contacted through a telephone call and then through a 10-day written notice consistent with NYSDEC-Division of Environmental Regulation (DER) Technical and Administrative Guidance Memorandum (TAGM) 4053. The NYSDEC Project Manager will contact the property owners, discuss the sampling program, and schedule the sampling. The NYSDEC Project Manager will provide EA with a copy of the correspondence and sediment/surface water sampling schedule.

Following identification of the surface water and sediment sampling locations, field personnel will collect the sample by wading into the ditch (starting at the downstream location) to reach the desired sample location. If the water is sufficiently deep, surface water samples will be collected using the sample container itself. Otherwise, surface water samples will be collected (if present) with a dipper, beaker, or pond sampler. It is anticipated that a maximum of 4 surface water samples will be collected.

The approximate location of the sample will be noted in the field logbook. Field measurement of pH, dissolved oxygen, temperature, and specific conductivity will be obtained and recorded in the field logbook. The field sampling crew will examine the sediment samples and record visual observations (sample color, texture, any unusual characteristics [odor, staining, etc.]) in the field notebook and on the field record of surface water and sediment sampling (Figure 7). The instruments will be decontaminated between locations to prevent cross-contamination.

Following collection of the surface water samples (if present), a total of 11 surface sediment samples (0-6 in.) will be collected, 4 of which will be collected at the surface water sampling locations. The surficial (0-6 in.) sediment samples will be collected using a clean, stainless steel

coring device, a stainless steel hand auger, or a stainless steel scoop as appropriate for the sediment conditions. Dedicated sampling equipment will be used to prevent cross-contamination and to minimize decontamination requirements. The sediment samples will be collected using the following procedures:

1. Identify the proposed sample location in the field notebook along with other appropriate information collected during sediment probing activities

2. Don personal protective equipment (as required by the HASP)

3. At each sample location, drop the dredge in the opened position making sure that the end of the rope is maintained at all times

4. Once the dredge has been allowed to settle into the bottom sediments, a hard pull on the rope will close the sediments inside the dredge

5. Retrieve the dredge

6. Open the dredge to allow the sediments to empty onto a stainless steel tray

7. Describe and record sample descriptions

8. Package sediments in the appropriate containers

Surface water and sediment samples will be placed in appropriate sample containers, sealed, and submitted to the laboratory for PCB analysis. The samples will be labeled, handled, and packaged following the procedures described in the Generic QAPP and QAPP Addendum. Quality assurance/quality control samples will be collected at the frequency detailed in the Generic QAPP, QAPP Addendum, and Table 1.

7. INDOOR AIR MONITORING PROGRAM

To evaluate the migration of vapors into on-site buildings a sub-slab and indoor air monitoring program will be completed as part of the 640 Trolley Boulevard site investigation activities. The indoor air monitoring program will be completed in accordance with the NYSDOH Indoor Air Sampling and Guidance document. Indoor air samples will be collected at five locations within the three site buildings at the 640 Trolley Boulevard site (Figure 8). Table 1 summarizes the number of air samples anticipated to be collected during the RI effort. The overall goal of the indoor air sampling is to evaluate potential human exposure to VOCs known to occur in site soil and groundwater.

Prior to initiating the air sampling, the property owners will be contacted through a telephone call and then through a ten-day written notice consistent with NYSDEC-DER TAGM 4053. The NYSDEC Project Manager will contact the property owners, discuss the sampling program, and schedule the sampling. The NYSDEC Project Manager will provide EA with a copy of the correspondence and indoor air sampling schedule.

7.1 INDOOR AIR SAMPLE COLLECTION

An inspection of general site conditions will be performed at each property location as part of the indoor air sampling. The inspection will include the following activities:

- Completion of the NYSDOH Indoor Air Quality Questionnaire and Building Inventory included in Indoor Air Sampling and Analysis Guidance (NYSDOH, 2005)[1]. A sample of the questionnaire is provided in Attachment B
- Documentation of weather conditions outside and inside and temperature inside
- Ambient air (indoor and outdoor) screening using field equipment (i.e., parts per billion PID)
- Selection of air sampling locations.

At each location, air samples will be collected for laboratory analysis utilizing the EPA TO-15 methodology. Air samples will be collected from two locations per sampling point including the first floor and the sub-slab environment. An active approach utilizing laboratory batch-certified Summa canisters, regulated for a 24-hour sample collection, will be used to evaluate the indoor air and sub-slab soil vapor conditions.

The indoor air canisters will be setup during an initial visit, allowed to collect the air samples during a 24-hour period, and then retrieved at the conclusion of the 24-hour period and sent to the laboratory for analysis. A section of Teflon or polyethylene tubing that is identified as

[1] NYSDOH. 2005. *Indoor Air Sampling and Analysis Guidance*. New York State Department of Health, Division of Environmental Health Assessment, Center for Environmental Health. February 1, 2005.

laboratory or food grade will be extended from the Summa canister to collect the indoor air sample from the breathing zone at approximately 3 ft above the floor. In accordance with the NYSDOH Draft Guidance for Evaluating Soil Vapor Intrusion in the State of New York (NYSDOH 2005), the collecting rate of the indoor air sample will be less than 0.2 liters per minute.

The sub-slab soil vapor samples will be collected from a location near the indoor air canisters beneath the floor of each building and away from floor penetrations (i.e., cracks, floor drains, sumps, etc.). After completing the inspection of general site conditions, a 3/8-in. borehole will be advanced through the floor and approximately 2 in. into the sub-grade material to collect a sub-slab soil vapor sample. Soil vapor sampling points will be fitted with inert tubing (laboratory or food grade Teflon or polyethylene). To prevent infiltration of ambient air and dilution of the samples, the holes will be sealed with 100% pure beeswax around the tubing. In accordance with the NYSDOH Draft Guidance for Evaluating Soil Vapor Intrusion in the State of New York, prior to collecting the sample, one to three volumes (i.e., the volume of the sampling point and tubing) will be purged using a graduated syringe. The purge rate for both purging and collecting will not exceed 0.2 liters per minute. The vacuum extracted canisters will be equipped with vacuum gauges and flow control valves. Prior to sample collection, the vacuum gauge reading will be recorded in the field log book. The flow controller will be set to collect the samples over a minimum time period of 24-hours. The sub-slab soil vapor samples will be collected during the same 24-hour period that the indoor air samples are collected. Upon completion of the sub-slab sampling, the vacuum gauge reading will be recorded in the field log book, the sample tubing will be removed, the sub-slab soil vapor probe locations will be backfilled, and the surfaces finished with cement or appropriate material to match the existing floor surfaces.

Quality assurance/quality control (QA/QC) samples including duplicates and matrix spike/matrix spike duplicate (MS/MSD) samples will also be collected during the indoor air monitoring program.

7.2 OUTDOOR AIR SAMPLE COLLECTION

During the indoor air monitoring program, one outdoor ambient air sample will be collected. The ambient air sample will be collected during the same 24-hour period as the indoor air samples and from an evenly spaced location, which is representative of outdoor air conditions for the entire sampling area. The ambient air sample will be collected in a laboratory batch-certified Summa canister, regulated for a 24-hour sample collection. A section of Teflon or polyethylene tubing that is identified as laboratory or food grade will be extended from the Summa canister to collect the ambient air sample from the breathing zone at approximately 3 to 5 ft above ground surface. Consistent with the indoor and sub-slab vapor sampling, the collecting rate of the outdoor air sample will be less than 0.2 liters per minute.

7.3 LABORATORY ANALYSIS OF AIR/SOIL VAPOR SAMPLES

Air samples will be analyzed by an ELAP-certified laboratory for VOCs using EPA Method TO-15. In accordance with the NYSDOH Indoor Air Sampling and Analysis Guidance the analysis for air samples (indoor and outdoor) will achieve detection limits of 1 µg/m^3 for each compound except for trichloroethene and carbon tetrachloride, which will have a detection limit of 0.25 µg/m^3. The analysis for sub-slab soil vapor samples will achieve a detection limit of 100 µg/m^3, except for trichloroethene, which will have a detection limit of 5 µg/m^3. For specific parameters identified by NYSDOH, where the selected parameters may have a higher detection limit (e.g., acetone), the higher detection limits will be designated by NYSDOH.

8. STORAGE AND DISPOSAL OF WASTE

EA is responsible for the proper storage, handling, and disposal of investigative derived waste (IDW) including personal protective equipment, and solids and liquids generated during the well drilling, well development, and well sampling activities. All drummed materials will be clearly labeled as to their contents and origin. All IDW will be managed in accordance with NYSDEC-DER TAGM 4032.

Accordingly, handling and disposal will be as follows:

- Liquids generated from contaminated equipment decontamination that exhibit visual staining, sheen, or discernable odors will be collected in drums or other containers at the point of generation. They will be stored in the staging area. A waste subcontractor will then remove the drums and dispose at an offsite location.

- Liquid generated during well purging or a decontamination activity that does not exhibit visible staining, sheen, or discernable odors will be discharged to an unpaved area on the Site, where it can percolate into the ground.

- Concrete dust will be collected in shop vacuums and disposed of as non-regulated solid waste, unless photoionization detector readings or visual indications of contamination are noted during field operations.

- Soil and rock cuttings from drilling operations that do not exhibit visible staining, sheen, or discernable odors will be disposed of onsite.

- Soil and rock cuttings from drilling operations that exhibit visible staining, sheen or discernable odors will be staged onsite until an appropriate treatment/disposal procedure has been determined after the completion of the feasibility study.

- Used protective clothing and equipment that is suspected to be contaminated with hazardous waste will be placed in plastic bags, packed in 55-gal ring-top drums, and transported to the drum staging area.

- Non-contaminated trash and debris will be placed in a trash dumpster and disposed of by a local garbage hauler.

- Non-contaminated protective clothing will be packed in plastic bags and placed in a trash dumpster for disposal by a local garbage hauler.

9. DATA VALIDATION/DETERMINATION OF USABILITY

The collection and reporting of reliable data is a primary focus of the sampling and analytical activities. Laboratory and field data will be reviewed to determine the limitations, if any, of the data and to assure that the procedures are effective and that the data generated provides sufficient information to achieve the project objectives. A qualified independent third party will evaluate the analytical data according to NYSDEC-DER Data Usability Summary Report guidelines.

10. SITE SURVEY AND BASE MAP PREPARATION

This task will be performed by a licensed New York State surveyor and include surveying of monitoring well locations (existing and new), performing a topographic survey, and preparing a site base map. To ensure the collection of consistent elevation data, each of the existing monitoring wells will be included in the Site Survey. The site survey will include a temporary monitoring point that will be established as part of this RI/FS. The elevations of all monitoring well casings should be established to within 0.01 ft based on the National Geodetic Vertical Datum. A permanent reference point should be placed in all interior polyvinyl chloride casings to provide a point to collect future groundwater elevation measurements. Soil boring and sediment and surface water sampling locations will be located using a high precision global positioning system unit.

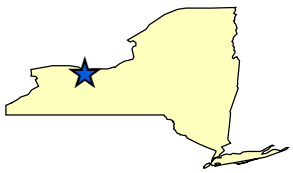
A detailed topographic base map of the site and immediate vicinity will be developed. All relevant features of the site and adjacent areas will be plotted. The site map should include all area important features associated with the investigation (i.e., surface water drainage, above and underground storage tanks, buildings, drywells, cesspools). Contours should be plotted at 1-ft intervals. In addition, the tax maps of the site and adjacent properties will be reviewed and the property lines of the parcels will be plotted on the base map. As shown on Figure 6, the site is identified as tax map number 104.1 1-1 -2.2. The base map will subsequently be used to accurately plot all sampling locations including soil borings, monitoring wells, and all other sample locations.

With respect to the site survey and base map preparation, the following assumptions have been made:

- The estimated survey area should include the whole site boundary. All elevations will be referenced to the North American Vertical Datum 88. All horizontal locations will be referenced to the North American Datum 83.

- Three blueline copies of the site base maps with topography (1-ft intervals), and three blueline copies of the site base map without topography, will be submitted to the NYSDEC.

- The site map will be provided in AutoCAD, version 12 or higher, and ArcMap™ 9.1.



Legend

★ 640 Trolley Blvd

0 625 1,250 2,500 Feet

Source: Monroe County Division of GIS Services, ESRI Base Layer

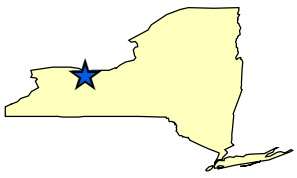
EA Engineering, Science, and Technology, Inc.

640 TROLLEY BOULEVARD SITE (8-28-108)

GATES, NEW YORK

FIGURE 1
Site Location

PROJECT MGR:	DESIGNED BY:	CREATED BY:	CHECKED BY:	SCALE:	DATE:	PROJECT NO:	FILE NO:
DWE	CJS	CJS	CWS	AS SHOWN	JUNE 2006	14368.02	GIS/PROJECTS/ FIGURE1.MXD



Legend

Sample Location

0 37.5 75 150 Feet

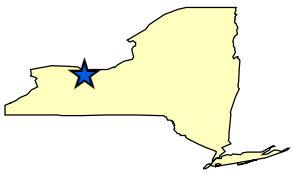
Source: Monroe County Division of GIS Services, NYS DEC

EA Engineering, Science, and Technology, Inc.

640 TROLLEY BOULEVARD SITE (8-28-108)
FIELD SAMPLING PLAN
GATES, NEW YORK

FIGURE 2
Soil Sample Location

PROJECT MGR:	DESIGNED BY:	CREATED BY:	CHECKED BY:	SCALE:	DATE:	PROJECT NO:	FILE NO:
DWE	CJS	CJS	CWS	AS SHOWN	June 2006	14368.02	GIS/PROJECTS/ FIGURE2.MXD



Legend

- Existing Groundwater Well
- Proposed Groundwater Well

0 37.5 75 150 Feet

Source: Monroe County Division of GIS Services, NYS DEC

EA Engineering, Science, and Technology, Inc.

640 TROLLEY BOULEVARD SITE (8-28-108)
FIELD SAMPLING PLAN
GATES, NEW YORK

FIGURE 3
Groundwater Monitoring Wells

PROJECT MGR:	DESIGNED BY:	CREATED BY:	CHECKED BY:	SCALE:	DATE:	PROJECT NO:	FILE NO:
DWE	CJS	CJS	CWS	AS SHOWN	JUNE 2006	14368.02	GIS/PROJECTS/ FIGURE3.MXD

EA Engineering, P.C.
6731 Collamer Road, Suite 2
East Syracuse, New York 13057-9808

TEL: (315) 431-4610
FAX: (315) 431-4280

FIELD RECORD OF GAUGING, PURGING, AND SAMPLING

WELL I.D.: _____ **SITE NAME:** _____
WELL CONDITION: _____ **WEATHER:** _____

GAUGE DATE: _____ **GAUGE TIME:** _____
SOUNDING METHOD: _____ **MEASUREMENT REF:** _____
STICK UP/DOWN (ft): _____ **WELL DIAMETER (in):** _____

PURGE DATE: _____ **PURGE TIME:** _____
PURGE METHOD: _____ **FIELD TECHNICIAN:** _____

WELL VOLUME

A. WELL DEPTH (ft): _____ **D. WELL DEVELOPMENT/FT:** _____
B. DEPTH TO WATER (ft): _____ **E. WELL VOLUME (gal) (C*D):** _____
C. LIQUID DEPTH (ft) (A-B): _____ **F. FIVE WELL VOLUMES (gal) (E*5):** _____

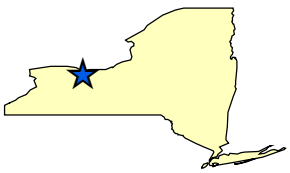
Parameter	Beginning	1 Volume	2 Volumes	3 Volumes	4 Volumes	5 Volumes
Time (min)						
Depth To Water (ft)						
Purge Rate (gpm)						
Volume Purged (gal)						
pH						
Temperature (^{o}C)						
Conductivity (mmhos/cm)						
Dissolved Oxygen (mg/l)						
eh (mv)						

Parameter	6 Volumes	7 Volumes	8 Volumes	9 Volumes	10 Volumes	End
Time (min)						
Depth To Water (ft)						
Purge Rate (gpm)						
Volume Purged (gal)						
pH						
Temperature (^{o}C)						
Conductivity (umhos/cm)						
Dissolved Oxygen (mg/l)						
eh (mv)						

TOTAL QUANTITY OF WATER REMOVED (gal): _____
SAMPLERS: _____
SAMPLING DATE: _____ **SAMPLING TIME:** _____
SAMPLE TYPE: _____ **SPLIT SAMPLE WITH:** _____

COMMENTS AND OBSERVATIONS: _____

Figure 4 Field Record of Gauging, Purging, and Sampling



Legend

Surface Water/Sediment

0 50 100 200 Feet

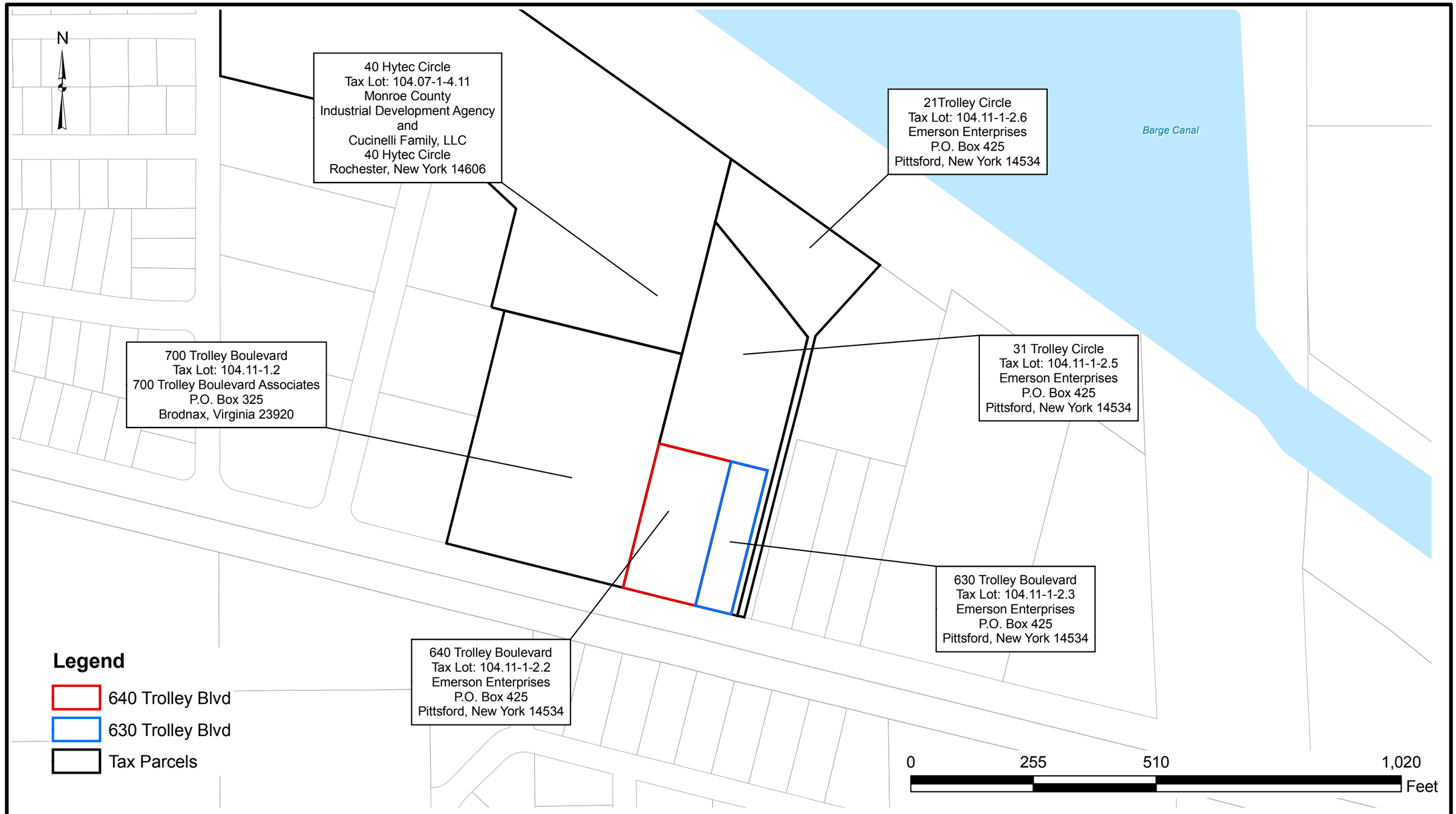
Source: Monroe County Division of GIS Services, NYS DEC

EA Engineering, Science, and Technology, Inc.

640 TROLLEY BOULEVARD SITE (8-28-108)
FIELD SAMPLING PLAN
GATES, NEW YORK

FIGURE 5
Proposed Surface Water/Sediment Sample Locations

PROJECT MGR:	DESIGNED BY:	CREATED BY:	CHECKED BY:	SCALE:	DATE:	PROJECT NO:	FILE NO:
DWE	CJS	CJS	CWS	AS SHOWN	JUNE 2006	14368.02	GIS/PROJECTS/ FIGURE4.MXD



640 Trolley Boulevard Site (8-28-108)
Field Sampling Plan
Gates, New York

Figure 6
Tax Parcels

Data Sources: Monroe County GIS Services Division, ESRI Streetmaps Base Layer

PROJECT MGR: DWE	DESIGNED BY: CJS	CREATED BY: CJS	CHECKED BY: CWS	SCALE: AS SHOWN	DATE: JUNE 2006	PROJECT NO: 14368.02	FILE NO: GIS/Projects/ Figure6.MXD

FIELD RECORD OF SURFACE WATER AND SEDIMENT SAMPLING

Site Name:			Project Number:
Sample Location ID:			Date:
Time:	Start:	End:	Sample Team Members:

SURFACE WATER INFORMATION

Type of Surface Water:

( ) Stream ( ) River
( ) Pond/Lake ( ) Seep

Water Depth and Sample Location _____ (ft)

Depth of Sample from Top of Water _____ (ft)

Equipment Used for Collection:
( ) None, Grab into Bottle
( ) Bomb Sampler
( ) Pump _____

Decontamination Fluids Used:
( ) Isopropyl Alcohol
( ) ASTM Type II Water
( ) Deionized Water
( ) Liquinox Solution
( ) Hexane
( ) HNO_3 Solution
( ) Potable Water
( ) None

Water Quality Parameters

( ) Temperature ____
( ) Conductivity ___ µmhs/cm
( ) pH ____ units
( ) Dissolved oxygen ____ mg/L
( ) Turbidity ____ NTU
( ) Eh ____ mv

Velocity Measurements Obtained? ( ) No ( ) Yes, See Flow Measurement Data Record _____

Field QC Data: ( ) Field Duplicate Collected
Duplicate ID _____
( ) MS/MSD

Sample Location Sketch:
( ) Yes
( ) No

Method Used:
( ) Winkler
( ) Probe

SEDIMENT INFORMATION

Type of Sample Collected:
( ) Discrete
( ) Composite

Sediment Type:
( ) Clay
( ) Sand
( ) Organic
( ) Gravel

Equipment Used for Collection:
( ) Gravity Corer
( ) Stainless Steel Split Spoon
( ) Dredge
( ) Hand Spoon/Trowel
( ) Aluminum Pans
( ) Stainless Steel Bucket
( ) _____

Decontamination Fluids Used:
( ) Isopropyl Alcohol
( ) ASTM Type II Water
( ) Deionized Water
( ) Liquinox Solution
( ) Hexane
( ) HNO_3 Solution
( ) Potable Water
( ) None

Sample Observations:
( ) Odor
_____
( ) Color
_____
( )
_____

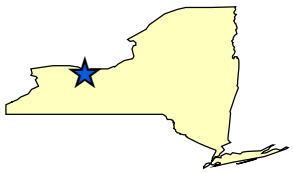
Field QC Data: ( ) Field Duplicate Collected
Duplicate ID _____
( ) MS/MSD

SAMPLES COLLECTED

Check if Required at this Location	Matrix		Check if Preserved with Acid/Base	Volume Required	Check if Sample Collected	Sample Bottle IDs			
	Surface Water	Sediment							

NOTES/SKETCH

Figure 7 Field Record of Surface Water and Sediment Sampling Log



Legend

▲ Air Monitoring Location

0 37.5 75 150 Feet

Source: Monroe County Division of GIS Services, NYS DEC

EA Engineering, Science, and Technology, Inc.

640 TROLLEY BOULEVARD SITE (8-28-108)
FIELD SAMPLING PLAN
GATES, NEW YORK

FIGURE 8
Indoor Air Monitoring

PROJECT MGR:	DESIGNED BY:	CREATED BY:	CHECKED BY:	SCALE:	DATE:	PROJECT NO:	FILE NO:
DWE	CJS	CJS	CWS	AS SHOWN	JUNE 2006	14368.02	GIS/PROJECTS/ FIGURE5.MXD

TABLE 1 REMEDIAL INVESTIGATION ANALYTICAL PROGRAM

	Sample Matrix	VOC TO-15	VOC 8260B	SVOC 8270C	PCB 8082
SOIL SAMPLING (DIRECT PUSH DRILLING PROGRAM)					
No. of Samples	Soil	---	16	---	174
Field Duplicate		---	1	---	9
Rinsate Blank [a]		---	1	---	9
MS/MSD		---	2	---	18
Total No. of Analyses		**---**	**20**	**---**	**210**
SOIL SAMPLING (SUBSURFACE DRILLING PROGRAM)					
No. of Samples	Soil	---	12	---	12
Field Duplicate		---	1	---	1
Rinsate Blank [a]		---	1	---	1
MS/MSD		---	2	---	2
Total No. of Analyses		**---**	**16**	**---**	**16**
GROUNDWATER SAMPLING					
No. of Samples	Aqueous	---	22	22	22
Field Duplicate		---	2	2	2
Trip Blank [b]		---	2	---	---
MS/MSD		---	4	4	4
Total No. of Analyses		**---**	**30**	**28**	**28**
SURFACE WATER/SEDIMENT SAMPLING[c]					
No. of Samples	Aqueous	---	---	---	4
Field Duplicate		---	---	---	1
Trip and/or Rinsate Blank [a]		---	---	---	1
MS/MSD		---	---	---	2
Total No. of Surface Water Analyses		**---**	**---**	**---**	**8**
No. of Samples	Sediment	---	---	---	11
Field Duplicate		---	---	---	1
Trip and/or Rinsate Blank [a]		---	---	---	2
MS/MSD		---	---	---	2
Total No. of Sediment Analyses		**---**	**---**	**---**	**16**
Total No. of Surface Water/Sediment Analyses		**---**	**---**	**---**	**24**
AIR/SOIL VAPOR SAMPLING[d]					
No. of Samples	Air	11	---	---	---
Field Duplicate		2	---	---	---
MS/MSD		4	---	---	---
Total No. of Analyses		**17**	**---**	**---**	**---**

[a] One rinsate blank per day of sampling with a field device that requires field decontamination.
[b] Trip blanks are required for VOC sampling of aqueous media at a rate of one per sample shipment.
[c] Sampling media will be based on site conditions (e.g., presence of surface water).
[d] The detection limits for analyzing indoor air and ambient air samples with method TO-15 are 0.25 $\mu g/m^3$ for TCE and 1.0 $\mu g/m^3$ for all other compounds. The detection limits for analyzing sub-slab air and soil vapor samples are 5.0 $\mu g/m^3$ for TCE and 100 $\mu g/m^3$ for all other compounds.

NOTES: VOC = Volatile Organic Compounds
SVOC = Semi-volatile Organic Compounds
PCB = Polychlorinated Biphenyls
--- = No Sample Taken
MS/MSD= Matrix Spike/Matrix Spike Duplicate
Laboratory quality control samples will be collected at a rate of 1 per 20 samples, per matrix.

Attachment A

Preliminary Site Assessment
Drilling Logs

DRILLING LOG FOR 640-MW01

Project Name 640 Trolley Blvd. PSA

Site Location 640 Trolley
Gates, NY

Date Started/Finished 11-06-01 / 11-13-01

Drilling Company SJB

Driller's Name J. Warner

Geologist's Name Lea Cenci

Geologist's Signature L. Cenci

Rig Type (s) CME 850 (ATV) overburden
CME 75 Rock coring

Drilling Method (s) HSA + Split spoon / Roller bit, HQ core

Bit Size (s) _____ Auger Size (s) 6 3/4

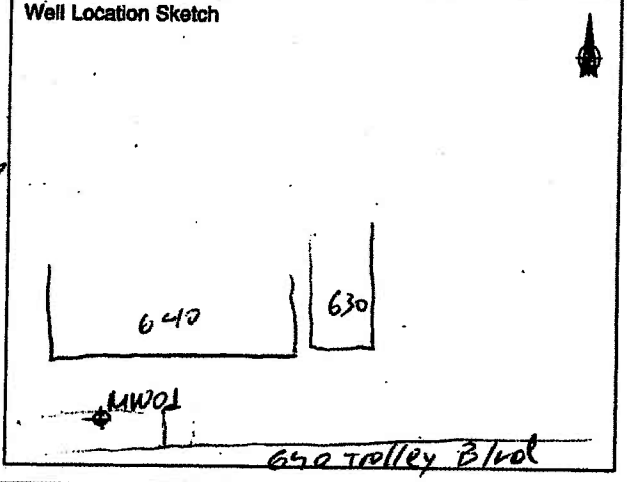
Auger/Split Spoon Refusal 4 ft. BGS

Total Depth of Borehole is _____

Total Depth of Corehole is 36

Water Level (TOIC)		
Date	Time	Level (Feet)

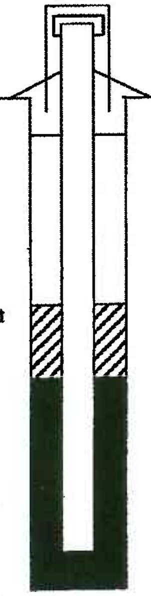
Well Location Sketch



Depth (Feet)	Sample Number	Blows on Sampler	Soil Components Rock Profile CL SL S GR	Penetration Times	Run Number	Core Recovery	RQD	Fracture Sketch	HNu/OVA (ppm)	Comments
1		1 3	ML		1					
2		5 7								
3		8 50	ML		2					Sample 640-MW01-22
4		12 100/.1								
5										Augered to 6' BGS
6	LCenci		11-06-01							Set Rock Socket
7										Water
8					1	10	32		0	@ 9.82' BGS
9										at 11.25' BGS
10										30 minute later
11										
12										Lost 20 gals
13										
14										
15										

640-MW01

SCREENED WELL



Stick-up 0 ft

Top of Grout ____ ft

Top of Seal at 11.9 ft

Top of Sand Pack 13.7 ft

Top of Screen at 16 ft

Bottom of Screen at 36 ft

Bottom of Hole at 36 ft

Bottom of Sandpack at 36

Lock Number P848

Inner Casing Material PVC

Inner Casing Inside Diameter 2 inches

GROUND SURFACE

Quantity of Material Used:

Bentonite Pellets ____

Cement ____

Borehole Diameter ____ inches

Cement/ Bentonite ____

Grout ____

Screen Slot Size 0.010

Screen Type Schedule #40

☒ PVC 20

☐ Stainless Steel ____

Pack Type/Size:

☒ Sand U.S. Silica #0

☐ Gravel ____

☐ Natural ____

OPEN-HOLE WELL

Stick-up ____ ft

Inner Casing Material ____

Inner Casing Inside Diameter ____ inches

Outer Casing Diameter ____ inches

Borehole Diameter ____ ft

Bedrock ____ ft

Bottom of Rock Socket/ Outer Casing ____ ft

Bottom of Inner Casing ____ ft

Corehole Diameter ____

Bottom of Corehole ____ ft

NOTE: See pages 136 and 137 for well construction diagrams

Depth-ft.	NARRATIVE LITHOLOGIC DESCRIPTION	Moisture Content: Dry	Moist	Wet
	0-6.5" Topsoil silty brown moist w/ little clay	○	☒	○
1	6.5"-10" light brown silt, v. little clay, little v. fine sand	○	○	○
2	wood fragments, drier	○	○	○
3	2-2'9" Same as above Cobble at 9"	☒	○	○
4	2'9"-2'16" Same as above	○	○	○
5	augered to 4" hit refusal - Set a rock socket at 6ft BGS (11-12-?)	○	○	○
6	At 7' & 8.5" vertical fracture, also at 8'+4.5", 8+7.5', 10.5, 14	○	○	○
7	Vugs at 12.25' horizontal planes w/ sed. at 6.87, 8.1,	○	○	○
8	8.8, 12.25, 12.4, 12.6, 14.2	○	○	○
9	Dolostone with bedding planes & vertical	○	○	○
10	fractures	○	○	○
11		○	○	○
12		○	○	○
13		○	○	○
14		○	○	○
15				

DRILLING LOG FOR 640-MW02

Project Name 640 Trolley Blvd. PSA

Site Location 640 Trolley Blvd. Gates, NY

Date Started/Finished 1-06-01 / 11-15-01

Drilling Company SJB

Driller's Name John Warner

Geologist's Name L. Cerni

Geologist's Signature L. Cerni

Rig Type (s) CME B50 ATV (Overburden) CME 75 (casing)

Drilling Method (s) HSA/split spooning/Roller bit HQ rock coring

Bit Size (s) _____ Auger Size (s) 6 1/4

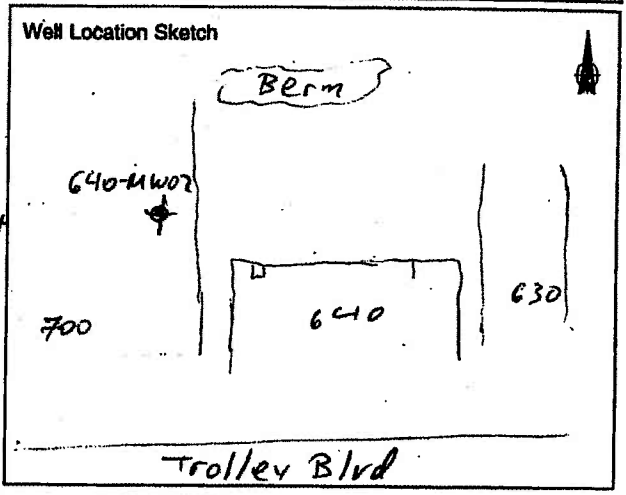
Auger/Split Spoon Refusal 3.5 'BGS

Total Depth of Borehole is _____

Total Depth of Corehole is 28.5

Water Level (TOIC)		
Date	Time	Level (Feet)
11-15-01	705	10.75 BGS

Well Location Sketch



Depth(Feet)	Sample Number	Blows on Sampler		Soil Components Rock Profile CL SL S GR	Penetration Times	Run Number	Core Recovery	RQD	Fracture Sketch	HNu/OVA (ppm)	Comments
1		13	11	ML			14			0	640-MW02-Z1 0.9-1.2 Not enough for both jars pounded second spoon.
2		9	15								
3		32	64	GM cobble			16			7	at upper 2"
4		10"/0.4								1	at 2.2-2.8
5		82	10"/0.3							8	at the 2.8-3.4 Rock socket
11-13-01											Rock Socket
6					1220						
7											
8											Lost 20 gals at 13' BGS
9						1	9.2	60		0	
10											
11											
12											
13											
14											
15											

640-MW02

Lock Number 2537

SCREENED WELL

Inner Casing Material PVC

Inner Casing Inside Diameter 2" inches

Stick-up 2.3 ft

GROUND SURFACE

Top of Grout _____ ft

Top of Seal at 4.4 ft

Top of Sand Pack 6.4 ft

Top of Screen at 8.5 ft

Bottom of Screen at 28.5 ft

Bottom of Hole at 28.5 ft

Bottom of Sandpack at 28.5

Quantity of Material Used:

Bentonite Pellets _____

Cement _____

Borehole _____ inches Diameter

Cement/ Bentonite _____

Grout _____

Screen Slot Size 0.010

Screen Type schedule 40

☒ PVC 20 ft

☐ Stainless Steel _____

Pack Type/Size:

☒ Sand U.S. Silica #0

☐ Gravel _____

☐ Natural _____

OPEN-HOLE WELL

Stick-up _____ ft

Inner Casing Material _____

Inner Casing Inside Diameter _____ inches

Outer Casing Diameter _____ inches

Borehole Diameter _____ ft

Bedrock _____ ft

Bottom of Rock Socket/ Outer Casing _____ ft

Bottom of Inner Casing _____ ft

Corehole Diameter _____

Bottom of Corehole _____ ft

NOTE: See pages 136 and 137 for well construction diagrams

Depth-ft.	NARRATIVE LITHOLOGIC DESCRIPTION	Moisture Content: Dry	Moist	Wet
1	0-3" Asphalt / Gravel	○	⊗	○
	3"-5" Gravel			
	5"-11" Silty clay gray some gravel (Fill)	⊗	○	○
2	11"-1.2' Brown silt + v. little clay very fine sand (little)			
	2-2.8' Light brown, angular gravel very little sand & silt	○	○	⊗
3	2.8-3.3' Broken up cobble with some sand + silt as above			
	640-MW02-22 2.8-2.2	○	○	○
4	4-4.8 Weathered dolostone with some gray silty clay	○	○	⊗
5	Roller bit to 5.5	○	○	○
6		○	○	○
7	Lockport Dolomite	○	○	○
8	≈ 16" of weathered rock	○	○	○
9	Vugs at 7.75 & 8.1, 11.2	○	○	○
10	Vertical fractures at 8.3	○	○	○
11	Calcite at 11.2	○	○	○
12	Existing bedding planes at 5.9, 6.75, 7.75, 8.1, 9.7	○	○	○
13		○	○	○
14		○	○	○
15				

DRILLING LOG FOR 640-MW03

Project Name 640 Trolley Blvd.

Site Location 640 Trolley Blvd
Gates NV

Date Started/Finished 11-7-01 / 11-15-01

Drilling Company SJB

Driller's Name J. Warner

Geologist's Name Leo Cervi

Geologist's Signature

Rig Type (s) CME B50 (ATV - overburden)
CME 75 (coring)

Drilling Method (s) HSA/split spooning/Roller bit/HQ coring

Bit Size (s) _____ Auger Size (s) 6"ø

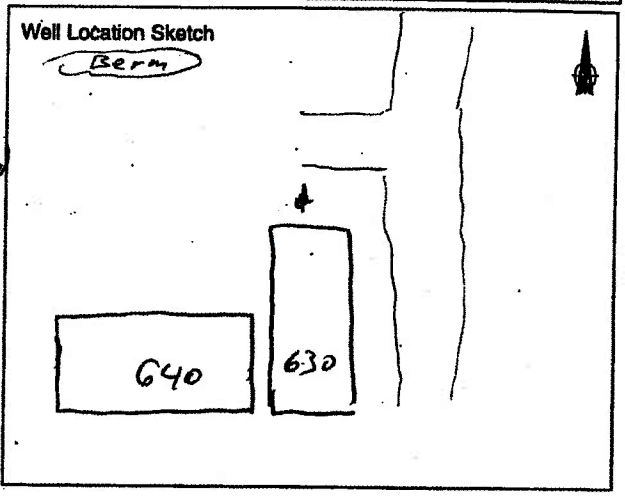
Auger/Split Spoon Refusal 3.5

Total Depth of Borehole Is _____

Total Depth of Corehole Is 32

Water Level (TOIC)		
Date	Time	Level (Feet)

Well Location Sketch



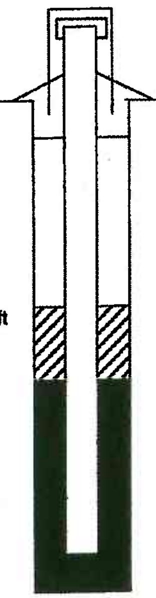
Depth (Feet)	Sample Number	Blows on Sampler		Soil Components Rock Profile CL SL S GR	Penetration Times	Run Number	Core Recovery	RQD	Fracture Sketch	HNu/OVA (ppm)	Comments
1		6	16			1	19"				0928 640MW03-21 0-2'
2		17	11								
3		6	11			2	2'			32 → 50	2-2-2.8 6940 640-MW03-22 moist
4		17	24							22	bottom (3.9-4)
5		10	46			3	22"				
6		31	34								
7		46	100/0.4			4	0.9		2		
8											
9											Rock socket
10					1430	1	9	6			
11											
12											
13											
14											
15											

11-15-01

640-MW03

Lock Number 2537

SCREENED WELL



Stick-up 2.5 ft

Top of Grout ____ ft

Top of Seal at 8 ft

Top of Sand Pack 10 ft

Top of Screen at 12 ft

Bottom of Screen at 32 ft

Bottom of Hole at 32 ft

Bottom of Sandpack at 32

Inner Casing Material PVC

Inner Casing Inside Diameter 2 inches

GROUND SURFACE

Quantity of Material Used:

Bentonite Pellets ____

Cement ____

Borehole ____ inches Diameter

Cement/ Bentonite ____

Grout ____

Screen Slot Size ____

Screen Type ____
- ☐ PVC ____
- ☐ Stainless Steel ____

Pack Type/Size:
- ☐ Sand ____
- ☐ Gravel ____
- ☐ Natural ____

OPEN-HOLE WELL

Stick-up ____ ft

Inner Casing Material ____

Inner Casing Inside Diameter ____ inches

Outer Casing Diameter ____ inches

Borehole Diameter ____ ft

Bedrock ____ ft

Bottom of Rock Socket/ Outer Casing ____ ft

Bottom of Inner Casing ____ ft

Corehole Diameter ____

Bottom of Corehole ____ ft

NOTE: See pages 136 and 137 for well construction diagrams

Depth-ft.	NARRATIVE LITHOLOGIC DESCRIPTION	Moisture Content: Dry	Moist	Wet
	0 - 0.2' Topsoil (5") roots, silty brown little clay, moist 0.2-1.3 Brown sandy silt, & little angular gravel	○	X	○
1	1.3-1.6 Fill, asphalt fragments nails, brick fragments	X	○	○
2	2 - 2.2 Fill as above, black with brick + asphalt 2.2 - 2.8 Brown hard silt & clay with very little v. fine sand	X	○	○
3	2.8-3.7 Sandy silt, moist grayish brown. v. little clay. fuel odor 3.7-3.9 Cobble, broken rock	○	X	○
4	3.9 - 4 Mottled clay and sand with fuel odor 4 - 4.6 Grayish brown silt + some clay, moist to dry	○	X	○
5	4.6-5.2 Same as above with little gravel + v. little sand 5.2-5.7 Same as above with big rock frags	X	○	○
6	5.7 5.9 Brown med sand with subrounded broken gravel 6 - 6.5 Same as above	X	○	○
7	6.5 -6.9 Fragments of bedrock with same as above sand + v. little gravel with little silt moist to dry	○	○	X
8	Roller bit 7 to 9' BGS & set rock socket	○	○	○
9		○	○	○
10	Existing fractures 9.5, 9.9, 10.75, 11.2, 11.5, 12, 12.1	○	○	○
11	12.64, 14.35, 15.3, 15.8, 17.2	○	○	○
12	Vugs 12.81, 13.06, 13.72, 14.35, 9.5	○	○	○
13	Vertical 13.1	○	○	○
14		○	○	○
15				

DRILLING LOG FOR 640-MW04

Project Name 640 Trolley Blvd. PSA

Site Location 640 Trolley Blvd. Gate, NB-1

Date Started/Finished 11-07-01 / 11-09-01

Drilling Company J. Warner

Driller's Name SJB

Geologist's Name L. Cerv

Geologist's Signature L. Cerv

Rig Type (s) CME-850

Drilling Method (s) HSA/Split Spoon/Roller Bit HQ Rock Coring

Bit Size (s) _____ Auger Size (s) 6 1/4

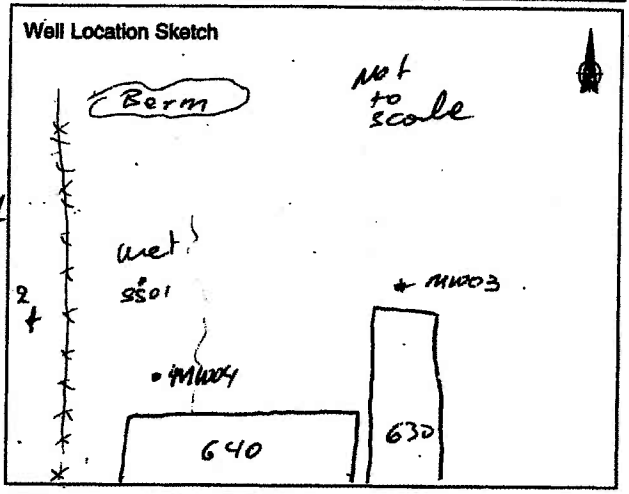
Auger/Split Spoon Refusal 4' BGS

Total Depth of Borehole is _____

Total Depth of Corehole is 27.8

Water Level (TOIC)		
Date	Time	Level(Feet)

Well Location Sketch



Depth(Feet)	Sample Number	Blows on Sampler	Soil Components Rock Profile CL SL S GR	Penetration Times	Run Number	Core Recovery	RQD	Fracture Sketch	HNu/OVA (ppm)	Comments
1		2 4				1.2			20	(0.1-1)
2		48 100/6.4								
3		13 14				1			>1000	1500 640-MW04-22
4		17 100/0.1								
5		100/0.2								
6				0835						Rock socket
7										
8										
9					1	6.3	37			
10										
11										
12				0940						Core block at 12.8
13					2	4.6	69			
14										
15										

640-MW04

Lock Number 2537

SCREENED WELL

Stick-up _____ ft

Top of Grout _____ ft

Top of Seal at 3.8 ft

Top of Sand Pack 5.7 ft

Top of Screen at 7.8 ft

Bottom of Screen at 27.8 ft

Bottom of Hole at 27.8 ft

Bottom of Sandpack at 27.8

Inner Casing Material PVC

Inner Casing Inside Diameter 2 inches

GROUND SURFACE

Quantity of Material Used:

Bentonite Pellets _____

Cement _____

Borehole Diameter 2" inches

Cement/ Bentonite 30lbs

Grout _____

Screen Slot Size 0.10

Screen Type PVC

☒ PVC 20 ft

☐ Stainless Steel

Pack Type/Size:

☒ Sand US Silica #0

☐ Gravel _____

☐ Natural _____

OPEN-HOLE WELL

Stick-up _____ ft

Inner Casing Material _____

Inner Casing Inside Diameter _____ inches

Outer Casing Diameter _____ inches

Borehole Diameter _____ ft

Bedrock 4 ft

Bottom of Rock Socket/ Outer Casing 6 ft

Bottom of Inner Casing 27.8 ft

Corehole Diameter _____

Bottom of Corehole 27.8 ft

NOTE: See pages 136 and 137 for well construction diagrams

Depth-ft.	NARRATIVE LITHOLOGIC DESCRIPTION	Moisture Content: Dry	Moist	Wet
1	0-0.1 Wood block covered w. thk black organic like silt size	○	○	⊘
	0.1-1 Silty clayey soil, brown, fragments of rock	○	⊘	○
2	1-1.2 Crushed dolomite	○	○	○
3	2-3.6 Brown fine sand some silt wet	○	○	⊘
	strong odor & high OVA hits	○	○	⊘
4	Roller bit to 6' BGS & set rock socket	○	○	○
5		○	○	○
6		○	○	○
7	6-8.2 Dolomite. <4" piece at 7.5 3" piece	○	○	○
8	Voids at 16.9	○	○	○
9	Existing fracture at 7.5, 8.9, & 9.5, 10.4	○	○	○
10		○	○	○
11		○	○	○
12		○	○	○
13	Existing fracture at 13, 14.3, & 15, HNG	○	○	○
14		○	○	○
15		○	○	○

DRILLING LOG FOR 640-MW05

Project Name 640 Trolley Blvd. PSA

Site Location 640 Trolley Blvd. Gates, NY

Date Started/Finished 11-08-01

Drilling Company SJB

Driller's Name John Warner

Geologist's Name L. Leni

Geologist's Signature L. Leni

Rig Type (s) CME 850

Drilling Method (s) HSA & Split Spoon

Bit Size (s) _____ Auger Size (s) 6"/4

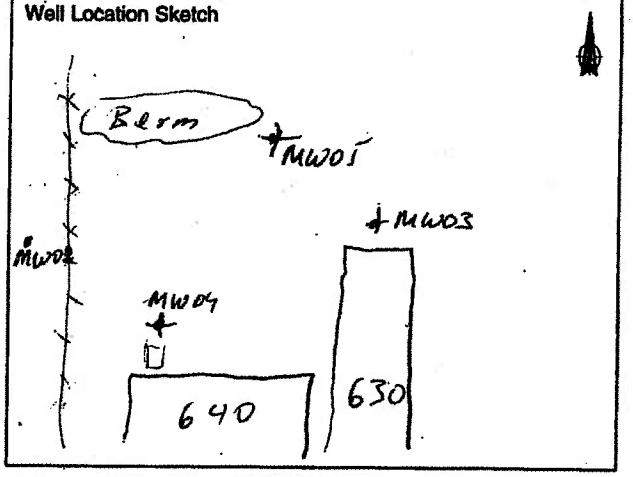
Auger/Split Spoon Refusal 3.5 / 4

Total Depth of Borehole Is _____

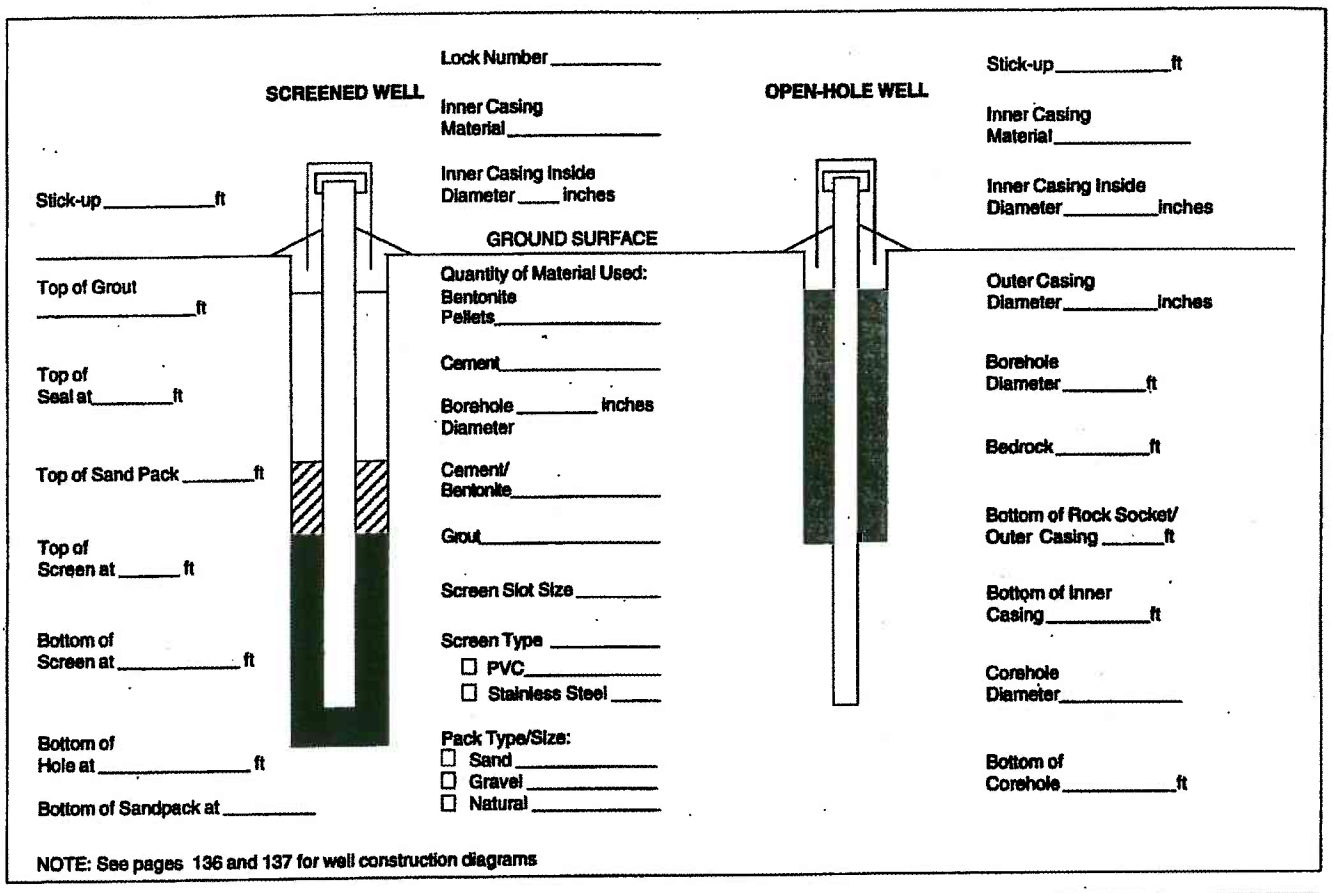
Total Depth of Corehole Is _____

Water Level (TOIC)		
Date	Time	Level(Feet)

Well Location Sketch



Depth(Feet)	Sample Number	Blows on Sampler	Soil Components Rock Profile CL SL S GR	Penetration Times	Run Number	Core Recovery	RQD	Fracture Sketch	HNu/OVA (ppm)	Comments
1		2 4				22			0 - top 50 - 0.4-1	
2		10 30							5-8	1-1.9
3		80 35				16			0.2	640-MW05-22 at 3.4' BGS
4		38 100/0.2								
5		100/0.4								Roller bit rock socket 6' BGS
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										



NOTE: See pages 136 and 137 for well construction diagrams

Depth-ft.	NARRATIVE LITHOLOGIC DESCRIPTION	Moisture Content: Dry	Moist	Wet
1	0-0.4 Topsoil Dark gray to black silty clay roots, moist	○	⊗	○
	0.4-1 Dark gray silty clay, moist to dry hard	○	⊗	○
2	1-1.9 Brown silt with some fn. sand & little clay & some gravel	○	○	○
3	1.9-2.5 Med/fine sand & med gravel some silt, brown	○	○	○
	2.5-3.4 Same as above a little moist	⊗	○	○
4	Refusal	○	○	○
5	Rock socket at 6' BGS	○	○	○
6	Abandoned hole ay	○	○	○
7		○	○	○
8		○	○	○
9		○	○	○
10		○	○	○
11		○	○	○
12		○	○	○
13		○	○	○
14		○	○	○
15		○	○	○

DRILLING LOG FOR 640-MW05

Project Name 640 Trolley Blvd, PSA

Site Location 640 Trolley Blvd. Gates, NY

Date Started/Finished 11-15-01

Drilling Company SJB

Driller's Name J. Warner

Geologist's Name L. Cerv

Geologist's Signature L Cerv

Rig Type (s) CME 75

Drilling Method (s) HSA, Roller Bit HQ Coring

Bit Size (s) _____ Auger Size (s) 6 1/4

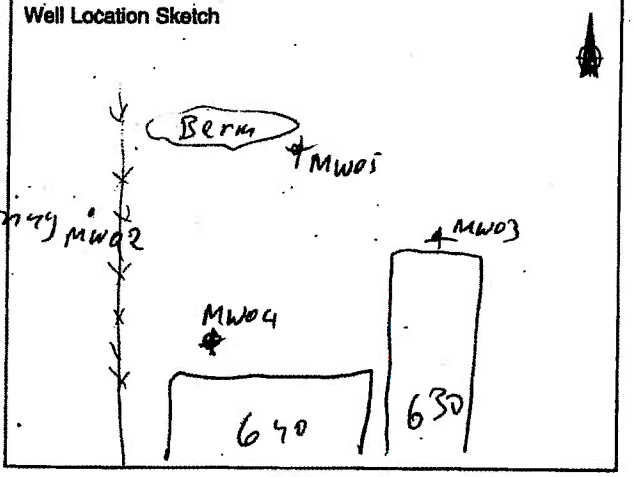
Auger/Split Spoon Refusal 3.5

Total Depth of Borehole Is _____

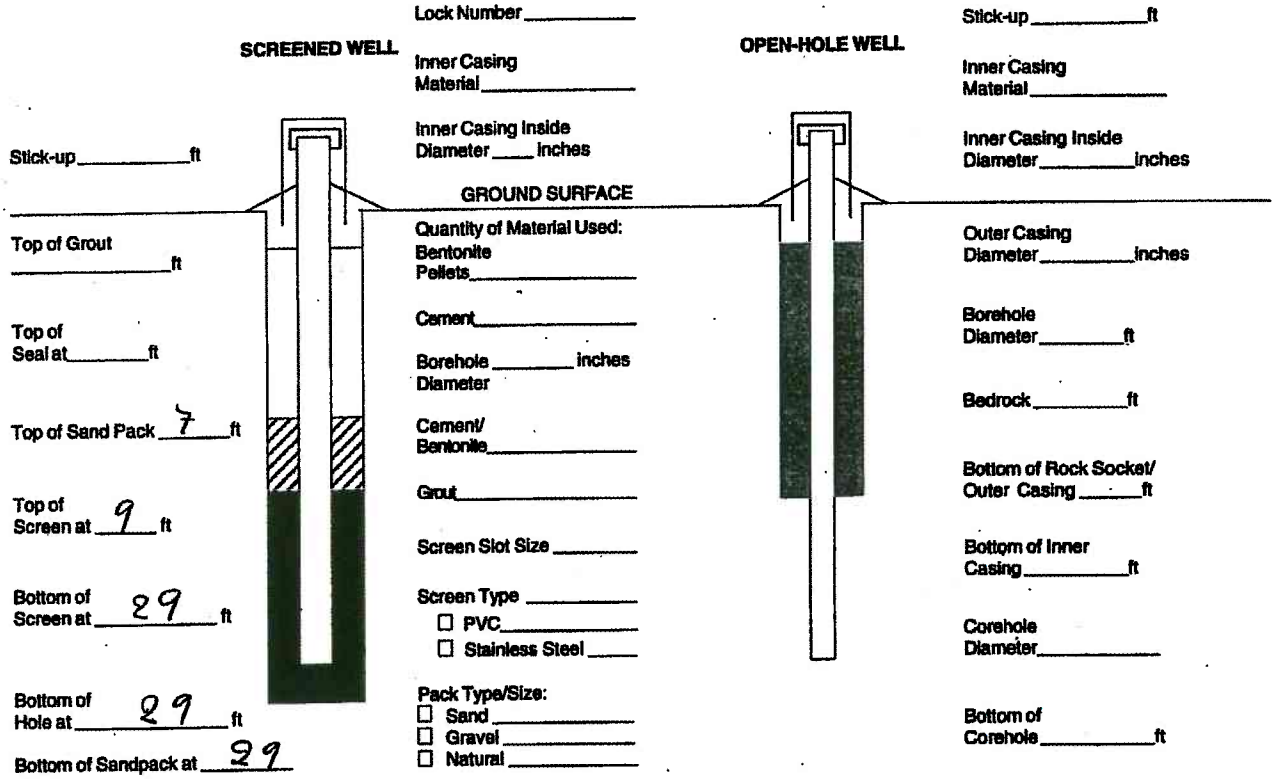
Total Depth of Corehole Is _____

Water Level (TOIC)		
Date	Time	Level (Feet)

Well Location Sketch



Depth (Feet)	Sample Number	Blows on Sampler	Soil Components Rock Profile CL SL S GR	Penetration Times	Run Number	Core Recovery	RQD	Fracture Sketch	HNu/OVA (ppm)	Comments
1										
2										
3										
3.5										
4										
5										
5.5										
6				1420						
7				1444	1	4	8			
8				1455						
9										
10										
11					2	6.5	38			Water at 8' BGS
12										
13										
14				1502						
15				1504						



NOTE: See pages 136 and 137 for well construction diagrams

Depth-ft.	NARRATIVE LITHOLOGIC DESCRIPTION	Moisture Content: Dry	Moist	Wet
1	See 640-MW05 original			
2				
3	Bedrock - Lockport Dolomite			
4	Roller bit & rock socket			
5				
6	Lockport Dolomite fracture at 6.25(h)+6.6(vert)			
7				
8	Existing fract with crys: 9.9, 10.6, 10.9, 11.1, 12, 13.4			
9				
10				
11	At 13.8 oolites			
12				
13				
14				
15				

Attachment B

NYSDOH Indoor Air Quality Questionnaire and Building Inventory

NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH

This form must be completed for each residence involved in indoor air testing.

Preparer's Name _____ Date/Time Prepared _____

Preparer's Affiliation _____ Phone No._____

Purpose of Investigation_____

1. OCCUPANT:

Interviewed: Y / N

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

Number of Occupants/persons at this location _____ Age of Occupants _____

2. OWNER OR LANDLORD: (Check if same as occupant ___)

Interviewed: Y / N

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential	School	Commercial/Multi-use
Industrial	Church	Other: _____

If the property is residential, type? (Circle appropriate response)

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other:_____

If multiple units, how many? _____

If the property is commercial, type?

Business Type(s) _____

Does it include residences (i.e., multi-use)? Y / N If yes, how many? _____

Other characteristics:

Number of floors_____ Building age_____

Is the building insulated? Y / N How air tight? Tight / Average / Not Tight

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors

_____

_____

_____

Airflow near source

_____

_____

_____

Outdoor air infiltration

_____

_____

_____

Infiltration into air ducts

_____

_____

_____

5. BASEMENT AND CONSTRUCTION CHARACTERISTICS (Circle all that apply)

a. Above grade construction:	wood frame	concrete	stone	brick
b. Basement type:	full	crawlspace	slab	other _____
c. Basement floor:	concrete	dirt	stone	other _____
d. Basement floor:	uncovered	covered	covered with _____	
e. Concrete floor:	unsealed	sealed	sealed with _____	
f. Foundation walls:	poured	block	stone	other _____
g. Foundation walls:	unsealed	sealed	sealed with _____	
h. The basement is:	wet	damp	dry	moldy
i. The basement is:	finished	unfinished	partially finished	
j. Sump present?	Y / N			
k. Water in sump?	Y / N / not applicable			

Basement/Lowest level depth below grade: _____(feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

_____

_____

6. HEATING, VENTING and AIR CONDITIONING (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

Hot air circulation	Heat pump	Hot water baseboard	
Space Heaters	Stream radiation	Radiant floor	
Electric baseboard	Wood stove	Outdoor wood boiler	Other _____

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: _____

Boiler/furnace located in:	Basement	Outdoors	Main Floor	Other_____
Air conditioning:	Central Air	Window units	Open Windows	None

Are there air distribution ducts present? Y / N

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

_____

_____

_____

_____

7. OCCUPANCY

Is basement/lowest level occupied? Full-time Occasionally Seldom Almost Never

Level	**General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)**
Basement	_____
1st Floor	_____
2nd Floor	_____
3rd Floor	_____
4th Floor	_____

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y / N

b. Does the garage have a separate heating unit? Y / N / NA

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / N / NA Please specify_____

d. Has the building ever had a fire? Y / N When?_____

e. Is a kerosene or unvented gas space heater present? Y / N Where? _____

f. Is there a workshop or hobby/craft area? Y / N Where & Type? _____

g. Is there smoking in the building? Y / N How frequently? _____

h. Have cleaning products been used recently? Y / N When & Type? _____

i. Have cosmetic products been used recently? Y / N When & Type? _____

j. Has painting/staining been done in the last 6 months? Y / N Where & When? _____

k. Is there new carpet, drapes or other textiles? Y / N Where & When? _____

l. Have air fresheners been used recently? Y / N When & Type? _____

m. Is there a kitchen exhaust fan? Y / N If yes, where vented?_____

n. Is there a bathroom exhaust fan? Y / N If yes, where vented?_____

o. Is there a clothes dryer? Y / N If yes, is it vented outside? Y / N

p. Has there been a pesticide application? Y / N When & Type?_____

Are there odors in the building? Y / N
If yes, please describe: _____

Do any of the building occupants use solvents at work? Y / N
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? Y / N

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly) No
Yes, use dry-cleaning infrequently (monthly or less) Unknown
Yes, work at a dry-cleaning service

Is there a radon mitigation system for the building/structure? Y / N Date of Installation: _____
Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

Water Supply:	Public Water	Drilled Well	Driven Well	Dug Well	Other: _____
Sewage Disposal:	Public Sewer	Septic Tank	Leach Field	Dry Well	Other: _____

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: _____

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

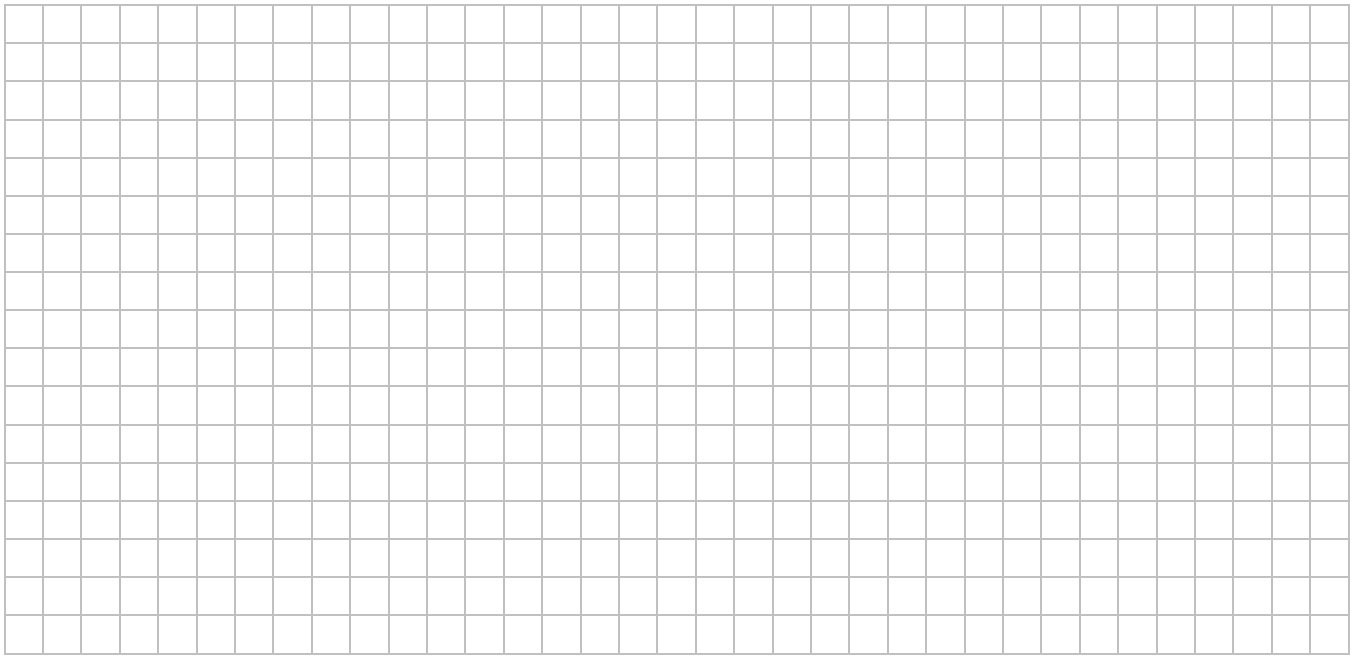
c. Responsibility for costs associated with reimbursement explained? Y / N

d. Relocation package provided and explained to residents? Y / N

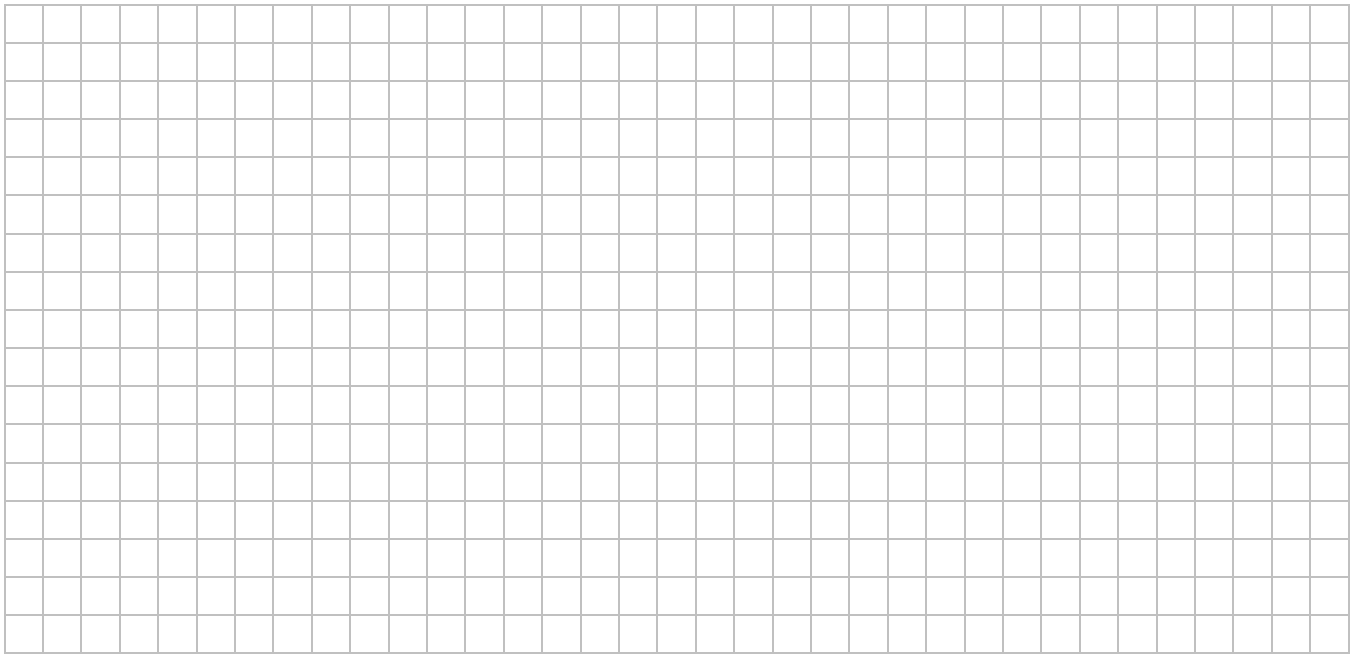
11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:



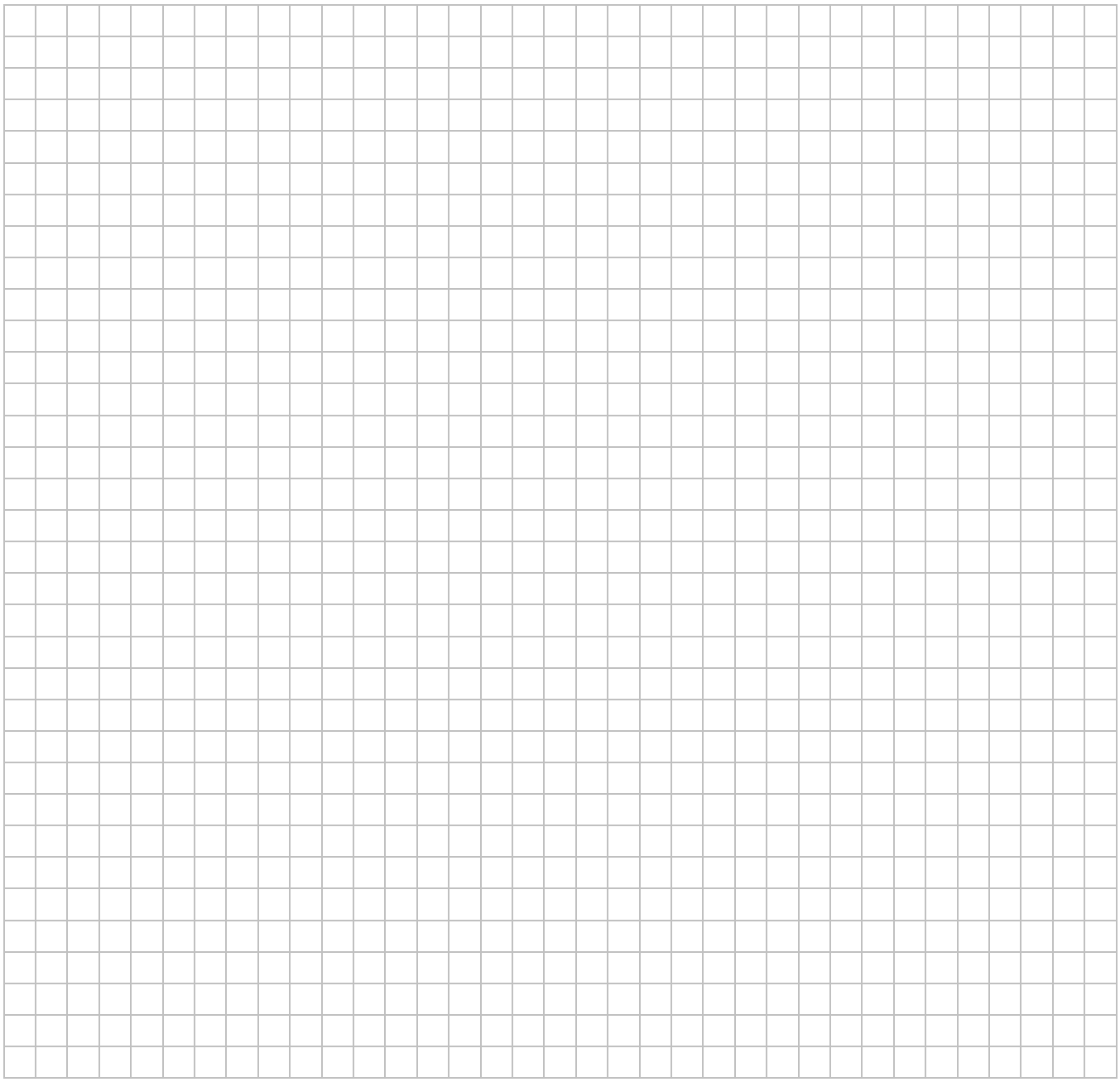
First Floor:



12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.



13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: _____

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

Appendix B

Health and Safety Plan Addendum

Health and Safety Plan Addendum
640 Trolley Boulevard Site (8-28-108), Gates, New York

Prepared for

New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233

Prepared by

EA Engineering, P.C., and Its Affiliate
EA Science and Technology
6731 Collamer Road, Suite 2
East Syracuse, New York 13057
(315) 431-4610

June 2006
EA Project No. 14368.02

Health and Safety Plan Addendum
640 Trolley Boulevard Site (8-28-108), Gates, New York

Prepared for

New York State Department of Environmental Conservation
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Albany, New York 12233

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6731 Collamer Road
East Syracuse, New York 13057-9808
(315) 431-4610

20 June 2006
Christopher J. Canonica, P.E., Program Manager — Date
EA Engineering, P.C.

20 June 2006
David W. Eck, P.E., Project Manager — Date
EA Engineering, P.C.

20 June 2006
Robert S. Casey, Site Manager — Date
EA Science and Technology

June 2006
Project No.: 14368.02

CONTENTS

1. INTRODUCTION

1.1 GENERAL

A Generic Health and Safety Plan (HASP) (EA 2006)[1] has been developed for field activities performed under the New York State Department of Environmental Conservation (NYSDEC) Standby Contracts D004438 and D004441. This Health and Safety Plan (HASP) Addendum is to supplement the Generic HASP with site-specific information to protect the health and safety of personnel while performing field activities to complete the Remedial Investigation/Feasibility Study Work Assignment for the 640 Trolley Boulevard Site, Monroe County, Gates, New York (NYSDEC Site No. 8-28-108).

This HASP Addendum describes the safety organization, procedures, and protective equipment that have been established based on an analysis of potential physical, chemical, and biological hazards. Specific hazard control methodologies have been evaluated and selected to minimize the potential for accidents or injuries to occur. One copy of the Generic HASP and this HASP Addendum will be maintained for use during the scheduled field sampling effort. The copies will be made available for site use and employee review at all times.

This HASP Addendum addresses regulations and guidance practices set forth in the Occupational Safety and Health Administration (OSHA) Standards for Construction Industry, 29 Code of Federal Regulations (CFR) 1926, including 29 CFR 1926.65, *Hazardous Waste Operations and Emergency Response* and 29 CFR 1926.59, *Hazardous Communications*.

The following are provided as attachments:

- Attachment A: Worker Training and Physical Examination Record
- Attachment B: Health and Safety Plan Review Record
- Attachment C: Site Entry and Exit Log
- Attachment D: Accident Investigation Report
- Attachment E: Emergency Telephone Numbers and Hospital Directions
- Attachment F: Emergency Equipment Available Onsite
- Attachment G: Map to Hospital
- Attachment H: Personal Protective Equipment Activity Record
- Attachment I: Material Safety Data Sheets.

NOTE: This site-specific HASP Addendum should be left open to display Attachment E (Emergency Telephone Numbers and Hospital Directions) and made available to all site personnel in a conspicuous location for the duration of field activities in the event of an emergency.

1.2 SITE AND FACILITY DESCRIPTION

[1] EA Engineering, P.C. 2006. *Generic Health and Safety Plan for Work Assignments under NYSDEC Contracts D004438 and D004441*. June.

The 640 Trolley Boulevard site is located on the north side of Trolley Boulevard, in the Town of Gates, Monroe County, New York (Figure 1). The property is approximately 1.12 acres in size and includes an approximate 12,000 square-ft block-building. Historically, the building has been divided and operated as separate businesses. Land use to the immediate north, west, and east of the sites is mixed commercial and industrial. Underground utilities are located along the front of the property near Trolley Boulevard.

The New York State Barge Canal (NYSBC) is the primary surface water body in the vicinity of the site and lies approximately 750 ft north of the site. A drainage ditch is located approximately 250 ft north of the building and trends east-west before it turns to the north toward the NYSBC. This drainage ditch, along with a drainage ditch located along the property boundary west of the site, likely represents the primary drainage features for surface water runoff.

1.3 SITE HISTORY

A dry well was discovered on the property in October 2000, while a tenant was removing trees in order to expand the parking area north of the building. Approximately 20 gal of an oily substance, which contained polychlorinated biphenyls (PCBs), chlorinated compounds (1,1,1-trichloroethane; 1,1-dichloroethane; and chloroethane), acetone, and xylenes, was removed from the drywell. As part of an Interim Remedial Measure (IRM), 19.5 tons of hazardous waste were removed from around the drywell and disposed of offsite at a licensed facility.

A Preliminary Site Assessment (PSA) conducted in 2002 identified PCBs in the surface and subsurface soil near the drywell. In addition, a Geoprobe investigation using field screen methods was conducted as part of the PSA and concluded that the limits of the PCB contamination north of the building and around the drywell was not defined. No PCB contamination was present in groundwater samples collected from five bedrock monitoring wells. Volatile organic compounds including 1,1,1-trichloroethane; 1,1-dichloroethane; acetone; and chloroethane were detected in groundwater samples collected from two of the onsite monitoring wells.

An Immediate Investigation Work Assignment (IIWA) was conducted in May 2006 during which a Geoprobe investigation was conducted in the loading dock area behind the building on the site. Approximately 130 cubic yards of soil were removed from the loading dock area during the IIWA. PCBs were detected slightly above the cleanup level of 1 part per million (ppm) in shallow soils left in place at two locations.

1.4 POLICY STATEMENT

EA will take every reasonable step to provide a safe and healthy work environment; and to eliminate or control hazards in order to minimize the possibility of injuries, illnesses, or accidents to site personnel. EA and EA subcontractor employees will be familiar with the Generic HASP and this HASP Addendum for the project activities they are involved in. Prior to entering the site, the Generic HASP and this HASP Addendum will be reviewed and an agreement to comply with the requirements will be signed by EA personnel, subcontractors, and

visitors (Attachment B).

Operational changes that could affect the health and safety of the site personnel, community, or environment will not be made without approval from the Project Manager and the Program Health and Safety Officer. This document will be periodically reviewed to ensure that it is current and technically correct. Any changes in site conditions and/or the scope of work will require a review and modification to the HASP Addendum. Such changes will be documented in the form of a revision to this addendum.

2. KEY PERSONNEL

The following table contains information on key project personnel:

Title	Name	Telephone No.
Officer-in-Charge	Richard Waterman	508-485-2982
Program Health and Safety Officer	Kris Hoiem, CIH	732-404-9370
Program Manager	Chris Canonica, P.E.	315-431-4610
Quality Assurance/Quality Control Officer	Tom Porter	315-431-4610
Project Manager	Dave Eck, P.E.	315-431-4610
Quality Assurance/Quality Control Coordinator	Christie Sobol, E.I.T.	315-431-4610
Site Manager/Site Health and Safety Officer	Robert Casey	315-431-4610
NYSDEC Project Manager	Jason Pelton	518-402-9815

3. SCOPE OF WORK

This HASP Addendum was developed to designate and define site-specific health and safety protocols applicable to project activities to be implemented and followed during field activities and consulting work at the 640 Trolley Boulevard site, Gates, New York. The scope of work covered by this HASP Addendum includes:

- Direct-push/Geoprobe drilling program
- Subsurface drilling program
- Groundwater sampling
- Surface water and sediment sampling
- Indoor air monitoring program.

3.1 DIRECT-PUSH/GEOPROBE DRILLING PROGRAM

A direct-push drilling program will be implemented as part of this Work Assignment to evaluate the shallow overburden unit. It is estimated that a total of approximately 58 shallow soil borings will be drilled in the area north of and beneath the 640 Trolley Boulevard building. It is expected that the shallow soil borings will be advanced to the top of the bedrock unit. The bedrock beneath the site is Lockport Dolomite and is typically encountered three to 5 ft below ground surface.

During the direct-push drilling program, subsurface soil samples will be collected continuously from each of the soil borings until the bedrock/refusal is encountered. Each soil sample will be described and logged identifying its geologic character, features, and properties. The soil will be screened visually for evidence of contamination.

Up to three soil samples will be collected from each of the borings (a maximum of 174 samples) for field analysis. At each boring a surface soil sample will be collected from the 0 to 2-in. interval. Up to two additional samples will be collected from the remaining soil column with bias toward the most contaminated interval based on photo ionization detector (PID) screening, color, and odors, etc. If no contamination is detected, the subsurface soil sample will be collected either at the water table interface or directly above the bedrock surface, which ever occurs first.

Drill cuttings will be placed back in the soil borings if there is no visible contamination. Visibly contaminated drill cuttings will be drummed in accordance with Section 8 (Storage and Disposal of Waste).

3.2 SUBSURFACE DRILLING PROGRAM

A drilling program will be implemented as part of this Work Assignment to evaluate the overburden and bedrock units, groundwater quality, and groundwater flow patterns. The drilling program will include overburden drilling and sampling, and bedrock drilling and coring. Six soil borings will be drilled and subsequently completed as groundwater monitoring wells at the 640 Trolley Boulevard Site. It is expected that one of the groundwater monitoring wells will be

installed beneath the 640 Trolley Boulevard building.

During the drilling program, subsurface soil samples will be collected continuously from each of the soil borings until bedrock is encountered. Drill cuttings will be placed on the ground surface if no visible contamination is observed. Visibly contaminated drill cuttings will be drummed and disposed of in accordance with applicable rules and regulations.

The drilling program will include the installation of six shallow groundwater monitoring wells. The shallow wells will be approximately 25 to 30-ft deep and screened entirely within the shallow bedrock system. During installation, the overburden will be drilled to bedrock using 6-1/4 in. inside diameter (ID) hollow-stem augers, with continuous split spoon sampling to the top of bedrock (anticipated to be three to six ft below ground surface).

Once bedrock is encountered, a rock socket will be set one to two ft into the top of competent bedrock. The rock socket will be advanced by water rotary rock drilling with a 5-7/8 in. outside diameter roller bit using the hollow-stem augers as a temporary casing. Four in. ID steel casing will be set in the rock socket and cement/bentonite grout will be injected around the casing through a tremie pipe. The hollow-stem augers will then be withdrawn and the grout within the borehole will be topped off, as necessary. The cement/bentonite grout will be allowed to set for a minimum of 24-hours prior to completing the bedrock core to a depth of approximately 25 to 30-ft below ground surface. The bedrock will be HQ cored to a depth of approximately 25 to 30-ft below grade and the monitoring well will be constructed as described below.

Each monitoring well will be constructed with a ten-ft length of two-in. ID threaded schedule 40 polyvinyl chloride (PVC) flush-joint casing with a ten-ft machine slotted 0.010-in. well screen. The annulus around the well screen will be backfilled with No. 1 Morie sand. The sand pack will extend one to two ft above the well screen. A bentonite seal will be placed above the sand pack to form a minimum two-ft seal. Cement/bentonite grout will be placed to within three ft of the surface. Each well will have a vented cap and there will be a locking cover. It is anticipated that four monitoring wells (including the replacement well for MW-02) will be flush mounted due to their location inside the building or in a paved loading area. A cement pad will be installed to channel surface water away from the well. A weep hole will be drilled in the stick-up protective casing to allow any water between the inner and outer casing to drain. The monitoring well identifications will start with MW-06.

The monitoring wells will be developed no sooner than 24-hours following installation. The wells will be developed using surging and pumping techniques. Well development will be considered complete when temperature, conductivity, and pH have stabilized and a turbidity of less than 50 nephelometric turbidity units has been achieved. Development water will be discharged to the ground surface away from the well, unless otherwise directed by the NYSDEC. If non-aqueous phase liquid (NAPL) or an odor is observed, or if directed by NYSDEC, the development water will be containerized, handled, and disposed of in accordance with applicable rules and regulations.

3.3 GROUNDWATER SAMPLING

Groundwater samples will be collected during two separate sampling events from 11 monitoring wells (5 existing wells (including the replacement well for MW-02) and 6 monitoring wells installed as part of this RI). Prior to the start of both groundwater sampling events, water levels will be collected from the monitoring well network and from the NYSBC to prepare a groundwater contour map and evaluate groundwater flow patterns. In addition, an oil/water interface probe will be used to measure product thickness (if any) in the groundwater monitoring wells.

Purge water will be discharged to the ground surface away from the well, unless otherwise directed by the NYSDEC. If NAPL or an odor is observed, or if directed by NYSDEC, the purge water must be containerized, handled, and disposed of in accordance with applicable rules and regulations.

3.4 SURFACE WATER AND SEDIMENT SAMPLING

Two drainage ditches are present near the 640 Trolley Boulevard site. To better define the distribution of PCBs in the drainage ditches, approximately 11 sediment and 4 surface water samples will be collected and analyzed by an approved Environmental Laboratory Approval Program- (ELAP-) certified laboratory for PCBs.

3.5 INDOOR AIR MONITORING PROGRAM

To evaluate the migration of vapors into on-site buildings a sub-slab and indoor air monitoring program will be completed as part of the 640 Trolley Boulevard site investigation activities. The indoor air monitoring program will be completed in accordance with the New York State Department of Health (NYSDOH) Indoor Air Sampling and Analysis Guidance (NYSDOH, 2005)[2]. Indoor air samples will be collected at five locations within the three site buildings at the 640 Trolley Boulevard site.

3.5.1 Indoor Air Sample Collection

An inspection of general site conditions will be performed at each property location as part of the indoor air sampling. The inspection will include the following activities:

- Completion of the NYSDOH Indoor Air Quality Questionnaire and Building Inventory included in Indoor Air Sampling and Analysis Guidance.
- Documentation of weather conditions outside and inside and temperature inside.
- Ambient air (indoor and outdoor) screening using field equipment (i.e., parts per billion PID).

[2] NYSDOH. 2005. *Indoor Air Sampling and Analysis Guidance*. New York State Department of Health, Division of Environmental Health Assessment, Center for Environmental Health. 1 February, 2005.

- Selection of air sampling locations.

At each location, air samples will be collected for laboratory analysis utilizing the USEPA TO-15 methodology. Air samples will be collected from two locations per sampling point including the first floor and the sub-slab environment. An active approach utilizing laboratory batch-certified Summa canisters, regulated for a 24-hour sample collection, will be used to evaluate the indoor air and sub-slab soil vapor conditions.

The indoor air canisters will be setup during an initial visit, allowed to collect the air samples during a 24-hour period, and then retrieved at the conclusion of the 24-hour period and sent to the laboratory for analysis. A section of Teflon or polyethylene tubing that is identified as laboratory or food grade will be extended from the Summa canister to collect the indoor air sample from the breathing zone at approximately 3 ft above the floor.

The sub-slab soil vapor samples will be collected from a location near the indoor air canisters beneath the floor of each building and away from floor penetrations (i.e., cracks, floor drains, sumps, etc.). After completing the inspection of general site conditions, a borehole will be advanced through the floor and approximately 2 in. into the sub-grade material to collect a soil vapor sample. The sub-slab soil vapor samples will be collected during the same 24-hour period that the indoor air samples are collected. Upon completion of the sub-slab sampling, the sample tubing will be removed, the sub-slab soil vapor probe locations will be backfilled, and the surfaces finished with cement or appropriate material to match the existing floor surfaces.

3.5.2 Outdoor Air Sample Collection

During the indoor air monitoring program, one outdoor ambient air sample will be collected. The ambient air sample will be collected during the same 24-hour period as the indoor air samples and from an evenly spaced location, which is representative of outdoor air conditions for the entire sampling area. The ambient air sample will be collected in a laboratory batch-certified Summa canister, regulated for a 24-hour sample collection. A section of Teflon or polyethylene tubing that is identified as laboratory or food grade will be extended from the Summa canister to collect the ambient air sample from the breathing zone at approximately 3 to 5 ft above ground surface.

3.6 STORAGE AND DISPOSAL OF WASTE

EA is responsible for the proper storage, handling, and disposal of investigative derived waste (IDW) including personal protective equipment, and solids and liquids generated during the well drilling, well development, and well sampling activities. Liquids generated during well drilling, well development, and well sampling that exhibit visual staining, sheen, or discernable odors will be collected in drums or other containers at the point of generation. The drums will be stored in the staging area. A waste subcontractor will then remove the drums and dispose at an offsite location. Liquids generated during well drilling, well development, and well sampling that exhibit no visual staining, sheen or discernable odor will be discharged to an unpaved area

on Site, where it can percolate into the ground. Excess drill cuttings generated from the installation of monitoring wells will also be disposed of onsite if there is no visible staining, sheen or discernable odors. Drill cuttings that do exhibit visible staining, sheen or discernable odors will be staged onsite until an appropriate treatment/disposal procedure has been determined after the completion of the feasibility study. All drummed materials will be clearly labeled as to their contents and origin. All IDW will be managed in accordance with NYSDEC-Division of Environmental Remediation (DER) Technical and Administrative Guidance Memorandum 4032 (NYSDEC, 1989)[3].

[3] NYSDEC. 1989. Technical and Administrative Guidance Memorandum #4032, Disposal of Drill Cuttings. 21 November, 1989.

4. POTENTIAL HAZARD ANALYSIS

Based upon the above field activities, the following potential hazard conditions may be anticipated:

- The use of mechanical equipment such as drill rigs, powered augers, and hammer drills can create a potential for crushing and pinching hazards due to movement and positioning of the equipment: movement of lever arms and hydraulics; entanglement of clothing and appendages in exposed drives and augers; and impact of steel tools, masts, and cables should equipment rigging fail, or other structural failures occur during hydraulic equipment operation and drilling mast extension and operation. Heavy equipment work must be conducted only by trained, experienced personnel. If possible, personnel must remain outside the turning radius of large, moving equipment. At a minimum, personnel must maintain visual contact with the equipment operator. When not operational, equipment must be set and locked so that it cannot be activated, released, dropped, etc.

- Equipment can be energized due to contact with overhead or underground electrical lines, utilities impaired by excavation of communication or potable/wastewater lines, or a potential for fire or explosion may occur due to excavation of below ground propane/ natural gas lines. Prior to commencement of invasive operations, a drilling/excavation permit will be obtained and the area will be inspected and flagged. Personnel should be aware that although an area may be cleared, it does not mean that unanticipated hazards will not appear. Safe distances will be maintained from live electrical equipment as specified in Generic HASP. Workers should always be alert for unanticipated events such as snapping cables, digging into unmarked underground utilities, etc. Such occurrences should prompt involved individuals to halt work immediately and take appropriate corrective measures to gain control of the situation.

- Work around large equipment often creates excessive noise. Noise can cause workers to be startled, annoyed, or distracted; can cause physical damage to the ear, pain, and temporary and/or permanent hearing loss; and can interfere with communication. If workers are subjected to noise exceeding an 8-hour time-weighted average sound level of 85 dBA, hearing protection will be selected with an appropriate noise reduction rating to comply with 29 CFR 1910.95 and to reduce noise below levels of concern.

- Personnel may be injured during physical lifting and handling of heavy equipment, construction materials, or containers. Additionally, personnel may encounter slip, trip, and fall hazards associated with excavations, manways, and construction debris and materials. Precautionary measures should be taken in accordance with the Generic HASP and this HASP Addendum.

- Field operations conducted during the winter months can impose excessive heat loss to personnel conducting strenuous activities during unseasonably cold weather days and can

impose cold-related illness symptoms during unseasonably cold weather days or when wind chill is high. In addition, heavy rains, electrical storms, and high winds may create extremely dangerous situations for employees.

- Entry into a confined space in support of this project is forbidden. However, it is not anticipated that confined space entry will be required during the completion of the field activities.

- Field investigation activities intended to define potential sources of environmental contamination often require employees to be in direct proximity or contact with hazardous substances. Employees may be exposed through inhalation of toxic dusts, vapors, or gases. Normal dust particulates from surficial soil may have adsorbed or absorbed toxic solvents, petroleum compounds, or toxic metal salts or metal particulates. Air monitoring equipment will be used to monitor airborne organic vapors and particulates. Water collected during well development and groundwater sampling activities may also contain toxic vapors, liquids, and gases and be inhaled during normal operations, or may be splashed onto the skin or eyes. Ingestion of toxic materials contained in dusts or particulates can be ingested if eating, smoking, drinking, and gum chewing are permitted prior to personnel washing their hands and face or removing contaminated work clothing and personal protective equipment. Some chemicals may be absorbed directly through the skin. Personal protective equipment, properly designed for the chemicals of concern, will always be provided and worn when a potential for skin contact is present.

The potential constituents of concern that may be present at the site include, but are not limited to, PCBs; 1,1,1-trichloroethane; 1,1-dichloroethane; chloroethane; acetone; and xylene. Material safety data sheets for these chemicals are provided in Attachment I.

5. PERSONAL PROTECTIVE EQUIPMENT

Based upon currently available information, it is anticipated that Level D protection will be required for currently anticipated conditions and activities. If at any time the sustained level of total organic vapors in the worker breathing zone exceeds 5 ppm above background, site workers will evacuate the area and the condition will be brought to the attention of the Site Health and Safety Officer. Efforts will then be undertaken to mitigate the source of the vapors. Once the sustained level of total organic vapors has decreased to below 5 ppm above background, site workers will be allowed to continue activities at the direction of the Site Health and Safety Officer.

The personal protective equipment (PPE) components for use during this project are detailed in the Generic HASP. The components of Level D PPE are summarized below.

Level D Personal Protective Equipment

Level D will be worn for initial entry onsite and initially for all activities and will consist of the following:

- Coveralls or appropriate work clothing
- Steel-toe, steel-shank safety boots/shoes
- Hard hats (when overhead hazards are present or as required by the Site Health and Safety Officer)
- Chemical resistant gloves (nitrile/neoprene) when contact with potentially contaminated soil or water is expected
- Safety glasses with side shields
- Hearing protectors (during drilling or other operations producing excessive noise)
- Boot covers (optional unless in contact with potentially contaminated soil or water)
- Polycoated coveralls (when contact with contaminated soil and water is anticipated, e.g., when surging/pumping wells and pressure-washing equipment).

Insulated clothing, hats, etc. must be worn when temperatures or wind chill fall below 40°F.

6. SITE CONTROL AND SECURITY

Only authorized personnel will be permitted to conduct field activities. Authorized personnel include those who have completed hazardous waste operations initial training, as defined under OSHA Regulation 29 CFR 1910.120/29 CFR 1926.65, have completed their training or refresher training within the past 12 months, and have been certified by a physician as fit for hazardous waste operations.

6.1 SAFE WORK PRACTICES

Safe work practices that will be followed by site workers include, but are not limited to, the following rules:

- Working before or after daylight hours without special permission is prohibited
- Do not enter restricted or posted areas without permission from the Site Health and Safety Officer
- Smoking is limited to designated areas
- Possessing, using, purchasing, distributing, or having controlled substances in their system throughout the day or during meal breaks is prohibited
- Consuming or possessing alcoholic beverages is prohibited
- Good housekeeping – employees will be instructed about housekeeping throughout field activities
- Sitting or kneeling in areas of obvious contamination is prohibited
- Avoid overgrown vegetation and tall grass areas

6.2 DAILY STARTUP AND SHUTDOWN PROCEDURES

The following protocols will be followed daily prior to start of work activities:

- The Site Health and Safety Officer will review site conditions to determine if modification of work and safety plans is needed

- Personnel will be briefed and updated on new safety procedures as appropriate

- Safety equipment will be checked for proper function

- The Site Health and Safety Officer will ensure that the first aid kit is adequately stocked and readily available

- The Contractor is responsible for the security of its own equipment. All onsite equipment and supplies will be locked and secure.

EA Engineering, Science, and Technology, Inc.

640 TROLLEY BOULEVARD SITE (8-28-108)

GATES, NEW YORK

FIGURE 1
Site Location

PROJECT MGR:	DESIGNED BY:	CREATED BY:	CHECKED BY:	SCALE:	DATE:	PROJECT NO:	FILE NO:
DWE	CJS	CJS	CWS	AS SHOWN	JUNE 2006	14368.02	GIS/PROJECTS/ FIGURE1.MXD

Attachment A

Worker Training and Physical Examination Record

ATTACHMENT A

WORKER TRAINING AND PHYSICAL EXAMINATION RECORD

SITE: 640 Trolley Boulevard, Gates, New York						
Name	OSHA 40-Hour Hazardous Waste Operations Training		OSHA Hazardous Waste Supervisor Training	CPR (date of expiration)	First Aid (date of expiration)	Date of Last Physical Examination
	Initial	Annual				
EA PERSONNEL						
Tom Porter	2/3/89	3/22/01	3/3/89	---	---	6/12/01
David Eck, P.E.	3/1/96	1/29/04	---	7/1/05	6/1/98	4/29/04
Christie Sobol, E.I.T.	6/8/99	9/16/05	---	5/30/07	5/30/08	10/4/05
Robert Casey	11/1/01	3/11/05	---	5/1/04	5/1/05	10/26/04
James Gatherer	1/4/99	5/27/03	---	8/30/01	8/30/02	1/01
Matt Hoskins	12/25/05	---	---	5/30/07	5/30/08	11/06
Richard Waterman	8/88	1998	2/94	3/04	3/05	---
Kris Hoiem, CIH	4/3/87	12/15/01	5/31/92	2/13/96	2/13/96	7/14/00
SUBCONTRACTOR OR ADDITIONAL PERSONNEL						
---	---	---	---	---	---	---
---	---	---	---	---	---	---

NOTE: Prior to performing work at the site, this Health and Safety Plan must be reviewed and an agreement to comply with the requirements must be signed by all personnel, including contractors, subcontractors, and visitors. Contractors and subcontractors are ultimately responsible for ensuring that their own personnel are adequately protected. In signing this agreement, the contractors and subcontractors acknowledge their responsibility for the implementation of the Health and Safety Plan requirements. All personnel onsite shall be informed of the site emergency response procedures and any potential safety or health hazards of the operations.

Attachment B

Review Record

ATTACHMENT B

HEALTH AND SAFETY PLAN REVIEW RECORD

I have read the Health and Safety Plan for this site and have been briefed on the nature, level, and degree of exposure likely as a result of participation in this project. I agree to conform to all the requirements of this Plan.

SITE: 640 Trolley Boulevard, Gates, New York			
Name	Signature	Affiliation	Date

Attachment C

Site Entry and Exit Log

ATTACHMENT C

SITE ENTRY AND EXIT LOG

SITE: 640 Trolley Boulevard, Gates, New York				
Name	Date	Time of Entry	Time of Exit	Initials

Attachment D

Accident Investigation Report

ACCIDENT/LOSS REPORT

THIS REPORT MUST BE COMPLETED BY THE INJURED EMPLOYEE OR SUPERVISOR AND FAXED TO EA CORPORATE HUMAN RESOURCES WITHIN 24 HOURS OF ANY ACCIDENT. THE FAX NUMBER IS **(410) 771-1780**.

NOTE WHENEVER AN EMPLOYEE IS SENT FOR MEDICAL TREATMENT FOR A WORK RELATED INJURY OR ILLNESS, PAGE 4 OF THIS REPORT MUST ACCOMPANY THAT INDIVIDUAL TO ENSURE THAT ALL INVOICES/BILLS/CORRESPONDENCE ARE SENT TO HUMAN RESOURCES FOR TIMELY RESPONSE.

A. DEMOGRAPHIC INFORMATION:

NAME OF INJURED EMPLOYEE:_____
HOME ADDRESS:_____
HOME PHONE:_____ DATE OF BIRTH:_____
AGE:_____ SEX: M F
MARITAL STATUS:_____ NAME OF SPOUSE (if applicable)_____
SOCIAL SECURITY NUMBER:_____ DATE OF HIRE:_____
NUMBER OF DEPENDENTS:_____
EMPLOYEES JOB TITLE:_____
DEPT. REGULARLY EMPLOYED:_____
WAS THE EMPLOYEE INJURED ON THE JOB: Y N
PRIMARY LANGUAGE OF THE EMPLOYEE: _____

B. ACCIDENT/INCIDENT INFORMATION:

DATE OF ACCIDENT:_____ TIME OF ACCIDENT:_____
REPORTED TO WHOM: _____ NAME OF SUPERVISOR_____
EXACT LOCATION WHERE ACCIDENT OCCURRED (**including street, city, state and County**):
_____
_____
EXPLAIN WHAT HAPPENED (include what the employee was doing at the time of the accident and how the accident occurred): _____
_____
_____
_____

DESCRIBE THE INJURY AND THE SPECIFIC PART OF THE BODY AFFECTED (i.e., laceration, right hand, third finger):
_____
_____

OBJECT OR SUBSTANCE THAT DIRECTLY INJURED EMPLOYEE:_____
_____
NUMBER OF DAYS AND HOURS EMPLOYEE USUALLY WORKS PER WEEK:_____
IS THE EMPLOYEE EXPECTED TO LOSE AT LEAST ONE FULL DAY OF WORK?_____
DOES THE EMPLOYEE HAVE A PREVIOUS CLAIM? Y N if yes, STATUS Open Closed
WAS THE EMPLOYEE ASSIGNED TO RESTRICTED DUTY? _____

C. ACCIDENT INVESTIGATION INFORMATION

WAS SAFETY EQUIPMENT PROVIDED? Y N If yes, was it used? Y N
WAS AN UNSAFE ACT BEING FORMED ? Y N If yes, describe_____
WAS A MACHINE PART INVOLVED? Y N If yes, describe _____
WAS THE MACHINE PART DEFECTIVE? Y N If yes, in what way _____
WAS A 3RD PARTY RESPONSIBLE FOR THE ACCIDENT/INCIDENT? Y N
If yes, list Name, address and phone number_____
_____
WAS THE ACCIDENT/INCIDENT WITNESSED? Y N
If yes, list Name, address and phone number: _____
_____

D. PROVIDER INFORMATION

WAS FIRST AID GIVEN ON SITE? Y N
If yes, what type of medical treatment was given _____
PHYSICIAN INFORMATION (if medical attention was administered)
NAME:_____
ADDRESS (incl. City, state and zip):_____
PHONE:_____

HOSPITAL ADDRESS (incl. Name, address, city, state, zip code & phone)
_____
_____

WAS THE EMPLOYEE HOSPITALIZED? Y N If yes, on what date_____
WAS THE EMPLOYEE TREATED AS AN OUTPATIENT, RECEIVE EMERGENCY TREATMENT OR AMBULANCE SERVICE? _____

PLEASE ATTACH THE PHYSICIANS WRITTEN RETURN TO WORK SLIP

***NOTE* A PHYSICIANS RETURN TO WORK SLIP IS REQUIRED PRIOR TO ALLOWING THE WORKER TO RETURN TO WORK**

E. AUTOMOBILE ACCIDENT INFORMATION (complete if applicable)

AUTHORITY CONTACTED AND REPORT #_____
EA EMPLOYEE VEHICLE YEAR, MAKE AND MODEL_____

V.I.N._____ PLATE/TAG #_____
OWNER'S NAME AND ADDRESS:_____
_____
DRIVER'S NAME AND ADDRESS: _____
_____
RELATION TO INSURED:_____DRIVER'S LICENSE #_____
DESCRIBE DAMAGE TO YOUR PROPERTY:_____
_____
_____
DESCRIBE DAMAGE TO OTHER VEHICLE OR PROPERTY:_____
_____
_____
OTHER DRIVER'S NAME AND ADDRESS: _____
_____
OTHER DRIVER'S PHONE:_____
OTHER DRIVER'S INSURANCE COMPANY AND PHONE:_____
_____
LOCATION OF OTHER VEHICLE:_____
NAME, ADDRESS AND PHONE OF OTHER INJURED PARTIES:_____
_____
_____
WITNESSES

NAME:_____ PHONE:_____
ADDRESS:_____
STATEMENT:_____
_____
SIGNATURE: _____

NAME:_____ PHONE:_____
ADDRESS:_____
STATEMENT:_____
_____
SIGNATURE: _____

F. ACKNOWLEDGEMENT

NAME OF SUPERVISOR:_____
DATE OF THIS REPORT: _____ REPORT PREPARED BY:_____

I have read this report and the contents as to how the accident/loss occurred is accurate to the best of my knowledge.

Signature: _____ Date: _____
Injured Employee

I am seeking medical treatment for a work related injury/illness.

Please forward all bills/invoices/correspondence to:

EA ENGINEERING, SCIENCE, AND TECHNOLOGY, INC.

11019 McCORMICK ROAD

HUNT VALLEY, MD 21031

ATTENTION: Michele Bailey
HUMAN RESOURCES

(410) 584-7000

INCIDENT REPORT

THIS REPORT IS TO BE COMPLETED WHEN A NEAR MISS OCCURS THAT COULD HAVE POTENTIALLY RESULTED IN SERIOUS PHYSICAL HARM. PLEASE FAX THIS FORM TO EA HUMAN RESOURCES DEPARTMENT AT **(410) 771-1780**.

EXPLAIN WHAT HAPPENED (include what the employee was doing at the time the near miss and how it occurred:) _____

REPORT PREPARED BY: _____ DATE:_____

Attachment E

Emergency Telephone Numbers and Hospital Directions

ATTACHMENT E

EMERGENCY TELEPHONE NUMBERS AND HOSPITAL DIRECTIONS

SITE: 640 Trolley Boulevard, City of Rochester, New York	
Police: Town of Gates Police Department	9-1-1
Fire: Town of Gates Fire Department	9-1-1
Ambulance:	9-1-1
Hospital: Park Ridge Hospital	(585) 723-7000
New York Regional Poison Control Center: 750 East Adams Street, Syracuse, NY	(315) 464-7078 800-222-1222
Directions to Park Ridge Hospital, 1555 Long Pond Road, Rochester, NY Starting at 640 Trolley Boulevard, travel west toward Hytec Circle. Turn right on Long Pond Road. End at Park Ridge Hospital (1555 Long Pond Road). Total trip is 1.86 miles, travel time is approximately 5 minutes.	
Program Safety and Health Officer: ***Kris Hoiem***	(410) 771-4950
Program Manager: ***Christopher Canonica, P.E.***	(315) 431-4610
EA Project Manager ***Dave Eck, P.E.***	(315) 431-4610
In case of spill, contact *Dave Eck, P.E.*	(315) 431-4610
EA Medical Services EMR 4360 Chamblee Dunwoody Road, Suite 202 Atlanta, Georgia 30341 ***Contact: Dr. Elayne F. Theriault***	(800) 229-3674
Field Manager/Site Health and Safety Officer: ***Robert Casey***	(315) 431-4610
In case of accident or exposure incident, contact Corporate Health and Safety Officer ***Ralph Bradley***	(410) 584-7000

Attachment F

Emergency Equipment Available Onsite

ATTACHMENT F

EMERGENCY EQUIPMENT AVAILABLE ONSITE

Type of Equipment	Location
Communications Equipment	
Mobile Telephone	In EA vehicle
Medical Support Equipment	
First Aid Kits	In EA vehicle
Eye Wash Station	In EA vehicle
Fire Fighting Equipment	
Fire Extinguishers	In EA vehicle

Attachment G

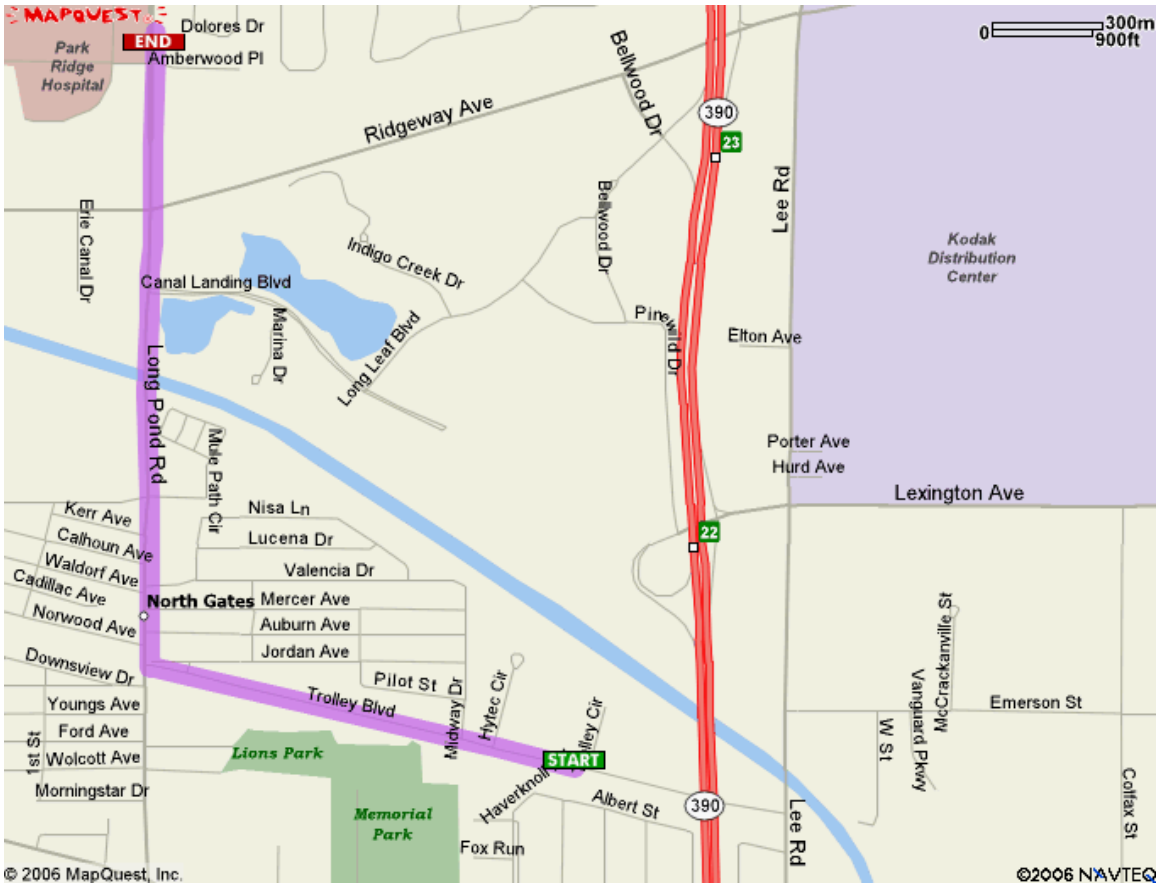
Map to Hospital

ATTACHMENT G

MAP TO HOSPITAL

Directions to Park Ridge Hospital:

Starting at 640 Trolley Boulevard, travel west toward Hytec Circle. Turn right on Long Pond Road. End at Park Ridge Hospital (1555 Long Pond Road). Total trip is 1.86 miles, travel time is approximately 5 minutes.



ATTACHMENT H

PERSONAL PROTECTIVE EQUIPMENT ACTIVITY RECORD

SITE: 640 Trolley Boulevard Site, Gates, New York		
Weather Condition:		Onsite Hours: From To
Changes in Personal Protective Equipment Levels[(a)]	Work Operations	Reasons for Change
Site Health and Safety Plan Violations	Corrective Action Specified	Corrective Action Taken (yes/no)
Observations and Comments:		
Completed by: _____ Site Health and Safety Officer Date		
(a) Only the Site Health and Safety Officer may change personal protective equipment levels, using only criteria specified in the Health and Safety Plan.		

Attachment I

Material Safety Data Sheet

Attachment H

Personal Protective Equipment Activity Record

Material Safety Data Sheet

ULTRA Scientific · 250 Smith Street · North Kingstown, RI, USA 02852 · 401-294-9400

Product # RCC-200 **Last Updated: 4/23/2004**

Section I Product Identification

Name: Acetone

Matrix: neat compound

Section II Composition / Information on Ingredients

Component	*CAS #*	*% by Wt.*	*LD50*	*OSHA PEL*	*ACGIH TLV*	*RTECS #*	*Codes*
acetone	000067-64-1	100	9750 mg/kg oral rat	2400 mg/m3	1188 mg/m3	AL3150000	

Codes: A-OSHA regulated carcinogen; B-IARC Group 1 carcinogen; C-IARC Group 2A carcinogen; D-IARC Group 2B carcinogen; E-NTP Group 1 carcinogen; F-NTP Group 2 carcinogen; G-SARA Title III compound; H-California Proposition 65 compound.

Section III Hazards Identification

Contains carcinogen(s) or cancer suspect agent(s)

Irritant

All chemicals should be considered hazardous - direct physical contact should be avoided.

Section IV First Aid Measures

Inhalation: If inhaled, remove to fresh air. Give oxygen, if necessary. Contact a physician.

Skin Contact: In case of skin contact, flush with copious amounts of water. Remove contaminated clothing. Contact a physician.

Eye Contact: In case of eye contact, flush with copious amounts of water, lifting eyelids occasionally. Contact a physician.

Ingestion: If ingested, contact poison center immediately for recommended procedure. Contact a physician.

Section V Fire Fighting Measures

Fire and Explosion Hazard Data for Compound

Fire Hazard: N/A

Extinguishing Media: Carbon dioxide, dry chemical powder, or water spray.

Section VI Accidental Release Measures

Ventilate area of the leak or spill. Wear appropriate personal protective equipment as specified in Section VIII. A leaking bottle, vial, or ampule may be placed in a plastic bag, and normal disposal procedures followed. Take up spilled material with sand or other non-combustible absorbant material, and place in an appropriate container for later disposal. Flush spill area with water.

Section VII Handling and Storage

May be stored at room temperature

Keep in a tightly closed container, and store in a corrosion proof area.

This product should only be used by persons trained in the safe handling of hazardous chemicals.

Section VIII Exposure Controls / Personal Protection

Ensure that there is adequate ventilation to prevent airborne levels from exceeding recommended exposure limits (see Section II). Use appropriate MSHA/NIOSH approved safety equipment. Wear chemical goggles, face shield, gloves, and chemical resistant clothing, such as a laboratory coat and/or a rubber apron, to prevent contact with eyes, skin, and clothing.

Section IX Physical and Chemical Properties

Physical Data for Compound

Melting Pt.: N/A ***Boiling Pt.:*** N/A ***Density:*** N/A

Vapor Pressure: N/A ***Vapor Density:*** N/A ***Water Solubility:*** N/A

Appearance: N/A ***Odor:*** N/A ***Flash Point:*** N/A
Auto-Ignition Temperature: N/A ***LEL:*** N/A ***UEL:*** N/A

Section X Stability and Reactivity

Reactivity Data for Compound

Stability: stable ***Incompatibilities:*** N/A
Hazardous Decomposition Products: N/A
Hazardous Effects of Polymerization: no

Section XI Toxicological Information

See Section II for specific toxicological information for the ingredients of this product.

Section XII Ecological Information

No information is available.

Section XIII Disposal Considerations

Recycle, if possible. Any material which cannot be saved for recovery or recycling should be disposed of at an appropriate and approved waste disposal facility. Processing, use, and/or contamination of this product may change waste management requirements. Observe all applicable federal, state, and local environmental regulations concerning disposal.

Section XIV Transport Information

Shipment Type: Dangerous Goods in Excepted Quantity (US DOT Small Quantity Exemption)
UN Number: UN1090 ***Shipping Class:*** 3 ***Packing Group:*** II

Section XV Regulatory Information

No information is available.

Section XVI Other Information

The above information is believed to be correct, but does not purport to be all-inclusive. This data should be used only as a guide in handling this material. ULTRA Scientific, Inc., shall not be held liable for any damage resulting from handling or from contact with the above product.

Material Safety Data Sheet

ULTRA Scientific · 250 Smith Street · North Kingstown, RI, USA 02852 · 401-294-9400

Product # RPC-1254 **Last Updated: 4/23/2004**

Section I Product Identification

Name: Aroclor 1254 (PCB 1254)

Matrix: neat compound

Section II Composition / Information on Ingredients

Component	*CAS #*	*% by Wt.*	*LD50*	*OSHA PEL*	*ACGIH TLV*	*RTECS #*	*Codes*
Aroclor 1254 (PCB 1254)	011097-69-1	100	1295 mg/kg oral rat	0.5 mg/m3	0.5 mg/m3	N/A	CF

Codes: A-OSHA regulated carcinogen; B-IARC Group 1 carcinogen; C-IARC Group 2A carcinogen; D-IARC Group 2B carcinogen; E-NTP Group 1 carcinogen; F-NTP Group 2 carcinogen; G-SARA Title III compound; H-California Proposition 65 compound.

Section III Hazards Identification

Contains carcinogen(s) or cancer suspect agent(s)

Irritant

All chemicals should be considered hazardous - direct physical contact should be avoided.

Section IV First Aid Measures

Inhalation: If inhaled, remove to fresh air. Give oxygen, if necessary. Contact a physician.

Skin Contact: In case of skin contact, flush with copious amounts of water. Remove contaminated clothing. Contact a physician.

Eye Contact: In case of eye contact, flush with copious amounts of water, lifting eyelids occasionally. Contact a physician.

Ingestion: If ingested, contact poison center immediately for recommended procedure. Contact a physician.

Section V Fire Fighting Measures

Fire and Explosion Hazard Data for Compound

Fire Hazard: N/A

Extinguishing Media: Carbon dioxide, dry chemical powder, or water spray.

Section VI Accidental Release Measures

Ventilate area of the leak or spill. Wear appropriate personal protective equipment as specified in Section VIII. A leaking bottle, vial, or ampule may be placed in a plastic bag, and normal disposal procedures followed. Take up spilled material with sand or other non-combustible absorbant material, and place in an appropriate container for later disposal. Flush spill area with water.

Section VII Handling and Storage

May be stored at room temperature

Keep in a tightly closed container, and store in a corrosion proof area.

This product should only be used by persons trained in the safe handling of hazardous chemicals.

Section VIII Exposure Controls / Personal Protection

Ensure that there is adequate ventilation to prevent airborne levels from exceeding recommended exposure limits (see Section II). Use appropriate MSHA/NIOSH approved safety equipment. Wear chemical goggles, face shield, gloves, and chemical resistant clothing, such as a laboratory coat and/or a rubber apron, to prevent contact with eyes, skin, and clothing.

Section IX Physical and Chemical Properties

Physical Data for Compound

Melting Pt.: N/A ***Boiling Pt.:*** N/A ***Density:*** N/A

Vapor Pressure: N/A ***Vapor Density:*** N/A ***Water Solubility:*** N/A

Appearance: N/A ***Odor:*** N/A ***Flash Point:*** N/A
Auto-Ignition Temperature: N/A ***LEL:*** N/A ***UEL:*** N/A

Section X Stability and Reactivity

Reactivity Data for Compound

Stability: stable ***Incompatibilities:*** N/A
Hazardous Decomposition Products: N/A
Hazardous Effects of Polymerization: no

Section XI Toxicological Information

See Section II for specific toxicological information for the ingredients of this product.

Section XII Ecological Information

No information is available.

Section XIII Disposal Considerations

Recycle, if possible. Any material which cannot be saved for recovery or recycling should be disposed of at an appropriate and approved waste disposal facility. Processing, use, and/or contamination of this product may change waste management requirements. Observe all applicable federal, state, and local environmental regulations concerning disposal.

Section XIV Transport Information

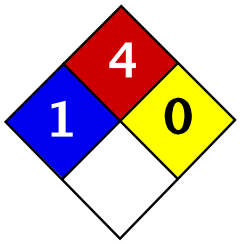
Shipment Type: Dangerous Goods in Excepted Quantity (US DOT Small Quantity Exemption)
UN Number: UN2315 ***Shipping Class:*** 9 ***Packing Group:*** N/A

Section XV Regulatory Information

No information is available.

Section XVI Other Information

The above information is believed to be correct, but does not purport to be all-inclusive. This data should be used only as a guide in handling this material. ULTRA Scientific, Inc., shall not be held liable for any damage resulting from handling or from contact with the above product.



Material Safety Data Sheet
Ethyl chloride MSDS

Section 1: Chemical Product and Company Identification

Product Name: Ethyl chloride

Catalog Codes: SLE1957

CAS#: 75-00-3

RTECS: KH7525000

TSCA: TSCA 8(b) inventory: Ethyl chloride

CI#: Not available.

Synonym: Chloroethane

Chemical Formula: C2H5Cl

Contact Information:

Sciencelab.com, Inc.
14025 Smith Rd.
Houston, Texas 77396

US Sales: **1-800-901-7247**
International Sales: **1-281-441-4400**

Order Online: ScienceLab.com

CHEMTREC (24HR Emergency Telephone), call:
1-800-424-9300

International CHEMTREC, call: 1-703-527-3887

For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Ethyl chloride	75-00-3	100

Toxicological Data on Ingredients: Ethyl chloride: GAS (LC50): Acute: 80 ppm 4 hour(s) [Rat].

Section 3: Hazards Identification

Potential Acute Health Effects:
Extremely hazardous in case of inhalation. Very hazardous in case of eye contact (irritant). Slightly hazardous in case of skin contact (irritant), of ingestion. Severe over-exposure can result in death. Inflammation of the eye is characterized by redness, watering, and itching.

Potential Chronic Health Effects:
Extremely hazardous in case of inhalation.
Very hazardous in case of eye contact (irritant).
Slightly hazardous in case of skin contact (irritant), of ingestion.
CARCINOGENIC EFFECTS: Not available.
MUTAGENIC EFFECTS: Not available.
TERATOGENIC EFFECTS: Not available.
DEVELOPMENTAL TOXICITY: Not available.
The substance is toxic to blood, kidneys, lungs, the nervous system, liver, mucous membranes.
Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure to an

Section 4: First Aid Measures

Eye Contact:
Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Do not use an eye ointment. Seek medical attention.

Skin Contact:
After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.

Serious Skin Contact: Not available.

Inhalation: Allow the victim to rest in a well ventilated area. Seek immediate medical attention.

Serious Inhalation:
If fumes are still suspected to be present, the rescuer should wear an appropriate mask or a self-contained breathing apparatus. Evacuate the victim to a safe area as soon as possible. If the victim is breathing, check for unusual breath odors. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Maintain an open airway. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.

Ingestion:
Since the product is a gas and that it is mostly probable that it will be inhaled more than ingested, please consider first to look at the preventive measures in case of inhalation.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: Flammable.

Auto-Ignition Temperature: 519°C (966.2°F)

Flash Points: CLOSED CUP: -50°C (-58°F). OPEN CUP: -43°C (-45.4°F).

Flammable Limits: LOWER: 3.6% UPPER: 15.4%

Products of Combustion: These products are carbon oxides (CO, CO2).

Fire Hazards in Presence of Various Substances: Flammable in presence of open flames and sparks.

Explosion Hazards in Presence of Various Substances:
Risks of explosion of the product in presence of mechanical impact: Not available.
Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions:
Toxic gas. Flammable gas.
SMALL FIRE: Use DRY chemical powder.
LARGE FIRE: Use water spray, fog or foam. Do not use water jet. Move containing vessels from fire area if without risk. Cool containing vessels with flooding quantities of water until well after fire is out. Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosion. Do not extinguish a leaking gas flame unless leak can be stopped. Extinguish secondary fire. Handle damaged cylinders with extreme care. Use extinguishing media suitable for surrounding materials.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

Section 6: Accidental Release Measures

Small Spill: Try to stop the gaseous leak by taping the container with an appropriate material (tape, stretched plastic).

Large Spill:
Toxic gas. Flammable gas.
Let evaporate. If possible, turn leaking container so that gas escapes rather than liquid. Do not touch spilled material. Do not direct water at spill or source. Use water spray curtain to divert vapor drift. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas. Eliminate all ignition sources. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Section 7: Handling and Storage

Precautions:
Keep locked up Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapour/spray. Avoid contact with eyes In case of insufficient ventilation, wear suitable respiratory equipment If you feel unwell, seek medical attention and show the label when possible. Keep container tightly closed and in a well-ventilated place.

Storage: Compressed gases should be stored in a separate safety storage cabinet or room.

Section 8: Exposure Controls/Personal Protection

Engineering Controls: Ventilation is normally required when handling or using this product.

Personal Protection:
Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:
Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits:
TWA: 1000 (ppm)
TWA: 2600 (mg/m3)
Consult local authorities for acceptable exposure limits.

Section 9: Physical and Chemical Properties

Physical state and appearance: Gas.

Odor: Ethereal.

Taste: Burning.

Molecular Weight: 64.51 g/mole

Color: Colorless.

pH (1% soln/water): Not available.

Boiling Point: 12.3°C (54.1°F)

Melting Point: -138.7°C (-217.7°F)

Critical Temperature: Not available.

Specific Gravity: 0.9 (Water = 1)

Vapor Pressure: 1064 mm of Hg (@ 20°C)

Vapor Density: 2.22 (Air = 1)

Volatility: Not available.

Odor Threshold: 4.2 ppm

Water/Oil Dist. Coeff.: Not available.

Ionicity (in Water): Not available.

Dispersion Properties: Not available.

Solubility: Very slightly soluble in cold water.

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Not available.

Incompatibility with various substances: Not available.

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity: Not available.

Special Remarks on Corrosivity: Not available.

Polymerization: No.

Section 11: Toxicological Information

Routes of Entry: Eye contact. Inhalation.

Toxicity to Animals:
WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE.
Acute toxicity of the gas (LC50): 80 ppm 4 hour(s) [Rat].

Chronic Effects on Humans: The substance is toxic to blood, kidneys, lungs, the nervous system, liver, mucous membranes.

Other Toxic Effects on Humans:
Extremely hazardous in case of inhalation.
Slightly hazardous in case of skin contact (irritant), of ingestion.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans: Not available.

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:
Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are more toxic.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Waste Disposal:

Section 14: Transport Information

DOT Classification: CLASS 2.1: Flammable gas.

Identification: : Ethyl chloride : UN1037 PG: Not available.

Special Provisions for Transport: Not available.

Section 15: Other Regulatory Information

Federal and State Regulations:
California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Ethyl chloride
California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: Ethyl chloride
Pennsylvania RTK: Ethyl chloride
Massachusetts RTK: Ethyl chloride
TSCA 8(b) inventory: Ethyl chloride
SARA 313 toxic chemical notification and release reporting: Ethyl chloride
CERCLA: Hazardous substances.: Ethyl chloride

Other Regulations: OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

Other Classifications:

WHMIS (Canada):
CLASS A: Compressed gas.
CLASS B-1: Flammable gas.

DSCL (EEC):
R26- Very toxic by inhalation.
R41- Risk of serious damage to eyes.

HMIS (U.S.A.):

Health Hazard: 1

Fire Hazard: 4

Reactivity: 0

Personal Protection: h

National Fire Protection Association (U.S.A.):

Health: 1

Flammability: 4

Reactivity: 0

Specific hazard:

Protective Equipment:
Gloves.
Lab coat.
Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.
Splash goggles.

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

Created: 10/09/2005 05:29 PM

Last Updated: 10/09/2005 05:29 PM

Material Safety Data Sheet

ULTRA Scientific · 250 Smith Street · North Kingstown, RI, USA 02852 · 401-294-9400

Product # RHH-012 **Last Updated: 4/23/2004**

Section I Product Identification

Name: 1,1-Dichloroethane

Matrix: neat compound

Section II Composition / Information on Ingredients

Component	CAS #	% by Wt.	LD50	OSHA PEL	ACGIH TLV	RTECS #	Codes
1,1-dichloroethane	000075-34-3	100	725 mg/kg oral rat	400 mg/m3	405 mg/m3	KI0175000	GH

Codes: A-OSHA regulated carcinogen; B-IARC Group 1 carcinogen; C-IARC Group 2A carcinogen; D-IARC Group 2B carcinogen; E-NTP Group 1 carcinogen; F-NTP Group 2 carcinogen; G-SARA Title III compound; H-California Proposition 65 compound.

Section III Hazards Identification

Contains carcinogen(s) or cancer suspect agent(s)

All chemicals should be considered hazardous - direct physical contact should be avoided.

Section IV First Aid Measures

Inhalation: If inhaled, remove to fresh air. Give oxygen, if necessary. Contact a physician.

Skin Contact: In case of skin contact, flush with copious amounts of water. Remove contaminated clothing. Contact a physician.

Eye Contact: In case of eye contact, flush with copious amounts of water, lifting eyelids occasionally. Contact a physician.

Ingestion: If ingested, contact poison center immediately for recommended procedure. Contact a physician.

Section V Fire Fighting Measures

Fire and Explosion Hazard Data for Compound

Fire Hazard: N/A

Extinguishing Media: Carbon dioxide, dry chemical powder, or water spray.

Section VI Accidental Release Measures

Ventilate area of the leak or spill. Wear appropriate personal protective equipment as specified in Section VIII. A leaking bottle, vial, or ampule may be placed in a plastic bag, and normal disposal procedures followed. Take up spilled material with sand or other non-combustible absorbant material, and place in an appropriate container for later disposal. Flush spill area with water.

Section VII Handling and Storage

May be stored at room temperature

Keep in a tightly closed container, and store in a corrosion proof area.

This product should only be used by persons trained in the safe handling of hazardous chemicals.

Section VIII Exposure Controls / Personal Protection

Ensure that there is adequate ventilation to prevent airborne levels from exceeding recommended exposure limits (see Section II). Use appropriate MSHA/NIOSH approved safety equipment. Wear chemical goggles, face shield, gloves, and chemical resistant clothing, such as a laboratory coat and/or a rubber apron, to prevent contact with eyes, skin, and clothing.

Section IX Physical and Chemical Properties

Physical Data for Compound

Melting Pt.: N/A ***Boiling Pt.:*** N/A ***Density:*** N/A

Vapor Pressure: N/A ***Vapor Density:*** N/A ***Water Solubility:*** N/A

Appearance: N/A ***Odor:*** N/A ***Flash Point:*** N/A

Auto-Ignition Temperature: N/A ***LEL:*** N/A ***UEL:*** N/A

Section X Stability and Reactivity

Reactivity Data for Compound

Stability: stable ***Incompatibilities:*** N/A

Hazardous Decomposition Products: N/A

Hazardous Effects of Polymerization: no

Section XI Toxicological Information

See Section II for specific toxicological information for the ingredients of this product.

Section XII Ecological Information

No information is available.

Section XIII Disposal Considerations

Recycle, if possible. Any material which cannot be saved for recovery or recycling should be disposed of at an appropriate and approved waste disposal facility. Processing, use, and/or contamination of this product may change waste management requirements. Observe all applicable federal, state, and local environmental regulations concerning disposal.

Section XIV Transport Information

Shipment Type: Dangerous Goods in Excepted Quantity (US DOT Small Quantity Exemption)

UN Number: UN2362 ***Shipping Class:*** 3 ***Packing Group:*** II

Section XV Regulatory Information

Warning: This product contains a chemical known to the state of California to cause cancer.

Section XVI Other Information

The above information is believed to be correct, but does not purport to be all-inclusive. This data should be used only as a guide in handling this material. ULTRA Scientific, Inc., shall not be held liable for any damage resulting from handling or from contact with the above product.

Material Safety Data Sheet

ULTRA Scientific · 250 Smith Street · North Kingstown, RI, USA 02852 · 401-294-9400

Product # RHH-014 **Last Updated: 4/23/2004**

Section I Product Identification

Name: 1,1,1-Trichloroethane

Matrix: neat compound

Section II Composition / Information on Ingredients

Component	*CAS #*	*% by Wt.*	*LD50*	*OSHA PEL*	*ACGIH TLV*	*RTECS #*	*Codes*
1,1,1-trichloroethane	000071-55-6	100	5660 mg/kg oral rat	1900 mg/m3	1910 mg/m3	KJ2975000	G

Codes: A-OSHA regulated carcinogen; B-IARC Group 1 carcinogen; C-IARC Group 2A carcinogen; D-IARC Group 2B carcinogen; E-NTP Group 1 carcinogen; F-NTP Group 2 carcinogen; G-SARA Title III compound; H-California Proposition 65 compound.

Section III Hazards Identification

Contains carcinogen(s) or cancer suspect agent(s)

All chemicals should be considered hazardous - direct physical contact should be avoided.

Section IV First Aid Measures

Inhalation: If inhaled, remove to fresh air. Give oxygen, if necessary. Contact a physician.

Skin Contact: In case of skin contact, flush with copious amounts of water. Remove contaminated clothing. Contact a physician.

Eye Contact: In case of eye contact, flush with copious amounts of water, lifting eyelids occasionally. Contact a physician.

Ingestion: If ingested, contact poison center immediately for recommended procedure. Contact a physician.

Section V Fire Fighting Measures

Fire and Explosion Hazard Data for Compound

Fire Hazard: N/A

Extinguishing Media: Carbon dioxide, dry chemical powder, or water spray.

Section VI Accidental Release Measures

Ventilate area of the leak or spill. Wear appropriate personal protective equipment as specified in Section VIII. A leaking bottle, vial, or ampule may be placed in a plastic bag, and normal disposal procedures followed. Take up spilled material with sand or other non-combustible absorbant material, and place in an appropriate container for later disposal. Flush spill area with water.

Section VII Handling and Storage

May be stored at room temperature

Keep in a tightly closed container, and store in a corrosion proof area.

This product should only be used by persons trained in the safe handling of hazardous chemicals.

Section VIII Exposure Controls / Personal Protection

Ensure that there is adequate ventilation to prevent airborne levels from exceeding recommended exposure limits (see Section II). Use appropriate MSHA/NIOSH approved safety equipment. Wear chemical goggles, face shield, gloves, and chemical resistant clothing, such as a laboratory coat and/or a rubber apron, to prevent contact with eyes, skin, and clothing.

Section IX Physical and Chemical Properties

Physical Data for Compound

Melting Pt.: N/A ***Boiling Pt.:*** N/A ***Density:*** N/A

Vapor Pressure: N/A ***Vapor Density:*** N/A ***Water Solubility:*** N/A

Appearance: N/A ***Odor:*** N/A ***Flash Point:*** N/A

Auto-Ignition Temperature: N/A ***LEL:*** N/A ***UEL:*** N/A

Section X Stability and Reactivity

Reactivity Data for Compound

Stability: stable ***Incompatibilities:*** N/A

Hazardous Decomposition Products: N/A

Hazardous Effects of Polymerization: no

Section XI Toxicological Information

See Section II for specific toxicological information for the ingredients of this product.

Section XII Ecological Information

No information is available.

Section XIII Disposal Considerations

Recycle, if possible. Any material which cannot be saved for recovery or recycling should be disposed of at an appropriate and approved waste disposal facility. Processing, use, and/or contamination of this product may change waste management requirements. Observe all applicable federal, state, and local environmental regulations concerning disposal.

Section XIV Transport Information

Shipment Type: Dangerous Goods in Excepted Quantity (US DOT Small Quantity Exemption)

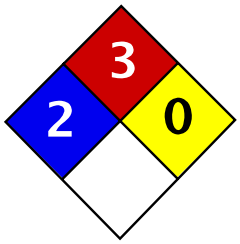
UN Number: UN2831 ***Shipping Class:*** 6.1 ***Packing Group:*** III

Section XV Regulatory Information

No information is available.

Section XVI Other Information

The above information is believed to be correct, but does not purport to be all-inclusive. This data should be used only as a guide in handling this material. ULTRA Scientific, Inc., shall not be held liable for any damage resulting from handling or from contact with the above product.



Health	2
Fire	3
Reactivity	0
Personal Protection	H

Material Safety Data Sheet
Xylenes MSDS

Section 1: Chemical Product and Company Identification

Product Name: Xylenes

Catalog Codes: SLX1075, SLX1129, SLX1042, SLX1096

CAS#: 1330-20-7

RTECS: ZE2100000

TSCA: TSCA 8(b) inventory: Xylenes

CI#: Not available.

Synonym: Xylenes; Dimethylbenzene; xylol; methyltoluene

Chemical Name: Xylenes (o-, m-, p- isomers)

Chemical Formula: C6H4(CH3)2

Contact Information:

Sciencelab.com, Inc.
14025 Smith Rd.
Houston, Texas 77396

US Sales: **1-800-901-7247**
International Sales: **1-281-441-4400**

Order Online: ScienceLab.com

CHEMTREC (24HR Emergency Telephone), call:
1-800-424-9300

International CHEMTREC, call: 1-703-527-3887

For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Xylenes	1330-20-7	100

Toxicological Data on Ingredients: Xylenes: ORAL (LD50): Acute: 4300 mg/kg [Rat]. 2119 mg/kg [Mouse]. DERMAL (LD50): Acute: >1700 mg/kg [Rabbit].

Section 3: Hazards Identification

Potential Acute Health Effects: Hazardous in case of skin contact (irritant, permeator), of eye contact (irritant), of ingestion, of inhalation.

Potential Chronic Health Effects:
CARCINOGENIC EFFECTS: 3 (Not classifiable for human.) by IARC.
MUTAGENIC EFFECTS: Not available.
TERATOGENIC EFFECTS: Not available.
DEVELOPMENTAL TOXICITY: Not available.
The substance may be toxic to blood, kidneys, liver, mucous membranes, bone marrow, central nervous system (CNS).
Repeated or prolonged exposure to the substance can produce target organs damage.

Section 4: First Aid Measures

Eye Contact:
Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

Skin Contact:
In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

Serious Skin Contact:
Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

Inhalation:
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms appear.

Serious Inhalation:
Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.

Ingestion:
Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: Flammable.

Auto-Ignition Temperature: 464°C (867.2°F)

Flash Points: CLOSED CUP: 24°C (75.2°F). (Tagliabue.) OPEN CUP: 37.8°C (100°F).

Flammable Limits: LOWER: 1% UPPER: 7%

Products of Combustion: These products are carbon oxides (CO, CO2).

Fire Hazards in Presence of Various Substances:
Highly flammable in presence of open flames and sparks, of heat.
Non-flammable in presence of shocks.

Explosion Hazards in Presence of Various Substances:
Risks of explosion of the product in presence of mechanical impact: Not available.
Slightly explosive in presence of open flames and sparks, of heat.

Fire Fighting Media and Instructions:
Flammable liquid, soluble or dispersed in water.
SMALL FIRE: Use DRY chemical powder.
LARGE FIRE: Use alcohol foam, water spray or fog. Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosion.

Special Remarks on Fire Hazards: Vapors may travel to source of ignition and flash back.

Special Remarks on Explosion Hazards:
Vapors may form explosive mixtures with air.
Containers may explode when heated.

May polymerize explosively when heated.
An attempt to chlorinate xylene with 1,3-Dichloro-5,5-dimethyl-2,4-imidazolidindione (dichlorohydrantoin) caused a violent explosion

Section 6: Accidental Release Measures

Small Spill: Absorb with an inert material and put the spilled material in an appropriate waste disposal.

Large Spill:
Flammable liquid.
Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Section 7: Handling and Storage

Precautions:
Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, acids.

Storage:
Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

Section 8: Exposure Controls/Personal Protection

Engineering Controls:
Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection:
Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:
Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits:
TWA: 100 (ppm) [Canada]
TWA: 435 (mg/m3) [Canada]
TWA: 434 STEL: 651 (mg/m3) from ACGIH (TLV) [United States]
TWA: 100 STEL: 150 (ppm) from ACGIH (TLV) [United States]
Consult local authorities for acceptable exposure limits.

Section 9: Physical and Chemical Properties

Physical state and appearance: Liquid.

Odor: Sweetish.

Taste: Not available.

Molecular Weight: 106.17 g/mole

Color: Colorless. Clear

pH (1% soln/water): Not available.

Boiling Point: 138.5°C (281.3°F)

Melting Point: -47.4°C (-53.3°F)

Critical Temperature: Not available.

Specific Gravity: 0.864 (Water = 1)

Vapor Pressure: 0.9 kPa (@ 20°C)

Vapor Density: 3.7 (Air = 1)

Volatility: Not available.

Odor Threshold: 1 ppm

Water/Oil Dist. Coeff.: The product is more soluble in oil; log(oil/water) = 3.1

Ionicity (in Water): Not available.

Dispersion Properties: Not available.

Solubility:
Insoluble in cold water, hot water.
Miscible with absolute alcohol, ether, and many other organic liquids.

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Heat, ignition sources, incompatibles

Incompatibility with various substances: Reactive with oxidizing agents, acids.

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity: Store away from acetic acid, nitric acid, chlorine, bromine, and fluorine.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Absorbed through skin. Dermal contact. Eye contact. Inhalation.

Toxicity to Animals:
WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE.
Acute oral toxicity (LD50): 2119 mg/kg [Mouse].

Acute dermal toxicity (LD50): >1700 mg/kg [Rabbit].
Acute toxicity of the vapor (LC50): 5000 4 hours [Rat].

Chronic Effects on Humans:
CARCINOGENIC EFFECTS: 3 (Not classifiable for human.) by IARC.
May cause damage to the following organs: blood, kidneys, liver, mucous membranes, bone marrow, central nervous system (CNS).

Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant, permeator), of ingestion, of inhalation.

Special Remarks on Toxicity to Animals:
Lowest Lethal Dose:
LDL [Human] - Route: Oral; Dose: 50 mg/kg
LCL [Man] - Route: Oral; Dose: 10000 ppm/6H

Special Remarks on Chronic Effects on Humans:
Detected in maternal milk in human. Passes through the placental barrier in animal. Embryotoxic and/or foetotoxic in animal.
May cause adverse reproductive effects (male and femael fertility (spontaneous abortion and fetotoxicity)) and birth defects based animal data.

Special Remarks on other Toxic Effects on Humans:
Acute Potential Health Effects:
Skin: Causes skin irritation. Can be absorbed through skin.
Eyes: Causes eye irritation.
Inhalation: Vapor causes respiratory tract and mucous membrane irritation. May affect central nervous system and behavior (General anesthetic/CNS depressant with effects including headache, weakness, memory loss, irritability, dizziness, giddiness, loss of coordination and judgement, respiratory depression/arrest or difficulty breathing, loss of appetite, nausea, vomiting, shivering, and possible coma and death). May also affects blood, sense organs, liver, and peripheral nerves.
Ingestion: May cause gastrointestinal irritation including abdominal pain, vomiting, and nausea. May also affect liver and urinary system/kidneys. May cause effects similar to those of acute inhalation.
Chronic Potential Health Effects:
Chronic inhalation may affect the urinary system (kidneys) blood (anemia), bone marrow (hyperplasia of bone marrow) brain/behavior/Central Nervous system. Chronic inhalation may alsocause mucosal bleeding.
Chronic ingestion may affect the liver and metabolism (loss of appetite) and may affect urinary system (kidney damage)

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:
Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Waste Disposal:
Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14: Transport Information

DOT Classification: CLASS 3: Flammable liquid.

Identification: : Xylenes UNNA: 1307 PG: III

Special Provisions for Transport: Not available.

Section 15: Other Regulatory Information

Federal and State Regulations:
Connecticut hazardous material survey.: Xylenes
Illinois chemical safety act: Xylenes
New York acutely hazardous substances: Xylenes
Rhode Island RTK hazardous substances: Xylenes
Pennsylvania RTK: Xylenes
Minnesota: Xylenes
Michigan critical material: Xylenes
Massachusetts RTK: Xylenes
Massachusetts spill list: Xylenes
New Jersey: Xylenes
New Jersey spill list: Xylenes
Louisiana spill reporting: Xylenes
California Director's List of Hazardous Substances: Xylenes
TSCA 8(b) inventory: Xylenes
SARA 302/304/311/312 hazardous chemicals: Xylenes
SARA 313 toxic chemical notification and release reporting: Xylenes
CERCLA: Hazardous substances.: Xylenes: 100 lbs. (45.36 kg)

Other Regulations:
OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).
EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications:

WHMIS (Canada):
CLASS B-2: Flammable liquid with a flash point lower than 37.8°C (100°F).
CLASS D-2A: Material causing other toxic effects (VERY TOXIC).

DSCL (EEC):
R10- Flammable.
R21- Harmful in contact with skin.
R36/38- Irritating to eyes and skin.
S2- Keep out of the reach of children.
S36/37- Wear suitable protective clothing and gloves.
S46- If swallowed, seek medical advice immediately and show this container or label.

HMIS (U.S.A.):

Health Hazard: 2

Fire Hazard: 3

Reactivity: 0

Personal Protection: h

National Fire Protection Association (U.S.A.):

Health: 2

Flammability: 3

Reactivity: 0

Specific hazard:

Protective Equipment:
Gloves.
Lab coat.
Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.
Splash goggles.

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

Created: 10/11/2005 12:54 PM

Last Updated: 10/11/2005 12:54 PM

Appendix C

Community Air Monitoring Plan

Community Air Monitoring Plan
640 Trolley Boulevard Site (8-28-108), Gates, New York

Prepared for

New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233

Prepared by

EA Engineering, P.C., and Its Affiliate
EA Science and Technology
6731 Collamer Road, Suite 2
East Syracuse, New York 13057
(315) 431-4610

June 2006
EA Project No. 14368.02

Community Air Monitoring Plan
640 Trolley Boulevard Site (8-28-108),
Gates, New York

Prepared for

New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233

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EA Science and Technology
6731 Collamer Road
East Syracuse, New York 13057-9808
(315) 431-4610

20 June 2006
Christopher J. Canonica, P.E., Program Manager — Date
EA Engineering, P.C.

20 June 2006
David W. Eck, P.E., Project Manager — Date
EA Engineering, P.C.

20 June 2006
Robert S. Casey, Site Manager — Date
EA Science and Technology

June 2006
Project No.: 14368.02

CONTENTS

1. INTRODUCTION

The New York State Department of Environmental Conservation (NYSDEC) tasked EA Engineering, P.C., and its affiliate EA Science and Technology (EA), to develop and implement a Remedial Investigation/Feasibility Study (RI/FS) for the 640 Trolley Boulevard site (NYSDEC Site No. 8-28-108).

The Work Assignment will be conducted under the NYSDEC State Superfund Standby Contract (Work Assignment No. D004438-2). This Community Air Monitoring Plan (CAMP) was prepared as a requirement of the RI/FS Work Plan. The elements of this CAMP were prepared in accordance with the NYSDEC *Draft DER-10 Technical Guidance for Site Investigation and Remediation* (NYSDEC 2002)[1].

1.1 SITE DESCRIPTION

The site is located at 640 Trolley Boulevard in the Town of Gates, New York (Figure 1). The property is approximately 1.12 acres in size and includes an approximate 12,000 square-ft block-building. Historically, the building was divided and operated as separate businesses.

Land use to the immediate north, west, and east of the Site is mixed commercial and industrial. Approximately 1,000 ft west of the site, the property use becomes residential. South of the site and Trolley Boulevard, the property use is predominantly residential with some commercial properties.

As shown on Figure 1, the New York State Barge Canal is the primary surface water body in the vicinity of the Site and lies approximately 750 ft north of the Site. A drainage ditch is located approximately 250 ft north of the site and trends east-west before it turns to the north toward the New York State Barge Canal.

1.2 SITE BACKGROUND

A drywell was discovered at the rear of the 640 Trolley Boulevard building in October 2000. Subsequently, approximately 20 gal of an oily substance were pumped from the drywell into drums and tested. The test results indicated that the material contained very high concentrations of polychlorinated biphenyls (PCBs); 1,1,1-trichloroethane; and other chlorinated compounds, acetone, and xylene.

As part of an interim remedial measure, 19.5 tons of hazardous waste were removed from around the drywell and disposed of offsite at a licensed facility. In addition, a Preliminary Site Assessment was conducted and identified PCBs in the surface and subsurface soil near the

[1] NYSDEC. 2002. Draft DER-10 Technical Guidance for Site Investigation and Remediation. December.

drywell and 1,1,1- trichloroethane, 1,1-dichloroethane, acetone, and chloroethane were detected in groundwater samples collected from onsite monitoring wells.

An Immediate Investigation Work Assignment (IIWA) was conducted in May 2006, during which a Geoprobe investigation was conducted in the loading dock area behind the building on the site. Approximately 130 cubic yd of soil were removed from the loading dock area during the IIWA. PCBs were detected slightly above the cleanup level of one part per million in shallow soils left in place at two locations.

1.3 MONITORING

Real-time air monitoring for volatile organic compounds (VOCs) and/or particulate levels at the perimeter of the work area will be necessary. Monitoring activities will consist of a combination of continuous and periodic monitoring, which will be performed dependent upon the type of activity being conducted at the site, as discussed below.

1.3.1 Continuous Air Monitoring

Continuous monitoring for VOCs and particulates will be required for all ground intrusive activities associated with the 640 Trolley Boulevard Site RI/FS Work Assignment. Ground intrusive activities are anticipated to include the installation of soil borings and groundwater monitoring wells.

VOCs will be monitored at the downwind perimeter of the immediate work area on a continuous basis. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions. The monitoring work will be performed using a MiniRAE 2000 or equivalent, which is appropriate to measure the types of contaminants known or suspected to be present at the site. The MiniRAE 2000 will be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The MiniRAE 2000 is capable of calculating 15-minute running average concentrations, which will be compared to the levels specified in Section 1.4.1.

Particulate concentrations will be monitored continuously at the upwind and downwind perimeters of the work area at temporary particulate monitoring stations. The particulate monitoring will be performed using a Thermo MIE pDR-1000 DataRam or equivalent. The Thermo MIE pDR-1000 DataRam is a real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size [PM-10] and capable of integrating over a period of 15 minutes for comparison to the airborne particulate action level. The Thermo MIE pDR is equipped with an audible alarm to indicate exceedance of the action level. In addition to using the Thermo MIE pDR-1000 DataRam, fugitive dust migration will be visually assessed during all work activities.

1.3.2 Periodic Air Monitoring

Periodic monitoring for VOCs will be required during non-intrusive activities associated with the 640 Trolley Boulevard Site RI/FS Work Assignment. Non-intrusive activities are anticipated to include the collection of soil and sediment samples, the collection of groundwater samples from existing monitoring wells, and the collection of indoor air and soil vapor samples. Periodic monitoring during sample collection will consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well bailing/purging, and taking a reading prior to leaving a sample location.

1.4 ACTION LEVELS AND RESPONSE

This subsection identifies the action levels and corresponding responses for concentrations of VOCs and particulates detected during the field activities associated with the RI/FS for the 640 Trolley Boulevard Site.

1.4.1 Volatile Organic Compounds

If the ambient air concentration of total organic vapors at the downwind perimeter of the work area exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities will be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities will resume with continued monitoring.

If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities will be stopped, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities will resume provided that the total organic vapor level 200 ft downwind of the work zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less (but in no case less than 20 ft), is below 5 ppm over background for the 15-minute average.

If the organic vapor level is above 25 ppm at the perimeter of the work area, activities will be shutdown.

All 15-minute readings will be recorded and be available for NYSDEC and New York State Department of Health (NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes will also be recorded.

1.4.2 Particulates

If the downwind PM-10 particulate level is 100 micrograms per cubic meter ($\mu g/m^3$) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques will be employed. Work will continue with dust

suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 µg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.

If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 µg/m^3 above the upwind level, work will be stopped and a re-evaluation of activities initiated. Work will resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 µg/m^3 of the upwind level and in preventing visible dust migration.

Similar to the VOC readings, all particulate readings will be recorded and be available for NYSDEC and NYSDOH personnel to review.

Appendix D

Quality Assurance Project Plan Addendum

CONTENTS

Quality Assurance Project Plan Addendum
640 Trolley Boulevard Site (8-28-108), Gates, New York

Prepared for

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625 Broadway
Albany, New York 12233

Prepared by

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June 2006
EA Project No. 14368.02

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20 June 2006
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EA Engineering, P.C.

20 June 2006
David W. Eck, P.E., Project Manager — Date
EA Engineering, P.C.

20 June 2006
Robert S. Casey, Site Manager — Date
EA Science and Technology

June 2006
Project No.: 14368.02

1. PURPOSE AND OBJECTIVES

1.1 PURPOSE

A Generic Quality Assurance Project Plan (QAPP) (EA 2006)[1] has been developed for field activities performed under the New York State Department of Environmental Conservation (NYSDEC) Standby Contracts D004438 and D004441. This QAPP Addendum is for the Remedial Investigation/Feasibility Study (RI/FS) Work Assignment for the 640 Trolley Boulevard Site, Monroe County, Gates, New York (NYSDEC Site No. 8-28-108). The QAPP Addendum is to supplement the Generic QAPP with site-specific procedures for the collection, analysis, and evaluation of data that will be legally and scientifically defensible.

1.2 QUALITY ASSURANCE PROJECT PLAN OBJECTIVES

This QAPP Addendum provides site-specific information and standard operating procedures applicable to all work performed at the Site that is not included in the Generic QAPP. The information includes definitions and generic goals for data quality and required types and quantities of quality assurance/quality control (QA/QC) samples. The procedures address sampling and decontamination protocols; field documentation; sample handling, custody, and shipping; instrument calibration and maintenance; auditing; data reduction, validation, and reporting; corrective action requirements; and QA reporting. The Work Plan contains a site description; and information on site field activities, such as sample locations, sampling procedures, analytical methods, and reporting limits.

[1] EA Engineering, P.C. 2006. *Generic Quality Assurance Project Plan for Work Assignments under NYSDEC Contracts D004438 and D004441*. June.

2. PROJECT ORGANIZATION AND RESPONSIBILITIES

While all personnel involved in an investigation and the generation of data are implicitly a part of the overall project management and QA/QC program, certain members of the Project Team have specifically designated responsibilities. Project personnel responsibilities are summarized below.

2.1 EA ENGINEERING, P.C. AND ITS AFFILIATE EA SCIENCE AND TECHNOLOGY

EA will provide oversight, coordination, health and safety, field support, and evaluation of analytical data. Field support will be provided during subsurface soil sampling. EA also will be responsible for evaluation of analytical test results, which will be submitted to NYSDEC. The EA staff involved in this project are as follows:

- ***Tom Porter, Project Quality Assurance/Quality Control (QA/QC) Officer—***The QA/QC Officer will provide guidance on technical matters and review technical documents relating to the project. He will assess the effectiveness of the QA/QC program and recommend modifications when applicable. Additionally, the QA/QC Officer may delegate technical guidance to specially trained individuals under his direction.

- ***Dave Eck, P.E., EA Project Manager***—The Project Manager provides overall coordination and preparation of the project within EA. This includes coordination with NYSDEC and New York State Department of Health (NYSDOH), budget control, subcontractor performance, implementation of the Quality Assurance Project Plan, and allocation of resources and staffing to implement both the QA/QC program and the site Health and Safety Plan.

- ***Christie Sobol, E.I.T., EA Project QA/QC Coordinator—***The Project QA/QC Coordinator is responsible for project-specific supervision and monitoring of the QA/QC program. She will ensure that field personnel are familiar with and adhere to proper sampling procedures, field measurement techniques, sample identification, and chain-of-custody procedures. She will coordinate with the analytical laboratory for the receipt of samples and reporting of analytical results, and will recommend actions to correct deficiencies in the analytical protocol or sampling. Additionally, she will prepare QA/QC reports for management review.

- ***Robert Casey, EA Site Manager***—The Site Manager will serve as the onsite contact person for field investigations and tests. He will be responsible for coordinating the field activities; including inspecting and replacing equipment, preparing daily and interim reports, scheduling sampling, and coordinating shipment and receipt of samples and containers.

The Program Health and Safety Officer is also an integral part of the project implementation team.

- ***Kris Hoiem, EA Program Health and Safety Officer***—The Program Safety and Health Officer will be responsible for the development, final technical review, and approval of the HASP. In addition, he will provide authorization, if warranted, to modify personal protective equipment (PPE) requirements based on field conditions. He will also provide final review of all safety and health monitoring records and PPE changes to ensure compliance with the provisions of the Health and Safety Plan (HASP).

2.2 LABORATORY

Laboratory analyses for this project will be performed by Life Sciences Laboratories – Brittonfield in East Syracuse, New York and Con-Test Analytical Laboratory in East Longmeadow, Massachusetts, under a subcontract agreement with EA. Life Sciences Laboratories and Con-Test and will have sample analysis and review responsibilities on this project. The laboratories will have their own provisions for conducting an internal QA/QC review of the data before they are released to EA. The laboratories' contract supervisors will contact EA's Project Manager with any sample discrepancies or data concerns.

Hardcopy and electronic data deliverable formatted QA/QC reports will be filed by the analytical laboratories when data are submitted to EA. Corrective actions will be reported to the EA Project Manager along with the QA/QC report (Section 9 of the Generic QAPP). The laboratories may be contacted directly by EA or NYSDEC personnel to discuss QA concerns. EA will act as laboratory coordinator on this project, and all correspondence from the laboratories will be coordinated with EA's Project Manager.

3. SAMPLING RATIONALE, DESIGNATION, AND CONTAINERS

3.1 SAMPLING RATIONALE

The sampling rationale is presented for each planned field activity is detailed in the Field Activities Plan (FAP) (EA 2006a)[2]. The rationale and frequency of the QC samples collected is discussed in the Generic QAPP. The remedial investigation laboratory program, illustrated in Table 1 includes the number of samples for each sample location, as well as QA/QC samples. The frequency of QA/QC samples are expressed as a percentage of the total number of samples collected for that matrix. The Generic QAPP also includes analytical methods and reporting limits.

3.2 SAMPLE DESIGNATION

Field samples collected from the Site will be assigned a unique sample tracking number. Sample designation will be an alpha-numeric code, which will identify each sample by the site identification, matrix sampled, location number, sequential sample number (or depth of top-of-sample interval for excavation soil samples), and date of collection. Each sampling location will be identified with a 2-digit number. Sequential sample numbers at each location for samples will begin with 01 and increase accordingly. For soil borings, the top depth of the sample interval will be used as the sample number. The final portion of the sample tracking number will be the sample date.

The following terminology will be used for the sample identification:

- **Soil Samples**
  - SITE ID[3]-SB-xx (for subsurface soil samples).
- **Groundwater Samples**
  - SITE ID-GW-01 through 11 (for existing monitoring wells).
- **Surface Water and Sediment Samples**
  - SITE ID-SW-xx (for surface water samples).
  - SITE ID-SED-xx (for sediment samples).

[2] EA Engineering, P.C. 2006. *Field Activities Plan for 640 Trolley Boulevard Site (Site No. 8-8-108) in Gates, New York*. June.
[3] Site ID No. 8-28-108

- **Structure Air Samples**

  — SITE ID-SS-01 through 5 (for sub-slab locations).
  — SITE ID-FF-01 through 5 (for first floor indoor ambient air).
  — SITE ID-OA-01 (for outdoor ambient air).

3.3 SAMPLE CONTAINERS

Table 2 outlines the types of sample containers and preservatives required for sample collection. It should be noted that liquid waste samples which exhibit an oily characteristic do not require acid preservation.

4. ANALYTICAL LABORATORY

The data collected during this investigation will be used to determine the presence and concentration of certain analytes in soil, surface water/sediment, groundwater, and air (sub-slab vapor, indoor air, and outdoor air).

All air samples collected during execution of the Generic QAPP and this QAPP Addendum will be submitted to Con-Test in East Longmeadow, Massachusetts. All groundwater, surface water/sediment, and soil samples will be submitted to Life Sciences Laboratories-Brittonfield in Syracuse, New York. Both labs are NYSDOH Environmental Laboratory Analytical Program-certified, meeting specifications for documentation, data reduction, and reporting.

5. ANALYTICAL TEST PARAMETERS

This QAPP Addendum will require the analysis of groundwater samples using U.S. Environmental Protection Agency (EPA) Method 8260B for volatile organic compounds (VOCs), EPA Method 8270C for semi-volatile organic compounds (SVOCs), and EPA Method 8082 for polychlorinated biphenyls (PCBs). Air samples will be analyzed using EPA Method TO-15 for VOCs. Surface water/sediment samples will be analyzed using EPA Method 8082 for PCBs and groundwater samples will be analyzed using EPA Methods 8082 for PCBs and 8260B for VOCs. Compound lists for each analytical method are included in the Generic QAPP.

6. ANALYTICAL DATA VALIDATION

The laboratories will review data prior to its release from the laboratories. Objectives for review are in accordance with the QA/QC objectives stated in the Generic QAPP. The laboratories are required to evaluate their ability to meet these objectives. Outlying data will be flagged in accordance with laboratory standard operating procedures, and corrective action will be taken to rectify the problem.

In order to ensure the validity of analytical data generated by a project, it will be validated by Environmental Data Services, Inc., who is independent from the analysts and the project. The Generic QAPP addresses implementation of independent validation.

TABLE 1 REMEDIAL INVESTIGATION ANALYTICAL PROGRAM

	Sample Matrix	VOC TO-15	VOC 8260B	SVOC 8270C	PCB 8082
SOIL SAMPLING (DIRECT PUSH DRILLING PROGRAM)					
No. of Samples	Soil	---	16	---	174
Field Duplicate		---	1	---	9
Rinsate Blank [a]		---	1	---	9
MS/MSD		---	2	---	18
Total No. of Analyses		**---**	**20**	**---**	**210**
SOIL SAMPLING (SUBSURFACE DRILLING PROGRAM)					
No. of Samples	Soil	---	12	---	12
Field Duplicate		---	1	---	1
Rinsate Blank [a]		---	1	---	1
MS/MSD		---	2	---	2
Total No. of Analyses		**---**	**16**	**---**	**16**
GROUNDWATER SAMPLING					
No. of Samples	Aqueous	---	22	22	22
Field Duplicate		---	2	2	2
Trip Blank [b]		---	2	---	---
MS/MSD		---	4	4	4
Total No. of Analyses		**---**	**30**	**28**	**28**
SURFACE WATER/SEDIMENT SAMPLING[c]					
No. of Samples	Aqueous	---	---	---	4
Field Duplicate		---	---	---	1
Trip and/or Rinsate Blank [a]		---	---	---	1
MS/MSD		---	---	---	2
Total No. of Surface Water Analyses		**---**	**---**	**---**	**8**
No. of Samples	Sediment	---	---	---	11
Field Duplicate		---	---	---	1
Trip and/or Rinsate Blank [a]		---	---	---	2
MS/MSD		---	---	---	2
Total No. of Sediment Analyses		**---**	**---**	**---**	**16**
Total No. of Surface Water/Sediment Analyses		**---**	**---**	**---**	**24**
AIR/SOIL VAPOR SAMPLING[d]					
No. of Samples	Air	11	---	---	---
Field Duplicate		2	---	---	---
MS/MSD		4	---	---	---
Total No. of Analyses		**17**	**---**	**---**	**---**

[a] One rinsate blank per day of sampling with a field device that requires field decontamination.
[b] Trip blanks are required for VOC sampling of aqueous media at a rate of one per sample shipment.
[c] Sampling media will be based on site conditions (e.g., presence of surface water).
[d] The detection limits for analyzing indoor air and ambient air samples with method TO-15 are 0.25 $\mu g/m^3$ for TCE and 1.0 $\mu g/m^3$ for all other compounds. The detection limits for analyzing sub-slab air and soil vapor samples are 5.0 $\mu g/m^3$ for TCE and 100 $\mu g/m^3$ for all other compounds.

NOTES: VOC = Volatile Organic Compounds
SVOC = Semi-volatile Organic Compounds
PCB = Polychlorinated Biphenyls
--- = No Sample Taken
MS/MSD= Matrix Spike/Matrix Spike Duplicate
Laboratory quality control samples will be collected at a rate of 1 per 20 samples, per matrix.

TABLE 2 SAMPLE CONTAINERS, PRESERVATION, AND HOLDING TIMES

Parameter	Matrix	Container Type/Size	Sample Volume	Preservation	Maximum Holding Time from Verifiable Time of Sample Receipt
Target Compound List volatile organic compounds	Soil	One 125-mL wide-mouth glass vial with Teflon-lined cap	125 mL	Minimize headspace, cool 4°C	7 days
	Water	Two 40-mL glass vials with Teflon-lined Septa	80 mL	No headspace, cool 4°C HCl	7 days
Target Compound List semivolatile organic compounds	Water	Two 1-L amber glass with Teflon-lined cap	2 L	Cool 4°C	Extract within 5 days, analyze within 40 days following the start of extraction
TO-15	Air	One 6-L Summa® Canister	6 L	None	30 days
Polychlorinated Biphenyls	Soil	One 250-mL wide-mouth glass jar with Teflon-lined cap	250 mL	Cool 4°C	Extract within 14 days, analyze within 40 days following the start of the extraction
	Water	Two 1-L amber glass with Teflon-lined cap	2 L	Cool 4°C	Extract within 7 days, analyze within 40 days following the start of extraction

Appendix E

Work Assignment Budget

Schedule 2.11 (a)

Summary of Work Assignment Price

Work Assignment Number D004438-02

1)	Direct Salary Costs (Schedules 2.10(a) and 2.11(b))			$44,574.79
2)	Indirect Costs (Schedule 2.10(g))			$67,954.27
3)	Direct Non-Salary Costs (Schedule 2.10(b)(c)(d) and 2.11(c)(d)			$16,575.04
4)	Subcontract Costs			
	Cost-Plus-Fixed-Fee Subcontracts (Schedule 2.10(e) and 2.11(e)			
	Name of Subcontractor		**Services To Be Performed**	**Subcontract Price**
	i)	OM P. Popli, P.E., L.S., P.C.	Surveying Professional Services	*$4,407.95*
A)	**Total Cost-Plus-Fixed-Fee Subcontracts**			$4,407.95
	Unit Price Subcontracts (Schedule 2.10(f) and 2.11(f)			
	Name of Subcontractor		**Services To Be Performed**	**Subcontract Price**
	i)	Con-Test Analytical Laboratory	Laboratory Air Analyses	*$3,745.00*
	ii)	Life Science Laboratories, Inc. - Brittonfield	Laboratory Other Analyses	*$25,418.00*
	iii)	Environmental Data Services, Inc.	Data validation	*$6,054.00*
	iv)	GeoLogic NY, Inc.	Drilling Services	*$24,925.00*
B)	**Total Unit Price Subcontracts**			$60,142.00
5)	Subcontract Management Fee			$3,007.10
6)	Total Subcontract Costs (Lines 4A + 4B + 5)			$67,557.05
7)	Fixed Fee (Schedule 2.10(h))			$7,877.03
8)	Total Work Assignment Price (Lines 1 + 2 + 3 + 6 + 7)			$204,538.18

Engineer/Contract #	EA Engineering, P.C. D004438	**Date Prepared**	20-Jun-06
Project Name	640 Trolley Boulevard Site RI/FS		
Work Assignment No.	D004438-02		

Schedule 2.11 (b)
Direct Labor Hours Budgeted

Labor Classification	*IX*	*VIII*	*VII*	*VI*	*V*	*IV*	*III*	*II*	*I*	*Admin.*	*Total Direct Labor Hrs.*
2006 Average Salary Rates*		62.09	52.41	47.23	43.12	34.41	25.01	21.13	16.56		
Task 1				22	9	99	270	40	31	15	486
Task 2				4	36	140	380	260	80	40	940
Task 3				4	38	68	60	40	40	40	290
Task 4										0	0
Task 5										0	0
Task 6										0	0
Task 7										0	0
Task 8										0	0
Task 9										0	0
Task 10										0	0
Task 11										0	0
Task 12										0	0
Total Hours	0	0	0	30	83	307	710	340	151	95	1,716
Total Direct Labor Cost ($)	0.00	0.00	0.00	1,416.90	3,578.96	10,563.87	17,757.10	7,184.20	2,500.56	1,573.20	44,574.79

* For multiple years use one average salary rate row for each year and each years subtotal Labor Cost.

Engineer/Contract # EA Engineering, P.C. D004438 **Date Prepared** 20-Jun-06
Project Name 640 Trolley Boulevard Site RI/FS
Work Assignment No. D004438-02

Schedule 2.11 (b-1)
Direct Administrative Labor Hours Budgeted

Labor Classification	*IX*	*VIII*	*VII*	*VI*	*V*	*IV*	*III*	*II*	*I*	*Total No. of Direct Labor Hrs.*
2006 Average Salary Rates*		62.09	52.41	47.23	43.12	34.41	25.01	21.13	16.56	
Task 1									15	15
Task 2									40	40
Task 3									40	40
Task 4										0
Task 5										0
Task 6										0
Task 7										0
Task 8										0
Task 9										0
Task 10										0
Task 11										0
Task 12										0
Total Hours	0	0	0	0	0	0	0	0	95	95
Total Direct Labor Cost ($)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,573.20	1,573.20

* For multiple years use one average salary rate row for each year and each years subtotal Labor Cost.

Contract/Project administrative hours would include (subject to contract allowability) but not necessarily be limited to the following activities:

1) Work Plan Budget Development
- Conflict of Interest Check
- Budget schedules & supporting documentation

2) Review work assignment (WA) progress
- Conduct progress reviews
- Prepare monthly project report
- Update WA progress schedule
- Prepare M/WBE Utilization Report

3) Contractor Application for Payment (CAP)
- Oversee and prepare monthly CAP

4) Program Management
- Prepare monthly cost control report
- Cost control reviews
- Staffing plans
- Manage subcontracts
- NSPE list update
- Equipment inventory

5) Miscellaneous
- Conduct Health and Safety Reviews
- Word processing and graphic artists
- Report editing

Contract/Project administration hours would not include:
- QA/QC reviews
- Technical oversight by management
- Develop subcontracts
- Work plan development
- Review of deliverables

Schedule 2.11 (c)

Direct Non-Salary Costs

Engineer: EA Engineering, P.C.
Contract No: D004438
Project Name: 640 Trolley Boulevard Site RI/FS
Work Assignment No.: D004438-02

Item		Maximum Reimbursement Rate	(Specify Unit)	Est. No. of Units
A)	**In-house Costs**			
1)	8.5 x 11 print/copy (black and white)	$0.05	$/page	10100
2)	8.5 x 11 print/copy (color)	$0.75	$/page	530
3)	Microcomputer GIS (Arc/info)	$6.25	$/hour	80
4)	Microcomputer Graphics/CADD	$1.50	$/hour	110
5)	Personal Protective Equipment (Level C)	$27.00	$/man-day	0
6)	Personal Protective Equipment (Level D)	$13.00	$/man-day	42
7)	Equipment Purchased Under Contract	$0.00	Lump Sum	1
8)	Consultant Owned Equipment	$3,135.00	Lump Sum	1
9)	Vendor Rented Equipment	$1,150.00	Lump Sum	1
10)	Site Dedicated Equipment	$0.00	Lump Sum	1
11)	Consumable Supplies	$888.00	Lump Sum	1
12)	Shipping - Submittals	$50.00	each	7
13)	Shipping - Samples	$75.00	50 lbs	20
14)	Presentation Poster Boards	$50.00	each	4
15)	Photo quality plots/copies (color)	$3.00	$/square foot	50
				In-house Costs Total
B)	**Miscellaneous**			
	Travel:			
	Per diem: Albany County	$49.00	day	2
	Per diem: Monroe County	$44.00	day	46
	Lodging: Albany County	$94.00	night	0
	Lodging: Monroe County	$81.00	night	34
	Local Mileage:	$0.445	mile	4972
				Miscellaneous Total

Total Direct Non-Salary Costs **$16,575.04**

*See Schedule 2.10(b) for rates.

Total Estimated Cost ($)
$505.00
$397.50
$500.00
$165.00
$0.00
$546.00
$0.00
$3,135.00
$1,150.00
$0.00
$888.00
$350.00
$1,500.00
$200.00
$150.00
$9,486.50
$98.00
$2,024.00
$0.00
$2,754.00
$2,212.54
$7,088.54

Work Assignment No. D004438-02

Schedule 2.11(d) 1

Equipment Purchased Under the Contract

Item	Est. Purchase Price ($)	O&M Rate* ($/Month)	Term of Usage (Months)	Est. Usage Cost ($) (Col. 2 + [3 x 4]))
				$0.00
				$0.00
			TOTAL	**$0.00**

* The O&M rate is reimbursable only while the equipment is in the custody of the Engineer.

Work Assignment No. D004438-02

Schedule 2.11(d) 2

Maximum Reimbursement Rates for Consultant Owned Equipment

Item	Purchase Price ($) x 85%	Usage Rate* ($/Unit of Time)	Capital Recovery** Rate ($/Unit of Time)	O&M Rate ($/Unit of Time)	Est. Usage (Unit of Time)	Est. Usage Cost ($) (Col. 3 x 6)
MiniRAE 2000 with 10.67 eV Lamp-Datalogging		75 Day			4	$300.00
MiniRAE 2000 with 10.67 eV Lamp-Datalogging		725 Month			1	$725.00
Grundfos Redi-Flo2 2-in. Pump 100 ft with Controller		95 Day			5	$475.00
Solinst 122 or Heron H.01L Interface Probe 100 ft		45 Day			3	$135.00
MIE DR-2000 DataRAM Real-Time Aerosol Monitor		1200 Month			1	$1,200.00
MIE DR-2000 DataRAM Real-Time Aerosol Monitor		150 Day			2	$300.00
					TOTAL	**$3,135.00**

Work Assignment No. D004438-02

Schedule 2.11(d) 3

Maximum Reimbursement Rates for Vendor-Rented Equipment

Item	Reimbursement Rate ($)	Unit of Time	Est. Usage (Unit of Time)	Est. Usage Cost ($) (Col. 2 x 3)
ppbRAE PID (10.6 eV lamp)	$125.00	day	2	$250.00
Horiba U-22 Flow Cell	$150.00	day	6	$900.00
			TOTAL	**$1,150.00**

* Reimbursement will be made at the Maximum Reimbursement rate or the actual rental rate, whichever is less.

Work Assignment No. D004438-02

Schedule 2.11(d) 4

Site-Dedicated Equipment

Item	Estimated Quantity	Unit Cost ($)	Total Budgeted Cost (Col . 2 x 3) ($)
			$0.00
			$0.00
		TOTAL	**$0.00**

Work Assignment No. D004438-02

Schedule 2.11(d) 5

Consumable Supplies

Item	Estimated Quantity	Unit Cost ($)	Total Budgeted Cost (Col . 2 x 3) ($)
Teflon tubing (feet)	130	$1.00	$130.00
Disposable Bailers (24/package)	1	$90.00	$90.00
Polyethylene Tubing (500-foot)	3	$100.00	$300.00
Low Value Equipment (field hours)	460	$0.80	$368.00
		TOTAL	**$888.00**

Schedule 2.11(e)

Cost-Plus-Fixed-Fee Subcontracts

Work Assignment Number D004438-02

Name of Subcontractor	**Services to be Performed**	**Subcontract Price**
OM P. Popli, P.E., L.S., P.C.	Surveying Professional Services	$4,407.95

A) Direct Salary Costs

Professional Responsibility Level	**Labor Classification**	**Ave. Reimbursement Rate ($/Hr.)**	**Max. Reimbursement Rate ($/Hr.)**	**Est. No. of Hours**	**Total Est. Direct Salary Cost (Ave. Reimb. Rate x Est. # of Hrs.)**
Sr. Land Surveyor	III N	29.50	31.50	4	$118.00
Survey Technician	II N	19.00	22.50	16	$304.00
CAD Drafter	I N	16.50	18.00	11	$181.50
*Survey Technician	III N	24.75	29.50	22	$544.50
*Survey Technician	II N	19	22.5	22	$418.00
Total Direct Salary Costs					$1,566.00

Footnotes:

1) The labor rate averages and maximums shall be adjusted by a rate equal to the increase in the CPI index CUURA101SAO-"All Urban Consumers-new York-Northern N.J.-Long Island" for the previous year. This index is published by the U.S. Department of Labor's Bureau of Labor Statistics. The adjustment will be calculated every January and will be effective for subsequent work assignment billing and budgeting purposes.

2) Schedule 2.10(a) may be re-negotiated after four (4) years at the request of either party. Any revision as a result of renegotiation will be subject to the approval of the Office of the State Comptroller.

3) The maximum annual escalation is limited to 5%.

4) Reimbursement will be limited to the lesser of either of the individual's actual hourly rate or the maximum rate for each labor category.

5) Reimbursement will be limited to the maximum reimbursement rate for the professional responsibility level of the actual work performed.

6) Only those labor classifications indicated with an asterisk will be entitled to overtime.

7) Reimbursement for technical time of principals, owners, and officers will be limited to the maximum reimbursement rate of that category, the actual hourly labor rate paid, or the State M-6 rate, whichever is lower.

8) Maximum reimbursement rates may be exceeded for work assignment activities that are under the jurisdiction of the Schedule of Prevailing Wage Rates set by the New York State Department of Labor.

Schedule 2.11(e)
(continued)

B) Indirect Costs

Indirect costs shall be paid based on a percentage of direct salary costs incurred which shall not exceed a maximum of **133.87%** or the actual rate calculated in accordance with 48 CFR Federal Acquisition Regulation, whichever is lower.

Amount budgeted for indirect costs is:

Total Indirect Costs	$1,832.22

C) Maximum Reimbursement Rates for Direct Non-Salary Costs

Item		*Max. Reimbursement Rate (Specify Unit)*		*Est. # of Units*	*Total Estimated Cost*
1) Travel					
Per diem:	Monroe County	$44.00	day	0	$0.00
Lodging:	Monroe County	$81.00	night	0	$0.00
Local Mileage:		$0.445	mile	0	$0.00
				Travel Total	$0.00
2) Supplies					
				Supplies Total	$0.00
Total Direct Non-Salary Costs					$0.00

D) Fixed Fee

The fixed fee is:

Total Fixed Fee	$509.73

Schedule 2.11(f)

Unit Price Subcontracts

Work Assignment Number D004438-02

Name of Subcontractor	**Services to be Performed**	**Subcontract Price**	**Management Fee**
Con-Test Analytical Laboratory	Laboratory Air Analyses	$3,745.00	$187.25

Item	**Max. Reimbursement Rate (Specify Unit)**	**Est. No. of Units**	**Total Est. Cost**
VOC analysis of air samples	$225.00 ea	9	$2,025.00
VOC analysis of soil vapor samples	$215.00 ea	8	$1,720.00
Subtotal Subcontract Price			$3,745.00
Subcontract Management Fee			$187.25
TOTAL			$3,932.25

Schedule 2.11(f)

Unit Price Subcontracts

Work Assignment Number D004438-02

Name of Subcontractor	Services to be Performed	Subcontract Price	Management Fee
Life Science Laboratories, Inc. - Brittonfield	Laboratory Other Analyses	$25,418.00	$1,270.90

Item	Max. Reimbursement Rate (Specify Unit)		Est. No. of Units	Total Est. Cost
PCB analysis of soil samples	$60.00	ea	242	$14,520.00
VOC analysis of soil samples	$73.00	ea	36	$2,628.00
PCB analysis of water samples	$60.00	ea	36	$2,160.00
VOC analysis of water samples	$73.00	ea	30	$2,190.00
SVOC analysis of water samples	$140.00	ea	28	$3,920.00
Subtotal Subcontract Price				$25,418.00
Subcontract Management Fee				$1,270.90
TOTAL				$26,688.90

Schedule 2.11(f)

Unit Price Subcontracts

Work Assignment Number D004438-02

Name of Subcontractor	**Services to be Performed**	**Subcontract Price**	**Management Fee**
Environmental Data Services, Inc.	Data validation	$6,054.00	$302.70

Item	**Max. Reimbursement Rate (Specify Unit)**	**Est. No. of Units**	**Total Est. Cost**
Validation of PCB (non-aqueous)	$15.00 ea	198	$2,970.00
Validation of VOC data (non-aqueous)	$18.00 ea	28	$504.00
Validation of PCB (aqueous)	$15.00 ea	26	$390.00
Validation of VOC data (aqueous)	$18.00 ea	22	$396.00
Validation of SVOC (aqueous)	$18.00 ea	22	$396.00
Validation of VOC (air)	$18.00 ea	11	$198.00
DUSR Report Writing	$60.00 hr	20	$1,200.00
Subtotal Subcontract Price			$6,054.00
Subcontract Management Fee			$302.70
TOTAL			$6,356.70

Schedule 2.11(f)

Unit Price Subcontracts

Work Assignment Number D004438-02

Name of Subcontractor	Services to be Performed	Subcontract Price	Management Fee
GeoLogic NY, Inc.	Drilling Services	$24,925.00	$1,246.25

Item	Max. Reimbursement Rate (Specify Unit)		Est. No. of Units	Total Est. Cost
Mobilization/demobilization	500	lump sum	2	$1,000.00
Well Abandonment	45	lf	30	$1,350.00
Geoprobe and crew to install soil borings for soil samp	1200	day	4	$4,800.00
6-1/4-inch inside diamter hollow stem auger drilling w	25	lf	42	$1,050.00
Install rock socket into 1-2 feet of bedrock with water	750	ea	7	$5,250.00
HQ Diamond Wireline Coring	30	lf	175	$5,250.00
PVC Well Casing - 2-inch, Schedule 40 and 2-inch PV	20	lf	155	$3,100.00
PVC Well Screen - 2-inch, Schedule 40	20	lf	70	$1,400.00
Flushmount Well Cover	175	ea	4	$700.00
Decontamination Pad	200	lump sum	2	$400.00
Water Supply	0.03	gal	10000	$300.00
55 gal. drums	65	ea	5	$325.00
Subtotal Subcontract Price				$24,925.00
Subcontract Management Fee				$1,246.25
TOTAL				$26,171.25

SCHEDULE 2.11(g)

MONTHLY COST CONTROL REPORT
SUMMARY OF FISCAL INFORMATION

Engineer:	EA Engineering, P.C.	**Page:**	1 of 1
Contract No:	D004438	**Date Prepared:**	20-Jun-06
Project Name:	640 Trolley Boulevard Site RI/FS	**Billing Period:**	
Work Assignment No.:	D004438	**Invoice No.**	
Task#/Name:	Summary		
Complete:			

	Expenditure Category	*A* *Costs Claimed This Period*	*B* *Paid To Date*	*C* *Total Disallowed To Date*	*D* *Total Costs Incurred to Date (A+B+C)*	*E* *Estimated Costs To Completion*	*F* *Estimated Total Work Assignment Price (A+B+E)*	*G* *Approved Budget*	*H* *Estimated Under/Over (G-F)*
1	Direct Salary Costs				$0.00		$44,574.79		($44,574.79)
2	Indirect Costs				$0.00		$67,954.27		($67,954.27)
3	Subtotal Direct Salary Costs and Indirect Costs				$0.00		$112,529.06		($112,529.06)
4	Travel				$0.00		$7,088.54		($7,088.54)
5	Other Non-Salary Costs				$0.00		$9,486.50		($9,486.50)
6	Subtotal Direct Non-Salary Costs				$0.00		$16,575.04		($16,575.04)
7	Subcontractors				$0.00		$67,557.05		($67,557.05)
8	Total WA Cost				$0.00		$196,661.15		($196,661.15)
9	Fixed Fee 7%				$0.00		$7,877.03		($7,877.03)
10	Total WA Price				$0.00		$204,538.18		($204,538.18)

Program Manager(Engineer) _____ Date: _____

SCHEDULE 2.11(g)

MONTHLY COST CONTROL REPORT
SUMMARY OF FISCAL INFORMATION

Engineer:	EA Engineering, P.C.	**Page:**	1 of 1
Contract No:	D004438	**Date Prepared:**	20-Jun-06
Project Name:	640 Trolley Boulevard Site RI/FS	**Billing Period:**	
Work Assignment No.:	D004438-02	**Invoice No.**	
Task#/Name:	Task 1 - Background Review and Preparation of Work Plan		
Complete:			

	Expenditure Category	*A* *Costs Claimed This Period*	*B* *Paid To Date*	*C* *Total Disallowed To Date*	*D* *Total Costs Incurred to Date (A+B+C)*	*E* *Estimated Costs To Completion*	*F* *Estimated Total Work Assignment Price (A+B+E)*	*G* *Approved Budget*	*H* *Estimated Under/Over (G-F)*
1	Direct Salary Costs				$0.00		$13,193.39		($13,193.39)
2	Indirect Costs				$0.00		$20,113.32		($20,113.32)
3	Subtotal Direct Salary Costs and Indirect Costs				$0.00		$33,306.71		($33,306.71)
4	Travel				$0.00		$85.44		($85.44)
5	Other Non-Salary Costs				$0.00		$715.00		($715.00)
6	Subtotal Direct Non-Salary Costs				$0.00		$800.44		($800.44)
7	Subcontractors				$0.00		$0.00		$0.00
8	Total WA Cost				$0.00		$34,107.15		($34,107.15)
9	Fixed Fee 7%				$0.00		$2,331.47		($2,331.47)
10	Total WA Price				$0.00		$36,438.62		($36,438.62)

Program Manager(Engineer) _____ Date: _____

SCHEDULE 2.11(g)

MONTHLY COST CONTROL REPORT
SUMMARY OF FISCAL INFORMATION

Engineer:	EA Engineering, P.C.	**Page:**	1 of 1
Contract No:	D004438	**Date Prepared:**	20-Jun-06
Project Name:	640 Trolley Boulevard Site RI/FS	**Billing Period:**	
Work Assignment No.:	D004438-02	**Invoice No.**	
Task#/Name:	Task 2 - Site Investigation		
Complete:			

	Expenditure Category	*A* *Costs Claimed This Period*	*B* *Paid To Date*	*C* *Total Disallowed To Date*	*D* *Total Costs Incurred to Date (A+B+C)*	*E* *Estimated Costs To Completion*	*F* *Estimated Total Work Assignment Price (A+B+E)*	*G* *Approved Budget*	*H* *Estimated Under/Over (G-F)*
1	Direct Salary Costs				$0.00		$23,543.44		($23,543.44)
2	Indirect Costs				$0.00		$35,891.97		($35,891.97)
3	Subtotal Direct Salary Costs and Indirect Costs				$0.00		$59,435.41		($59,435.41)
4	Travel				$0.00		$6,398.80		($6,398.80)
5	Other Non-Salary Costs				$0.00		$7,844.00		($7,844.00)
6	Subtotal Direct Non-Salary Costs				$0.00		$14,242.80		($14,242.80)
7	Subcontractors				$0.00		$67,557.05		($67,557.05)
8	Total WA Cost				$0.00		$141,235.27		($141,235.27)
9	Fixed Fee 7%				$0.00		$4,160.48		($4,160.48)
10	Total WA Price				$0.00		$145,395.75		($145,395.75)

Program Manager(Engineer) _____ Date: _____

SCHEDULE 2.11(g)

MONTHLY COST CONTROL REPORT
SUMMARY OF FISCAL INFORMATION

Engineer:	EA Engineering, P.C.	**Page:**	1 of 1
Contract No:	D004438	**Date Prepared:**	20-Jun-06
Project Name:	640 Trolley Boulevard Site RI/FS	**Billing Period:**	
Work Assignment No.:	D004438-02	**Invoice No.**	
Task#/Name:	Task 3 - Preparation of Feasibility Study		
Complete:			

	Expenditure Category	*A* *Costs Claimed This Period*	*B* *Paid To Date*	*C* *Total Disallowed To Date*	*D* *Total Costs Incurred to Date (A+B+C)*	*E* *Estimated Costs To Completion*	*F* *Estimated Total Work Assignment Price (A+B+E)*	*G* *Approved Budget*	*H* *Estimated Under/Over (G-F)*
1	Direct Salary Costs				$0.00		$7,837.96		($7,837.96)
2	Indirect Costs				$0.00		$11,948.97		($11,948.97)
3	Subtotal Direct Salary Costs and Indirect Costs				$0.00		$19,786.93		($19,786.93)
4	Travel				$0.00		$604.30		($604.30)
5	Other Non-Salary Costs				$0.00		$927.50		($927.50)
6	Subtotal Direct Non-Salary Costs				$0.00		$1,531.80		($1,531.80)
7	Subcontractors				$0.00		$0.00		$0.00
8	Total WA Cost				$0.00		$21,318.73		($21,318.73)
9	Fixed Fee 7%				$0.00		$1,385.09		($1,385.09)
10	Total WA Price				$0.00		$22,703.82		($22,703.82)

Program Manager(Engineer) _____ Date: _____

SCHEDULE 2.11(g) - Supplemental

Cost Control Report For Subcontracts

Engineer:	EA Engineering, P.C.	**Page:**	1 of 1
Contract No:	D004438	**Date Prepared:**	20-Jun-06
Project Name:	640 Trolley Boulevard Site RI/FS	**Billing Period:**	
Work Assignment No.:	D004438-02	**Invoice No.**	

	Subcontract Name	*A Subcontract Costs Claimed this Application Inc. Resubmittals*	*B Subcontract Costs Approved for Payment on Previous Applications*	*C Total Subcontract Costs to Date (A plus B)*	*D Subcontract Approved Budget*	*E Management Fee Budget*	*F Management Fee Paid*	*G Total Costs to Date (C plus F)*
1	OM P. Popli, P.E., L.S., P.C.			$0.00	$4,407.95	NA	NA	$0.00
2	Con-Test Analytical Laboratory			$0.00	$3,745.00	$187.25		$0.00
3	Life Science Laboratories, Inc. - Brittonfield			$0.00	$25,418.00	$1,270.90		$0.00
4	Environmental Data Services, Inc.			$0.00	$6,054.00	$302.70		$0.00
5	GeoLogic NY, Inc.			$0.00	$24,925.00	$1,246.25		$0.00
6				$0.00				$0.00
7				$0.00				$0.00
8	TOTALS	$0.00	$0.00	$0.00	$64,549.95	$3,007.10		$0.00

Project Manager _____ Date: _____

Notes:
1) Costs listed in Columns A, B, C, & D do not include any management fee costs.
2) Management fee is applicable to only properly procured, satisfactorily completed, unit price subcontracts over $10,000.
3) Line 11, Column G should equal Line 7 (Subcontractors), Column D of Summary Cost Control Report.

SCHEDULE 2.11(h)

MONTHLY COST CONTROL REPORT
SUMMARY OF LABOR HOURS
Number of Direct Labor Hours Expended to Date/Estimated Number of Direct Labor Hours to Completion

Engineer: EA Engineering, P.C.
Contract No: D004438
Project Name: 640 Trolley Boulevard Site RI/FS
Work Assignment No.: D004438-02

Date Prepared: 20-Jun-06
Billing Period:
Invoice No.:

NSPE Labor Classification	IX Exp/Est*		VIII Exp/Est		VII Exp/Est		VI Exp/Est		V Exp/Est		IV Exp/Est		III Exp/Est		II Exp/Est		I Exp/Est		Total No. of Direct Labor Hours Exp/Est	
Task 1		0.0		0.0		0.0	0.0	22.0		9.0	0.0	99.0	0.0	270.0	0.0	40.0	0.0	46.0	0.0	486.0
Task 2		0.0		0.0		0.0	0.0	4.0		36.0	0.0	140.0	0.0	380.0	0.0	260.0	0.0	120.0	0.0	940.0
Task 3		0.0		0.0		0.0	0.0	4.0		38.0	0.0	68.0	0.0	60.0	0.0	40.0	0.0	80.0	0.0	290.0
																			0.0	0.0
																			0.0	0.0
																			0.0	0.0
																			0.0	0.0
																			0.0	0.0
																			0.0	0.0
																			0.0	0.0
																			0.0	0.0
																			0.0	0.0
																			0.0	0.0
																			0.0	0.0
Total Hours	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.0	0.0	83.0	0.0	307.0	0.0	710.0	0.0	340.0	0.0	246.0	0.0	1716.0

* Expended/Estimated

Schedule 2.11(i)

Monthly Cost Control Report
*Equipment Inventory Control Form**

Engineer EA Engineering, P.C. ***Contract No.*** D004438

1) Equipment Description _____
Purchase Date _____
Purchase Price _____
Dates & Location of Use Since Last Report (Identify WA) _____
Present Storage Location _____
Condition of Equipment _____
Responsible Person and Phone No. _____

2) Equipment Description _____
Purchase Date _____
Purchase Price _____
Dates & Location of Use Since Last Report (Identify WA) _____
Present Storage Location _____
Condition of Equipment _____
Responsible Person and Phone No. _____

3) Equipment Description _____
Purchase Date _____
Purchase Price _____
Dates & Location of Use Since Last Report (Identify WA) _____
Present Storage Location _____
Condition of Equipment _____
Responsible Person and Phone No. _____

4) Equipment Description _____
Purchase Date _____
Purchase Price _____
Dates & Location of Use Since Last Report (Identify WA) _____
Present Storage Location _____
Condition of Equipment _____
Responsible Person and Phone No. _____

* This form must be completed for all Department owned equipment in the custody of the Engineer and submitted as part of the Monthly Cost Control Report.

Appendix G

Project Organization

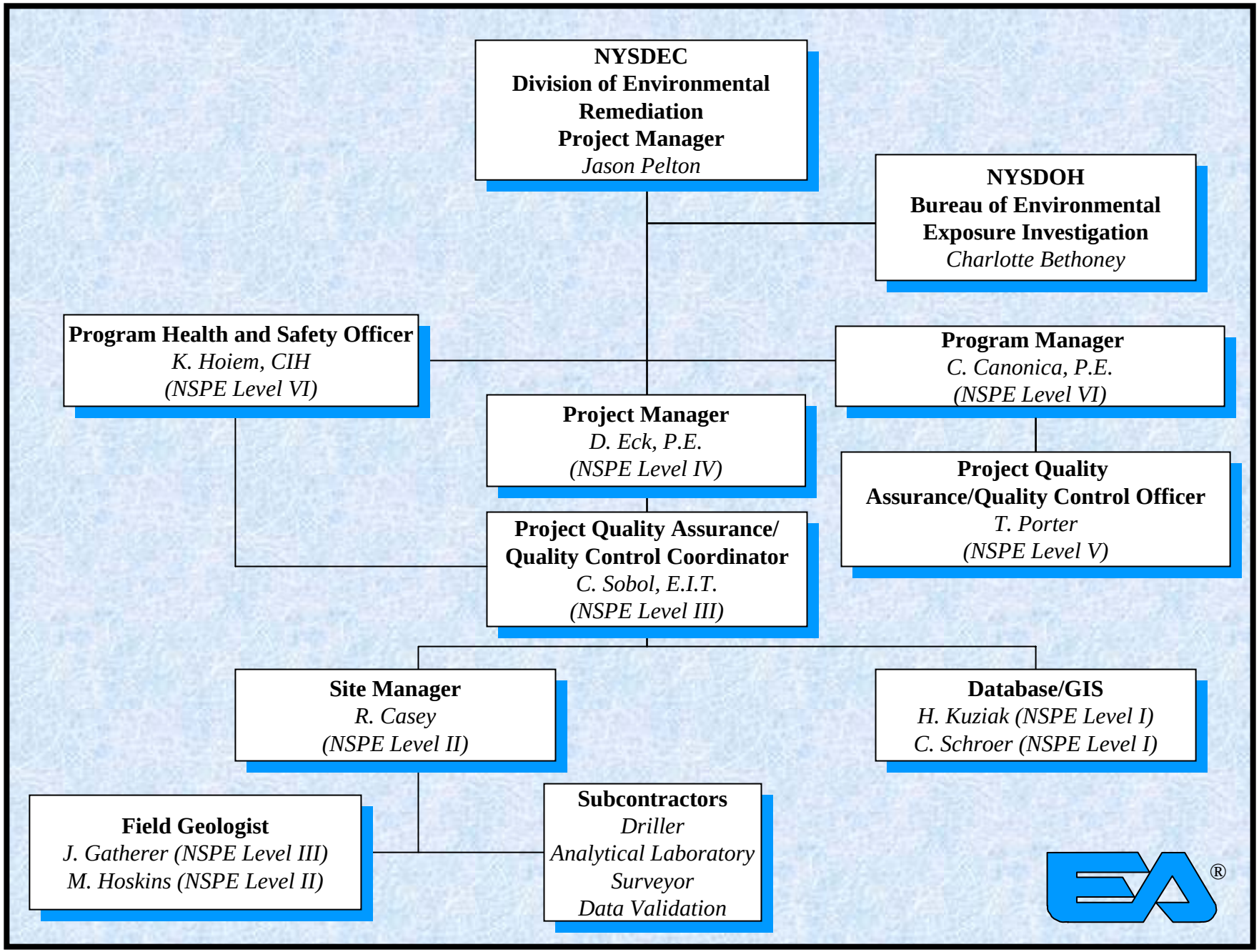

FIGURE 2. PROJECT ORGANIZATION CHART FOR 640 TROLLEY BOULEVARD SITE

Appendix F

Supporting Documentation for Work Assignment Budget

GeoLogic NY, Inc.
P.O. Box 350 • 37 Copeland Ave. • Homer, NY 13077 • 607.749.5000 • Fax: 607.749.5063

DRILLING QUOTATION

Date: May 31, 2006

To: Christie Sobol
EA Engineering Science and Technology, Inc.
6731 Collamer Road, Suite 2
East Syracuse, NY 13057

Fax: 315-431-4280

Project: 640 Trolley Boulevard Site (8-28-108)
Gates, New York

Scope of Work:

GeoLogic NY, Inc. proposes to provide all labor, equipment and material to advance soil borings in connection with the referenced project as per the Scope of Work provided in your email request of May 26, 2006.

EA Engineering will be responsible for obtaining access to the site, selecting the locations and depths of the wells, have the boring locations staked and utilities marked prior to the start of work.

Costs:

See attached Drilling Bid Unit Price Table.

This quotation is valid for 60 days. If you have any questions, please do not hesitate to call.

GeoLogic NY, Inc.

Steve Laramee, Drilling Manager

File: proposal\drill\EA Engineering – Gates

Drilling Bid Unit Price Table
Remedial Investigation/Feasibility Study Work Assignment
640 Trolley Boulevard Site (8-28-108) - Gates, New York

Item	Quantity	Unit	Unit Cost	Subtotal Cost
Mobilization/demobilization 2 events	2	each	$500.00	$1,000.00
Abandonment 28.5-foot 2-inch PVC Monitoring Well	30	lf	$45.00	$1,350.00
Geoprobe and crew to install approximately 40 soil borings 3-6 feet deep for the purpose of soil sample collection (8 borings inside building with concrete floor)	2	day	$1,200.00	$2,400.00
6-1/4-inch inside diameter hollow stem auger drilling with continuous split-spoon sampling of overburden	42	lf	$25.00	$1,050.00
Install Rock Socket into 1-2 feet of bedrock with Water Rotary Drilling (5- 7/8-inch outside diameter roller bit using hollow-stem augers as temporary casing). Place 4-inch Stainless Steel Casing and inject cement/bentonite grout around casing through a tremie pipe.	7	ea	$750.00	$5,250.00
HQ Diamond Wireline Coring (25 - 30 feet below ground surface)	175	lf	$30.00	$5,250.00
PVC Well Riser - 2-inch, Schedule 40 (4 20-foot and 3 25-foot lengths) and 2-inch PVC vented well caps	155	lf	$20.00	$3,100.00
PVC Well Screen - 2-inch, Schedule 40 (7 10-foot lengths)	70	lf	$20.00	$1,400.00
Flushmount Well Cover	4	ea	$175.00	$700.00
Sand	30	bag	N / C	$0.00
Bentonite Pellets	30	bag	N / C	$0.00
Cement/bentonite grout	30	lf	N / C	$0.00
Decontamination Pad	2	ea	$200.00	$400.00
Water Supply	10,000	gal	$0.03	$300.00
55-gallon DOT drum	5	each	$65.00	$325.00
			Total	***$22,525.00***

SJB SERVICES, INC.

Contract Drilling and Testing

June 1, 2006

EA Engineering, Science and Technology
6731 Collamer Road – Suite 2
East Syracuse, New York 13045
315-431-4610 Ext. 116 / Fax: 315-431-4280

Attention: Christie Sobol

Reference: Remedial Investigation / Feasibility Study Work Assignment – 640 Trolley Boulevard Site (8-28-108) – Gates, New York

Dear Christie,

SJB Services, Inc. is pleased to present our proposal for the above referenced project.

We have completed the bid items on the Unit Price Table provided.

We can meet your schedule (week of July 9, 2006) as outlined in the scope of work. We have also reviewed and can provide the insurance coverages outlined in your subcontract standard clause language if awarded this work.

We look forward to working with EA Engineering, Science and Technology on this project. Please do not hesitate to contact our office should you have any questions.

Sincerely,

SJB SERVICES, INC.

Stanley J. Blas
President

gel
Attachment

☒ **CORPORATE/ BUFFALO OFFICE**
5167 South Park Avenue
Hamburg, NY 14075
Phone: (716) 649-8110
Fax: (716) 649-8051

☐ **ALBANY OFFICE**
PO Box 2199
Ballston Spa, NY 12020

5 Knabner Road
Mechanicville, NY 12118
Phone: (518) 899-7491
Fax: (518) 899-7496

☐ **CORTLAND OFFICE**
60 Miller Street
Cortland NY 13045
Phone: (607) 758-7182
Fax: (607) 758-7188

☐ **ROCHESTER OFFICE**
535 Summit Point Drive
Henrietta, NY 14467
Phone: (585) 359-2730
Fax: (585) 359-9668

Drilling Bid Unit Price Table
Remedial Investigation/Feasibility Study Work Assignment
640 Trolley Boulevard Site (8-28-108) - Gates, New York

Item	Quantity	Unit	Unit Cost	Subtotal Cost
Mobilization/demobilization 2 events	2	each	$400.00	$800.00
Abandonment 28.5-foot 2-inch PVC Monitoring Well	30	lf	$26.00	$780.00
Geoprobe and crew to install approximately 40 soil borings 3-6 feet deep for the purpose of soil sample collection (8 borings inside building with concrete floor)	2	day	$900.00	$1,800.00
6-1/4-inch inside diameter hollow stem auger drilling with continuous split-spoon sampling of overburden	42	lf	$18.00	$756.00
Install Rock Socket into 1-2 feet of bedrock with Water Rotary Drilling (5- 7/8-inch outside diameter roller bit using hollow-stem augers as temporary casing). Place 4-inch Stainless Steel Casing and inject cement/bentonite grout around casing through a tremie pipe.	7	ea	$800.00	$5,600.00
HQ Diamond Wireline Coring (25 - 30 feet below ground surface)	175	lf	$45.00	$7,875.00
PVC Well Riser - 2-inch, Schedule 40 (4 20-foot and 3 25-foot lengths) and 2-inch PVC vented well caps	155	lf	$14.00	$2,170.00
PVC Well Screen - 2-inch, Schedule 40 (7 10-foot lenghts)	70	lf	$16.00	$1,120.00
Flushmount Well Cover	4	ea	$200.00	$800.00
Sand	30	bag	$15.00	$450.00
Bentonite Pellets	30	bag	$30.00	$900.00
Cement/bentonite grout	30	lf	$6.00	$180.00
Decontamination Pad	2	ea	$300.00	$600.00
Water Supply	10,000	gal	LS	$500.00
55-gallon DOT drum	5	each	$50.00	$250.00
			Total	$24,581.00

Contract Drilling and Testing

SJB SERVICES, INC.

☒ **CORPORATE/ BUFFALO OFFICE**
5167 South Park Avenue
Hamburg, NY 14075
Phone: (716) 649-8110
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535 Summit Point Drive
Henrietta, NY 14467
Phone: (585) 359-2730
Fax: (585) 359-9668

June 1, 2006

EA Engineering, Science and Technology
6731 Collamer Road – Suite 2
East Syracuse, New York 13045
315-431-4610 Ext. 116 / Fax: 315-431-4280

Attention: Christie Sobol

Reference: Remedial Investigation / Feasibility Study Work Assignment – 640 Trolley Boulevard Site (8-28-108) – Gates, New York

Dear Christie,

SJB Services, Inc. is pleased to present our proposal for the above referenced project.

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We can meet your schedule (week of July 9, 2006) as outlined in the scope of work. We have also reviewed and can provide the insurance coverages outlined in your subcontract standard clause language if awarded this work.

We look forward to working with EA Engineering, Science and Technology on this project. Please do not hesitate to contact our office should you have any questions.

Sincerely,

SJB SERVICES, INC.

Stanley J. Blas
President

gel
Attachment

Drilling Bid Unit Price Table
Remedial Investigation/Feasibility Study Work Assignment
640 Trolley Boulevard Site (8-28-108) - Gates, New York

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6-1/4-inch inside diameter hollow stem auger drilling with continuous split-spoon sampling of overburden	42	lf	$18.00	$756.00
Install Rock Socket into 1-2 feet of bedrock with Water Rotary Drilling (5- 7/8-inch outside diameter roller bit using hollow-stem augers as temporary casing). Place 4-inch Stainless Steel Casing and inject cement/bentonite grout around casing through a tremie pipe.	7	ea	$800.00	$5,600.00
HQ Diamond Wireline Coring (25 - 30 feet below ground surface)	175	lf	$45.00	$7,875.00
PVC Well Riser - 2-inch, Schedule 40 (4 20-foot and 3 25-foot lengths) and 2-inch PVC vented well caps	155	lf	$14.00	$2,170.00
PVC Well Screen - 2-inch, Schedule 40 (7 10-foot lenghts)	70	lf	$16.00	$1,120.00
Flushmount Well Cover	4	ea	$200.00	$800.00
Sand	30	bag	$15.00	$450.00
Bentonite Pellets	30	bag	$30.00	$900.00
Cement/bentonite grout	30	lf	$6.00	$180.00
Decontamination Pad	2	ea	$300.00	$600.00
Water Supply	10,000	gal	LS	$500.00
55-gallon DOT drum	5	each	$50.00	$250.00
			Total	$24,581.00

Sobol, Christie

From: Tim Nothnagle [tmn@NothnagleDrilling.com]
Sent: Wednesday, May 31, 2006 2:16 PM
To: Sobol, Christie
Cc: Steve Dilaura (E-mail)
Subject: RE: Request for Bid
Attachments: Drilling Bid Unit Price Table.xls

Christie,

Please find our price quote for the Trolley Blvd. location.

Call with questions or to discuss.

Regards,
Tim

-----Original Message-----
From: Sobol, Christie [mailto:Csobol@eaest.com]
Sent: Friday, May 26, 2006 11:28 AM
To: tmn@nothnagledrilling.com
Subject: Request for Bid

Hi,

You are hereby invited to submit a unit cost bid for drilling services anticipated for the completion of a work assignment recently received by EA Engineering, P.C. through the NYSDEC Standby Contract D004438. The site is located at 640 Trolley Boulevard in Gates (Rochester), New York. Attached is the scope of work for the anticipated drilling services, a bid table for your completion, and EA subcontract language, as well as the flow down standard clauses for New York State and New York State Department of Environmental Conservation. Please note that this language is still under final review and may change slightly, but at this time use this language for pricing the proposed work.

In addition, to the completed bid table, please provide documentation of insurance as required in the subcontract language. Please submit your bid by the close of business Wednesday, 31 May 2006. Bids may be submitted via email, fax, mail, or hand delivery.

If you have any questions, please feel free to contact me.

Thank you,
Christie

EA Engineering, Science and Technology
6731 Collamer Road, Suite 2
East Syracuse, New York 13045
Phone (315) 431-4610 ext. 116
Fax (315) 431-4280

Drilling Bid Unit Price Table
Remedial Investigation/Feasibility Study Work Assignment
640 Trolley Boulevard Site (8-28-108) - Gates, New York

Item	Quantity	Unit	Unit Cost	Subtotal Cost
Mobilization/demobilization 2 events	2	each	$800.00	$1,600.00
Abandonment 28.5-foot 2-inch PVC Monitoring Well	30	lf	$24.00	$720.00
Geoprobe and crew to install approximately 40 soil borings 3-6 feet deep for the purpose of soil sample collection (8 borings inside building with concrete floor)	2	day	$1,050.00	$2,100.00
6-1/4-inch inside diameter hollow stem auger drilling with continuous split-spoon sampling of overburden	42	lf	$28.00	$1,176.00
Install Rock Socket into 1-2 feet of bedrock with Water Rotary Drilling (5- 7/8-inch outside diameter roller bit using hollow-stem augers as temporary casing). Place 4-inch Stainless Steel Casing and inject cement/bentonite grout around casing through a tremie pipe.	7	ea	$200.00	$1,400.00
HQ Diamond Wireline Coring (25 - 30 feet below ground surface)	175	lf	$52.00	$9,100.00
PVC Well Riser - 2-inch, Schedule 40 (4 20-foot and 3 25-foot lengths) and 2-inch PVC vented well caps	155	lf	$18.00	$2,790.00
PVC Well Screen - 2-inch, Schedule 40 (7 10-foot lenghts)	70	lf	$24.00	$1,680.00
Flushmount Well Cover	4	ea	$175.00	$700.00
Sand	30	bag	$12.00	$360.00
Bentonite Pellets	30	bag	$25.00	$750.00
Cement/bentonite grout	30	lf	$8.00	$240.00
Decontamination Pad	2	ea	$150.00	$300.00
Water Supply ,Hydrant Permit and Tank Rental	1	ea	$1,700.00	$1,700.00
55-gallon DOT drum	5	each	$70.00	$350.00
			Total	***$24,966.00***

Nothnagle Drilling, Inc.
1821 Scottsville Mumford Rd.
Scottsville, NY
585.538.2328

parratt wolff inc

May 31, 2006

Ms. Christie Sobol
EA Engineering, Science and Technology
6731 Collamer Road, Suite 2
East Syracuse, New York 13045

transmitted via e-mail only

Re: Drilling Services
640 Trolley Boulevard Site
Gates, New York
Proposal No. P06378

Dear Ms. Sobol:

Attached for your review is our cost estimate for the above-referenced project.

Thank you for the opportunity to offer our proposal.

Very truly yours,

PARRATT-WOLFF, INC.

Joel V. Parratt
Senior Project Manager
JVP

Enc:

☑ P.O. Box 56, 5879 Fisher Road, East Syracuse, NY 13057 Telephone 315-437-1429 or 800-782-7260 FAX 315-437-1770
☐ P.O. Box 1029, 501 Millstone Drive, Hillsborough, NC 27278 Telephone 919-644-2814 or 800-627-7920 FAX 919-644-2817

Drilling Bid Unit Price Table
Remedial Investigation/Feasibility Study Work Assignment
640 Trolley Boulevard Site (8-28-108) - Gates, New York

Item	Quantity	Unit	Unit Cost	Subtotal Cost
Mobilization/demobilization 2 events	2	each	500.00	1000.00
Abandonment 28.5-foot 2-inch PVC Monitoring Well (1)	30	lf	30.00	900.00
Geoprobe and crew to install approximately 40 soil borings 3-6 feet deep for the purpose of soil sample collection (8 borings inside building with concrete floor)	2	day	1200.00	2400.00
6-1/4-inch inside diameter hollow stem auger drilling with continuous split-spoon sampling of overburden	42	lf	27.00	1134.00
Install Rock Socket into 1-2 feet of bedrock with Water Rotary Drilling (5- 7/8-inch outside diameter roller bit using hollow-stem augers as temporary casing). Place 4-inch Stainless Steel Casing and inject cement/bentonite grout around casing through a tremie pipe.	7	ea	1000.00	7000.00
HQ Diamond Wireline Coring (25 - 30 feet below ground surface)	175	lf	50.00	8750.00
PVC Well Riser - 2-inch, Schedule 40 (4 20-foot and 3 25-foot lengths) and 2-inch PVC vented well caps	155	lf	15.00	2325.00
PVC Well Screen - 2-inch, Schedule 40 (7 10-foot lenghts)	70	lf	15.00	1050.00
Flushmount Well Cover	4	ea	200.00	800.00
Sand (2)	30	bag	N/C	—
Bentonite Pellets (2)	30	bag	N/C	—
Cement/bentonite grout (2)	30	lf	N/C	—
Decontamination Pad	2	ea	200.00	400.00
Water Supply (3)	10,000	gal	—	—
55-gallon DOT drum	5	each	50.00	250.00
			Total	26009.00

1. Assumes well is to be overdrilled and grouted.
2. Included in PVC installation cost.
3. To be provided by others.

MONITORING, CORING,
SOIL SAMPLING &
TEST DRILLING

R. Rindfuss
DRILLING

(814) 796-4693
FAX (814) 796-6943

"We Specialize in Drilling"

13851 ROUTE 19 WATERFORD, PA 16441

May 31, 2006

Attn: Joe
EA Engineering, P.C.
6731 Collamer Road, Suite 2
East Syracuse, NY 13057-9808

RE: Drilling Bid Unit Price Table
Remedial Investigation/Feasibility Study

Dear Joe,

It was a pleasure speaking with you regarding the above mentioned project. Please find attached the bid price sheet you requested. If you have any questions please do not hesitate to contact our office. We hope to be working with you in the near future.

Respectfully,

R. RINDFUSS DRILLING, L.P.

Jeffrey Rindfuss
General Partner

R. Rindfuss Drilling, L.P.
13851 ROUTE 19
WATERFORD, PA 16441

(814)796-4693
(814)796-6943 FAX

Drilling Bid Unit Price Table
Remedial Investigation/Feasibility Study Work Assignment
640 Trolley Boulevard Site (8-28-108) - Gates, New York

Item	Quantity	Unit	Unit Cost	Subtotal Cost
Mobilization/demobilization 2 events	2	each	1,250.00	2,500.00
Abandonment 28.5-foot 2-inch PVC Monitoring Well	30	lf	1,100.00	1,100.00
Geoprobe and crew to install approximately 40 soil borings 3-6 feet deep for the purpose of soil sample collection (8 borings inside building with concrete floor)	2	day	1,500.00	3,000.00
6-1/4-inch inside diameter hollow stem auger drilling with continuous split-spoon sampling of overburden	42	lf	47.50	1,995.00
Install Rock Socket into 1-2 feet of bedrock with Water Rotary Drilling (5- 7/8-inch outside diameter roller bit using hollow-stem augers as temporary casing). Place 4-inch Stainless Steel Casing and inject cement/bentonite grout around casing through a tremie pipe.	7	ea	385.00	2,695.00
HQ Diamond Wireline Coring (25 - 30 feet below ground surface)	175	lf	55.00	9,625.00
PVC Well Riser - 2-inch, Schedule 40 (4 20-foot and 3 25-foot lengths) and 2-inch PVC vented well caps	155	lf	4.00	620.00
PVC Well Screen - 2-inch, Schedule 40 (7 10-foot lenghts)	70	lf	7.50	525.00
Flushmount Well Cover	4	ea	125.00	500.00
Sand	30	bag	18.00	540.00
Bentonite Pellets * (CHIPS)	30	bag	18.00	540.00
Cement/bentonite grout	30	lf	10.00	300.00
Decontamination Pad	2	ea	300.00	600.00
Water Supply	10,000	gal	.25	2,500.00
55-gallon DOT drum	5	each	75.00	375.00
			Total	**27,415.00**

* PRICE BASED ON LEVEL D WORK
* ANY OTHER MATERIALS OR SERVICES WOULD BE AN ADDITIONAL CHARGE.
* PRICES DO NOT REFLECT PREVAILING WAGE

Sobol, Christie

From: GEODAW@aol.com
Sent: Thursday, June 01, 2006 7:12 PM
To: Sobol, Christie
Subject: Re: Request for Bid
Attachments: G064789EAGATESNY.xls

Hi Christie,

I just returned to the office and saw that you had called about the proposal and 4 yr contract. I filled out the table but had to change a few things. I thought I sent this by e-mail yesterday but it may not have gotten to you. The table is attached in Excel format. Also, I did download a subcontract agreement. If you have any questions concerning the attached table, please let me know.

Thank You!!

Deb

Deborah Ann Weible, P.G., CWD
President & General Manager
Geo-Enviornmental Drilling Company, Inc.
233 Boda Road
Pittsburgh, PA 15147
(412) 712-1035 phone
(412) 712-1039 fax

Drilling Bid Unit Price Table
Remedial Investigation/Feasibility Study Work Assignment
640 Trolley Boulevard Site (8-28-108) - Gates, New York

Geo-Enviornmental Drilling Company, Inc. **31-May-06**
Proposal G06-4789

Item	Quantity	Unit	Unit Cost	Subtotal Cost
Mobilization/demobilization - Probe Rig	1	each	$1,500.00	$1,500.00
Mobilization/demobilization - HAS/Coring/Air Rig	1	each	$4,175.00	$4,175.00
Per Diem - 2 Men (HAS/Coring/Air Rig)	15	day	$170.00	$2,550.00
Support Equipment for Drill Rig (Includes Suppot Truck, Pressure Washer, Water Tank, Cutting Torch, Welder, Gases, Coring Pump, Grout Pump, Core Drill w/ 13" Bit)	15	day	$600.00	$9,000.00
Hourly Charges - Well Abandonment (28.5-foot 2-inch PVC Monitoring Well), Well Installation, Grouting, Installation of Covers & Pads, Decon, Staging & Handling Drums, Standby)	25	hour	$125.00	$3,125.00
Geoprobe and 1 Man crew to install approximately 40 soil borings 3-6 feet deep for the purpose of soil sample collection (8 borings inside building with concrete floor). Includes Per Deim.	2	day	$1,150.00	$2,300.00
6-1/4-inch inside diameter hollow stem auger drilling with continuous split-spoon sampling of overburden	35	feet	$15.00	$525.00
Install Rock Socket into 1-2 feet of bedrock with Water Rotary Drilling (5- 7/8-inch outside diameter roller bit using hollow-stem augers as temporary casing). Place 4-inch Stainless Steel Casing and inject cement/bentonite grout around casing through a tremie pipe. (Labor Only)	7	each	$750.00	$5,250.00
NQ Diamond Wireline Coring (25 - 30 feet below ground surface) w/ 4" Air Hammer Reaming	160	feet	$30.00	$4,800.00
Air Compressor Rental (Includes Delivery, Pick-Up, Rental, Fuel & Insurance Costs)	1	Cost+10%	$3,000.00	$3,000.00
MATERIALS:				
4' Probe Liners	60	each	$2.85	$171.00
4" Structural Steel Casing	63	feet	$13.10	$825.30
2"x10' Schedule 40 PVC Screen 10 slot	7	joint	$35.45	$248.15
2"x10' Schedule 40 PVC Riser	14	joint	$20.60	$288.40
2" x5' Schedule 40 PVC Riser	3	joint	$14.05	$42.15
2" PVC Threaded Plug & 2" Expanding Cap	7	pair	$22.00	$154.00
Sand	9	bag	$7.80	$70.20
Bentonite Pellets	2	pail	$50.30	$100.60
Powdered bentonite/Granular Bentonite	12	bag	$12.60	$151.20
Cement	11	bag	$20.60	$226.60
8" Flush Cover	4	each	$50.00	$200.00
4" Aluminum Lid	3	each	$25.00	$75.00
Gravel Mix	14	bag	$10.00	$140.00
Wooden Core Box	14	each	$37.50	$525.00
Decontamination Pad	1	each	$350.00	$350.00
Water Supply	10,000	gal	$0.25	$2,500.00
55-gallon DOT drum	5	each	$41.75	$208.75
			Total	***$42,501.35***

Schedule 2.11(e)
Estimated Cost Schedule For
Professional Services at 640 Trolley Boulevard Site # 8-28-108
Work Assignment Number D004438-02
Town of Gates, Monroe County, New York

Subcontract Bidder Name:	**Services to be Performed**	**Estimated Subcontract Price**
OM P. POPLI, P.E., L.S., P.C.	Land Surveying and Mapping Services	**$ 4,408.22**

Costing compliant with NYSDEC Form 2.11(e). P05-120R2

A. Direct Salary Costs

Professional Responsibility Level	Labor Classification	Average 2006 Reimbursement Rate	Max. 2006 Reimbursement Rate	Est. # Hours	Est. Direct Salary Cost (Act. Reimb. Rate)
Surveying and Mapping Services					
Sr. Land Surveyor	III N	$ 29.50	$ 31.50	4	$ 118.00
Survey Tech.	II N	$ 19.00	$ 22.50	16	$ 304.00
CAD Drafter	I N	$ 16.50	$ 18.00	11	$ 181.50
*Survey Tech.	III N	$ 24.75	$ 29.50	22	$ 544.50
*Survey Tech.	II N	$ 19.00	$ 22.50	22	$ 418.00
	Total Direct Salary Costs				$ 1,566.00

B. Indirect Costs

Amount budgeted for Indirect Costs	$ 1,832.22

C. Maximum Reimbursement Rates for Direct Non-Salary Costs

Item	Maximum Reimbursement	Unit	Number of Units	Total Estimated Cost
1 **Travel**				
Overnight Expenses	$ -	Night	0	$ -
Dinner Only	$ -	Dinner	0	$ -
Breakfast Only	$ -	Breakfast	0	$ -
Mileage (car)	$ -	Mile	0	$ -
Survey Van	$ 100.00	day	2	$ 200.00
Total Travel (total Per Diem rates for Monroe County = - - per person)				$ 200.00
2 **Supplies**				
Postage	$ -	Lump Sum	0	$ -
GPS	$ 200.00	Day	1	$ 200.00
Miscellaneous Expenses (incl. PPE)	$ -	Lump Sum	0	$ -
Level D Safety Equip. (per 2 man crew)	$ 50.00	Day	2	$ 100.00
Total Supplies				$ 300.00
3 **Subcontracted Services** (including 10% management fee)	$ -	Lump Sum	0	$ -
Total Travel, Supplies and Subcontracted Services Cost				$ 500.00

D. Fixed Fee

The Fixed Fee is	$ 510.00

Assumptions
1) Health and safety plan will be completed by others
2) Access to the site will not be limited
3) *NYS DOL* 'Prevailing Wage' rates do not apply
4) Any existing mapping of the property will be provided.
5) Property and ROW information will be based on Tax Map information.
6) The site is categorized as a level 'D' site
7) The mapping will be produced in AutoCAD v 2006, but not in ArcMapTM 9.1

Schedule 2.11(e)
Estimated Cost Schedule For
Professional Services at 640 Trolley Boulevard Site # 8-28-108
Work Assignment Number D004438-02
Town of Gates, Monroe County, New York

Subcontract Bidder Name:	**Services to be Performed**	**Estimated Subcontract Price**
OM P. POPLI, P.E., L.S., P.C.	Land Surveying and Mapping Services	**$ 4,408.22**

Footnotes:

1) These rates will be held firm until _January 2007_____ (date).

2) Reimbursement will be limited to the lesser of either the individuals actual hourly rate or the maximum rate for each labor category.

3) Reimbursement will be limited to the maximum reimbursement rate for the professional responsibility level of the actual work performed.

4) Only those labor classifications indicated with an asterisk will be entitled to overtime.

5) Maximum reimbursement rates may be exceeded for work assignment activities that are under the jurisdiction of Schedule of Prevailing Wage Rates sent by the New York State Department of Labor

6) Reimbursement for technical time of principals, owners and officers will be limited to the maximum reimbursement rate of that labor category, the actual hourly labor rate paid.

7) The maximum rates in each labor category can be modified only by mutual written agreement and approved by both the Department and the Comptroller.

8) This Footnote applies to Schedules for years 4 thru 7 only. If the U.S. cost-of-living index increases at a rate greater than 6% compounded annually, the maximum salary rates will be subject to renegotiation for future years of the contract. There shall be no retroactive adjustments of payment as a result of renegotiated salary schedules.

Sobol, Christie

From: Douglas Weaver [dweaver@env-data.com]
Sent: Thursday, June 01, 2006 10:46 AM
To: Sobol, Christie
Cc: Nancy Weaver
Subject: Re: Trolley Boulevard
Attachments: Data Validation Unit Price Table.xls

Hi Christie,

I have attached the completed bid sheet. I added a line item for 20 hours (4 hrs per sampling event) of report writing just in case we need to spend additional hours preparing the DUSRs. We have found the quality of data ranges greatly with these NYS DUSR projects depending on the laboratory and since we do not know the lab or how many data packages we will be receiving, we wanted to have some cushion. If everything goes smoothly, we will not use these hours.

Please let me know if this is acceptable or if you have any questions

Thank you. Doug - EDS
603-226-0118

> ----- Original Message -----
> **From:** Sobol, Christie
> **To:** dweaver@env-data.com
> **Sent:** Wednesday, May 31, 2006 4:03 PM
> **Subject:** Trolley Boulevard
>
> Hi Doug,
>
> Sorry, I got roped into working on something right after I talked to you and haven't been able to get you anything before now. Attached is a table with the anticipated number of samples. The tentative schedule for data package submittal for validation/DUSR is August 2006 (PCB and VOC soil samples), September 2006 (PCB and VOC soil samples), October 2006 and January 2007 (PCB, SVOC, and VOC water samples), and December 2006 (VOC air samples). Please let me know if you have any questions.
>
> Thank you for your consideration.
>
> Christie Sobol
>
> EA Engineering
> 6731 Collamer Road
> East Syracuse, New York 13057
> Phone (315) 431-4610 ext. 116
> Fax (315) 431-4280

Data Validation/DUSR

Type of Sample	Field Samples	EPA Method	Unit Cost	Subtotal Cost
PCB analysis of soil samples	198	8082	$15	$2,970
VOC analysis of soil samples	28	8260B	$18	$504
PCB analysis of water samples	22	8082	$15	$330
VOC analysis of water samples	22	8260B	$18	$396
SVOC analysis of water samples	22	8270C	$18	$396
VOC analysis of air samples	6	T0-15	$18	$108
VOC analysis of soil vapor	5	T0-15	$18	$90
	Hours			
DUSR Report Writing	20		$60	$1,200
			Total Cost	***$5,994***

Additional Requirements:

1. A DUSR will be provide within 30 days of receipt of each data packages.
2. The data will be validated in accordance with Work Element IV - Analytical Quality Assurance/Quality Control Activities of NYSDEC Standby Contract D004438 (attached).

Sobol, Christie

From: Tim Kelley [tkelley@contestlabs.com]
Sent: Wednesday, May 31, 2006 2:39 PM
To: Sobol, Christie
Subject: Price quote
Attachments: EA~NY~Trolley~14368.02.xls

Christie,

Let me know what you think

Tim Kelley
Con-Test Analytical Laboratory
39 Spruce Street
East Longmeadow, MA 01028
Tel # 413.525.2332-Ex. 39
Fax # 413.525.6405
E-mail: tkelley@contestlabs.com
Web:www.contestlabs.com

Laboratory Analysis of Air/Soil Vapor Samples

Type of Sample	Number of Field Samples	MS/ MSD	Field Duplicates	Total	EPA Method	Detection Limits	Unit Cost	Subtotal Cost
VOC analysis of air samples	6	2	1	9	T0-15	TCE and Carbon Tetrachloride = 0.25 $\mu g/m^3$ All other compounds = 1 $\mu g/m^3$	$225	$2,025
VOC analysis of soil vapor samples	5	2	1	8	T0-15	TCE and Carbon Tetrachloride = 5.0 $\mu g/m^3$ All other compounds = 100 $\mu g/m^3$	$215	$1,720
Total Cost								***$3,745***

Additional Requirements:

1. Laboratory must be an ELAP certified lab for volatiles by EPA Method TO-15. Provide certification with quote. * on file with EA)
2. Laboratory must provide laboratory-certified summa canister regulated for 24-hour and 2-hour sample collection. (Batch Certified) A minimum sample volume of 1 liter is required.
3. Turn Around Time
   a. Laboratory will provide preliminary results within 2 weeks for all analysis.
   b. Laboratory will provide the final results within 30 days for all analysis.
5. The final results are required to be NYSDEC ASP Category B or USEPA CLP like-deliverables. The laboratory will also provide the results in USEPA Region 2 electronic data deliverable (EDD) format. (see attachment A)

SIX LOCATIONS TO SERVE YOU:

CENTRAL LAB
5854 Butternut Drive
East Syracuse, NY 13057
Phone 315-445-1105
800-784-7447
Fax 315-445-1301

BRITTONFIELD LAB
5000 Brittonfield Parkway
Suite 200
East Syracuse, NY 13057
Phone 315-437-0200
Fax 315-437-0377

FINGER LAKES LAB
16 North Main Street
P.O. Box 424
Wayland, NY 14572
Phone 585-728-3320
Fax 585-728-2711

MIDLAKES LAB
699 South Main Street
Canandaigua, NY 14424
Phone 585-396-0270
Fax 585-396-0377

NORTH LAB
131 St. Lawrence Avenue
P.O. Box 704
Waddington, NY 13694
Phone 315-388-4476
Fax 315-388-4061

SOUTHERN TIER LAB
30 East Main Street
Cuba, NY 14727
Phone 585-968-2640
Fax 585-968-0906

June 1, 2006

Ms. Christie Sobol
EA Engineering, Science and Technology
6731 Collamer Road, Suite 2
East Syracuse, NY 13057
(315) 431-4610

Re: Analytical Services Cost Quotation
640 Trolley Boulevard

File: MS06-022

Dear Ms Sobol:

EA Engineering, Science and Technology is requesting analytical services for the 640 Trolley Boulevard project located in Gates, New York.

As outlined in RFB we have completed and attached the following documents for your consideration.

Bid Table

Certificate of Insurance

NYSDOH Certification

Subcontract

Terms and Conditions
Please note for your consideration the exceptions noted on the subcontract. These requests have been accepted in the past.

We appreciate the opportunity to assist EA Engineering, Science and Technology with its analytical programs and strive to exceed your expectations in quality, service and value. Should you have any questions, please feel free to contact us.

Very truly yours,

LIFE SCIENCE LABORATORIES, INC. – BRITTONFIELD LABS

Monika Santucci

Monika Santucci
Project Manager

G:\PROJMGT\QUOTES\MS\Q-2006\EA-Trolly.022.doc

Bid

Table

Request for Quote
Laboratory Analysis

Type of Sample	Number of Samples						EPA Method	Detection Limits	Unit Cost	Subtotal Cost
	Field Samples	MS/ MSD	Field Duplicates	Trip Blanks	Rinse Blanks	Total				
PCB analysis of soil samples	198	22	11		11	242	8082	NYSDEC TAGM Soil Cleanup Criteria	$60	$14,520
VOC analysis of soil samples	28	4	2		2	36	8260B	NYSDEC TAGM Soil Cleanup Criteria	$73	$2,628
PCB analysis of water samples	22	4	2			28	8082	NYSDEC GA Standards	$60	$1,680
VOC analysis of water samples	22	4	2	2		30	8260B	NYSDEC GA Standards	$73	$2,190
SVOC analysis of water samples	22	4	2			28	8270C	NYSDEC GA Standards	$140	$3,920
									Total Cost	***$24,938***

Additional Requirements:

1. Laboratory must be an ELAP certified lab for volatile organic compounds (VOCs) by EPA Method 8260, semi-volatile organic compounds (SVOCs) by EPA Method 8270, and polychlorinated biphenyls (PCBs) by EPA Method 8082. ***Provide certification with quote.***
2. Laboratory must provide bottleware for groundwater and soil field samples, field duplicates, MS/MSD, trip blanks, and rinse blanks.
3. Turn Around Time
   a. Laboratory will provide preliminary results within 2 weeks for all analysis.
   b. Laboratory will provide the final results within 30 days for all analysis.
4. An initial group of soil samples will be submitted for PCBs analysis. Another group of soil samples will be submitted to the laboratory to be held for potential future analysis. Upon receipt of the preliminary results of the initial samples analyzed for PCBs, EA may identify select held samples to be analyzed by the laboratory for PCBs. The total number of soil samples to be submitted for PCB analysis identified above (241) includes those samples to be held by the laboratory.
5. The final results are required to be NYSDEC ASP Category B or USEPA CLP deliverables. The laboratory will also provide the results in USEPA Region 2 electronic data deliverable (EDD) format.

Quote Provided by:

Monika Santucci — 5/31/2006
Name — Date

Life Science Laboratories, Inc. - Brittonfield Labs
Company

Certificate

of

Insurance

NYSDOH

Certification

Subcontract

EA as used herein means **EA Engineering, Science, and Technology, Inc. and includes its directors, officers, employees, agents and assigns.**

Subcontractor as used herein means the other party to this agreement, an independent entity and not an agent of EA or its subsidiaries, and includes its directors, officers, employees, agents and assigns and any of its subcontractors and suppliers at any tier and their respective directors, officers, employees, agents and assigns.

Client(s) as used herein means EA's Client(s).

WHEREAS, EA provides an extensive range of consulting, engineering, scientific, and analytical services to its Clients; and

WHEREAS, EA desires to engage Subcontractor to assist EA in providing services to the Client;

NOW, THEREFORE, for good and valuable consideration, Subcontractor agrees to provide the materials and/or services described herein, and EA agrees to accept and pay for such materials and/or services, all in accordance with the terms and conditions of this **SUBCONTRACTOR SERVICE ORDER AGREEMENT** (the **"Agreement").**

1. Subcontractor shall furnish all personnel, materials, equipment and facilities necessary to provide the services identified on the face of this Agreement. All equipment, material supplies, property, or documents furnished by Subcontractor, or purchased from funds advanced or reimbursed by EA under this Agreement shall be work performed for hire and become the sole property of EA or Client.

2. Time is of the essence. All work shall be performed entirely under Subcontractor's supervision, direction and control and shall be done in accordance with EA's specifications in a thorough, workmanlike manner, ~~subject to acceptance by EA. Nonacceptance by EA will be construed as a failure of Subcontractor to perform.~~ and in accordance with the prevailing standard of care for professional services

3. If within 1 year from completion and acceptance (unless EA specifications or equipment guarantees provide for a longer period of time), any materials furnished or services performed by Subcontractor are, in EA's opinion, defective, Subcontractor will re-perform the services and/or replace or repair any materials at no cost to EA. Subcontractor agrees to transfer all materials' or other guarantees to Client upon request. If Subcontractor fails to begin remedial work within 5 days of demand from EA or Client, and to complete such work within a reasonable time, EA or Client shall have the right to engage the services of another subcontractor to perform the work and Subcontractor agrees to pay EA or Client for all associated costs and/or increases in the cost of the work. reasonable 5/3/02

4. All or part of this Agreement may be terminated by EA for its convenience. Subcontractor will be entitled to compensation for services satisfactorily performed up to the termination date and reasonable termination expenses, as may be determined in EA's sole discretion, but in no event shall Subcontractor be entitled to compensation for lost revenue or profit.

   EA may terminate this Agreement, or any part thereof, for default if, in EA's opinion, Subcontractor: (I) ceases to work; (ii) fails to perform so as to endanger satisfactory and timely performance of the Agreement; (iii) fails to comply with any provision of this Agreement; (iv) or, is financially, legally or otherwise unable to complete the work and does not remedy such default to EA's satisfaction within a period of five (5) days after notice from EA.

   Subsequent determination that Subcontractor was either not in default or that the default was excusable will be treated as termination for convenience.

   Regardless of the cause of termination, Subcontractor shall deliver to EA all completed or partially completed work products required under this Agreement. The rights and remedies of EA provided herein are not exclusive and are in addition to any other rights available to EA as a matter of law or equity.

5. EA reserves the right to audit the records of Subcontractor insofar as they apply to work performed on any basis other than a fixed-price basis.

6. Subcontractor agrees to abide by its own internal Health and Safety Plan as well as by EA's Health and Safety Plan and policies, to include all applicable EA Client Health and Safety Policies and Plans. Failure to comply with any of the above Health and Safety Plans or Policies is cause for immediate termination for default. Subcontractor shall comply with all applicable laws, rules, regulations and ordinances including, without limiting the generality of the foregoing, those relating to its relationships with its employees and subcontractors as well as those relating to the environment, toxic or hazardous materials, occupation health and safety, and EA's safety regulations. Subcontractor is required to obtain and maintain all permits, licenses and approvals necessary or requested by EA for the performance of this Agreement. If this Agreement calls for the transfer to EA by Subcontractor of any chemical substance or any hazardous agent, Subcontractor shall provide prior to or simultaneously with said transfer a material safety data sheet (OSHA Form 20 or equivalent) and label which are current, accurate and complete, including but not limited to a statement of product hazards and precautions for safe use. Any safety and health requirements specified by EA shall not release Subcontractor from developing safety and health programs and procedures necessary to control hazardous conditions or operations unique to the work assignment.

7. Subcontractor warrants that its products and services are Year 2000 compliant. Contractor's Indemnity obligations hereunder include all claims and damages arising from or alleged to have arisen from Contractor's breach of this warranty.

8. Subcontractor shall advise all its employees and the employees of its subcontractors and agents that: (1) it is the policy of EA that the use, possession, sale, transfer, or purchase of illegal drugs on EA or Client property is prohibited; (2) entry onto EA or Client property constitutes consent to an inspection of the employee and his or her personal effects at any time; (3) anyone found in violation of this policy or who refuses to permit inspection may be removed and barred from EA or Client property at the sole discretion of EA or Client.

9. Subcontractor accepts full and exclusive liability for all contributions and taxes for unemployment insurance, old age and retirement benefits, annuities or pensions now or hereafter imposed by the United States or any state or governmental subdivision thereof, measured by the wages, salaries or other remuneration paid to Subcontractor's employees. Subcontractor shall comply with all rules and regulations applicable thereto; and reimburse or allow EA to deduct any amount charged to and/or paid by EA from any sums due Subcontractor if EA is held liable to pay any such tax or contributions. Subcontractor accepts full and exclusive liability for the payment of all sales taxes, including but not limited to all state taxes on the sales of goods and/or services and contributions. Notwithstanding anything to the contrary in Subcontractor's proposal, quote, bid, or any other documentation, Subcontractor affirms that the prices paid pursuant to this agreement are tax inclusive and that Subcontractor shall properly pay such taxes to the appropriate state of local agency.

10. Subcontractor shall, at EA's request, furnish a performance bond, a labor and material payment bond and/or a maintenance bond, each issued in form, amount, and by a surety approved by EA.

11. Subcontractor shall keep EA's and Client's property, premises, and delivered material free of liens, claims, encumbrances, and charges. If requested by EA, and as a condition of payment to Subcontractor, Subcontractor shall execute and deliver to EA an affidavit stating the Subcontractor has paid in full for all labor, materials, rental of equipment, transportation and all other charges in connection with work performed under this Agreement. All mechanics and material suppliers' liens, both of Subcontractor and of all subcontractors and material suppliers, are hereby waived. If requested by EA, and as a condition of payment to Subcontractor, Subcontractor shall procure and deliver to EA statements and waivers of lien (including partial waivers of lien) from all subcontractors and material suppliers.

12. Subcontractor for itself and its officers, directors, agents, servants, subcontractors, employees, material suppliers and insurers agree to release, defend, protect, indemnify and hold EA harmless from and against any and all claims, losses, liens, liabilities, settlements, judgments, fines, penalties, demands and causes of action of any kind (hereafter "Claims") however caused, and the costs thereof, including without limitation, damage to or loss of property and injury, illness or death of person(s), arising out of or in any way connected with Subcontractor's performance or failure of performance under this Agreement, whether or not the Claim in question is based on any actual or alleged negligence (active, passive, joint or concurrent) of EA or on any actual or alleged strict liability or breach of warranty (express, implied or otherwise) or any other legal fault of EA, except for third party Claims which have been determined by final nonappealable judgment to have arisen from the sole negligence or sole willful misconduct of EA.

13. With respect to operations performed under or incident to this Agreement, Subcontractor further agrees to obtain and maintain insurance acceptable to EA. Such insurance shall include:
    a. Comprehensive general liability insurance with a minimum combined single liability limit of $1,000,000 each occurrence (or the equivalent) for bodily injury and property damage, including coverage for personal injury, subcontractor's contingent liability, premises operations, contractual liability, products and completed operations, and, shall include the hazards of explosion, collapse and underground property damage; and,
    b. Comprehensive automobile liability insurance covering all owned, hired and otherwise operated non-owned vehicles with a minimum combined single limit of $1,000,000 each occurrence (or the equivalent) for bodily injury and property damage; and,
    c. Pollution and/or Professional liability insurance as required by Client; and
    d. (i). Workers compensation insurance as required by law, for all states of operation; and (ii). Employers' liability insurance with a minimum limit of $1,000,000 each occurrence.
    e. Excess Liability as required by Client.

    Any deductibles are Subcontractor's sole responsibility. EA shall have the right to require Subcontractor to change the limits of the foregoing insurance coverages. The insurance requirements above do not limit Subcontractor's liability under this Agreement.

    The insurance provisions of this Agreement shall be required of all Subcontractor's subcontractors and their subcontractors. Subcontractor agrees to release, defend, protect, indemnify, and hold EA and Client free and harmless from and against any and all Claims howsoever caused, and the costs thereof, that might arise from Subcontractor's failure to enforce this requirement on its subcontractors and their subcontractors.

    Before commencing any work under this Agreement, Subcontractor shall furnish EA with policies or certificates of insurance acceptable to EA which specifically provide that: (1) the coverage will not be canceled or materially changed except upon thirty (30) days advance written notice to EA; (2) subrogation against EA and Client shall be waived under all of the insurance policies set forth above, including all policies of any subcontractor; (3) all policies are primary to any other existing, valid and collectible insurance carried by EA or Client; and (4) except for Workers Compensation, Employer's and Professional Liability insurance coverages, EA and Client are additional insureds and include a cross liability (severability of interest) clause.

    Subcontractor shall be solely responsible for the investigation and defense of any and all Claims against EA, ~~even though they may be false, fraudulent or allege the sole negligence or willful misconduct of EA, including without limitation, Claims~~ filed by or on behalf of any of Subcontractor's employees.

14. Subcontractor agrees to release, protect, defend, indemnify and hold EA free and harmless from and against any and all claims, losses, liabilities, demands, actions and causes of action of all kinds by reason of any actual or alleged

improper use or infringement of any patent, copyright, trademark, trade name, or proprietary right of any third party arising out of any work done by Subcontractor pursuant to this Agreement or the manufacture, possession, use or sale of any material supplied pursuant to this Agreement.

15. Unless otherwise stated herein, payment shall be due when all work related to an invoice has been, in EA's sole discretion, completed and accepted. EA will include approved Subcontractor charges on its next monthly invoice to Client. EA will pay Subcontractor for approved work only after EA has received payment from its Client EA may retain the greater of 10% of the approved invoice amount or the retainage amount required by the Contract between EA and Client. If any claim or demand is made against EA or Client property arising from Subcontractor's activities, EA may withhold any sum due until EA is satisfied that the claim or demand has been released or, at EA's discretion, is adequately secured.

16. Any delays or failures of performance of either party shall not constitute default or give rise to any claim for damages if and to the extent caused by or resulting from acts of God, earthquake, fire, explosion, flood, the elements, strikes, lockouts, boycotts, picketing, labor disturbances or differences with workers, acts of the public enemy, war, rebellion, riots, acts of the government (federal, state or municipal) or any cause whatsoever beyond the control of the party in default, but performance hereunder shall be resumed with all dispatch as soon as the cause preventing performance has been removed.

17. Subcontractor agrees to sign EA's or Client's confidentiality agreement.

18. Failure of EA to require strict performance hereunder by Subcontractor, or by any other entity whether or not related to Subcontractor, or any course of dealing or performance between the parties hereto, shall not be considered a waiver by EA of any terms or conditions of this Agreement. No waiver by EA of any of the terms, provisions or conditions hereof shall be effective unless in writing and executed by EA's authorized representative. No such waiver by EA, shall operate as a waiver of any other provisions of this Agreement or of the same provision on a future occasion.

19. In the event of any conflict between any term or condition of this Agreement and any term or condition of any attachment to this Agreement, the term or condition of this Agreement shall prevail over the term or condition of any attachment.

20. Subcontractor shall not assign or sublet any right or obligation hereunder without EA's prior written consent.

21. This Agreement contains the entire agreement of the parties. It may not be modified or terminated orally, and no claimed modification, termination, or waiver shall be binding on EA unless in writing and signed by EA's authorized representative. Any modification to these terms and conditions without the express written approval of EA shall be null and void. In no event will the terms or conditions of any purchase order, work order or any other document provided by Subcontractor modify or amend this Agreement, even if it is signed by EA, unless EA signs a written statement expressly indicating that such terms or conditions supersede the terms or conditions of this Agreement.

22. The terms and conditions of this Agreement shall be construed and governed by the laws of the State of Maryland.

Sobol, Christie

From: Joe Dockery [Joe@Chemtech.net]
Sent: Thursday, June 01, 2006 8:51 AM
To: Sobol, Christie
Subject: 640 Trolley Blvd EA project 14368.02
Attachments: EAEN05-0605047 640 Trolley blvd..doc; EAEN05-0605067 640 Trolley blvd.Laboratory Bid Unit Price Table (1).xls; NY cert - 2006-2007[1] entire.pdf

Christie,

attached is Chemtech quyotation #0605067 in support of your data objectives.

In addition, a copy of our ELAP cert's is included.

Chemtech insurance cert's are on file with EA.

The Laboratory advise me verbally, we can do the presribed EDD format but since it is a new format, we cannot capture it in our quotation fields yet.

Thanks

Joe Dockery
Chemtech

CHEMTECH 284 Sheffield Street, Mountainside, New Jersey 07092 Phone : 908 789 8900 Fax : 908 789 892

6/1/2006

Christie Sobol
EA Engineering Science & Technology
6731 Collamer Road
East Syracuse, NY 13057-9759

Re: Project ID: 640 Trolley Blvd. EA Proj#14368.02
Quotation ID #: Q0605067

Attention Christie Sobol:

Chemtech is pleased to provide you with this quotation for analytical services. The analyses will be performed in accordance with the requirements of this quotation utilizing approved methodologies .Chemtech's extensive laboratory facilities and technical expertise make it possible to routinely meet your expectations and to produce data of impeccable quality. This quotation shall remain in effect for 90 days.

1. Services and Unit Prices

Analyses	Methods	Matrix	TurnAround	Quantity	$ Unit Price
See Attached Bid Form See File	SMO	AC		1	Ss Attached

*** AC=Additional Charges**
Difficult solid matrix may benefit from an organic extraction technique (GPC cleanup) to achieve the data objectives while possibly avoiding massive dilutions, this additional laboratory work will apply an associated charge ($25.00) per sample, if needed.

QC site specifics are REQUIRED for ASP Packages such as Duplicates, Spikes, Method Spikes, Method Spike Duplicates, Field Blanks and Trip Blanks are considered as additional samples and are charged at the applicable unit prices.

Laboratory Minimum Invoice Charge, including the cost of analysis:
Results Only Data Package: $40 · Reduced Data Package: $100 · CLP/ASP Data Package: $200.

DELIVERY CHARGES DO NOT APPLY: a) forUPS courier service, or b) individual pickups (orders) greater than $500 with 24 hour notice. All other deliveries and pickups will be invoiced at the quoted rates.

The field scale is intended to be used for this sampling event. If it is not returned with the samples or is returned broken, there will be a $200 charge included on the invoice.

2. Data Deliverables

The data deliverables format will be : **NYS ASP B**
The EDD format will be : **EAEST**

CHEMTECH 284 Sheffield Street, Mountainside, New Jersey 07092 Phone : 908 789 8900 Fax : 908 789 892

Christie Sobol
EA Engineering Science & Technology
Project ID : 640 Trolley Blvd. EA Proj#14368.02
Quotation ID #:Q0605067

3. Turnaround Time

The normal turnaround time is two weeks (ASP 15 Bus. Days min) from the time of sample arrival at the laboratory. Expedited turnaround time (EXPRESS...) must be pre-approved by the lab prior to the sample arrival. The date of received for samples picked up by Chemtech and samples received after 3:00 PM will be considered as the following day. If digestion or extraction is required prior to analysis, add one day to the following turnaround time.

4. Project Management

To assure a successful completion of this project Chemtech will assign EA Engineering Science & Technology, a Project Manager. This will afford you with a single point of contact to facilitate communications and logistics.

Samples will be properly stored at our facility, for a period of 30 days after the completion of the required analyses unless there are further instructions.

We are looking forward to providing you with quality analytical services and on time delivery. Should you have any questions or need additional information, please do not hesitate to call me.

Sincerely

Chemtech

Joe Dockery
Account Executive

CHEMTECH 284 Sheffield Street, Mountainside, New Jersey 07092 Phone : 908 789 8900 Fax : 908 789 892

Christie Sobol
EA Engineering Science & Technology
Project ID : 640 Trolley Blvd. EA Proj#14368.02
Quotation ID #:Q0605067

This Quotation accurately describes the analytical requirements as requested EA Engineering Science & Technology.

* Accepts the costs outlined herein

* Agrees to the Terms and Conditions associated with this Quotation.

* Authorizes Chemtech to perform the work as outlined herein.

I have the express authority to act on behalf of EA Engineering Science & Technology, in making these representations.

EA Engineering Science & Technology

By: _____

Name: _____

Title: _____

Date: _____

THIS PAGE MUST BE SIGNED AND RETURNED TO CHEMTECH PRIOR TO ACCEPTANCE OF ANY SAMPLES

CHEMTECH 284 Sheffield Street, Mountainside, New Jersey 07092 Phone : 908 789 8900 Fax : 908 789 892

Terms and Conditions for Analytical Services

Quotation # Q0605067

Providing Analytical Services requires specialized Terms and Conditions because of the unique and complex nature of this work. Therefore, the following Terms and Conditions shall govern the services performed under this quotation:

Quality Assurance Project Plan (QAPP)/SOW: The attached quotation reflects our current understanding of the project as presented. We anticipate that all project requirements will be specified in an approved QAPP or SOW and will be provided for our review and approval before work begins. Adjustments to analytical protocol, delivery schedules and fees may be required based upon the submission final QAPP or SOW.

Regulatory Compliance: Prices are based upon the use of analytical methodologies required by Current State and Federal Regulations. Regulatory code changes may result in price changes.

Sampling Kits: Sampling Kits are shipped via ground transportation provided 24 hr notice is given prior to the requested receipt date. Sample Kits will be provided for samples to be returned to Chemtech for analysis. Unused bottles will be billed at $3 each.

Turnaround Time: Normal turnaround time unless otherwise noted, is 10 business days from date of receipt and/or the date that all questions relating to the case have been resolved. CLP data packages are 15 business days from receipt of the last sample in an SDG. Expedited turnaround is available at the surcharges stated in the attached quotation, pending laboratory approval, prior to shipping the samples.

Quality Control/Quality Assurance Samples: Unless specifically stated in the attached quotation, all site specific QC samples, such as Duplicates, Matrix Spikes, Matrix Spike Duplicates, Field Blanks and Trip Blanks, are billable at the applicable per sample unit prices.

-

Analytical Hold Times: Chemtech will be responsible for completing the analysis within the regulated holding times provided samples are submitted to the laboratory with at least one half of the hold time remaining. Sampling must be coordinated with the laboratory to ensure that hold times can be met. Additional charges may be incurred if an insufficient hold time remains upon sample receipt.

Analytical Methods: This quotation uses analytical methods that are in conformance with US EPA, Standard Method, or other recognized methodologies. Chemtech reserves the right to modify these methods if necessary or as appropriate due to the composition or nature of the samples. Chemtech reserves the right to subcontract services to another qualified laboratory, if it is reasonably necessary, appropriate or advisable to do so.

Re-Analyses: Sample re-extraction and/or re-analyses may be required to confirm matrix related QC non-compliance. Re-analyses confirming that non-compliant QC is beyond the control of the laboratory are billable at the applicable per sample unit prices.

Laboratory Reports: Unless otherwise specified, this quotation includes: One mailed original report in the format requested and one original invoice. Additional charges may be incurred for issuing multiple reports, modifying reports and/or invoices, electronic deliverables or non-standard technical support. Chemtech retains copies of the reports and raw data for a period of five (5) years from the date of the report, after which such reports are destroyed.

Sample Handling and Disposition: Chemtech reserves the right to charge for requested but unused sample containers expedited delivery of container, containers not for analysis (i.e. field use) on hold or cancelled samples, lab compositing, filtering or preserving of samples. Samples are stored for 30 day after the issuance of the final report. Samples can be stored beyond 30 days, provided written notice is received; a monthly storage charge may be incurred (billable in advance) for the designated period. Samples will be disposed of at no charge, however based on the nature of the samples; Chemtech reserves the right to return the samples to the client, at the client's expense.

Payment Terms: Unless otherwise stated, payment terms are net 30 days from the date of the invoice. However as to all sums that are delinquent, a Finance Charge of 1.5% per month, (calculated upon all delinquent amounts, excluding finance charges within the year of purchase) is added to the delinquent invoice amounts and continues to accrue until the date of payment. Imposition of the Finance Charge on delinquent invoices shall not be construed as Chemtech's permission to delay payment beyond the due date or as waiver of any of Chemtech's rights regarding delinquent invoices. If it becomes necessary to incur cost or to engage an attorney for collection and/or to file a suit for collection, all expenses/cost, and attorney fees shall be added. The billing to a third party will not be accepted unless our quotation including its Terms and Conditions are accepted (in writing) by the third party. Agreement to bill a third party shall not constitute a waiver or release of liability of the original ordering parting.

Confidential Information: This quotation includes information for you or your Clients use only, and shall not be duplicated, used or disclosed, in whole or in part, for any purpose other than to evaluate this quotation.

Publication of Data: Any use of the analytical results provided by Chemtech under this contract or project, for the purposes of publication in a scientific journal or presentation, will provide appropriate credits to Chemtech as the contract laboratory.

Governing Law: This agreement shall be governed by, construed and enforced in accordance with the laws of the State of New Jersey.

Limitation of Liability: Chemtech warrants to the Client the careful and competently rendered analytical data for the samples submitted. No other warranty is expressed or implied. If the data is deemed non-compliant based upon an independent data review using acceptable Data Validation Guidelines; Chemtech will correct the deficiency and or retest the samples at no additional cost, as the sole and exclusive liability and remedy. Chemtech shall have no liability for consequential or related damages regardless of whether foreseeable or unforeseeable. The Client expressly assumes all liability for the use of all data and reports provided by Chemtech. The Client shall protect, defend and indemnify Chemtech against and hold Chemtech harmless from any and all claims, actions, damages, demands, or lawsuits arising from the use, interpretation, or in connection with Chemtech's test results, reports or data.

Quotation Validity Time: Prices in this quotation are valid for 60 days from the date of the quotation, unless otherwise stated herein.

Submission of samples for analysis constitutes acceptance of the Terms and Conditions of this Quotation

Request for Quote
Laboratory Analysis
Chemtech quotation 0605067

Type of Sample	Number of Samples: Field Samples	MS/ MSD	Field Duplicates	Trip Blanks	Rinse Blanks	Total	EPA Method	Detection Limits	Unit Cost	Subtotal Cost
PCB analysis of soil samples	198	22	11		11	242	8082	NYSDEC TAGM Soil Cleanup Criteria	$55	$13,310
VOC analysis of soil samples	28	4	2		2	36	8260B	NYSDEC TAGM Soil Cleanup Criteria	$80	$2,880
PCB analysis of water samples	22	4	2			28	8082	NYSDEC GA Standards	$55	$1,540
VOC analysis of water samples	22	4	2	2		30	8260B	NYSDEC GA Standards	$110	$3,300
SVOC analysis of water samples	22	4	2			28	8270C	NYSDEC GA Standards	$185	$5,180
									Total Cost	***$26,210***

Additional Requirements:

1. Laboratory must be an ELAP certified lab for volatile organic compounds (VOCs) by EPA Method 8260, semi-volatile organic compounds (SVOCs) by EPA Method 8270, and polychlorinated biphenyls (PCBs) by EPA Method 8082. ***Provide certification with quote.***
2. Laboratory must provide bottleware for groundwater and soil field samples, field duplicates, MS/MSD, trip blanks, and rinse blanks.
3. Turn Around Time
   a. Laboratory will provide preliminary results within 2 weeks for all analysis.
   b. Laboratory will provide the final results within 30 days for all analysis.
4. An initial group of soil samples will be submitted for PCBs analysis. Another group of soil samples will be submitted to the laboratory to be held for potential future analysis. Upon receipt of the preliminary results of the initial samples analyzed for PCBs, EA may identify select held samples to be analyzed by the laboratory for PCBs. The total number of soil samples to be submitted for PCB analysis identified above (241) includes those samples to be held by the laboratory.
5. **The final results are required to be NYSDEC ASP Category B or USEPA CLP deliverables. The laboratory will also provide the results in USEPA Region 2 electronic data deliverable (EDD) format.**

Quote Provided by: Chemtech

Name	Date
Joe Dockery	6/1/2006

Company Chemtech

Sobol, Christie

From: Agnes Ng [ang@mitkem.com]
Sent: Thursday, June 01, 2006 1:27 PM
To: Sobol, Christie
Subject: Re: Request for Bid
Attachments: Laboratory Bid Unit Price Table.xls; NY 4-1-07.pdf

Hi Christie,

Thank you for the opportunity.

Attached is the quote for 640 Trolley Blvd. For those samples designated as "Hold" and not analyzed, there will be a charge of $5.00 per sample for bottleware and disposal of the sample.

Please call with any questions. Again, thank you for the opportunity.

Agnes

----- Original Message -----
From: Sobol, Christie
To: Agnes Ng
Sent: Friday, May 26, 2006 15:47
Subject: Request for Bid

Hi Agnes,

You are hereby invited to submit a unit cost bid for laboratory services anticipated for the completion of a work assignment recently received by EA Engineering, P.C. through the NYSDEC Standby Contract D004438. Attached is a bid table for your completion and EA subcontract language, as well as the flow down standard clauses for New York State and New York State Department of Environmental Conservation. Please note that this language is still under final review and may change slightly, but at this time use this language for pricing the proposed work.

At this time, the majority of the soil samples to be analyzed for PCBs are tentatively anticipated to be collected during the week of 9 July 2006. The remaining soil samples are tentatively scheduled to be collected during the week of 6 August 2006. The groundwater samples will be collected during two separate events tentatively scheduled for September and December 2006. The exact dates will be coordinated with the laboratory.

In addition, to the completed bid table with documentation of the required certification, please provide documentation of insurance as required in the subcontract language. Please submit your bid by the noon Thursday, 1 June 2006. Bids may be submitted via email, fax, mail, or hand delivery.

Thank you,

Christie Sobol

EA Engineering, Science and Technology
6731 Collamer Road, Suite 2
East Syracuse, New York 13057
Phone (315) 431-4610
Fax (315) 431-4280

Request for Quote
Laboratory Analysis

Type of Sample	Number of Samples						EPA Method	Detection Limits	Unit Cost	Subtotal Cost
	Field Samples	MS/ MSD	Field Duplicates	Trip Blanks	Rinse Blanks	Total				
PCB analysis of soil samples	198	22	11		11	242	8082	NYSDEC TAGM Soil Cleanup Criteria	$63	$15,246
VOC analysis of soil samples	28	4	2		2	36	8260B	NYSDEC TAGM Soil Cleanup Criteria	$73	$2,628
PCB analysis of water samples	22	4	2			28	8082	NYSDEC GA Standards	$63	$1,764
VOC analysis of water samples	22	4	2	2		30	8260B	NYSDEC GA Standards	$73	$2,190
SVOC analysis of water samples	22	4	2			28	8270C	NYSDEC GA Standards	$162	$4,536
									Total Cost	***$26,364***

Additional Requirements:

1. Laboratory must be an ELAP certified lab for volatile organic compounds (VOCs) by EPA Method 8260, semi-volatile organic compounds (SVOCs) by EPA Method 8270, and polychlorinated biphenyls (PCBs) by EPA Method 8082. ***Provide certification with quote.***
2. Laboratory must provide bottleware for groundwater and soil field samples, field duplicates, MS/MSD, trip blanks, and rinse blanks.
3. Turn Around Time
   a. Laboratory will provide preliminary results within 2 weeks for all analysis.
   b. Laboratory will provide the final results within 30 days for all analysis.
4. An initial group of soil samples will be submitted for PCBs analysis. Another group of soil samples will be submitted to the laboratory to be held for potential future analysis. Upon receipt of the preliminary results of the initial samples analyzed for PCBs, EA may identify select held samples to be analyzed by the laboratory for PCBs. The total number of soil samples to be submitted for PCB analysis identified above (241) includes those samples to be held by the laboratory.
5. The final results are required to be NYSDEC ASP Category B or USEPA CLP deliverables. The laboratory will also provide the results in USEPA Region 2 electronic data deliverable (EDD) format.

Quote Provided by:

Agnes Ng — 6/1/2006

Name — Date

Mitkem Corporation

Company

Sobol, Christie

From: Steve Grant [SteveG@accutest.com]
Sent: Friday, June 02, 2006 9:56 AM
To: Sobol, Christie
Subject: NYDEC RFP
Attachments: EA-640 Trolley Blvd.xls; NY Parm 2006-2007_0001.pdf; Generic Insurance Form.pdf

Hi Christie: Attached are the completed quote spreadsheet, our NY certification documents and a generic insurance form showing our levels of coverage. As I mentioned in my voice mail, you may want to consider extracting all of the PCB samples, but holding some extracts for later analysis if needed (you have 40 days from the date of extraction). The cost would be $25 for the extraction only, and you would only be charged the balance ($40) for samples that you decide to analyze.

Please let me know if you have any questions or if you need any additional information. Thanks

<<EA-640 Trolley Blvd.xls>> <<NY Parm 2006-2007_0001.pdf>> <<Generic Insurance Form.pdf>>

Stephen Grant

Accutest Laboratories

2235 Route 130

Dayton, NJ 08810

(732) 329-0200, ext. 252

steveg@accutest.com

Accutest -- "50 Years of Excellence" -- 1956-2006

Request for Quote
Laboratory Analysis

Type of Sample	Number of Samples						EPA Method	Detection Limits	Unit Cost	Subtotal Cost
	Field Samples	MS/ MSD	Field Duplicates	Trip Blanks	Rinse Blanks	Total				
PCB analysis of soil samples	198	22	11		11	242	8082	NYSDEC TAGM Soil Cleanup Criteria	$65	$15,730
VOC analysis of soil samples	28	4	2		2	36	8260B	NYSDEC TAGM Soil Cleanup Criteria	$80	$2,880
PCB analysis of water samples	22	4	2			28	8082	NYSDEC GA Standards	$60	$1,680
VOC analysis of water samples	22	4	2	2		30	8260B	NYSDEC GA Standards	$80	$2,400
SVOC analysis of water samples	22	4	2			28	8270C	NYSDEC GA Standards	$150	$4,200
									Total Cost	***$26,890***

Additional Requirements:

1. Laboratory must be an ELAP certified lab for volatile organic compounds (VOCs) by EPA Method 8260, semi-volatile organic compounds (SVOCs) by EPA Method 8270, and polychlorinated biphenyls (PCBs) by EPA Method 8082. ***Provide certification with quote.***
2. Laboratory must provide bottleware for groundwater and soil field samples, field duplicates, MS/MSD, trip blanks, and rinse blanks.
3. Turn Around Time
   a. Laboratory will provide preliminary results within 2 weeks for all analysis.
   b. Laboratory will provide the final results within 30 days for all analysis.
4. An initial group of soil samples will be submitted for PCBs analysis. Another group of soil samples will be submitted to the laboratory to be held for potential future analysis. Upon receipt of the preliminary results of the initial samples analyzed for PCBs, EA may identify select held samples to be analyzed by the laboratory for PCBs. The total number of soil samples to be submitted for PCB analysis identified above (241) includes those samples to be held by the laboratory.
5. The final results are required to be NYSDEC ASP Category B or USEPA CLP deliverables. The laboratory will also provide the results in USEPA Region 2 electronic data deliverable (EDD) format.

Quote Provided by:

Stephen Grant — 1-Jun-06
Name — Date

Accutest Laboratories
Company

ACORD CERTIFICATE OF LIABILITY INSURANCE

OP ID ACCUT-1 .i | DATE (MM/DD/YYYY) 06/02/06

PRODUCER

Bollinger, Inc.
101 JFK Parkway
Short Hills NJ 07078-5000
Phone: 973-467-8005 Fax: 973-921-2876

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURED

Accutest Corporation
2235 Route 130
Dayton NJ 08810

INSURERS AFFORDING COVERAGE		NAIC #
INSURER A:	Axis Specialty Ins. Co.	
INSURER B:	Travelers Insurance Company	345
INSURER C:	National Union Fire Ins. Co.	
INSURER D:	New Jersey Manufacturers	426
INSURER E:		

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	ADD'L INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
B		GENERAL LIABILITY [X] COMMERCIAL GENERAL LIABILITY [ ] CLAIMS MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: [ ] POLICY [ ] PRO-JECT [ ] LOC	P6307677A326	06/19/05	06/19/06	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG Emp Ben.	$ 1,000,000 $ 100,000 $ 5,000 $ 1,000,000 $ 2,000,000 $ Excluded 1000000
D		AUTOMOBILE LIABILITY [ ] ANY AUTO [ ] ALL OWNED AUTOS [X] SCHEDULED AUTOS [X] HIRED AUTOS [X] NON-OWNED AUTOS	C803318-5	06/04/05	06/04/06	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
		GARAGE LIABILITY [ ] ANY AUTO				AUTO ONLY - EA ACCIDENT OTHER THAN AUTO ONLY: EA ACC AGG	$ $ $
C		EXCESS/UMBRELLA LIABILITY [X] OCCUR [ ] CLAIMS MADE [ ] DEDUCTIBLE [X] RETENTION $ 10,000	BE5191364	06/19/05	06/19/06	EACH OCCURRENCE AGGREGATE	$ 5,000,000 $
D		WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? If yes, describe under SPECIAL PROVISIONS below	W18807	06/04/05	06/04/06	[ ] WC STATU-TORY LIMITS [X] OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ 1000000 $ 1000000 $ 1000000
A		OTHER Professional	RCN621418	06/19/05	06/19/06		$2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

CERTIFICATE HOLDER

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

ERROR: rangecheck
OFFENDING COMMAND: image

STACK:

-dictionary-
-savelevel-

SEVERN TRENT STL

STL Buffalo
10 Hazelwood Drive, Suite 106
Amherst, NY 14228

Tel: 716 691 2600 Fax: 716 691 7991
www.stl-inc.com

VIA E-MAIL: Csobol@eaest.com

June 1, 2006

EA Engineering, Science and Technology
6731 Collamer Road; Suite 2
East Syracuse, New York 13057

Attention: Christie Sobol

RE: *NYSDEC Standby Contract Work Assignment (640 Trolley Boulevard)*
Under Contract D004438 – Analytical Testing
STL Quotation No.: NY06-082

Dear Ms. Sobol:

Thank you for allowing Severn Trent Laboratories to submit a quotation for the above referenced project.

We have enclosed our NYSDOH certifications and a copy of STL's Memorandum of Insurance.

STL Buffalo has extensive experience in performing NYSDEC ASP analyses. We are certified by the New York State Department of Health for all fractions of the ASP Methods. We have been performing ASP since it came into existence in the early '90's. We hold a multi-year, $2.2 million contract with the New York State Department of Environmental Conservation to provide analytical testing services. The contract is designed to allow STL to test various soil, water and waste samples using ASP methods. These samples are sent into our laboratory with alpha-numeric codes; that is, they are blind to us as to who owns the samples or where they were taken. We do not have any conflict of interest, as we never know the identity of the samples. We want you to know of this contract, because it shows our knowledge and familiarity with ASP and that the state regulators know STL's capabilities and experience. The NYSDEC knows we can supply timely, accurate and validatable testing results. To check our service record with the NYSDEC, we invite you to call our Contract Administrator at DEC headquarters in Albany, Mr. Jason Fagel (518-402-8156).

Our corporate attorney has reviewed the terms of the EA Subcontract and suggests the following modifications:

Section 12: STL believes that indemnification clauses should reflect a fair and equitable allocation of the risk involved in the work. STL will not accept liability for a client's negligence. The first sentence should be revised as follows, starting at line 6:

> *"... under this Agreement, except to the extent caused by the negligence or willful misconduct of EA."*

Section 15, third sentence: STL must have a date certain by which time payment is due. We expect to be fully paid for all properly completed work, and we will not accept conditions precedent to our right of payment for work which is properly completed. This sentence should be revised as follows:

> *"... Payment shall be due no later than 60 days from receipt of Subcontractor's properly prepared invoice."*

Section 15, fourth sentence: Since STL invoices its clients only upon completion of the work, retainage of 10% is not appropriate. STL would have no way of knowing when the entire project is complete, and would not have notice of when to request any retainage previously withheld. This sentence should therefore be deleted and replaced with the following:

> *Retainage shall not apply to laboratory services.*

Should you have any questions or require additional information, please do not hesitate to call me at our toll free number: 877-STL-BFLO (877-785-2356) or contact me via e-mail at jstellrecht@stl-inc.com.

Thank you for this opportunity and for your interest in Severn Trent Laboratories.

Sincerely,

Severn Trent Laboratories, Inc.

C. James Stellrecht
Business Development Manager

CJS:sjh
Attachments

Request for Quote
Laboratory Analysis

Type of Sample	Number of Samples						EPA Method	Detection Limits	Unit Cost	Subtotal Cost
	Field Samples	MS/ MSD	Field Duplicates	Trip Blanks	Rinse Blanks	Total				
PCB analysis of soil samples	198	22	11		11	242	8082	NYSDEC TAGM Soil Cleanup Criteria	$65	$15,730
VOC analysis of soil samples	28	4	2		2	36	8260B	NYSDEC TAGM Soil Cleanup Criteria	$90	$3,240
PCB analysis of water samples	22	4	2			28	8082	NYSDEC GA Standards	$65	$1,820
VOC analysis of water samples	22	4	2	2		30	8260B	NYSDEC GA Standards	$90	$2,700
SVOC analysis of water samples	22	4	2			28	8270C	NYSDEC GA Standards	$195	$5,460
									Total Cost	***$28,950***

Additional Requirements:

1. Laboratory must be an ELAP certified lab for volatile organic compounds (VOCs) by EPA Method 8260, semi-volatile organic compounds (SVOCs) by EPA Method 8270, and polychlorinated biphenyls (PCBs) by EPA Method 8082. ***Provide certification with quote.***
2. Laboratory must provide bottleware for groundwater and soil field samples, field duplicates, MS/MSD, trip blanks, and rinse blanks.
3. Turn Around Time
   a. Laboratory will provide preliminary results within 2 weeks for all analysis.
   b. Laboratory will provide the final results within 30 days for all analysis.
4. An initial group of soil samples will be submitted for PCBs analysis. Another group of soil samples will be submitted to the laboratory to be held for potential future analysis. Upon receipt of the preliminary results of the initial samples analyzed for PCBs, EA may identify select held samples to be analyzed by the laboratory for PCBs. The total number of soil samples to be submitted for PCB analysis identified above (241) includes those samples to be held by the laboratory.
5. The final results are required to be NYSDEC ASP Category B or USEPA CLP deliverables. The laboratory will also provide the results in USEPA Region 2 electronic data deliverable (EDD) format.

Quote Provided by:
Severn Trent Laboratories, Inc. (STL Buffalo)
10 Hazelwood Drive
Amherst, New York 14228-2298

Name C. James Stellrecht 1-Jun-06
Business Development Manager

Company Severn Trent Laboratories, Inc. (STL Buffalo)

ATTACHMENT 1
MEMORANDUM OF INSURANCE

MEMORANDUM OF INSURANCE

DATE 30-Mar-2006

PRODUCER
Willis of Pennsylvania, Inc.
("Willis")

INSURED
Severn Trent Services, Inc.
The Founders Building Ste 300
580 Virginia Drive
Fort Washington, Pennsylvania 19034
United States

COMPANIES AFFORDING COVERAGE

Co.A Zurich American Ins. Co.
Co.B Travelers Property Casualty Company of America
Co.C Charter Oak Fire Insurance Company
Co.D American International Specialty Lines Insurance Co.

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED, NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS MEMORANDUM MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE	POLICY EXPIRATION DATE	LIMITS (LIMITS IN USD UNLESS OTHERWISE INDICATED)	
A	GENERAL LIABILITY COMMERCIAL GENERAL LIABILITY OCCURRENCE	GL03373714-04	31-Mar-06	31-Mar-07	GENERAL AGGREGATE	$3,000,000
					PRODUCTS COMP/OP AGG	$3,000,000
					PERSONAL AND ADV INJURY	$2,000,000
					EACH OCCURRENCE	$2,000,000
					FIRE DAMAGE (ANY ONE FIRE)	$1,000,000
					MED EXP (ANY ONE PERSON)	$5,000
B	AUTOMOBILE LIABILITY ANY AUTO $250 Comp/$500 Coll Ded	TJCAP-823K1819-TIL-06	31-Mar-06	31-Mar-07	COMBINED SINGLE LIMIT	$1,000,000
					BODILY INJURY (PER PERSON)	
					BODILY INJURY (PER ACCIDENT)	
					PROPERTY DAMAGE	
A	EXCESS LIABILITY OTHER THAN UMBRELLA FORM	UB3373768-04	31-Mar-06	31-Mar-07	EACH OCCURRENCE	$4,000,000
					AGGREGATE	$4,000,000
	GARAGE LIABILITY				AUTO ONLY (PER ACCIDENT)	
					OTHER THAN AUTO ONLY:	
					EACH ACCIDENT	
B	WORKERS COMPENSATION/ EMPLOYERS LIABILITY	AOS-TC20UB-823K179A (AOS)	31-Mar-06	31-Mar-07	WORKERS COMP LIMITS	Statutory
C	THE PROPRIETOR / PARTNERS / EXECUTIVE OFFICERS ARE INCLUDED	TRJUB-823180706 (AZ, MA, WI)	31-Mar-06	31-Mar-07	EL EACH ACCIDENT	$1,000,000
					EL DISEASE -	$1,000,000
					EL DISEASE EACH EMPLOYEE	$1,000,000
A	PROFESSIONAL LIABILITY	GL03373714-04	31-Mar-06	31-Mar-07	CLAIMS MADE SIR $1,000,000	$5,000,000 PER OCCURRENCE/AGG
D	CONTRACTOR POLLUTION LIABILITY	CPL 3779349	4-Nov-05	31-Mar-09	CLAIMS MADE SIR $1,500,000	$5,000,000 PER OCCURRENCE/AGG

The Memorandum of Insurance serves solely to list insurance policies, limits and dates of coverage. Any modifications hereto are not authorized.

MEMORANDUM OF INSURANCE	DATE 30-Mar-2006

This Memorandum is issued as a matter of information only to authorized viewers for their internal use only and confers no rights upon any viewer of this Memorandum, This Memorandum does not amend, extend or alter the coverage described below. This Memorandum may only be copied, printed and distributed within an authorized viewer and may only be used and viewed by an authorized viewer for its internal use. Any other use, duplication or distribution of this Memorandum without the consent of Willis is prohibited. "Authorized viewer" shall mean an entity or person which is authorized by the insured named herein to access this Memorandum. The information contained herein is as of the date referred to above. Willis shall be under no obligation to update such information.

PRODUCER	INSURED
Willis of Pennsylvania, Inc. **("Willis")**	SEVERN TRENT SERVICES, INC. The Founders Building Ste 300 580 Virginia Drive Fort Washington, Pennsylvania 19034 United States

ADDITIONAL INFORMATION

Additional Insured where required by contract with respects to General Liability, Automobile Liability and Excess Liability (not in excess of the limits of liability as shown on this document). Waiver of Subrogation with reapects to General Liability, Automobile Liability, Workers' Compensation and Excess Liability as required by written contract and as permitted by law.

The following are named insureds on the policy:
Severn Trent Services, Inc.
Severn Trent Environmental Services, Inc.
Severn Trent Pipeline Services
Excel Technologies Int'l Corp
Severn Trent Water Purification, Inc.
Severn Trent Laboratories, Inc.
QED Environmental
Severn Trent De Nora
P&K Microbiology Services, Inc.
Aerotech Laboratories, Inc.

The Memorandum of Insurance serves solely to list insurance policies, limits and dates of coverage. Any modifications hereto are not authorized.

Sobol, Christie

From: Mark Wilson [mwilson@rochester.caslab.com]
Sent: Thursday, June 01, 2006 9:26 AM
To: Sobol, Christie
Subject: RE: Trolley Boulevard rfp
Attachments: ea-trolley.PDF

Christie
attached is the pricing sheet for the Trolley Blvd. project. Also attached is a copy of our insurance certificate.
Pricing is based on all the specifications listed in the RFP.

We have also reviewed the EDD. This is basically an EQuis EZ EDD which we already provide for the direct NYSDEC work we do. However there are some fields that we cannot provide. All of these fields are listed as "if available".
We do provide all of the required fields.
Table 4-2 is field information which we would not provide.

Thank you for the opportunity to bid on this work. If you have any questions or comments please contact me.

Regards
Mark

From: Sobol, Christie [mailto:Csobol@eaest.com]
Sent: Wednesday, May 31, 2006 1:56 PM
To: Mark Wilson
Subject: RE: Trolley Boulevard rfp

Sorry. Here you go.

From: Mark Wilson [mailto:mwilson@rochester.caslab.com]
Sent: Wednesday, May 31, 2006 1:50 PM
To: Sobol, Christie
Subject: RE: Trolley Boulevard rfp

Thanks Christie.

I did not receive the attachment. Can you resend?

Mark

From: Sobol, Christie [mailto:Csobol@eaest.com]
Sent: Wednesday, May 31, 2006 1:39 PM
To: mwilson@rochester.caslab.com
Subject: Trolley Boulevard rfp

Hi Mark,

Sorry I missed your call. I've attached 2 blank EDD examples and the guidelines for your reference. A NYSDEC project manager specifically identified this in a work assignment and provided the guidance document to us. Please let me know if you have any other questions.

Thanks,
Christie Sobol

NYSDEC Site: 640 Trolley Boulevard
EA Project No.: 14368.02

Request for Quote
Laboratory Analysis

Type of Sample	Number of Samples						EPA Method	Detection Limits	Unit Cost	Subtotal Cost
	Field Samples	MS/ MSD	Field Duplicates	Trip Blanks	Rinse Blanks	Total				
PCB analysis of soil samples	198	22	11		11	242	8082	NYSDEC TAGM Soil Cleanup Criteria	95	22,990
VOC analysis of soil samples	28	4	2		2	36	8260B	NYSDEC TAGM Soil Cleanup Criteria	105	3780
PCB analysis of water samples	22	4	2			28	8082	NYSDEC GA Standards	95	2660
VOC analysis of water samples	22	4	2	2		30	8260B	NYSDEC GA Standards	95	2850
SVOC analysis of water samples	22	4	2			28	8270C	NYSDEC GA Standards	195	5460
									Total Cost	37,740

Additional Requirements:

1. Laboratory must be an ELAP certified lab for volatile organic compounds (VOCs) by EPA Method 8260, semi-volatile organic compounds (SVOCs) by EPA Method 8270, and polychlorinated biphenyls (PCBs) by EPA Method 8082. ***Provide certification with quote.***
2. Laboratory must provide bottleware for groundwater and soil field samples, field duplicates, MS/MSD, trip blanks, and rinse blanks.
3. Turn Around Time
   a. Laboratory will provide preliminary results within 2 weeks for all analysis.
   b. Laboratory will provide the final results within 30 days for all analysis.
4. An initial group of soil samples will be submitted for PCBs analysis. Another group of soil samples will be submitted to the laboratory to be held for potential future analysis. Upon receipt of the preliminary results of the initial samples analyzed for PCBs, EA may identify select held samples to be analyzed by the laboratory for PCBs. The total number of soil samples to be submitted for PCB analysis identified above (241) includes those samples to be held by the laboratory.
5. The final results are required to be NYSDEC ASP Category B or USEPA CLP deliverables. The laboratory will also provide the results in USEPA Region 2 electronic data deliverable (EDD) format.

Quote Provided by:
Columbia Analytical Services

MARK Wilson 6/1/06

Name Mark Wilson Date

Company

Client#: 92682 CASHOLDI

ACORD™ CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 04/05/06

PRODUCER
Bratrud Middleton Insurance
Brokers, Inc.-Tac General
1[illegible] Pacific Ave, Suite 1000
T[illegible]ma, WA 98402

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURERS AFFORDING COVERAGE	NAIC #
INSURER A: Zurich-American Insurance Company	
INSURER B: Steadfast Insurance Group	
INSURER C:	
INSURER D:	
INSURER E:	

INSURED
CAS Holdings Inc., & Columbia Analytical Servixes, Inc.
P.O. Box 479
Kelso, WA 98632

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	ADD'L INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
A		GENERAL LIABILITY	GLO398388404	04/01/06	04/01/07	EACH OCCURRENCE	$1,000,000
		[X] COMMERCIAL GENERAL LIABILITY				DAMAGE TO RENTED PREMISES (Ea occurrence)	$100,000
		[ ] CLAIMS MADE [X] OCCUR				MED EXP (Any one person)	$5,000
		[X] BI/PD Ded:50000				PERSONAL & ADV INJURY	$1,000,000
		[ ] WA Stop Gap				GENERAL AGGREGATE	$1,000,000
		GEN'L AGGREGATE LIMIT APPLIES PER:				PRODUCTS - COMP/OP AGG	$1,000,000
		[ ] POLICY [ ] PRO-JECT [ ] LOC					
A		AUTOMOBILE LIABILITY	BAP398620504	04/01/06	04/01/07	COMBINED SINGLE LIMIT (Ea accident)	$1,000,000
		[X] ANY AUTO				BODILY INJURY (Per person)	$
		[ ] ALL OWNED AUTOS				BODILY INJURY (Per accident)	$
		[ ] SCHEDULED AUTOS				PROPERTY DAMAGE (Per accident)	$
		[X] HIRED AUTOS					
		[X] NON-OWNED AUTOS					
		[ ]					
		[ ]					
		GARAGE LIABILITY				AUTO ONLY - EA ACCIDENT	$
		[ ] ANY AUTO				OTHER THAN AUTO ONLY: EA ACC	$
						AGG	$
B		EXCESS/UMBRELLA LIABILITY	SEO398953404	04/01/06	04/01/07	EACH OCCURRENCE	$5,000,000
		[ ] OCCUR [ ] CLAIMS MADE				AGGREGATE	$5,000,000
		[ ] DEDUCTIBLE					$
		[X] RETENTION $ 10000					$
							$
A		WORKERS COMPENSATION AND EMPLOYERS' LIABILITY	WC398953204	04/01/06	04/01/07	[X] WC STATU-TORY LIMITS [ ] OTH-ER	
		ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED?				E.L. EACH ACCIDENT	$1,000,000
		If yes, describe under SPECIAL PROVISIONS below				E.L. DISEASE - EA EMPLOYEE	$1,000,000
						E.L. DISEASE - POLICY LIMIT	$1,000,000
B		OTHER Professional & Pollution Liability	PEC398620204	04/01/06	04/01/07	$5,000,000 Each Loss $5,000,000 Total All Losses. Ded. $200,000	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

Blanket Additional Insured (U GL 1175 A CW 9 03) as required by those entities with whom the Named Insured executes a written contract. Waiver of Transfer of Rights of Recovery against others to us (CG 24 04 10 93) as required by those entities with whom the Named Insured excutes a written contract.
RE: ANY AND ALL OPERATIONS OF NAMED INSURED

CERTIFICATE HOLDER

Columbia Analytical Services
C/O Rochester
1 Mustard Street
Suite 250
Rochester, NY 14609

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 45 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

IMPORTANT

If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

DISCLAIMER

The Certificate of Insurance on the reverse side of this form does not constitute a contract between the issuing insurer(s), authorized representative or producer, and the certificate holder, nor does it affirmatively or negatively amend, extend or alter the coverage afforded by the policies listed thereon.

Sobol, Christie

From: Rich Gerbes [Rich@hampton-clarke.com]
Sent: Thursday, June 01, 2006 9:18 AM
To: Sobol, Christie
Subject: 640 Trolley Blvd. lab bid

Attachments: EA640Trolleybidsheet.xls; NYSCert06.pdf; HC-Vinsurance.pdf


EA640Trolleybidsheet.xls (23 K...


NYSCert06.pdf (346 KB)


HC-Vinsurance.pdf (75 KB)

Christie,

HC-V is pleased to submit the attached lab bid for 640 Trolley Blvd. Please note the second page with our comments & qualifiers to the bid & EA contract.

If you have any questions, please do not hesitate to contact me.

I would like to thank you for this bid opportunity and would welcome future opportunities.

Rich Gerbes
HC-V
phone: 845-569-8316

Request for Quote
Laboratory Analysis

Type of Sample	Number of Samples						EPA Method	Detection Limits	Unit Cost	Subtotal Cost
	Field Samples	MS/ MSD	Field Duplicates	Trip Blanks	Rinse Blanks	Total				
PCB analysis of soil samples	198	22	11		11	242	8082	NYSDEC TAGM Soil Cleanup Criteria	$55	$13,310
VOC analysis of soil samples	28	4	2		2	36	8260B	NYSDEC TAGM Soil Cleanup Criteria	$80	$2,880
PCB analysis of water samples	22	4	2			28	8082	NYSDEC GA Standards	$55	$1,540
VOC analysis of water samples	22	4	2	2		30	8260B	NYSDEC GA Standards	$80	$2,400
SVOC analysis of water samples	22	4	2			28	8270C	NYSDEC GA Standards	$200	$5,600
									Total Cost	***$25,730***

Additional Requirements:

1. Laboratory must be an ELAP certified lab for volatile organic compounds (VOCs) by EPA Method 8260, semi-volatile organic compounds (SVOCs) by EPA Method 8270, and polychlorinated biphenyls (PCBs) by EPA Method 8082. ***Provide certification with quote.***
2. Laboratory must provide bottleware for groundwater and soil field samples, field duplicates, MS/MSD, trip blanks, and rinse blanks.
3. Turn Around Time
   a. Laboratory will provide preliminary results within 2 weeks for all analysis.
   b. Laboratory will provide the final results within 30 days for all analysis.
4. An initial group of soil samples will be submitted for PCBs analysis. Another group of soil samples will be submitted to the laboratory to be held for potential future analysis. Upon receipt of the preliminary results of the initial samples analyzed for PCBs, EA may identify select held samples to be analyzed by the laboratory for PCBs. The total number of soil samples to be submitted for PCB analysis identified above (241) includes those samples to be held by the laboratory.
5. The final results are required to be NYSDEC ASP Category B or USEPA CLP deliverables. The laboratory will also provide the results in USEPA Region 2 electronic data deliverable (EDD) format.

Quote Provided by:
Hampton-Clarke/Veritech Laboratory

Name	Date
Richard Gerbes	6/1/2006

Company: Hampton-Clarke/Veritech Laboratory

Hampton-Clarke/Veritech - EA 640 Trolley Boulevard Bid

The following are bid qualifiers to the bid:

1- Based on 5/31 email, this bid is based on no PCB will be held for contingent analysis.
2-Hampton-Clarke/Veritech meets the PQL's for the 8000 series specified on the bid sheet. It is also possible to report to the MDL (which is 3 to 5X lower than the PQL) with a method non-conformance. The methods specified will not meet all of the NYSDEC GA standards. In order to meet some of these standards, it would be necessary to modify the methods or perform drinking water methods.
3- Any additional samples or QC samples will be charged at unit rates.
4- Pricing is based on providing a NYSDEC Category B data package.
5- Preliminary data is available on the HC-V website.
6- Voa & Svoa prices are based on analysis without TIC's.

The following are comments/proposed changes to EA Contract:

1- In Section 2, add *per industry standards* after the word *Nonacceptance* in line 3.
2-In Section 3, add *per industry standards* after the word *opinion* in line 2.
3- Section 6 specifies we must review the EA Health & Safety Plan before work begins.
4- Section 10 is for bonds and should be deleted.
5- Section 12, add the word *negligent* before the word *performance* in line 5.
6-Section 13, after the second paragraph add *any limit changes which cause a rate increase to HC-V will be passed along to EA.*
7- Section 13 paragraph 5, add *due to subcontractor negligence or omission* after *Claims* in line 1.
8- Section 15, add the following at the end of the section *In no event will payment exceed 180 days regardless of whether EA has been paid by it's client unless delay in payment is due to the services provided by HC-V. Retainage does not apply for this project.*

Qualifier to the EDD format requested:

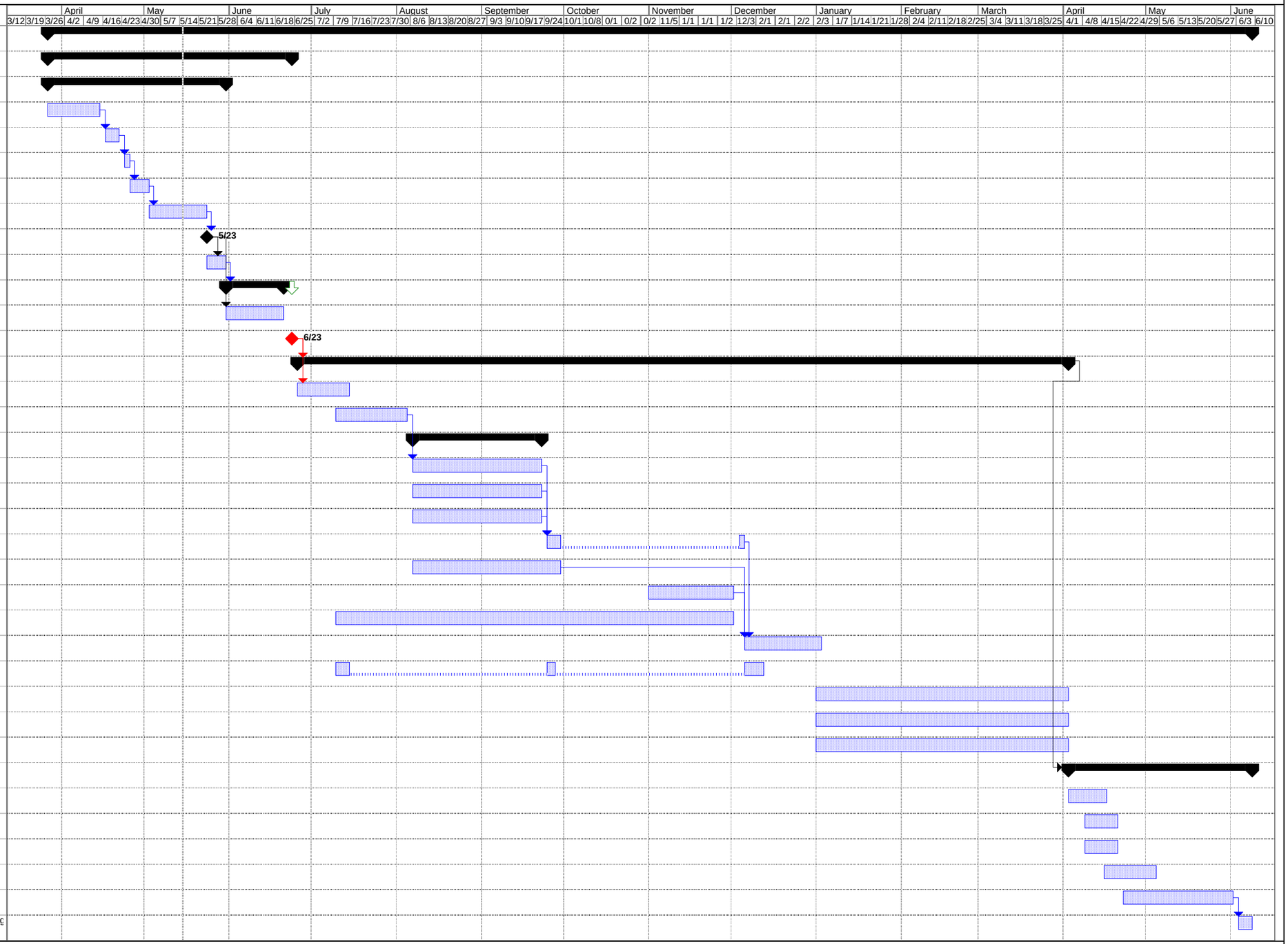
A number of the fields are not normally populated by the laboratory and are not entered into our LIMS system (for example, container type, size, units and color). We can provide all of the analytical results, prep dates and times in the format requested and leave the other fields we do not do blank (null). We can also provide results in one of our standard EDD formats.

Appendix H

Project Schedule

NYSDEC WA#2
640 Trolley Boulevard Site RI/FS

ID	Task Name
1	**Project**
2	**Task 1 - Background Review and Preparation of Work Plans**
3	**Subtask 1.1 - Project Management Work Plan**
4	1.1.1 - Historical Records and Title Search
5	1.1.2 - Site Visit
6	Submit preliminary PMWP to NYSDEC
7	1.1.3 - Scoping Session
8	1.1.4 - Project Management Work Plan
9	Submit draft final PMWP to NYSDEC
10	NYSDEC approval of PMWP
11	**Subtask 1.2 - Preparation of RI/FS Work Plan**
12	NYSDEC review/comment - EA revision
13	***Notice To Proceed Issued by NYSDEC***
14	**Task 2 - Site Investigation**
15	Initiation of Field Work
16	Subtask 2.1 - Direct Push/Geoprobe Drilling Program
17	**Subtask 2.2 - Subsurface Drilling Program**
18	2.2.1 - Monitoring Wells
19	2.2.2 - Bedrock Well Installation Method
20	2.2.3 Well Development
21	Subtask 2.3 - Groundwater Sampling
22	Subtask 2.4 - Surface Water and Sediment Sampling
23	Subtask 2.5 - Indoor Air Monitoring Program
24	Subtask 2.6 - Storage and Disposal of Waste
25	Subtask 2.7 - Data Validation/Determination of Usability
26	Subtask 2.8 - Site Survey and Basemap Preparation
27	Subtask 2.9 - Health Exposure Assessment
28	Subtask 2.10 - Fish & Wildlife Impact Analysis
29	Subtask 2.11 - Report Preparatoin
30	**Task 3 - Preparation of Feasibility Study**
31	Subtask 3.1 - Standards, Criteria and Guidance
32	Subtask 3.2 - Development of Remedial Action Objectives
33	Subtask 3.3 - Scoping and the Development of Remedial Alternatives
34	Subtask 3.4 - Detailed Analysis
35	Subtask 3.5 - Report Preparation
36	Subtask 3.6 - Proposed Remedial Action Work Plan (PRAP) and Public Meeting



EA Project Number:

Task | Progress | Summary | External Tasks | Deadline

Split | Milestone | Project Summary | External Milestone

Appendix I

Subcontractor Information

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER
Antonia C. Novello, M.D., M.P.H., Dr.P.H.

Expires 12:01 AM April 01, 2007
Issued April 1, 2006

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR. MICHAEL PETTERELLI
LIFE SCIENCE LABORATORIES INC - BRITTONFIELD
5000 BRITTONFIELD PARKWAY SUITE 200
EAST SYRACUSE, NY 13057

NY Lab Id No: 10155
EPA Lab Code: NY01534

is hereby APPROVED as an Environmental Laboratory in conformance with the National Environmental Laboratory Accreditation Conference Standards for the category ENVIRONMENTAL ANALYSES NON POTABLE WATER
All approved analytes are listed below:

Acrylates	
Acrolein (Propenal)	EPA 624
	EPA 8260B
Acrylonitrile	EPA 624
	EPA 8260B
Amines	
2-Naphthylamine	EPA 8270C
2-Nitroaniline	EPA 8270C
3-Nitroaniline	EPA 8270C
4-Chloroaniline	EPA 8270C
4-Nitroaniline	EPA 8270C
Aniline	EPA 8270C
Carbazole	EPA 8270C
Pyridine	EPA 8270C
Benzidines	
3,3' -Dichlorobenzidine	EPA 625
	EPA 8270C
Benzidine	EPA 625
	EPA 8270C
Chlorinated Hydrocarbon Pesticides	
4,4'-DDD	EPA 608
	EPA 8081A
4,4'-DDE	EPA 608

Chlorinated Hydrocarbon Pesticides	
4,4'-DDE	EPA 8081A
4,4'-DDT	EPA 608
	EPA 8081A
Aldrin	EPA 608
	EPA 8081A
alpha-BHC	EPA 608
	EPA 8081A
alpha-Chlordane	EPA 8081A
beta-BHC	EPA 608
	EPA 8081A
Chlordane Total	EPA 608
	EPA 8081A
delta-BHC	EPA 608
	EPA 8081A
Dieldrin	EPA 608
	EPA 8081A
Endosulfan I	EPA 608
	EPA 8081A
Endosulfan II	EPA 608
	EPA 8081A
Endosulfan sulfate	EPA 608
	EPA 8081A
Endrin	EPA 608

Serial No.: 28721

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Chlorinated Hydrocarbon Pesticides	
Endrin	EPA 8081A
Endrin aldehyde	EPA 608
	EPA 8081A
Endrin Ketone	EPA 8081A
gamma-Chlordane	EPA 8081A
Heptachlor	EPA 608
	EPA 8081A
Heptachlor epoxide	EPA 608
	EPA 8081A
Isodrin	EPA 8081A
Lindane	EPA 608
	EPA 8081A
Methoxychlor	EPA 608
	EPA 8081A
Toxaphene	EPA 608
	EPA 8081A
Chlorinated Hydrocarbons	
1,2,4,5-Tetrachlorobenzene	EPA 8270C
1,2,4-Trichlorobenzene	EPA 625
	EPA 8270C
2-Chloronaphthalene	EPA 625
	EPA 8270C
Hexachlorobenzene	EPA 625
Chlorinated Hydrocarbons	
Hexachlorobenzene	EPA 8270C
Hexachlorobutadiene	EPA 625
	EPA 8270C
Hexachlorocyclopentadiene	EPA 625
	EPA 8270C
Hexachloroethane	EPA 625
	EPA 8270C
Chlorophenoxy Acid Pesticides	
2,4,5-T	EPA 1978, p.115
	EPA 8151A
2,4,5-TP (Silvex)	EPA 1978, p.115
	EPA 8151A
2,4-D	EPA 1978, p.115
	EPA 8151A
Dalapon	EPA 8151A
Dicamba	EPA 1978, p.115
	EPA 8151A
Dinoseb	EPA 8151A
Demand	
Biochemical Oxygen Demand	EPA 405.1
Chemical Oxygen Demand	EPA 410.4

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Nutrient	
Nitrate (as N)	EPA 300.0
	EPA 353.2
Nitrite (as N)	EPA 300.0
Orthophosphate (as P)	EPA 300.0
	EPA 365.3
Phosphorus, Total	EPA 365.4
Phthalate Esters	
Benzyl butyl phthalate	EPA 625
	EPA 8270C
Bis(2-ethylhexyl) phthalate	EPA 625
	EPA 8270C
Diethyl phthalate	EPA 625
	EPA 8270C
Dimethyl phthalate	EPA 625
	EPA 8270C
Di-n-butyl phthalate	EPA 625
	EPA 8270C
Di-n-octyl phthalate	EPA 625
	EPA 8270C
Polychlorinated Biphenyls	
PCB-1016	EPA 608
	EPA 8082
Polychlorinated Biphenyls	
PCB-1221	EPA 608
	EPA 8082
PCB-1232	EPA 608
	EPA 8082
PCB-1242	EPA 608
	EPA 8082
PCB-1248	EPA 608
	EPA 8082
PCB-1254	EPA 608
	EPA 8082
PCB-1260	EPA 608
	EPA 8082
Polynuclear Aromatics	
Acenaphthene	EPA 625
	EPA 8270C
Acenaphthylene	EPA 625
	EPA 8270C
Anthracene	EPA 625
	EPA 8270C
Benzo(a)anthracene	EPA 625
	EPA 8270C
Benzo(a)pyrene	EPA 625
	EPA 8270C

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Haloethers	
4-Bromophenylphenyl ether	EPA 625
	EPA 8270C
4-Chlorophenylphenyl ether	EPA 625
	EPA 8270C
Bis (2-chloroisopropyl) ether	EPA 625
	EPA 8270C
Bis(2-chloroethoxy)methane	EPA 625
	EPA 8270C
Bis(2-chloroethyl)ether	EPA 625
	EPA 8270C
Microextractables	
1,2-Dibromo-3-chloropropane	EPA 8260B
1,2-Dibromoethane	EPA 8260B
Mineral	
Acidity	EPA 305.1
Alkalinity	EPA 310.1
Calcium Hardness	EPA 200.7
Chloride	EPA 300.0
	EPA 325.2
Fluoride, Total	EPA 300.0
	EPA 340.2
Hardness, Total	EPA 130.2
Mineral	
Hardness, Total	EPA 200.7
Sulfate (as SO4)	EPA 300.0
	EPA 375.4
Nitroaromatics and Isophorone	
2,4-Dinitrotoluene	EPA 625
	EPA 8270C
2,6-Dinitrotoluene	EPA 625
	EPA 8270C
Isophorone	EPA 625
	EPA 8270C
Nitrobenzene	EPA 625
	EPA 8270C
Nitrosoamines	
N-Nitrosodimethylamine	EPA 625
	EPA 8270C
N-Nitrosodi-n-propylamine	EPA 625
	EPA 8270C
N-Nitrosodiphenylamine	EPA 625
	EPA 8270C
Nutrient	
Ammonia (as N)	EPA 350.1
Kjeldahl Nitrogen, Total	EPA 351.2

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Polynuclear Aromatics	
Benzo(b)fluoranthene	EPA 625
	EPA 8270C
Benzo(ghi)perylene	EPA 625
	EPA 8270C
Benzo(k)fluoranthene	EPA 625
	EPA 8270C
Chrysene	EPA 625
	EPA 8270C
Dibenzo(a,h)anthracene	EPA 625
	EPA 8270C
Fluoranthene	EPA 625
	EPA 8270C
Fluorene	EPA 625
	EPA 8270C
Indeno(1,2,3-cd)pyrene	EPA 625
	EPA 8270C
Naphthalene	EPA 625
	EPA 8270C
Phenanthrene	EPA 625
	EPA 8270C
Pyrene	EPA 625
	EPA 8270C

Priority Pollutant Phenols	
2,4,5-Trichlorophenol	EPA 625
	EPA 8270C
2,4,6-Trichlorophenol	EPA 625
	EPA 8270C
2,4-Dichlorophenol	EPA 625
	EPA 8270C
2,4-Dimethylphenol	EPA 625
	EPA 8270C
2,4-Dinitrophenol	EPA 625
	EPA 8270C
2-Chlorophenol	EPA 625
	EPA 8270C
2-Methyl-4,6-dinitrophenol	EPA 625
	EPA 8270C
2-Nitrophenol	EPA 625
	EPA 8270C
4-Chloro-3-methylphenol	EPA 625
	EPA 8270C
4-Methylphenol	EPA 8270C
4-Nitrophenol	EPA 625
	EPA 8270C
Cresols, Total	EPA 8270C
Pentachlorophenol	EPA 625

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Priority Pollutant Phenols	
Pentachlorophenol	EPA 8270C
Phenol	EPA 625
	EPA 8270C
Purgeable Aromatics	
1,2-Dichlorobenzene	EPA 624
	EPA 625
	EPA 8260B
1,3-Dichlorobenzene	EPA 624
	EPA 625
	EPA 8260B
1,4-Dichlorobenzene	EPA 624
	EPA 625
	EPA 8260B
Benzene	EPA 624
	EPA 8260B
Chlorobenzene	EPA 624
	EPA 8260B
Ethyl benzene	EPA 624
	EPA 8260B
Styrene	EPA 8260B
Toluene	EPA 624
	EPA 8260B
Total Xylenes	EPA 624
Purgeable Aromatics	
Total Xylenes	EPA 8260B
Purgeable Halocarbons	
1,1,1,2-Tetrachloroethane	EPA 8260B
1,1,1-Trichloroethane	EPA 624
	EPA 8260B
1,1,2,2-Tetrachloroethane	EPA 624
	EPA 8260B
1,1,2-Trichloroethane	EPA 624
	EPA 8260B
1,1-Dichloroethane	EPA 624
	EPA 8260B
1,1-Dichloroethene	EPA 624
	EPA 8260B
1,2-Dichloroethane	EPA 624
	EPA 8260B
1,2-Dichloropropane	EPA 624
	EPA 8260B
2-Chloroethylvinyl ether	EPA 624
	EPA 8260B
Bromodichloromethane	EPA 624
	EPA 8260B
Bromoform	EPA 624
	EPA 8260B

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Purgeable Halocarbons	
Bromomethane	EPA 624
	EPA 8260B
Carbon tetrachloride	EPA 624
	EPA 8260B
Chloroethane	EPA 624
	EPA 8260B
Chloroform	EPA 624
	EPA 8260B
Chloromethane	EPA 624
	EPA 8260B
cis-1,2-Dichloroethene	EPA 8260B
cis-1,3-Dichloropropene	EPA 624
	EPA 8260B
Dibromochloromethane	EPA 624
	EPA 8260B
Dichlorodifluoromethane	EPA 8260B
Methylene chloride	EPA 624
	EPA 8260B
Tetrachloroethene	EPA 624
	EPA 8260B
trans-1,2-Dichloroethene	EPA 624
	EPA 8260B
trans-1,3-Dichloropropene	EPA 624

Purgeable Halocarbons	
trans-1,3-Dichloropropene	EPA 8260B
Trichloroethene	EPA 624
	EPA 8260B
Trichlorofluoromethane	EPA 624
	EPA 8260B
Vinyl chloride	EPA 624
	EPA 8260B
Purgeable Organics	
2-Butanone (Methylethyl ketone)	EPA 8260B
2-Hexanone	EPA 8260B
4-Methyl-2-Pentanone	EPA 8260B
Acetone	EPA 8260B
Carbon Disulfide	EPA 8260B
Vinyl acetate	EPA 8260B
Radiological Analytes	
Gross Alpha	EPA 900.0
Gross Beta	EPA 900.0
Photon Emitters	EPA 901.1
Radium-226	EPA 903.0
Radium-228	EPA 904.0
Tritium	EPA 906.0
Uranium	ASTM D3972-90

Serial No.: 28721

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER
Antonia C. Novello, M.D., M.P.H., Dr.P.H.

Expires 12:01 AM April 01, 2007
Issued April 1, 2006

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR. MICHAEL PETTERELLI
LIFE SCIENCE LABORATORIES INC - BRITTONFIELD
5000 BRITTONFIELD PARKWAY SUITE 200
EAST SYRACUSE, NY 13057

NY Lab Id No: 10155
EPA Lab Code: NY01534

is hereby APPROVED as an Environmental Laboratory in conformance with the National Environmental Laboratory Accreditation Conference Standards for the category ENVIRONMENTAL ANALYSES NON POTABLE WATER
All approved analytes are listed below:

Radiological Analytes	
Uranium	EPA 908.0
Residue	
Solids, Total	EPA 160.3
Solids, Total Dissolved	EPA 160.1
Solids, Total Suspended	EPA 160.2
Semi-Volatile Organics	
2-Methylnaphthalene	EPA 8270C
Acetophenone	EPA 8270C
Benzoic Acid	EPA 8270C
Benzyl alcohol	EPA 8270C
Wastewater Metals I	
Barium, Total	EPA 200.7
	EPA 3005A
	EPA 3010A
	EPA 6010B
Cadmium, Total	EPA 200.7
	EPA 3005A
	EPA 3010A
	EPA 6010B
Calcium, Total	EPA 200.7
	EPA 3005A
	EPA 3010A
Wastewater Metals I	
Calcium, Total	EPA 6010B
Chromium, Total	EPA 200.7
	EPA 3005A
	EPA 3010A
	EPA 6010B
Copper, Total	EPA 200.7
	EPA 3005A
	EPA 3010A
	EPA 6010B
Iron, Total	EPA 200.7
	EPA 3005A
	EPA 3010A
	EPA 6010B
Lead, Total	EPA 200.7
	EPA 3005A
	EPA 3010A
	EPA 6010B
Magnesium, Total	EPA 200.7
	EPA 3005A
	EPA 3010A
	EPA 6010B
Manganese, Total	EPA 200.7
	EPA 3005A

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Wastewater Metals I	
Manganese, Total	EPA 3010A
	EPA 6010B
Nickel, Total	EPA 200.7
	EPA 3005A
	EPA 3010A
	EPA 6010B
Potassium, Total	EPA 200.7
	EPA 3005A
	EPA 3010A
	EPA 6010B
Silver, Total	EPA 200.7
	EPA 3005A
	EPA 6010B
Sodium, Total	EPA 200.7
	EPA 3005A
	EPA 3010A
	EPA 6010B
Wastewater Metals II	
Aluminum, Total	EPA 200.7
	EPA 3005A
	EPA 3010A
	EPA 6010B
Antimony, Total	EPA 200.7

Wastewater Metals II	
Antimony, Total	EPA 3005A
	EPA 6010B
Arsenic, Total	EPA 200.7
	EPA 3005A
	EPA 3010A
	EPA 6010B
Beryllium, Total	EPA 200.7
	EPA 3005A
	EPA 3010A
	EPA 6010B
Chromium VI	EPA 7196A
	SM 18-19 3500-Cr D
Mercury, Total	EPA 245.1
	EPA 7470A
Selenium, Total	EPA 200.7
	EPA 3005A
	EPA 3010A
	EPA 6010B
Vanadium, Total	EPA 200.7
	EPA 3005A
	EPA 3010A
	EPA 6010B
Zinc, Total	EPA 200.7

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Wastewater Metals II	
Zinc, Total	EPA 3005A
	EPA 3010A
	EPA 6010B
Wastewater Metals III	
Cobalt, Total	EPA 200.7
	EPA 3005A
	EPA 3010A
	EPA 6010B
Molybdenum, Total	EPA 200.7
	EPA 3005A
	EPA 6010B
Thallium, Total	EPA 200.7
	EPA 3005A
	EPA 3010A
	EPA 6010B
Tin, Total	EPA 200.7
	EPA 6010B
Titanium, Total	EPA 200.7
	EPA 6010B
Wastewater Miscellaneous	
Boron, Total	EPA 200.7
	EPA 6010B

Wastewater Miscellaneous	
Bromide	EPA 300.0
Color	EPA 110.2
Cyanide, Total	EPA 335.4
	EPA 9012A
Hydrogen Ion (pH)	EPA 150.1
	EPA 9040B
Oil & Grease Total Recoverable	EPA 1664A
Organic Carbon, Total	EPA 415.1
Phenols	EPA 420.1
Specific Conductance	EPA 120.1
Sulfide (as S)	EPA 376.1
	EPA 9034

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ENVIRONMENTAL ANALYSES NON POTABLE WATER
All approved subcategories and/or analytes are listed below:

Demand	
Carbonaceous BOD	SM 18-20 5210B
Priority Pollutant Phenols	
2-Methylphenol	EPA 8270C
Semi-Volatile Organics	
Dibenzofuran	OLM 4.2 BNA
Volatile Chlorinated Organics	
Benzyl chloride	EPA 8260B
Epichlorohydrin	EPA 8260B
Wastewater Metals I	
Strontium, Total	EPA 6010B
Wastewater Metals III	
Thallium, Total	EPA 7841

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All approved analytes are listed below:

Acrylates	
Acrolein (Propenal)	EPA 8260B
Acrylonitrile	EPA 8260B
Amines	
2-Naphthylamine	EPA 8270C
2-Nitroaniline	EPA 8270C
3-Nitroaniline	EPA 8270C
4-Chloroaniline	EPA 8270C
4-Nitroaniline	EPA 8270C
Carbazole	EPA 8270C
Benzidines	
3,3' -Dichlorobenzidine	EPA 8270C
Characteristic Testing	
Corrosivity	EPA 1110
Ignitability	EPA 1010
	EPA 1030
Reactivity	SW-846 Ch7, Sec. 7.3
TCLP	EPA 1311
Chlorinated Hydrocarbon Pesticides	
4,4'-DDD	EPA 8081A
4,4'-DDE	EPA 8081A
4,4'-DDT	EPA 8081A

Chlorinated Hydrocarbon Pesticides	
Aldrin	EPA 8081A
alpha-BHC	EPA 8081A
beta-BHC	EPA 8081A
Chlordane Total	EPA 8081A
delta-BHC	EPA 8081A
Dieldrin	EPA 8081A
Endosulfan I	EPA 8081A
Endosulfan II	EPA 8081A
Endosulfan sulfate	EPA 8081A
Endrin	EPA 8081A
Endrin aldehyde	EPA 8081A
Heptachlor	EPA 8081A
Heptachlor epoxide	EPA 8081A
Lindane	EPA 8081A
Methoxychlor	EPA 8081A
Toxaphene	EPA 8081A
Chlorinated Hydrocarbons	
1,2,4,5-Tetrachlorobenzene	EPA 8270C
1,2,4-Trichlorobenzene	EPA 8270C
2-Chloronaphthalene	EPA 8270C
Hexachlorobenzene	EPA 8270C
Hexachlorobutadiene	EPA 8270C
Hexachlorocyclopentadiene	EPA 8270C

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Chlorinated Hydrocarbons	
Hexachloroethane	EPA 8270C
Chlorophenoxy Acid Pesticides	
2,4,5-T	EPA 8151A
2,4,5-TP (Silvex)	EPA 8151A
2,4-D	EPA 8151A
Dalapon	EPA 8151A
Dicamba	EPA 8151A
Haloethers	
4-Bromophenylphenyl ether	EPA 8270C
4-Chlorophenylphenyl ether	EPA 8270C
Bis (2-chloroisopropyl) ether	EPA 8270C
Bis(2-chloroethoxy)methane	EPA 8270C
Metals I	
Barium, Total	EPA 6010B
Cadmium, Total	EPA 6010B
Calcium, Total	EPA 6010B
Chromium, Total	EPA 6010B
Copper, Total	EPA 6010B
Iron, Total	EPA 6010B
Lead, Total	EPA 6010B
Magnesium, Total	EPA 6010B
Manganese, Total	EPA 6010B
Metals I	
Nickel, Total	EPA 6010B
Potassium, Total	EPA 6010B
Silver, Total	EPA 6010B
Sodium, Total	EPA 6010B
Metals II	
Aluminum, Total	EPA 6010B
Antimony, Total	EPA 6010B
Arsenic, Total	EPA 6010B
Beryllium, Total	EPA 6010B
Mercury, Total	EPA 7471A
Selenium, Total	EPA 6010B
Vanadium, Total	EPA 6010B
Zinc, Total	EPA 6010B
Metals III	
Cobalt, Total	EPA 6010B
Thallium, Total	EPA 6010B
Titanium, Total	EPA 6010B
Miscellaneous	
Cyanide, Total	EPA 9010B
Hydrogen Ion (pH)	EPA 9040B
	EPA 9045C
Lead in Paint	EPA 6010B

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Miscellaneous	
Sulfide (as S)	EPA 9034
Nitroaromatics and Isophorone	
2,4-Dinitrotoluene	EPA 8270C
2,6-Dinitrotoluene	EPA 8270C
Isophorone	EPA 8270C
Nitrobenzene	EPA 8270C
Pyridine	EPA 8270C
Nitrosoamines	
N-Nitrosodi-n-propylamine	EPA 8270C
N-Nitrosodiphenylamine	EPA 8270C
Phthalate Esters	
Benzyl butyl phthalate	EPA 8270C
Bis(2-ethylhexyl) phthalate	EPA 8270C
Diethyl phthalate	EPA 8270C
Dimethyl phthalate	EPA 8270C
Di-n-butyl phthalate	EPA 8270C
Di-n-octyl phthalate	EPA 8270C
Polychlorinated Biphenyls	
PCB-1016	EPA 8082
PCB-1221	EPA 8082
PCB-1232	EPA 8082
Polychlorinated Biphenyls	
PCB-1242	EPA 8082
PCB-1248	EPA 8082
PCB-1254	EPA 8082
PCB-1260	EPA 8082
Polynuclear Aromatic Hydrocarbons	
Acenaphthene	EPA 8270C
Acenaphthylene	EPA 8270C
Anthracene	EPA 8270C
Benzo(a)anthracene	EPA 8270C
Benzo(a)pyrene	EPA 8270C
Benzo(b)fluoranthene	EPA 8270C
Benzo(ghi)perylene	EPA 8270C
Benzo(k)fluoranthene	EPA 8270C
Chrysene	EPA 8270C
Dibenzo(a,h)anthracene	EPA 8270C
Fluoranthene	EPA 8270C
Fluorene	EPA 8270C
Indeno(1,2,3-cd)pyrene	EPA 8270C
Naphthalene	EPA 8270C
Phenanthrene	EPA 8270C
Pyrene	EPA 8270C

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Priority Pollutant Phenols	
2,4,5-Trichlorophenol	EPA 8270C
2,4,6-Trichlorophenol	EPA 8270C
2,4-Dichlorophenol	EPA 8270C
2,4-Dimethylphenol	EPA 8270C
2,4-Dinitrophenol	EPA 8270C
2-Chlorophenol	EPA 8270C
2-Methyl-4,6-dinitrophenol	EPA 8270C
2-Methylphenol	EPA 8270C
2-Nitrophenol	EPA 8270C
3-Methylphenol	EPA 8270C
4-Chloro-3-methylphenol	EPA 8270C
4-Methylphenol	EPA 8041
	EPA 8270C
4-Nitrophenol	EPA 8270C
Pentachlorophenol	EPA 8270C
Phenol	EPA 8270C
Purgeable Aromatics	
1,2-Dichlorobenzene	EPA 8260B
1,3-Dichlorobenzene	EPA 8260B
1,4-Dichlorobenzene	EPA 8260B
	EPA 8270C
Benzene	EPA 8260B
Chlorobenzene	EPA 8260B

Purgeable Aromatics	
Ethyl benzene	EPA 8260B
Styrene	EPA 8260B
Toluene	EPA 8260B
Total Xylenes	EPA 8260B
Purgeable Halocarbons	
1,1,1-Trichloroethane	EPA 8260B
1,1,2,2-Tetrachloroethane	EPA 8260B
1,1,2-Trichloroethane	EPA 8260B
1,1-Dichloroethane	EPA 8260B
1,1-Dichloroethene	EPA 8260B
1,2-Dichloroethane	EPA 8260B
1,2-Dichloropropane	EPA 8260B
2-Chloroethylvinyl ether	EPA 8260B
Bromodichloromethane	EPA 8260B
Bromoform	EPA 8260B
Bromomethane	EPA 8260B
Carbon tetrachloride	EPA 8260B
Chloroethane	EPA 8260B
Chloroform	EPA 8260B
Chloromethane	EPA 8260B
cis-1,3-Dichloropropene	EPA 8260B
Dibromochloromethane	EPA 8260B
Dichlorodifluoromethane	EPA 8260B

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Purgeable Halocarbons	
Methylene chloride	EPA 8260B
Tetrachloroethene	EPA 8260B
trans-1,3-Dichloropropene	EPA 8260B
Trichloroethene	EPA 8260B
Trichlorofluoromethane	EPA 8260B
Vinyl chloride	EPA 8260B
urgeable Organics	
2-Butanone (Methylethyl ketone)	EPA 8260B
2-Hexanone	EPA 8260B
4-Methyl-2-Pentanone	EPA 8260B
Acetone	EPA 8260B
Carbon Disulfide	EPA 8260B
Methyl tert-butyl ether	EPA 8260B
Vinyl acetate	EPA 8260B
Semi-Volatile Organics	
2-Methylnaphthalene	EPA 8270C
Acetophenone	EPA 8270C
Benzoic Acid	EPA 8270C
Benzyl alcohol	EPA 8270C
Dibenzofuran	EPA 8270C
Volatile Chlorinated Organics	
Benzyl chloride	EPA 8260B

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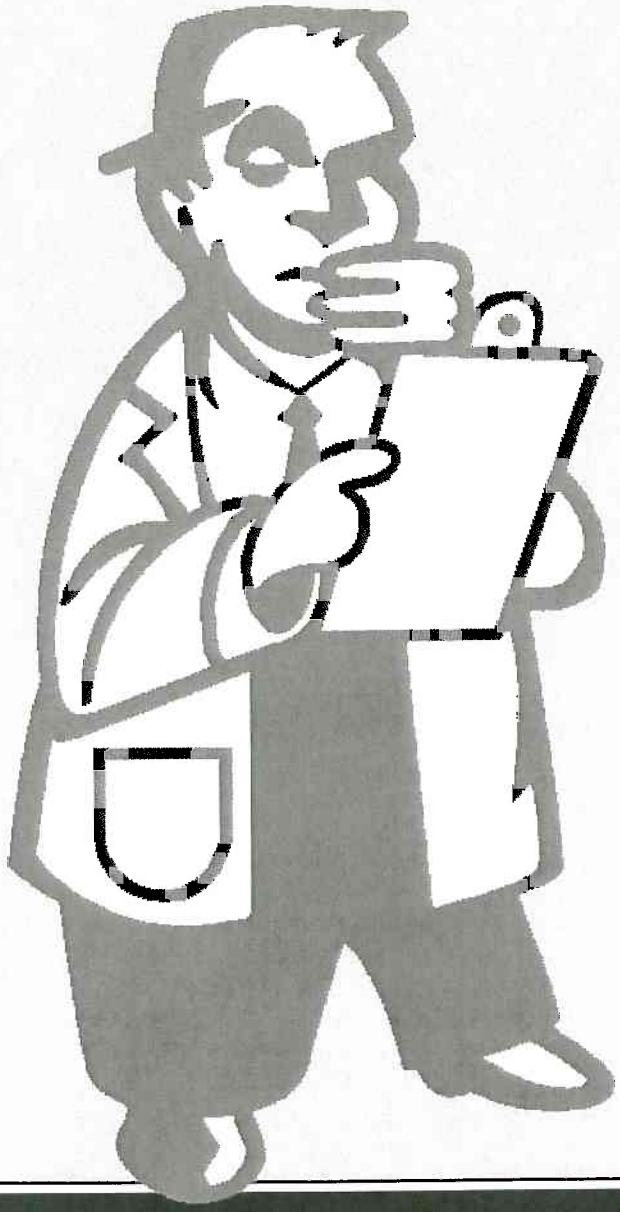
Chlorinated Hydrocarbon Pesticides	
alpha-Chlordane	OLM 4.3
Endrin Ketone	OLM 4.3
gamma-Chlordane	OLM 4.3
Haloethers	
Bis(2-chloroethyl)ether	EPA 8270C
Metals II	
Chromium VI	EPA 7196A
Metals III	
Molybdenum, Total	EPA 6010B
Thallium, Total	EPA 7841
Tin, Total	EPA 6010B
Miscellaneous	
Cyanide, Total	EPA 9012A

Serial No.: 28724



STATEMENT OF QUALIFICATIONS FOR DATA VALIDATION SERVICES

ENVIRONMENTAL
Data Services, Inc.

ENVIRONMENTAL
Data Services, Inc.

Who we are

ENVIRONMENTAL DATA SERVICES, INC.

Environmental Data Services, Inc. (EDS) is a woman-owned, small business providing laboratory data review and validation services. Established in 1993, EDS has grown steadily in support of our client's environmental programs and have gained extensive experience in providing clear, concise, and comprehensive data validation reporting. Our strength is our ability to provide high quality service while maintaining a streamlined organization dedicated to our client's needs.

Technical Backgrounds

EDS chemists are required to have Bachelor of Science degrees in Chemistry or a related field with multiple years of experience. They are experienced in laboratory practices and procedures with hands-on experience performing chemical analyses using EPA methodologies, operating and maintaining laboratory instrumentation, and analyzing and interpreting the results. They are experienced in consulting practices and procedures, and have hands-on experience in field sampling using EPA approved protocols and following proper chain of custody procedures, coordinating with laboratories, analyzing analytical results, and preparing technical reports. As a result, the EDS chemists have practical knowledge and experience in understanding the overall data validation process from sample collection through laboratory analysis and data quality assessment.

Validation Experience

EDS is experienced in validating organic, inorganic, and radiological laboratory data including CLP and non-CLP formats. Media types include water, soil, air, tissue, and artifact. The EDS chemists have been performing data review and validation for five to ten years and are experienced in applying EPA Contract Laboratory Program (CLP) National Functional Guidelines for Organic and Inorganic Data Review. In addition, they have validated data generated through numerous government environmental investigative programs including Navy, Air Force, Army, Corps of Engineers, Department of Energy, and EPA programs.

Regional Experience

EDS is familiar with the many regional and program specific guidelines for performing data validation. EDS has used numerous specific guidelines (alone or in conjunction with the USEPA CLP National Functional Guidelines for Organic and Inorganic Data Review) including: USEPA Regions I, II, III and IV guidelines, US Navy NFESC guidelines, DOE HAZWRAP guidelines, AFCEE and project-specific QAPP guidelines, state level guidelines such as Maine and Massachusetts methodologies for petroleum hydrocarbons, and client supplied guidelines or standard operating procedures.

Radiological Experience

EDS is experienced in validating radiological laboratory data using project and method specific data validation guidelines. We have performed data validation in support of programs at the Oak Ridge Reservation, the Aberdeen Proving Ground, and the Department of Energy's Pantex Plant. In providing our services, EDS has used project specific guidance documents including the Lockheed Martin Energy Systems, Inc. ERWM Programs Intersite Procedures Manual Number ERWM/ER-P2202, Rev.0, titled "Radiochemical Data Verification and Validation" and method specific requirements for the parameters gross alpha/beta, uranium, cesium, radium, strontium, thorium, and other isotopes.

Philosophy

EDS is committed to providing the highest quality data validation and data management service while maintaining a cost competitive advantage. EDS is strictly a small, specialized firm providing a single service to support our clients. We strive to maintain the highest standards with regard to client satisfaction and responsiveness to client needs. We are able to meet specific client requests such as short turnaround times or use of project specific review criteria. We can offer our services at competitive rates while maintaining experienced staff and providing quality service. The purpose of this Statement of Qualifications is to impress upon the prospective client the experience of EDS and it's commitment to providing the best possible service at cost competitive rates.

Office Location

The EDS office is located in Concord, New Hampshire, approximately 70 miles north of Boston. For additional information, please contact:

Mr. Douglas Weaver, *Contracts Manager*
Environmental Data Services, Inc.
4 Bicentennial Square, Suite 3A
Concord, New Hampshire 03301
Telephone (toll-free): **1-866-ENV-DATA (368-3282)**
Fax: **603-226-0128**
Email: **dweaver@env-data.com**
Web: **www.env-data.com**

ENVIRONMENTAL
Data Services, Inc.

Corporate experience

CORPORATE EXPERIENCE

EDS has provided data review and validation services for numerous clients with data generated through various government programs including the U.S. Navy Comprehensive Long-Term Environmental Action Navy (CLEAN), the U.S. Army Corps of Engineers programs, the Air Force Center for Environmental Excellence (AFCEE), the Department of Energy HAZWRAP, the U.S. Coast Guard, Air National Guard, and EPA Superfund programs.

The following selected project descriptions have been provided to demonstrate our experience and thorough understanding of the requirements necessary to provide quality data review and validation services. We would encourage you to please contact any of our client's Project Managers or Chemists for a complete recommendation of our abilities and capabilities. We strive to provide excellent service and a referral by one of our client's is our best argument in favor of our services. Please call our office and a contact name and phone number will be provided.

PROJECTS SUMMARIES

USEPA Region I Data Validation

Client: Roy F Weston, Inc.
Site: Housatonic River Site
Period of Performance: December 1998 to the present

Project Summary:
EDS provides data validation services on a USACE project at the GE Housatonic River Site. The validation has been performed under the USEPA Region I guidelines. Services provided include data validation of soil, sediment and groundwater samples for volatile organic compounds, semivolatile organic compounds, PCBs, total metals/cyanide, and miscellaneous wet chemistry parameters. Specific site analyses also include PCB Congeners and Dioxin/Furans and the data validation for these parameters has been performed based on USEPA Region I guidelines and training completed through the USEPA. Deliverables include completed USEPA Region I worksheets, a hard copy data validation report and annotated Form Is. All work has been completed within 21-day turnaround times.

Navy CLEAN—NFESC Level C and D Data Validation

Client: Tetra Tech EMI, Inc.
Sites: Various
Period of Performance: April 1997 to the present

Project Summary:
EDS has been working under a multi-year basic ordering agreement to perform data validation services for Tetra Tech EMI under their US Navy CLEAN II contract. Services provided include the validation of numerous analytical fractions including volatile organic compounds, semivolatile organic compounds, pesticide/PCBs, metals, cyanide, petroleum products, dioxin/furans, explosives, and radiochemical compounds. Deliverables include a hard copy and electronic copy data validation report, data validation worksheets, and an updated electronic chemical database. All work is completed within a 14-day turnaround time.

Navy CLEAN—NFESC Level C and D/USEPA Regions III/IV Data Validation

Client: CH2M Hill, Inc.
Sites: Various
Period of Performance: March 1997 to the present

Project Summary:
EDS has been working under a multi-year basic ordering agreement to perform data validation services for CH2M Hill under their US Navy CLEAN II contract. The validation guidelines include USEPA Regions III and IV, the USEPA National Functional Guidelines, and NFESC guidelines. Services provided include the validation of numerous analytical fractions including volatile organic compounds, semivolatile organic compounds, pesticide/PCBs, metals, cyanide, petroleum products, dioxin/furans, explosives, and radiochemical compounds. Deliverables include a hard copy data validation report and an updated electronic chemical database. All work is completed within a 14-day turnaround time.

Navy CLEAN—NFESC Level C and D/USEPA Region I/II Data Validation

Client: Harding Lawson Associates (formerly ABB Environmental Services)
Sites: Various
Period of Performance: August 1994 to the present

Project Summary:
EDS has been working under a multi-year basic ordering agreement to perform data validation services for HLA under their US Navy CLEAN I contract. Services provided include the validation of numerous analytical fractions including volatile organic compounds, semivolatile organic compounds, pesticide/PCBs, metals, cyanide, petroleum products, dioxin/furans, explosives, and radiochemical compounds. A PARCC report is also provided summarizing the project analytical results with respect to precision, accuracy, representativeness, completeness, and comparability. Deliverables include a hard copy validation report, annotated Form Is, an updated electronic chemical database, and a project PARCC report. All work is completed within a 30-day turnaround time.

NFESC/USEPA Region I/II/III Data Validation

Client: EA Engineering, Science, & Technology, Inc.
Sites: Various
Period of Performance: September 1997 to the present

Project Summary:
EDS has been providing data validation services on projects through several of our client's offices under various government programs. The data validation is for a number of diversified sites including the Philadelphia Naval Yard, Fort Dix Landfill, Aberdeen Proving Ground, Naval Surface Warfare Center Annapolis, Naval Training Center Bainbridge, and Lockheed Martin Idaho Technology Company. The validation guidelines include USEPA Regions I, II and III, the USEPA National Functional Guidelines, NFESC guidelines, and project specific client supplied guidelines. Services provided include data validation of soil and groundwater samples for volatile organic compounds, semivolatile organic compounds, pesticides/PCBs, total metals/ cyanide, and miscellaneous wet chemistry parameters. Radiological parameters include gross alpha/beta, cesium-137, radium-226, and alpha radium for drinking water wells at the Aberdeen Proving Ground. Deliverables included a hard copy and electronic copy data validation report and updated electronic database deliverables, if necessary. All work has been completed within 14 or 21-day turnaround times.

USEPA Region I/II Data Validation

Client: Stone & Webster Environmental Technology & Services
Sites: Various
Period of Performance: September 1997 to the present

Project Summary:
EDS has been providing data validation services on projects through several of our client's offices under various government programs. The data validation is for a number of diversified sites including the Charlestown Navy Yard, Barnes Air National Guard Base, Dow Air Force Station, and Gabreski Airport. The validation guidelines include USEPA Regions I and II, the USEPA National Functional Guidelines, and project specific client supplied guidelines. Services provided include data validation of soil and groundwater samples for volatile organic compounds, semivolatile organic compounds, pesticides/PCBs, total metals/cyanide, DRO, GRO, and miscellaneous wet chemistry parameters. Deliverables include hard copy and electronic copy data validation reports and updated electronic database deliverables, if necessary. All work has been completed within 14 or 21-day turnaround times.

Air Force Center for Environmental Excellence (AFCEE)—EPA Level IV Data Validation

Client: HydroGeoLogic, Inc.
Site: Naval Air Station Fort Worth
Period of Performance: October 1998 to the present

Project Summary:
EDS provides data validation services under AFCEE site investigations at NAS Fort Worth. Services provided include data validation of soil and groundwater samples for volatiles, semi-volatiles, pesticides/PCBs, total petroleum hydrocarbons, and miscellaneous wet chemistry parameters. The data validation is performed in accordance with the NAS Fort Worth site-specific Quality Assurance Project Plan (QAPP). All deliverables are provided within a 21-day turnaround time.

Air Force Center for Environmental Excellence (AFCEE)—EPA Level IV Data Validation

Client: Versar, Inc.
Site: Various Air Force bases
Period of Performance: May 1997 to the present

Project Summary:
EDS provides data validation services under AFCEE site investigations at several Air Force bases. The projects consist of data validation services for priority pollutant metals, volatiles, semivolatiles, pesticides/PCBs, TPH, BTEX, and miscellaneous wet chemistry parameters. Data validation is performed in accordance with a site-specific Quality Assurance Project Plan (QAPP) in conjunction with the AFCEE QAPP, Version 3.0. All deliverables are provided within a 7 day or 21 day turnaround time.

Personnel resumes

PERSONNEL RESUMES

The EDS chemists have extensive experience and understanding of the requirements for performing data review and validation. EDS has been successful in providing our services for a broad range of clients and projects. We have been able to provide our services using different guidelines and methodologies for various matrices. It is the knowledge, diversity, and flexibility of our chemists that allow EDS to provide clear, concise, and comprehensive data validation reports and deliverables. In the following section, professional backgrounds and capabilities of key EDS chemists are provided for your review.

Nancy Weaver, *Senior Chemist/Project Manager*

Data validation experience

Ms. Weaver has fourteen years combined laboratory and data validation experience including interpreting organic, inorganic, and radiological analytical data. She is responsible for the technical direction of several chemists performing data review and validation.

Professional experience

Environmental Data Services, Inc., Concord, New Hampshire *Senior Chemist*
August 1994 to present

Responsible for the supervision and direction of the data validation department including the day-to-day assignment of tasks. Senior technical review of all data validation reports including specific review of all qualified data. Performance of data validation including organic, inorganic, wet chemistry, and radiological data.

City & County of Denver, Denver, Colorado *Chemist-Analyst Specialist*
June 1992 to the August 1994

Supervised performance and compliance sampling for O & M requirements at groundwater treatment facility and provided assessment of analytical data for quarterly reports to local regulatory agencies. Acted as liaison between technical group and laboratory to coordinate sampling events and resolve problems with analyses. Performed data validation for organic, inorganic and radiological analyses and managed database for groundwater and treatment plant sampling events. Performed environmental site assessments for commercial and residential properties, provided technical review and recommendations of Phase I and Phase II site investigations performed by outside consultants, and analyzed policy and interpreted city, state and federal environmental regulations.

C.C. Johnson & Malhotra, Lakewood, Colorado *Contractor/Data Validation Specialist*
January 1990 to July 1990 and January 1992 to June 1992

Performed data validation and interpretation of organic analytical data generated from the EPA Contract Laboratory Program (CLP). Data analysis included volatiles, semivolatiles, pesticides, and polychlorinated biphenyls. Interpreted gas chromatograms, gas chromatography/ mass spectral data and verified mathematical calculations. Provided written assessment of data quality. Researched and authored technical reports for specific sites.

SP Environmental Systems, Inc., Denver, Colorado — *Environmental Chemist*
July 1990 to January 1992

Assisted in the management of site investigations and remediation for Southern Pacific Transportation Company properties. Performed environmental audits and site assessments; conducted site investigations at potential Superfund sites with state and federal agencies; researched and prepared responses to regulatory agencies for non-compliant sites; defined the needs for hazardous waste disposal including the analysis required and disposal; supervised the removal of underground storage tanks and remediation; prepared closure reports for UST removals; prepared annual waste summary forms for TSD facilities throughout the state of Texas; constructed, developed, and sampled groundwater monitoring wells.

Martin Marietta Astronautics Group, Denver, Colorado — *Environmental Specialist*
January 1988 to January 1990

Performed organic analysis and sampling of wastewater, groundwater, and drinking water in support of NPDES permit. Operated and maintained laboratory instrumentation including GC and GC/MS for volatile, semi-volatile, and pesticide/PCB analysis. Coordinated sample collection and preparation activities, developed and authored standard operating procedures for laboratory analysis, and followed EPA protocol for QA/QC requirements for analysis. Calculated and interpreted data and reported results. Performed ion exchange and carbon filtration studies to determine appropriate specifications for upgrading existing wastewater treatment plant, supported sample receiving and log-in operations following EPA protocol, assisted in on-site sampling in support of NPDES permit, and performed inorganic analysis for various wet chemistry parameters. Prepared organic and inorganic samples for analysis.

Camp, Dresser, & McKee, Boston, Massachusetts — *Environmental Chemist*
April 1986 to October 1987

Analyzed water/wastewater for organic compounds. Operated and maintained laboratory instrumentation including GC and infrared spectrophotometer for volatile, pesticide/PCB, and petroleum hydrocarbon analysis. Calculated and interpreted data and reported results.

Education/Credentials

B.S. in Chemistry, University of Colorado

State of New York Department of Environmental Conservation, *Certified Asbestos Inspector*

40-hour OSHA Hazardous Waste Training

8-hour Health and Safety Supervisor Training for Hazardous Waste Operations

Professional Member, American Chemical Society

Christine Garvey, *Senior Chemist*

Data Validation Experience

Ms. Garvey has thirteen years combined laboratory and data validation experience including interpreting organic and inorganic analytical data.

Professional experience

Environmental Data Services, Inc., Concord, New Hampshire *Senior Chemist*
November 1999 to present

Performance of data validation including organic, inorganic, and wet chemistry data. Data analysis included volatiles, semivolatiles, pesticides/polychlorinated biphenyls, metals, cyanide, and wet chemistry parameters. Interpretation of gas chromatograms, gas chromatography/mass spectral data and verification of mathematical calculations. Provide written assessment of data quality.

AMRO Environmental Laboratories, Manchester, NH *QC/QA Manager*
March 1997 to November 1999

Responsibilities included developing and reviewing data package program based on client and regulator requirements. Obtained and maintained state certifications and USACE approval. Prepared quality assurance project plans and standard operating procedures for method compliance. Reviewed data packages for quality control and acceptability.

National Environmental Testing, Bedford, MA *QC/QA Coordinator*
1996 to March, 1997

Responsible for the quality control/quality assurance programs for Hazwrap, Navy and Army approval programs. Obtained and maintained certifications for various programs. Coordinated analytical performance evaluation studies. Performed in-house laboratory audits for method compliance.

Clean Harbors, Braintree, MA *Chemical Hygiene Office*
1993 to 1996

Developed, evaluated and audited safety program and procedures. Performed scheduled safety monitoring of laboratory. Provided safety training to employees. Maintained safety supply inventory.

Clean Harbors, Bedford, MA *Quality Control Supervisor*
1988 to 1993

Laboratory quality control manager for various projects with private and governmental agencies. Investigated data related issues and worked to document and resolve them. Prepared and reviewed standard operating procedures for method compliance. Prepared and reviewed data package preparation and submission.

Clean Harbors, Braintree, MA *Radiological Chemist*
1987 to 1988

Performed various chemical procedures for radiological measurements. Developed control limits and graphs. Provided accurate record keeping and precision in performing analyses. Operated and maintaining instruments, performed sample extraction, and calculation and reporting of results.

Education

B.S. in Toxicology, Northeastern University, Boston, Massachusetts

Continuing education

40 Hour OSHA Certification, 1994, 8 hour refresher courses

Kathleen Campbell, *Environmental Chemist*

Data validation experience

Ms. Campbell has five years combined laboratory and data validation experience including interpreting organic and inorganic analytical data.

Professional experience

Environmental Data Services, Inc., Concord, New Hampshire *Environmental Chemist*
November 2000 to present

Performance of data validation including organic, inorganic and wet chemistry data. Data analysis included volatiles, semivolatiles, pesticides/polychlorinated biphenyls, metals, cyanide, and wet chemistry parameters. Interpretation of gas chromatograms, gas chromatography/mass spectral data and verification of mathematical calculations. Provide written assessment of data quality.

ONSITE Environmental Laboratories, Pittsfield, Massachusetts *Laboratory Project Manager*
March 1999 to September 2000

Responsible for all management/operational aspects of an environmental mobile field laboratory. Responsible for the review and generation of data packages compliant with US Army Corps of Engineers quality assurance regulations. Participated in the development of matrix specific modifications to the in-house PCB extraction method. Performed troubleshooting and routine maintenance on a Hewlett Packard 6890 GC/ECD system and a CE Elantech Elemental Thermal Conductivity Detector.

ONSITE Environmental Laboratories, Pittsfield, Massachusetts *Assistant Project Manager*

Responsible for total organic carbon analysis on soil/sediment samples. Responsible for review and generation of both hard copy and electronic data deliverables. Initiated and implemented quality assurance programs compliant with both US Army Corps of Engineers and EPA regulations. Assisted with sample management, inventory control, invoicing, and employee health and safety.

AMRO Environmental Laboratories, Merrimack, New Hampshire *Volatile Organic Analyst*
June 1996 to February 1999

Perform troubleshooting and routine maintenance on a Hewlett Packard 5890 GC/MS system and a variety of auto samplers. Responsible for the calculation and reporting of all data generated. Also have experience generating quality assurance packages of all levels. Responsible for the preparation and extraction of samples of varying matrices. Assisted with the

in-house modification of the Massachusetts Department of Environmental Protection method for the determination of volatile petroleum hydrocarbons.

AMRO Environmental Laboratories, Merrimack, New Hampshire *Sample Custodian*

Responsible for maintaining the integrity of all samples in-house via proper preservation. Coordinated courier schedule for sample pick-up and bottle deliveries. Aided in customer service regarding proper preservation, containers, and delivery of samples. Responsible for assigning client requested analyses to all samples and initiating all appropriate paper work. Responsible for ordering and receiving all laboratory supplies.

Education

Bachelor of Science in Chemistry

Rivier College, Nashua, New Hampshire

Appendix J

Consultant/Contractor Forms

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 Name:	EA Engineering, P.C.						
Contract Type/Number:	Stand By D004438 I/D Services			Contract Award Date:			
Address:	6731 Collamer Road	City:	East Syracuse	State:	New York	Zip Code:	13057-9759
Project Owner Name:	New York State Department of Environmental Conservation			Project/Grant No.:			
Address:	625 Broadway	City:	Albany	NY		Zip Code:	12233
Authorized Representative:				Title:			
Authorized Signature:							
640 Trolley Boulevard Site 8-28-1084, EA Work Assignment D004438-2							

EEO AND M/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	100	$204,538.18	6.	Total for all Employees			
2.	Total Dollar Value of the Prime Contract	100	$204,538.18	7.	Total Goal for Minority Employees	10		
3.	MBE Goal/Amount	15	$30,680.73	8.	Total Goal for Female Employees	10		
4.	WBE Goal/Amount	5	$10,226.91	9.	EEO Combined Totals	20		
5.	MBE/WBE Combined Totals	20	$40,907.64					

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: **Om P. Popli, P.E., L.S., P.C.** Address: **555 Penbrooke Drive** City: **Penfield** State/Zip Code: **NY 14526** Telephone No.: **(585) 388-2060**	**$4,407.95** DATE: **TBD**	**Professional Surveying Services**			
Name: Address: City: State/Zip Code: Telephone No.:	DATE: **TBD**				
Name: Address: City: State/Zip Code: Telephone No.:	DATE: **TBD**				

SECTION II - WBE INFORMATION: **In order to achieve the WBE Goals, New York State Certified WOMEN-OWNED firms are expected 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: **Environmental Data Services, Inc.** Address: **6B Hills Avenue** City: **Concord** State/Zip Code: **NH, 03301** Telephone No.: **603-226-0118**	**$6,054.00** DATE: **TBD**	**Data Validation**			
Name: **Con-Test Analytical Laboratory** Address: **39 Spruce Street** City: **East Longmeadow** State/Zip Code: **MA, 01028** Telephone No.: **413-525-2332**	**$3,745.00** DATE: **TBD**	**Laboratory Analysis of Air Samples**			
Name: **GeoLogic NY, Inc.** Address: **P.O. Box 350 37 Copeland Ave.** City: **Homer** State/Zip Code: **NY, 13077** Telephone No.: **607-749-5000**	**$24,925.00** DATE: **TBD**	**Drilling Services**			

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.**

Job Categories		Total Work Hours of Contract	All Employees		Minority Employees			
			Male	Female	African-American	Asian	Native American	Hispanic
Officials/ Managers	NSPE VI	27	27	0	0	0	0	0
Professionals	NSPE VI/V/IV/III/II/I	1,594	1,123	471	0	0	0	0
Technicians		0	0	0	0	0	0	0
Sales Workers		0	0	0	0	0	0	0
Office/Clerical	NSPE I	95	0	95	0	0	0	0
Craftsman		0	0	0	0	0	0	0
Laborers		0	0	0	0	0	0	0
Services/ Workers		0	0	0	0	0	0	0
Totals		1,716	1,150	566	0	0	0	0